

2018 Annual Report of the Public Utilities Commission of the Republic of Latvia on the National Energy Sector, Prepared for the European Commission

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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 2018. 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 legislative acts and tariff decisions approved by the Regulator provided the basis for many new traders to simultaneously launch their operations in the market, while end-users were given the opportunity to choose the most appropriate and most advantageous market offer. Reduced transmission tariffs at the entry – exit points on the border of Latvia facilitated the inflow of natural gas into the natural gas supply system of Latvia and facilitated the use of the Incukalns underground gas storage.

The Baltic region national regulatory authorities continued work towards the creation of a regional Baltic – Finnish natural gas market to increase liquidity and competition in the Baltic – Finnish region. In 2018, the most important event in energy sector was the mutual agreement between the Finnish, Estonian and Latvian regulators on the completion of the single natural gas market, which is scheduled to start operating in 2020. This will mean an establishment of the single entry-exit tariff area, namely natural gas transport through the transmission systems of those countries will only be subject to tariffs on the external border of the single transmission entry-exit system and on national exits, but the transmission tariffs will not be applied at cross-border interconnection points between Latvia, Estonia and Finland.

Regarding gas market liberalization in 2017, the Regulator certified single natural gas transmission and storage system operator for the first time. Furthermore, the Regulator verified that distribution system operator JSC "Gaso" has an adequate level of necessary independence from the JSC "Latvijas Gāze".

Last year, the Regulator also approved new tariffs for the natural gas distribution system service. The Regulator managed to cut the average tariff by 16% compared with the draft tariffs originally submitted. The new distribution system service tariffs established a new tariff structure, namely the introduction of a fixed fee for all user groups. Consequently, all users shall participate in the maintenance costs of the system as from January 1, 2019 and shall cover the costs of the system users in a more equitable manner.

Continuing the gas market opening and implementation of the European Commission Regulations, the Regulator on April 26, 2018 approved the new underground gas storage service tariffs. Tariffs for 2018/2019 storage cycle entered into force on June 1, 2018. Storage system operator JSC "Conexus Baltic Grid" offers bundled capacity product and market capacity product. Tariff period is set for three years. Every year until December 30 storage system operator must submit to the

Regulator new bundled capacity product values and until March 1 must submit market product lowest value.

Proceeding Latvia's integration into the common EU electricity market, the Regulator continued the implementation of the European Commission's network codes to establish a unified, coordinated and appropriate single day-ahead and intraday market coupling, where the important role for the Regulator is to supervise the nominated electricity market operator (hereinafter – NEMO) in Latvia and to adopt respective rules and methodologies developed by the EU NEMOs and transmission system operators.

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Chair 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.

According to the Law on Regulators of Public Utilities, the Regulator is an institutionally and functionally independent regulatory authority. In September 2016, the Organisation for Economic Cooperation and Development (hereinafter – OECD) finished work on the report "Improvement of the Operational Results of the Public Utilities Commission of Latvia" and provided recommendations for future activities of the Regulator. The OECD report contains recommendations for strengthening the Regulator's financial independence and stability and options to improve the existing regulation of these recommendations in cooperation with the Ministry of Economics. The Regulator independently performs the functions delegated by the Law on Regulators of Public Utilities 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 Regulations of the Cabinet of Ministers on 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 if the total trading amount exceeds 4,000 megawatt hours per year (condition on minimum amount will removed in 2019);
- 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 five years 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% of the annual turnover of the regulated service provider and the owner of the electricity/natural gas transmission system 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 2018, the Regulator constantly participated in forums, conferences and workshops at international level.

In order to facilitate fully functioning and interconnected internal Baltic Electricity Market development and as there are Network Codes (hereinafter - NC) that require regulatory authorities to approve the terms and conditions or methodologies developed by Transmission

System Operators (hereinafter – TSO) or nominated electricity market operators (NEMO) needed for market coupling, the Regulator participated in the Baltic Capacity Calculation Region (hereinafter – Baltic CCR) NRAs' decision-making regarding proposals on the methodologies under the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereinafter – CACM) and Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (hereinafter – FCA).

The Baltic Electricity and Gas Market Forums (take place twice a year) shape the main platform where Regulators from the Baltic countries, Poland and the Nordic countries, TSOs, NEMOs, Agency for the Cooperation of the Energy Regulators, Finnish and Lithuanian gas exchange representatives, as well as traders and representatives from the ministries raise issues concerning NC 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 European perspective on optimization of the common energy market performance, future gas market in Europe and Liquefied Natural Gas as energy source and fuel is the most important topics in the Electricity and Gas Market Forums.

The Regional Gas Market Coordination Group (hereinafter – RGMCG) is heading towards the implementation of the Regional Gas Market Development Plan. The objective of the Regional Gas Market Development Plan which was successfully developed by the RGMCG and endorsed by the Baltic Council of Ministers' Committee of Senior Energy Officials is to facilitate the creation of an effectively functioning common regional natural gas market (single entry-exit system, common principles of the traders' registration, proposal for the implementation of the implicit capacity allocation model) in the Baltic states and Finland by 2020. In this regard, regular regional working meetings with Lithuanian, Estonian and Finnish regulators, ministries and TSOs have been organized.

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

IV The electricity market

1.1. Network regulation

1.1.1. Unbundling

The state-owned company JSC "Latvenergo" dominates in the field of electricity supply in Latvia, controlling more than 87% of installed capacity for the generation of electricity in Latvia.

The functions of the public trader are carried out by JSC "Energijas 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 tikls" 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 in July 26, 2018 stating that JSC "Augstsprieguma tikls" complies with the certification requirements with condition – the Regulator concluded there are situations where maintenance and modernisation of fixed assets belonging to JSC "Latvenergo" is ineffective, the Regulator imposed a legal obligation according to which till April 1, 2019 JSC "Augstsprieguma tikls" should ensure all maintenance and modernisation activities of all transmission system assets are done on equal terms.

On September 28, 2018, the Regulator approved the national ten-year transmission system development plan (national TYNDP) for 2019 - 2028. In the decision, the Regulator also stated that the national TYNDP complies with the Community-wide TYNDP.

Each year the electricity system owner JSC "Latvijas elektriskie tikli" has to submit a report, that includes information 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 concrete employees are specified, 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 report

shall be published in accordance with the procedures stipulated by the Regulator. After evaluation of the report the Regulator shall provide an opinion on 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 June 26, 2018, the Regulator took an annual decision on the independence of JSC "Latvijas elektriskie tīkli".

Nevertheless, the Regulator, concerning what had been concluded when certifying transmission system operator JSC "Augstsprieguma tīkls", imposed a legal obligation according to which till April 1, 2019 JSC "Latvijas elektriskie tīkli" should take appropriate activities to enable JSC "Augstsprieguma tīkls" to do all maintenance and modernisation activities of all transmission system assets on equal terms. 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 a vertically integrated electricity undertaking JSC "Latvenergo", the transmission system owner utilizes only such services, provided by a vertically integrated electricity transmission system owner has the right to take decisions independently, without interference by JSC "Latvenergo".

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

Regarding the setting of rules on the compilation of unbundled accounts, the Regulator approves cost allocation methodologies and implements the right to ensure 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 June 14, 2018, the Regulator approved that JSC "Sadales tikls" fulfills 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 a TSO.

Balancing and settlement procedures are set out in the national Network Code in the Electricity Sector¹. Network Code in the Electricity Sector determines 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 settlement of imbalance for the coordinated balancing area.

Common Baltic states balancing market started operating on January 1, 2018. Fulfilling the requirements of Network Code in the Electricity Sector Latvian TSO in cooperation with other Baltic states TSOs Elering AS and Litgrid AB had 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 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 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.

Baltic states imbalance settlement rules describe the TSO and balance responsible party's imbalance settlement mechanisms 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

¹ <u>https://likumi.lv/doc.php?id=257943</u> (available in Latvian only)

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 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 common Baltic states balancing market development is joining European platform MARI in 2022.

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. 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.² 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 2018, the average amount of time needed for repairs in the distribution network for the final customers (including all events) was 1.28 hours per one interruption. There were 18 interruptions in the transmission network with an average duration of 0.74 hours. Planned system average interruptions duration (SAIDI) in the distribution network for 2018 was 123 minutes, unplanned (including all events) – 105 minutes and planned system average interruptions frequency index (SAIFI) per customer for 2018 was 0.55, unplanned (including all events) – 1.93.

The operations of public service providers are regularly inspected on the basis of the Regulator's decisions. In 2018, 93 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 46 objects according

² <u>https://likumi.lv/doc.php?id=237330</u> (available in Latvian only)

to the European Standard EN 50160 requirements. Some inspections were also conducted at facilities following the complaints that had been received.

On November 2, 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.

As regards the changes in the structure of the tariffs of the electricity distribution system services, electricity users are incentivised to decrease the connection capacities as a result of evaluation of requested power capacity if not all the capacity is being used efficiently. 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. In two–year period after tariff structure was changed, more than 20 thousand consumers reviewed capacities, which has resulted into capacity reduction more than 7% in total. Therefore, the system has become more efficient and released capacities might be allocated to new customers.

On August 23, 2018, the Regulator approved the rate of return on capital in the electricity distribution and transmission system. For year 2019, the rate was set at 4.22%. The approved rate of return on capital relates to the electricity TSO – JSC "Augstsprieguma tikls" and authorised DSOs. When evaluating TSO and DSOs tariffs, the Regulator, by checking the justification of the

costs included in the costs of tariffs, may propose a review of tariffs in response to changes in factors which influence tariffs, including profitability.

According to the Eurostat data for 2018, electricity tariffs for household users in Latvia were about 20% lower and for industrial users about 15% 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 2018, 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:

- All NEMOs' proposal for the back-up methodology in accordance with Article 36(3) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- All NEMOs' proposals for products that can be taken into account by NEMOs in single dayahead process in accordance with Article 40 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- All NEMOs' proposals for products that can be taken into account by NEMOs in intraday coupling process in accordance with Article 53 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- All Baltic Capacity Calculation Region TSOs' proposal for the fallback procedures in accordance with Article 44 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- Baltic Capacity Calculation Region TSOs proposal for the capacity calculation methodology in accordance with Article 20(2) the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management
- The multiple nominated electricity market operator arrangement in Latvian bidding ozone proposal in accordance with Article 45 and Article 57 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management
- All TSOs' proposal for a common grid model methodology in accordance with Articles 67(1) and 70(1) of Commission Regulation (EU) 2017/1485 of 02 August 2017 establishing a guideline on electricity transmission system operation.

In accordance with Article 31 of the FCA, on March 15, 2018, the Regulator in cooperation with Estonian NRA adopted coordinated decision on the Regional Design of long-term transmission rights and on September 6, 2018, the Regulator adopted the new Estonia – Latvia Bidding Zone Border Specific Annex for the Baltic CCR in accordance with Article 52(3). The type of long-term transmission rights (hereinafter – LTTRs) offered in the Baltic CCR are financial transmission rights – options in direction from Estonia to Latvia and the form of product is base load with fixed amount of MW. 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. In accordance with Article 30(6) of the FCA, on October 25, 2018, the Regulator in cooperation with Lithuanian NRA adopted coordinated decision on the hedging opportunities on the Lithuanian – Latvian bidding zone border.

After a positive outcome of the Energy Regulatory Forum electronic procedure on all TSOs' proposal in accordance with Article 18 of FCA, on June 28, 2018 the Regulator approved the Common Grid Model methodology.

Power exchange "Nord Pool" (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 countries. As stipulated in Article 37.³ of 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.

The launch of NordBalt interconnection between Sweden and Lithuania and LitPol Link interconnection between Lithuania and Poland in 2016 has changed the direction of transmission flows, increasing the load on the Latvia-Lithuania border towards Latvia, Latvia-Estonia border towards Estonia, with a corresponding decrease on the Estonia-Latvia border towards Latvia. In 2018, the Baltic countries had a congestion at the Estonian and Latvian interconnection for 26% of the total time of the year on average.

The Net Transfer Capacity (NTC) between the Estonian and Latvian systems will continue to be distributed by NP for allocation. At the same time, PTR limited (300 MW on annual, 50-100 MW on quarterly and 50-150 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 October 1, 2018, JAO became the Single Allocation Platform (SAP) for all European TSOs that operate in accordance to EU legislation, since it is able to implement and fulfill all regulatory obligations and requirements. The auctions in the Single Allocation Platform increased the number of the participants and increased competition for volume offered by TSOs.

The total amount of Latvia's interconnection capacity in 2018 was 2,080 MW for export and 1,600 MW for import. In 2018, the total amount of incoming energy was 5,173 GWh, outgoing energy was 4,264 GWh, and the amount of transit was 3,479 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" (hereafter – Project cluster 4.8) from the project promoters – Baltic TSOs (Elering AS, JSC "Augstsprieguma tikls" and Litgrid AB), on September 6, 2018, the Regulator took a decision regarding the allocation of the investment costs for the Project cluster No.4.8 pursuant to the Regulation No 347/2013.

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 in synchronous 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. Also, will 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. The isolated operation test is a next step towards the planned synchronisation of electricity grids with Continental Europe in 2025. During the isolated operation of the Baltic states, it was planned to disconnect from the Russian and Belarusian power systems, thus the electrical energy demand would only be provided by local generation and direct current interconnections with Sweden, Finland and Poland and the frequency and balance of the electricity would have to be provided by the Baltic states themselves.

On September 28, 2018, the Regulator approved the national ten-year transmission system development plan (national TYNDP) for 2019 - 2028. In the decision, the Regulator also stated that the national TYNDP complies with the Community-wide TYNDP.

Pursuant to Regulation No 347/2013, the Projects of Common Interest No.4.4.1 "Internal Line between Ventspils, Tume and Imanta (LV)" (hereinafter – Project 4.4.1) and No.4.2.1 "Interconnection between Kilingi and Nõmme (EE) and Riga CHP 2 substation (LV)" (hereinafter – Project 4.2.1), the Project 4.2.2 "Internal Line between Harku and Sindi (EE)" (hereinafter – Project 4.2.2), and 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 No.4.8.1 "Interconnection between Tartu (EE) and Valmiera (LV)" (hereinafter – Project 4.8.1), the Project 4.8.3 "Interconnection Tsirguliina (EE) and Valmiera (LV)" (hereinafter – Project 4.8.3) and the Project 4.8.9 "Further infrastructure aspects of the synchronisation of the Baltic States' electricity system with the European networks" (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.

Pursuant to Article 3(4) of Regulation No 347/2013, the European Commission adopted the Commission delegated Regulation (EU) No 2018/540 of November 23, 2017 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure as regards the Union list of projects of common interest (hereinafter – EC Regulation 2018/540). The European Commission approved the third list of PCIs including the Project 4.4.1, Projects 4.2, Project 4.8.1 and Project 4.8.3. The inclusion of the Project 4.4.1, Projects 4.2, Project 4.8.3 and Project 4.8.9 in the third PCI list demonstrates their compliance with the PCI criteria set out in Article 4 of Regulation No 347/2013.

Pursuant to Article 16 of Regulation (EC) No 714/2009, accrued revenues resulting from congestion management will be 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 (hereafter – CEF) call, Project cluster 4.8 was selected for receiving financial assistance as of February 9, 2018. Maximum EU financial assistance for Environmental Impact Assessment and Right-of-way studies of Projects 4.8.1 and 4.8.3 in territory of Latvia is EUR 125,000 and for Study on Dynamic behaviour of synchronously interconnected Baltic States and Continental European electricity network (Project cluster 4.8) is EUR 125,001.

1.2. Promoting Competition

The electricity market was opened on July 1, 2007, when all customers became eligible to choose a supplier of electricity. There are several companies in Latvia which sell electricity to market participants. The biggest traders are JSC "Latvenergo", "Enefit" Ltd, "Inter RAO Latvia" Ltd, LLC "TET", "AJ Power" Ltd and "Geton Energy" Ltd.

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.

The new Regulations on information provision entered into force from January 1, 2018 and first review on data collected was published.

1.2.1. Description of the wholesale market

In 2018, 33 companies were registered as traders of electricity and 28 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 68% of the total consumed electricity. The other electricity producers are too small to offer significant volumes of energy for potential customers.

In Latvia, 12 traders were trading electricity in NP during 2018 and 100% of the total electricity consumed in Latvia was traded through NP.

In 2018, the total annual consumption, including losses and self-consumption was 7,408 GWh and the amount of installed available generation capacity was 2,840 MW. Latvia produced 6,715 GWh of electricity, imported 5,172 GWh from the Nordic countries, and exported 4,264 GWh. Latvia has 142 small hydroelectric power plants that generate electricity. They have a total capacity of 28 megawatts (MW). There are 4 hydroelectric power plants with capacity more than 1 MW, and have a total capacity of 1,537 MW. Latvia has 37 wind power plants with a total capacity of 78 MW, and 172 co-generation stations with a total installed capacity of 1,262 MW (including natural gas, biomass and biogas power plants).

JSC "Latvenergo" produces about 77% 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.

The share of the three largest producers was 80%.

In 2018, 7,481 GWh of electricity were bought and 6,399 GWh were sold in the Nord Pool's Elspot market. The Epex Spot exchange plans to launch intraday power trading in the Nordic and Baltic regions could provide a new opportunity to the market. The average spot price of electricity has increased by 43.8% from 34.68 EUR/MWh in 2017 to 49.90 EUR/MWh in 2018. The main reason for such a sharp increase is weather conditions – 2017 was a good year for running hydro generation, nevertheless 2018 turned out to be dry and hydro reserves became low.

There were no acquisitions or mergers in the electricity industry in Latvia in 2018.

1.2.2. Description of the retail market

In 2018, electricity supply companies supplied 7,206 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 78 companies registered in the electricity producers' register – 60 for co-generation plants, 19 for wind power plants, and two for hydroelectric power plants. In 2018, the Regulator registered five new electricity traders. At the end of the reporting year, 33 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.

In 2018, the total Latvian electricity consumption was 7,206 GWh. The Latvian electricity consumption structure in 2018 was as follows:

- households 1,660 GWh or 23%;
- non-household users 5,546 GWh or 77%.

In 2018, 100% of total electricity was traded in the electricity market at contract prices in accordance with bilateral agreements and 58% of that electricity was traded by the dominant trader in the market - JSC "Latvenergo", and the remaining 42% - by other traders. During the year, 6% of all households and 18% 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 stock price are offered in the market.

1.3. Security of supply

The total electricity consumption including losses and self-consumption in 2018 amounted to 7,450 GWh. Peak load in 2018 was 1,231 MW. Forecasts for the peak loads in years 2019 - 2020 are as follows:

- 2019 1,356 MW;
- 2020 1,381 MW.

The currently available generation capacity amounts to 2,840 MW.

Each year, the TSO shall prepare 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 2018 covering around 99% of the whole territory of Latvia.

The total capacity of the transmission network is currently 9,165 MVA, which is seven times more than the peak load in 2018. 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 and 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 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 2018, the NRAs and TSOs of Lithuania, Latvia, Estonia and Finland continued work towards to ensure the creation of the regional Baltic-Finnish natural gas market by 2020. Baringa Partners' LLP conducted a study on the tariff model for the natural gas entry-exit system for the common Baltic-Finnish market, so that the NRAs of Baltic states and Finland can make an informed decision on the most appropriate model for the single natural gas transmission entry-exit system. Respecting the Baringa Partners LLP findings the NRAs of Baltic states and Finland decided on the following characteristics of single natural gas transmission entry-exit system:

- interconnection points within the single natural gas transmission entry-exit system are eliminated, including the interconnection point to/from Incukalns Underground Gas Storage (hereinafter – Incukalns UGS) facility;
- Postage Stamp methodology applied separately in each country;
- flat entry tariffs are set across the single natural gas transmission entry-exit system through benchmarking and rescaling;
- resulting entry tariffs revenue shared through 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.

On October 12, 2018, the TSOs in Estonia, Latvia and Finland – Elering AS, JSC "Conexus Baltic Grid", Gasum Oy and Baltic Connector Oy – signed a Memorandum of Understanding where they agreed on the steps needed to be taken towards a full gas market integration between the countries as well as set the principles of the future inter-TSO compensation agreement (ITC) and a single natural gas transmission entry-exit system encompassing all the participating states and establishing the same entry tariff on each entry point to the single entry-exit system. On November 14, 2018, Memorandum of Understanding on cooperation and coordination on the establishment of the FinEstLat natural gas market between Estonian Competition Authority, Regulator and Energy Authority of Finland had been signed.

Next step torwards the natural gas integration was taken on November 6, 2018 when TSOs of Finland, Estionia and Latvia submitted to the respective NRAs the "Application on coordinated opinion on gas transmission system entry-tariff and inter-TSO-compensation mechanism among Finnish, Latvian and Estonian transmission system operators" followed by December 18, 2018 letter of the NRAs acknowledging the indicative reference price at all entry points and simplicity and robustness of ITC calculation and ITC mechanism proposed for implementation by TSOs.

2.1. Network regulation

2.1.1. Unbundling

Natural gas market was open on April 3, 2017. The legislator considered 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" has been completed by 31 December 2017. As regards 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 certificated with conditions according to which it should be ensured starting from January 1, 2020 that party which controls energy supplier is not capable to control JSC "Conexus Baltic Grid" directly or indirectly, and that direct or indirect activities of financial institutions and merchants established for specific purpose represented in JSC "Conexus Baltic Grid" do not cause any conflict of interest among JSC "Conexus Baltic Grid" and merchant which is involved in production and trade of electricity or natural gas. Furthermore, the Regulator imposed a legal obligation to inform it on progress of execution once in two months.

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 April 19, 2018, the Regulator approved that JSC "Gaso" fulfills 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 a as a difference between the transmission system input and the transmission system off-take quantity of natural gas.

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 transmission system input and the transmission system off-take quantities.

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 market exchange in the Latvian trade area by adding the adjustment in the amount of three percent;
- in case if none 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 market exchange in the Latvian trade area by deducting the adjustment in the amount of three percent;
- in case if none 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.

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 2018, 25 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 2018, the average amount of time needed for repairs in the distribution network for final customers was 5.5 hours per one interruption. The planned system average interruptions duration (SAIDI) in the distribution network for 2018 was 41 minutes, unplanned – 0.49 minutes and planned system average interruptions frequency index (SAIFI) per customer for 2018 was 0.38, unplanned – 0.001.

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 2018 natural gas tariff calculation methodologies were amended. Due to the opening of natural gas market, the new methodologies for the calculation of natural gas transmission, distribution and storage system service tariffs were approved. Amendments were made to specify assets which is included in the regulatory asset base. In the natural gas transmission tariff calculation methodology was also added new point about natural gas costs for security of supply. Under the current tariff setting regime, natural gas system operators can make investments in the security of supply by improving transmission and distribution networks and storage facilities, as well as to earn a reasonable profit for its shareholders.

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

Cabinet of Ministers amended the April 19, 2011 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. Amendments provided, that in order to provide the necessary daily capacity for the natural gas removal from the Incukalns UGS during the energy crisis, the single natural gas transmission and storage system operator has the duty to ensure that the quantity not less than 3,160 thousand MWh (300 million m3) and is intended for ensuring of natural gas supply in Latvia. System operator incurred costs is covered through natural gas transmission tariffs. System operator coordinate chosen model, with the Regulator and Ministry of Economics.

New tariffs for the natural gas transmission service were approved on June 18, 2018. Tariffs are based on the concept of an entry-exit system (zone), introduced by the Regulation No 347/2013 of the European Parliament and of the Council. Natural gas transmission system service is a capacity reservation service and the capacity of the entry and exit points can be reserved separately, thus allowing natural gas suppliers to provide natural gas from any entry point.

The tariffs are set equal for all cross-border entry and exit points (part of the transmission system connected with Estonian, Lithuanian and Russian transmission systems), but for the tariffs for an entry point from the Incukalns UGS and an exit point to the Incukalns UGS a discount of 100% is applied.

According to the Methodology for the Calculation of the Tariffs on the Natural Gas Transmission Service, the tariff cycle is one year. Therefore, a new tariff proposal was submitted to the Regulator on October 22, 2018 and the evaluation process continued in 2019.

For the storage service tariffs, the proposal was submitted by the system operator JSC "Conexus Baltic Grid" on November 22, 2017 with request to the Regulator to allow to set its own storage service tariffs. The Regulator on April 26, 2018 approved the new storage service tariffs. Tariffs for 2018/2019 storage cycle entered into force from June 1, 2018. Approved differentiated 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. Storage system operator offers bundled capacity product, and from June 1, 2018 until August 31, 2018 the market product, allowing natural gas to be pumped in the reserved storage volume up to the end of the injection cycle. The market product is offered as an interruptible product. The Regulator sets the lowest possible price of the market product and is the price is being revised once a week depending on natural gas winter and summer spread in the exchange "Gaspool" trading zone. The lowest price for the market product in 2018 storage cycle was set 0.92 MWh/EUR. Bundled capacity product is uninterrupted product, which have priority during the injection season and during the application of virtual flows. The price of the product of grouped capacity at the beginning of the season is set 2.94756 EUR/MWh, with the possibility to decrease, if demand for the storage exceeds the predicted. Till October 15 storage operator gathers all information about reserved products and if revenues from reservations except those of bundled capacity product are higher than it was predicted, all additional revenues are attributed to tariff reduction of bundled capacity product.

Tariff period is set for three years. Every year until December 30 the storage system operator submits to the Regulator new bundled capacity product values and until March 1 market capacity product lowest value. Long term storage product tariff should be developed till February 1, 2019.

On June 7, 2018 the Regulator took decision not to allow JSC "Conexus Baltic Grid" to set storage system tariffs itself. The Regulator decided, that there is no justification to give to the natural gas storage operator such exclusive rights because the natural gas market was recently opened and there were a lot of unknown obstacles that might arise. The aim of such simplified tariff setting process is to ensure the opportunity to set the tariffs in very short period of time, but in early stage of market functioning direct involvement of the Regulator is very important to ensure, that new tariffs will be justified, cost-based and tariffs will promote storage utilization.

On October 23, 2018 JSC "Conexus Baltic Grid" submitted request to the Regulator for approval of the new storage capacity tariff values for 2019/2020 storage cycle. Due to low storage utilization in 2018/2019 storage cycle and forecasted storage use in 2019/2020, storage cycle maximum value of bundled capacity product tariff was set 3.52056 EUR/MWh, applied minimum value of market product tariff was set 1.38000 EUR/MWh and two year bundled capacity product tariff value for cycles 2019/2020 and 2020/2021 was set 4.90056 EUR/MWh. Approved bundled

capacity and market product tariffs in capacity reservations are applied since January 15, 2019, nevertheless injection might start only from beginning of injection season. Long term storage product tariff was set for 2019/2020 un 2020/2021 storage cycle and its value was fixed 4.90056 EUR/MWh. On August 23, 2018, the Regulator set a rate of return on capital for the natural gas transmission, distribution and storage system operator at 4.22%. The rate of return on capital was calculated in accordance with the relevant service tariff calculation methodologies. The new fixed rate of return on capital is applied when drafting a tariff proposal which is scheduled to be in force in 2019.

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 "Modernization and Expansion of Incukalns Underground Gas Storage" (hereafter – Project 8.2.4) from the project promoter JSC "Conexus Baltic Grid", on October 4, 2018, the Regulator took a decision regarding the allocation of the investment costs for the Project 8.2.4 pursuant to the Regulation No 347/2013.

Pursuant to Regulation No 347/2013, the PCI No.8.2.1 "Enhancement of Latvia — Lithuania interconnection" (hereafter – Project 8.2.1), 8.2.2 "Enhancement of Estonia — Latvia interconnection" (hereafter – Project 8.2.2) and PCI No.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 No 347/2013, on November 23, 2017, the European Commission adopted the EC Regulation 2018/540 with the third list of PCIs including the Project 8.2.1, 8.2.2 and Project 8.2.4. The inclusion of the Project 8.2.1, 8.2.2 and Project 8.2.4 in the third PCI list demonstrates their compliance with the PCI criteria set out in Article 4 of Regulation No 347/2013.

Under the 2017 CEF call, Project 8.2.4 was selected for receiving financial assistance as of February 9, 2018 for The Feasibility Study and Cost-Benefit Analysis for the Enhancement of Latvia-Lithuania Interconnection. Maximum EU financial assistance for Project 8.2.1 is EUR 175,000.

2.2. Promoting Competition

2.2.1. Description of the wholesale market

On April 3, 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 2018, 29 companies were registered as natural gas traders, of which 12 were active in 2018. In 2018, 17,522 GWh of natural gas were imported by

the incumbent JSC "Latvijas Gāze" and five new traders (AJ Power Gas, IMLITEX LATVIJA, Latvenergo, Lietuvos Energijos Tiekimas, 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 2018, about 4,134 GWh of natural gas was supplied to other countries.

The natural gas transmission system was designed for annual consumption of up to 45,248 GWh in Latvia – almost three times more than the total consumption in 2018. In 2018, there were no overload capacities in Latvia, thus the TSO did not need to use any actions or methods that focus on congestion management.

2.2.2. Description of the retail market

In 2018, 29 companies were registered in natural gas traders' register.

In 2018, the total Latvian natural gas consumption was 15,098 GWh. The Latvian natural gas consumption structure in 2018 was as follows:

- households 11%;
- non-household users 89%.

In 2018, there were 404,532 natural gas customers. The number of customers has slightly decreased compared to 2017 when there were 407,300 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 were implemented in accordance with the requirements of the Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC and 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 – 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 2018, 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 amendments of the Cabinet of Ministers Regulations No 312 Procedures for the Supply of Energy Users and Sale of Heating Fuel During Declared Energy Crisis and in Case of Endangerment to the State 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, launched an auction on ensuring availability of natural gas at the transmission system entry point at the interconnection of transmission system with Incukalns UGS. In 2018 there were held four tenders, as a result of which 2.8 TWh of natural gas was auctioned for 9,164 thousand euros.

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 2018, 73 complaints of public utilities users were received and reviewed in the energy sector (55 about electricity and 18 about gas). Complaints on electricity supply mostly were related to

the registration of the amount of electricity consumed and the resultant bills (51%), installation of a new connection and supply of electricity (20%), electricity tariffs (8%) and other issues (21%). In the natural gas supply sector, most complaints concerned issues of the registration of the amount of natural gas consumed and resultant bills (44%), natural gas tariffs (28%), natural gas supply (6%) and other issues (22%).

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 Regulation of the Cabinet of Ministers

regarding Electricity Production from Renewable Energy Resources and Price Calculation, adopted on March 16, 2010.

On March 10, 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. This regulation contains 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 2018, the amount of electricity produced from renewable energy resources reached 54% of net production, including hydropower plants with installed capacity more than 5 MW. It is a slight drop from 2017, when the share of renewable energy was 73%, which was feasible due to significantly higher amount of water in the river Daugava.

In accordance with the Electricity Market Law, on November 23, 2017, the Regulator adopted a new Methodology how to calculate the mandatory fee (based on the mandatory procurement from 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 was fixed and linked to the consumers capacity payments and other part is proportional to the consumed electricity.

3.2. Protection of vulnerable customers

In accordance with the Electricity Market Law, electricity supply to vulnerable customers from January 1 till December 31, 2018 was ensured by JSC "Latvenergo". The electricity price according to Electricity Market Law is mutually agreed between trader and customer. To provide a support for vulnerable customer, on July 12, 2016, the Cabinet of Ministers approved detailed rules about electricity supply and distribution to vulnerable customers. These rules entered into force on August 1, 2016 and provide 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 June 19, 2018, providing there is no increase in the final electricity price for vulnerable customers.

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 November 22, 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 June 8, 2016, when

the amendments to the Electricity Market Law entered into force. According to these amendments the Cabinet of Ministers approved new regulations on February 14, 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 2018, 55 applications were submitted to the Regulator about the actions of the public service provider in the electricity sector. Three complaints were justified and 9 were not related to the Regulator's competence. A dispute resolution procedure was applied in two cases in the electricity sector, which were rejected.

In 2018, 18 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. Dispute resolution procedure was not applied.

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 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 not 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 given to 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 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 a regulation in which general rules on trade and supply of electricity, including main provisions and conditions of electricity supply contracts, are set out. In this regard, national legislation in the electricity sector has not changed since January 21, 2014, when the Cabinet of Ministers adopted the before mentioned rules.

In the gas sector, the Cabinet regulation No.78 "Regulations on trade and use of natural gas" of February 7, 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.