NATIONAL ENERGY REGULATORY COUNCIL

# Annual Report on Electricity and Natural Gas Markets of the Republic of Lithuania to the European Commission

Prepared by:

National Energy Regulatory Council

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# 1. FOREWORD

In 2019-2020, the National Energy Regulatory Council (hereinafter referred to as the NERC), as the authority for energy regulation in Lithuania, continued to contribute to decisions concerning the integration into a single European Union (hereinafter referred to as the EU) market and regulation area, ensuring transparent, non-discriminatory and predictable operating conditions within the energy sector, as well as the protection of rights and legitimate interests of consumers. In April 2020, the NERC coordinated investments of the second stage of the project of synchronisation of the Baltic electricity networks with continental Europe borne by the electricity transmission system operator (hereinafter referred to as the TSO) AB "Litgrid", the joint agreement on cross-border cost allocation between all the regulators – Lithuanian, Latvian, Estonian, and Polish – was also signed. This was an important step, which enabled the TSOs of the four countries to submit requests to the European Commission for funding under the Connecting Europe Facility (CEF). The total costs of the second stage of the synchronisation incurred by Lithuania, Latvia, Estonia, and Poland amount to more than EUR 1.22 billion, while the costs incurred by Lithuania alone amount to EUR 474 million. EU funds can be used to finance up to 75% of the total value of the second-stage synchronisation projects, which is the maximum possible support granted to projects concerning energy infrastructure. The national energy regulators of all four countries, recognising the importance of integration into the continental European network, ensured a smooth process of project coordination, as well as effective cooperation. The signing of a joint agreement on cross-border cost allocation guaranteed the successful continuation of implementing this Project of Common Interest (PCI).

The endeavour of NERC is to find a joint solution to block the trade in the Baltic States of electricity generated in Belarus, where an unsafe nuclear power plant started operating in November 2020. Following the commissioning of a nuclear power plant in Belarus, in autumn 2020, NERC did not approve the draft of the joint Lithuanian, Latvian and Estonian tripartite methodology for trading electricity from third countries. Despite the political agreement of the three Baltic countries not to buy electricity generated by the Belarusian nuclear power plant, the application of the methodology developed (only approved by Latvia and Estonia) for determining the capacities for trade with Russia increases not only the physical flows between Belarus and Lithuania but also the trade capacities with Russia. The NERC will work to ensure that the infrastructure of the Lithuania-Belarus interconnectors is not assessed as a mean to increase trade with Russia and to effectively limit the flow of electricity from Belarus through the interconnectors. Furthermore, it is necessary to develop a reliable system of guarantees of origin of electricity, which together with the tripartite methodology would act as a complete package to effectively prevent Belarusian-generated electricity from entering the EU's internal electricity market. This would allow ensuring a sustainable balance in the Baltic electricity market between third countries, EU countries and internal electricity, as well as the conditions for the implementation of the synchronisation project in 2025, independent of third-country imports.

Following the adoption in May 2020 of amendments to the Law on Electricity of the Republic of Lithuania (hereinafter referred to as Law on Electricity), which allows consumers to choose an electricity supplier best suited to their individual needs, the first of the three stages to open the market of electricity supply (liberalisation, hereinafter referred to as Stage I) started to be successfully implemented. By 30 December 2020, 89% (87,208 consumers) consumers in Stage I, whose actual electricity consumption in the facility is no less than 5,000 kWh per year, chose an independent supplier of electricity. In total, on 10 May 2021, 274,588 consumers have already

chosen an independent supplier of electricity (there are more than 1.642 million consumers from all three stages).

For the next stages, an independent supplier of electricity will have to be chosen by all household consumers whose actual electricity consumption in the facility is no less than 1,000 kWh per year (Stage II) and the rest of consumers (Stage III). From 1 January 2021 to 1 January 2023, the monopoly services of the public supplier will be consistently terminated and conditions for the active engagement of electricity suppliers will be created. The data of Stage II and Stage III of liberalisation will be disclosed for independent electricity suppliers by the middle of 2021.

However, the infrastructural components of the final tariff (monopoly services) will continue to be determined by the regulator, taking into account the requirements of both national and EU legal acts. More attention will have to be paid by the NERC to the supply market: questions as whether the services are provided to the consumers on a transparent, non-discriminatory basis and whether the suppliers do not abuse their dominant position in the market will have to be addressed. For that purpose, it is planned to develop a tool for comparing the offers of independent electricity suppliers, which consumers will be able to use free of charge and to compare the offers of independent suppliers, including their offers for variable electricity tariffs. The NERC will also set the price for the service of guaranteed supply provided to vulnerable consumers.

In November 2020, the NERC coordinated an investment project by the electricity distribution system operator (DSO) AB "Energijos skirstymo operatorius", which will lead to the introduction of a Data Hub that will contribute to the efficient liberalisation of the electricity market by ensuring fast, secure data exchange between consumers, AB "Energijos skirstymo operatorius", and independent electricity suppliers. The Data Hub will effectively assist in the liberalisation of the electricity market, ensure fast and safe exchange of data between consumers, the DSO, as well as independent suppliers of electricity. After installation of the Data Hub, the only channel for data exchange will be the Data Hub platform. Market participants and other stakeholders will have equal access to the data in the same format, the system will be accessible at any time and data will be updated at pre-determined dates.

In order to facilitate innovation in the energy sector, the NERC has approved the Description of the Procedure for Submission and Examination of Applications of Persons for Authorisation to Operate in a Pilot Energy Innovation Environment and for the Performance of Activities in a Pilot Energy Innovation Environment. The procedure approved by the NERC will apply to persons performing both regulatory and non-regulatory energy sector activities, whose projects will be in accordance with the established eligibility criteria, i.e., the additional value by developing more effective and/or convenient services, the necessity of innovation, practical use, novelty/substantial improvement, as well as preparedness to carry out innovation in a real environment.

In the natural gas sector, the NERC continued its cooperation in the Regional Gas Market Coordination Group (RGMCG) to develop a common natural gas market of the three Baltic States and Finland. In 2020 no decision has been taken on the establishment of a common price zone for transmission services between Lithuania and FINESTLAT (Finland, Estonia, Latvia) and on the inter-TSO compensation mechanism (ITC). In 2020, the Lithuanian transmission system is considered as a separate price zone. However, in order to efficiently develop the regional Baltic-Finland gas market, the entry point prices approved for 2020 were harmonised with other

countries in the FINESTLAT price area, i.e., the entry price is the same at all entry points of the Baltic-Finnish region. In April 2020, the roadmap for the integration of regional markets between Estonia, Finland, Latvia and Lithuania, which provides for a common zone of the prices of the four countries starting from 2022, was endorsed by the High-Level Group on the Baltic Energy Market Interconnection Plan (BEMIP). A proposal for an ITC for the Baltic-Finland natural gas region is expected in Q2 2021.

In December 2020, in view of the Gas Interconnection Poland-Lithuania (GIPL) coming into operation from 2022, NERC published for public consultation a document on the pricing methodology for the services provided by the natural gas TSO AB "Amber Grid" for the remaining period of the gas transmission price regulation (2022–2023), in compliance with the provisions of the Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (TAR NC). Prices of transmission services, (including prices of transmission services with a new connection with Poland (the new cross-border interconnection point is called Santaka), and their forecasts have been calculated. The final decision on the applicable prices will be taken after a public consultation, taking into account the comments and suggestions received during the consultation period and the recommendations of the European Union Agency for the Cooperation of Energy Regulators (ACER), as well as the final level of the allowed revenue set by the NERC for 2022 and 2023.

On 1 January 2020, GET Baltic, the regional gas market for the Lithuanian, Latvian and Estonian markets, successfully launched its operations in Finland, becoming the single regional trading platform for the Baltic and Finnish gas markets.

The Chair of the Council Renatas Pocius

# 2. MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY SECTORS

## 2.1. Market development and surveillance

- Electricity market

In 2020, the amount of electricity imported into the Lithuanian Power System (hereinafter referred to as the LPS) decreased slightly compared to 2019 and accounted for 86.28% of the country's total electricity demand in 2020 (demand – 13.05 TWh). In 2020, the country generated 5.07 TWh of electricity, imported 11.26 TWh of electricity and exported 3.35 TWh. In 2020, the country's electricity consumption amounted to 11.97 TWh. In power plants, the total installed capacity increased and reached 3,721 MW in 2020 (compared to 3,681 MW in 2019).

Total network investments in 2020, compared to the previous year, have been declining: the investments of DSOs amounted to EUR 98.8 million (a decrease of 28.7% compared to 2019), the investments of TSOs made during the same period amounted to EUR 55.12 million and were 20% higher than those recorded in 2019 (EUR 45.93 million). The maximum hourly electricity demand (net) in Lithuania amounted to 1,939 MWh in 2020 (4.58% lower than in 2019), of which 1,879 MWh was recorded within the distribution grid (8.4% higher compared to 2019).

In 2020, in the electricity sector, NERC regulated 3,727 undertakings. This number includes licensed or permit-regulated activities of the independent supply, transmission, distribution, public supply and generation of electricity, as well as permits granted for the development of generation capacity and for the import and export of electricity to/from the non-EU Member States. At the end of 2020, the following undertakings were granted the licences issued by the NERC: AB "Litgrid" – electricity TSO, AB "Energijos skirstymo operatorius", AB "Achema" , AB "Lifosa", AB "Akmenės cementas", and UAB "Dainavos Elektra" – DSO, UAB "Ignitis" (former Lietuvos energijos tiekimas UAB), AB "Lifosa" and AB "Akmenės cementas" – public electricity suppliers. In 2020, 89 undertakings had permits for the independent supply of electricity, of which 26 were engaged in the activity of the independent supply of electricity.

By the end of 2020, 3,705 entities (natural and legal persons) held permits for the generation of electricity issued by the NERC, of which 1,212 were electricity prosumers.

*Fig. 1. Number of market participants regulated by the NERC within the electricity sector in 2020*

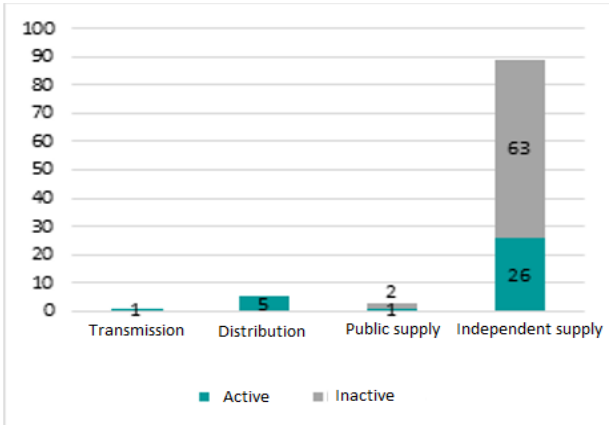
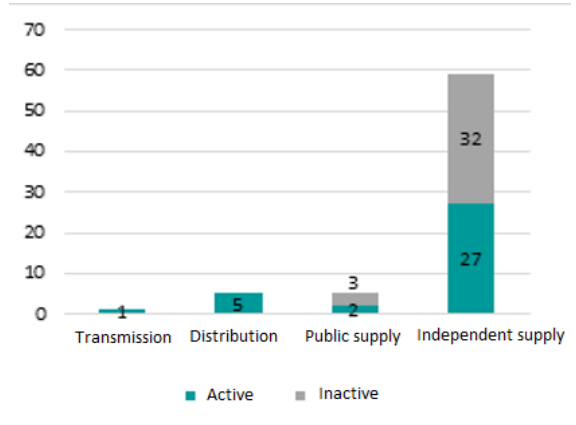
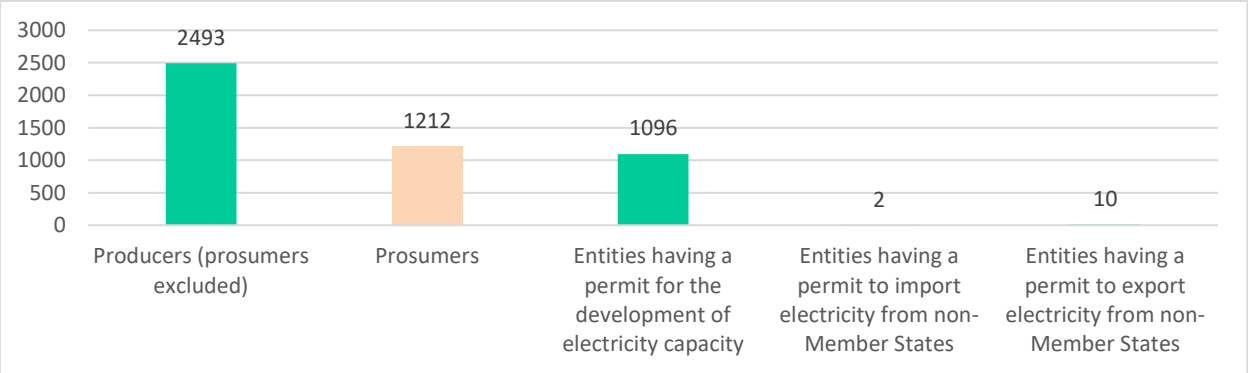



*Fig. 2. Number of market participants regulated by the NERC within the electricity sector in 2019*




*Source: NERC*

*Fig. 3. Number of market participants regulated by the NERC in 2020*




*Source: NERC*

In 2020, the NERC issued 22 permits for the independent supply of electricity. Entities wishing to operate within the electricity sector must obtain a permit from the NERC. When applying for a permit to develop electricity generation capacity, in addition to other mandatory documents, it is necessary to submit a copy of pre-conditions for the connection of the power plant to the power networks issued by the network operator. The NERC's permit for the development of electricity generation capacity is not required if a person plans to build or install electricity generation capacity which does not exceed 30 kW and to generate electricity solely for personal use and domestic needs without supplying electricity to the electricity networks, or if a person seeks to become a generating consumer and plans to build or install electricity generation capacity utilising renewable energy sources, while its installed capacity does not exceed 30 kW. The NERC's permit for the generation of electricity is not required if a person intends to generate electricity using equipment that generate electricity from renewable energy sources and whose installed capacity does not exceed 30 kW.

In 2020, 172 permits for the generation of electricity, 392 permits for the development of electricity generation capacity and 1 permit for the import of electricity from non-EU Member States were issued. In addition, pursuant to Article 4(2) of the Law on Necessary Measures of Protection against the Threats Posed by Unsafe Nuclear Power Plants in Third Countries, Article 21(7)(10) of the Law on Energy of the Republic of Lithuania, Paragraph 64 of the Rules for Issuance of Permits for Activities in the Electricity Sector approved by the Resolution of the Government of the Republic of Lithuania No 829 "On the Approval of Rules for Issuance of Permits for the Activities in the Electricity Sector", dated 7 August 2019, the NERC has also adopted 7 resolutions on the revocation of the validity of electricity import permits and 1 resolution on the amendment of the permit to import electricity to a non-EU Member State by revoking the right to import electricity from the Republic of Belarus for an indefinite period of time in the Electricity Import Permit issued.

- Natural gas market

In 2020, the NERC adjusted and specified the legislation that regulates operations of the natural gas sector. The following legal acts have been amended (for more information, see Section 4.1 Network Regulation):

- *The Methodology on Rate of Return on Investments.*
- *The Description of the Requirements for the Unbundling of Accounts and the Cost Allocation of Natural Gas Undertakings.*

- *The Methodology for Setting of State-regulated Prices Within the Natural Gas Sector.*
- *The Methodology for the Calculation of the Rates of the Connection of New Natural Gas Users.*

The decision for a joint tariff zone for Lithuania and FINESTLAT countries, as well as the inter-TSO compensation mechanism (ITC) has not been taken in 2020 and the Lithuanian transmission system remains to be considered a separate tariff zone. However, in order to efficiently develop the regional gas market in the Baltic-Finnish countries, the entry point prices approved for 2020 were harmonised with other tariff prices set by FINESTLAT, i.e., the entry price is the same at all entry points of the Baltic-Finnish region.

Considering the fact that in 2022 Gas Interconnection Poland-Lithuania (GIPL) will become functional, on 16 December 2020, the NERC published the second public consultation document (the first public consultation document was published in 2019[1]) on the methodology for setting the prices for the services provided by the TSOs for the remainder of the regulatory period of the gas transmission prices (2022–2023). The final decision on prices applicable will be made after considering comments and suggestions received during a public consultation, recommendations made by the ACER, as well as evaluating the final level of the allowed revenue set by the NERC for 2022 and 2023. It is important to note that on 16 April 2021, the ACER provided an opinion on the gas transmission tariff structure for Lithuania for the period of 2022–2023.

On 1 January 2020, GET Baltic, the regional gas market operating in the Lithuanian, Latvian and Estonian markets, successfully launched its operations in Finland, becoming the single regional trading platform for the Baltic and Finnish gas markets. 7,206,319 MWh of natural gas was traded on the UAB “GET Baltic” natural gas market in 2020. Compared to the same period in 2019, the volume of natural gas traded on the UAB “GET Baltic” natural gas market was 152.10% higher.

In 2020, 23,397 GWh of natural gas in the wholesale market of natural gas was sold and (or) consumed, which shows an increase of 8.61%, compared to 21,542 GWh of natural gas sold and (or) consumed in 2019.

In 2020, the volume of imported natural gas amounted to 30,487 GWh and was 7.34% higher compared to 2019.

Compared to 2019, in 2020, the sales in the natural gas sector increased by 40.34% – from 13.795 to 19.630 GWh.

In the natural gas sector, NERC regulated 38 undertakings in 2020. In the natural gas sector, transmission, distribution, storage, LNG regasification, supply and market operator activities are licensed or regulated by permits. At the end of 2020, the following undertakings had licences issued by the NERC: AB “Amber Grid” – natural gas TSO, AB “Energijos skirstymo operatorius”, UAB “Intergas”, UAB “Fortum Heat Lietuva”, AB agrofirma “Josvainiai” (agricultural undertaking), UAB “SG dujos” – natural gas DSO, AB “Klaipėdos nafta” – LNG regasification undertaking, UAB “GET Baltic” – the natural gas market operator. 30 undertakings had permits for the supply of natural gas, of which 20 were engaged in the activities. In 2020, 7 permits to supply natural gas were issued.

[1] https://www.vert.lt/en/Pages/PublicConsultationontariffmethodologyandindicative20202023tariffsofLithuanianTSOimplementationoftheNetwor.aspx

In 2020, the total income within the natural gas sector (transmission, distribution, LNG regasification, supply) amounted to EUR 366.21 million, i.e., 26.47% lower than the income recorded in 2019 (EUR 498 million). In 2020, the income from the transmission and LNG system operators was lower compared to 2019, while the income from the DSOs' regulated activity was higher than in 2019. The income of natural gas supply undertakings decreased due to a decrease in the price of imported natural gas (product) purchased under bilateral transactions and on markets in 2020.

Total investments in the natural gas sector in 2020 amount to EUR 108.1 million, which is 53.33% more than in 2019 (EUR 70.5 million). In the transmission business, significant PCI projects – GIPL and Enhancement of Latvia-Lithuania interconnection (ELLI) – were developed during the period.

## 2.2. Implementation of the Clean Energy Package

The transposition of the Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (hereinafter referred to as the Electricity Directive or Directive (EU) 2019/944) into the national law of the Republic of Lithuania is planned for 2021. The Ministry of Energy of the Republic of Lithuania has organised two public consultations, in which it has submitted proposed amendments to national legislation transposing the EU's common rules for the internal market in electricity for harmonisation. The NERC has actively participated in both consultations providing comments and suggestions for the amended legislation.

The NERC has also participated in the processes of the European Resource Adequacy Assessment (hereinafter referred to as the ERAA) methodology and the methodology for the lost value of load, calculation of market entry price and reliability standard. The methods provided by the ERAA related with the implementation of Clean Energy Package (CEP) regulations will ensure the provisions for capacity mechanisms' implementation. By using calculations of these methodologies approved by the ACER, issues related to the adequacy of resources and demand of additional measures (i.e., temporary capacity mechanisms) in the EU can be determined. The NERC has also actively participated in the activities of the ACER and cooperated in the development of Regulations for joint cross-zonal participation in available electricity capacity mechanisms, approved on 22 December 2020. These Regulations provide the opportunity for electricity suppliers to contribute to the adequacy of resources in other Member States of the EU, improve the safety of electricity supply and effectively decrease costs of consumers. Based on CEP, these regulations provide a more effective exchange of electricity resources among the EU Member States despite the location, encourage integration and harmonisation of the internal market.

The CEP also provides for the establishment of regional coordination centres. In July 2020, the TSOs of the Baltic countries (the Baltic region consists of Lithuania, Latvia and Estonia) submitted a proposal to the Baltic Regulatory Authorities (Baltic NRAs) to establish a Baltic Regional Coordination Centre (RCC). The offer did not include the official RCC address or country but instead envisaged the establishment of three separate RCC departments in each Baltic State. Accordingly, the Baltic NRAs requested the Baltic TSOs to modify the proposal for the establishment of the RCCs (due to the country of establishment of the RCCs as well as to other issues that arose) and to justify the location of the RCCs by means of an economic and technical analysis. At the end of December 2020, the Baltic TSOs requested to postpone the date for the

submission of a revised proposal to 31 March 2021 due to the delays in the outcome of the required analyses. On 31 March 2021, the Baltic NRAs received two proposals for the establishment of RCC – one coordinated from the TSOs of Latvia and Estonia, and one from the Lithuanian TSO. The main disagreement is the country of establishment of the RCC. Meetings between the Baltic NRAs and the Baltic TSOs are taking place to find a joint agreement on the place of establishment of the RCC. In April 2020, the ACER published a Decision defining the system operation regions (SORs) to implement Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (hereinafter referred to as the Electricity Regulation). This regulation provides for a higher level of coordination between TSOs at a regional level. The definition of the SOR is the first step towards the establishment of the RCC. Lithuania, together with Latvia and Estonia, is included in the Baltic SOR. The ACER Decision also defines the boundaries between trading zones and the inter-zonal interconnections.

As the national energy regulator, NERC is also obliged under Article 59(1)(u) of the Electricity Directive to monitor the implementation of the rules relating to the roles and responsibilities of TSOs, DSOs, suppliers, consumers, and other market participants under the Electricity Regulation.

Although the demand response and aggregation rules are set out in detail in the Electricity Directive, Article 3(e) of the Electricity Regulation states that the market is organised by aggregating the electricity generation from multiple electricity-generating facilities or load from multiple demand response facilities, thus enabling the end-users and small businesses to participate in the market so that they can make joint offers on the electricity market and jointly operate in the electricity system, in accordance with the EU competition law. For that purpose, the NERC was actively involved in the coordination and assessment of the amendment to the Law of Electricity, which allow Articles 13 and 17 of the Electricity Directive to be implemented. The Law on the Amendment of Articles 2, 9, 12, 16, 17, 30, 31, 33, 35, 39-1, 41, 59, 69 and the Annex to the Law on Electricity No VIII-1881 of the Republic of Lithuania and Supplementation of the Law by Article 61[1] was adopted by the Seimas of the Republic of Lithuania on 4 June 2020[2].

In 2020, the NERC has coordinated the Methodology for the Calculation of the Initial Electricity Demand of AB “Litgrid”, which determines the initial demand of electricity for consumers and a variation of the demand. The amount of initial electricity demand calculated according to this methodology will be used to determine the amount of services provided by the independent electricity aggregator[3]. Independent demand aggregators will provide information to AB “Litgrid” on the consumers for whom the independent demand aggregation service has been provided, i.e., on the coordination of the consumers’ electricity demand or production in order to sell, buy or place the unused or produced electricity (quantity or capacity) on the electricity or balancing markets.

Taking into account the requirements of the Regulation (EU) No 2017/2195, which establishes the electricity balancing guidelines, the NERC approved the Standard Terms and Conditions of the Balancing Services Purchase-Sale Contracts and the Standard Terms and Conditions of the Imbalance Purchase-Sale Contracts prepared by AB “Litgrid”. The main amendment of terms and

[2]https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/907d0740aa5011ea8aadde924aa85003?positionInSearchResults=10&searchModelUUID=840859a5-6290-40e5-89bc-a0eb4fcbaa89

[3] Independent aggregator of electricity demand – a participant of the electricity market with an issued licence from the Council, operating in aggregation of consumers electricity demand activities and has no relation to supplier of consumers.

conditions of contracts is related to the implementation of Electricity Regulation, which provides for the auctioning of balancing capacity for a day-ahead, i.e., balancing capacity will be booked on a daily basis instead of the previous practice of booking balancing capacity for a predetermined amount of capacity for a year in advance. This change will allow for efficient use of available generation capacity and ensure the reliable operation of the energy system.

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# 3. ELECTRICITY MARKET

## 3.1. Regulation and technical functioning of the network

- Unbundling of activities

- Article 59(1)(j) of Directive (EU) 2019/944: Cross-subsidisation

In 2020, there were no changes regarding the implementation of the Law on Electricity provisions related to the unbundling of activities and control of AB "Litgrid" and AB "Energijos skirstymo operatorius". The NERC, in accordance with the provisions of Article 26 of the LE, continues to constantly monitor and control the manner in which the electricity TSO and DSO, while conducting their activities, ensure the requirements of independence and unbundling of activities established by Article 54 (1) and (3) of the LE.

Also, in accordance with Article 8(11)(12) of the Law on Energy and Article 9(4)(5) of the LE, the NERC controls the effective unbundling of activities in the energy sector, thus ensuring the independence of energy transmission and distribution activities from the commercial interests of energy activities and avoiding cross-subsidisation. No change in these legal provisions was recorded in 2020.

Following the Technical Task for the Verification of Regulatory Activity Reports, approved by NERC in 2019, the unbundling of regulatory activities and accounting was additionally controlled by independent auditors who carried out detailed audit procedures of performed regulatory activity reports. In 2020, the reports of findings by NERC on the verification of the unbundling of regulatory activities and accounting enforcement, carried out by independent auditors, were submitted to NERC for further evaluation. No significant non-compliance with regulatory activities and accounting unbundling requirements was observed.

In order to develop the methodological cooperation of NERC with the reporting market participants and independent auditors performing the verification of reports, in 2020, NERC discussed the compliance of the requirements for the unbundling of regulatory activities and accounting as well as methodological issues related to the technical task of verification of regulatory activity reports, with the market participants, the Lithuanian Court of Auditors and the Authority of Audit, Accounting, Property Valuation and Insolvency Management. NERC consulted and provided practical guidance on the practical application of the verification of regulatory activity reports' technical task and the effective enforcement of the requirements for the unbundling of regulatory activities and accounting.

In 2020, the Technical Task for the Verification of Regulatory Activity Reports was approved, and it will be further used for the verification of reports on regulatory activities provided by NERC in 2021.

- Network extension and optimisation

- Article 59(1)(k) of Directive (EU) 2019/944: Investment plans

The rights and obligations established for the TSOs and the NERC in accordance with Article 33 of the Law on Electricity as regards the preparation, evaluation and monitoring of the 10-year plan

for the development of transmission networks remained unchanged over the course of 2020. The supervision of the investment plans of AB "Litgrid" is carried out in accordance with the terms and conditions laid down in the LE, i.e., every year by 1 July, the TSO AB "Litgrid" prepares and submits to the NERC an updated 10-year plan for the development of transmission networks. While coordinating the plan, the NERC assesses the investments already made by the TSO or adjusts accordingly the investments previously agreed on but not yet implemented, the deadlines for the completion of said investments, the cost of the works, etc. On 30 June 2020, the LPS 400-110 kV network development plan for the period of 2020-2029 was received. The NERC announced a public consultation regarding the plan and, having assessed the received comments, the NERC approved the development plan for the period of 2020-2029 prepared by AB "Litgrid" by Resolution No O3E-240 of 19 February 2021.

In 2020, the length of high-voltage electrical power transmission lines was 7,246 kilometres, while the number of high-voltage transformer substations amounted to 236. The total electricity demand was 11.97 TWh. Electricity consumption decreased by 1.5%. At the moment, the LPS is directly connected to five neighbouring power systems (Sweden, Poland, Belarus, Latvia and Russia).

During the period 2020−2029, the foreseen investment in the development and renewal of the transmission network will amount to approximately EUR 1.291 million, i.e., it will increase by 21.51% compared to the investments for the development and renewal of the transmission network planned for the period of 2019-2028.

During the period of 2020-2029, the majority of investments will aim at the integration of electricity market infrastructure and system management into the European Energy System; up to 75% of the funds required for these works are expected to be obtained with the support of CEF, the investments will be also allocated to electricity transmission network projects necessary to increase the energy security and reliability of the electricity system (network development, reconstruction, modernization, major repairs, etc.).

Over the course of 2020, AB "Litgrid" made significant progress in implementing projects of common interest (PCI) in the European Union, as well as other strategic projects:

1. *The construction of the 110 kV line Pagėgiai-Bitėnai in Western Lithuania and the reconstruction of the 330 kV line Elektrėnai Power Plant−Vilnius, which increases the reliability of electricity supply to Vilnius, was completed.*
2. *The "Harmony Link" project is continued – deep-sea exploration services have been purchased and it is prepared for the launch of the project. The development plan of the link and 330 kV switchyard "Darbėnai" was also prepared.*
3. *Preparatory actions for the second most expensive synchronisation project have been launched – an international procurement has been announced for the design, production and contracting of the installation of 3 synchronous condensers in the Lithuanian electricity system.*
4. *The project of optimisation and preparation of the networks of North-Eastern Lithuania for synchronous operation with the networks of continental Europe is being continued. This project includes the conditioning of the Utena and Ignalina transmission network nodes and the relocation of the controlled shunt reactor from the Ignalina Nuclear Power Plant (NPP) to Elektrėnai. At the end of 2020, after the reconstruction, 330 kV switchyards of Utena and Ignalina NPP transformer substations were turned on. In 2021, at the beginning of January, autotransformers of Utena and Ignalina were also turned on. In*

*2021, demolition of old equipment and reconstruction works of 110 kV switchyards will be carried out. The project is planned to be completed by the end of 2021. Also, in 2020, the only controlled shunt reactor of this type in the country was successfully connected in the 330 kV switchyard of Elektrėnai Power Plant and is still operating.*

5. *"LitPol Link" joint extension works are in progress. At the end of 2020, all the main project works that could be done without the installation of autotransformers were completed, i.e., 400 kV and 330 kV switchyard extension works were carried out, the power lines in this link were reconstructed.*
6. *In 2020, the solutions for the development plan of the new 330 kV line Vilnius–Neris were prepared. Currently, the project territorial planning documents have been prepared, approved and submitted to the State Territorial Planning and Construction Inspectorate. The approval of the special plan and establishment of easements, forests and special conditions is planned for the current year.*
7. *The implementation works of the project "Construction of 330 kV Darbėnai–Bitėnai Line" are continued. The development plan and solutions were prepared in 2020. Presently, design works are carried out on the Darbėnai–Bitėnai line section in the Kretinga district, where the line will be only reconstructed.*
8. *The implementation works of the project "Construction of 330 kV Kruonis PSP– Bitėnai Line" are continued. The development plan and solutions were prepared in 2020. In 2021, AB "Litgrid" signed a contract for the design and construction works of 330 kV OL Jurbarkas–Bitėnai reconstruction. A part of the 330 kV line connecting Jurbarkas and Bitėnai substations will be reconstructed from a single-circuit to a double-circuit line. The overhead line supports will be replaced, and new electric cables will be laid in the existing engineered corridor. The reconstruction will cover a section of almost 40 km. This reconstruction is the first stage in the Construction of 330 kV Electricity Transmission Line Kruonis PSP–Bitėnai. The future line will strengthen the transmission network in Western Lithuania, ensuring its reliable operation by establishing a maritime cable connection with Poland "Harmony Link" and disconnecting from the LPSs of Russia, Kaliningrad and Belarus.*
9. *The territorial planning process of 330 kV "Mūša" switchyard is in progress.*
10. *A partial technological Lithuanian isolated operation test was performed – AB "Litgrid" controllers independently controlled the frequency in the part of the country's electricity networks separated from the UPS/IPS system where all major Lithuanian power plants operated and where the test took place. A test of the "NordBalt" maritime cable connection was carried out together with partners in Sweden. During its course the possibility of rebuilding the system after its complete disconnection was tested using the electric connection with Sweden.*
11. *The new AB "Litgrid" Power System Management and Data Security Centre was opened in Vilnius. It will ensure the stable and secured operation of the country's energy system and the management of energy transmission flows, as well as a higher level of physical and cyber security.*

In addition to the projects listed above, in 2020 AB "Litgrid" also carried out projects for the modernisation of transformer substations and power transmission lines, as well as the development of the technological control network, physical and information security and information systems.

In accordance with the Description of the Procedure for the Assessment and Coordination of Investments of Energy Enterprises, the DSO prepares a long-term investment programme regarding the regulated activities for the regulatory period and submits it to the NERC.

Starting from 2018, the DSO AB "Energijos skirstymo operatorius", as a DSO serving more than 100,000 consumers, publishes its investment plans on its website in accordance with the obligation laid down in Article $39^1$ of the LE. Prior to the publication of the 10-year plan for the development, renewal, modernisation and investments of distribution networks, the DSO conducts transparent and public consultations with competent public authorities and other interested parties. The investment plan for the period of 2020-2029 is currently published. AB "Energijos skirstymo operatorius" foresees that in 2020-2029, the need for the investments in the development and renewal of the electricity distribution network will amount to approximately EUR 1 909 million, i.e., it will decrease by 7.3% compared to the period of 2019-2028 (EUR 1,779 million). The main investment directions shall be as follows: the enhancement of network reliability (replacement of overhead electricity lines with underground electricity lines while prioritising the replacement of unreliable and incident-prone lines, wooded areas and solutions aimed at the improvement of voltage quality), network smartification (installation of automated equipment or equipment that is monitored and controlled by the dispatcher remotely, as well as installation of smart meters for the consumers), customer experience and market empowerment (development of a data exchange platform (hereinafter referred to as "the Data Hub"), updates of information systems, etc.).

By the end of 2020, AB "Energijos skirstymo operatorius" had implemented the following functionalities of the Data Hub: the provision of historical consumption data to the suppliers (with the consumer's consent) and the process of changing the supplier. On 1 May 2020, the implementation of the functionality of a joint contract and account was completed. Said functionalities were implemented while developing the existing systems – the basic version of the data platform. The full version of the Data Hub will now be developed.

- Article 59(1)(l) of Directive (EU) 2019/944: Smart grid development

In 2020, the TSO carried out the experimental project "Use of Drones for Fault Detection in Transmission Network". The inspection of lines with drones will contribute to the reliability of electricity transmission as in case of strong winds, fire, or natural disaster, drones can be quickly sent to detect damage and potential disturbances: cut lines, fallen poles, blocked roads, or fallen trees. The more data on the situation will be available, the better it will be prepared to address specific existing issues rather than all the possible ones. Another advantage of using drones is their ability to reduce the risk of accidents due to their possible operation in hazardous environments or adverse weather conditions.

TSO also carries out projects related to the reconstruction of transformer substations (TS); however, during the reconstruction, completely environmentally friendly primary equipment (Eco-friendly – "Green" TS) is installed, as, for instance, in Rėkyva and Baltupis TSs. In order to reduce environmental pollution and to follow the good practice of ENTSO-E innovative solutions, it is proposed to introduce the primary equipment (circuit breakers and measuring transformers) in substations as it does not contain global warming and environmental pollutants (SF6 gas or oil insulation). Another advantage of such circuit breakers is that they are non-dismountable and

maintenance-free: the vacuum arc extinguishing chamber is non-dismountable and is used until it runs out of resources; then it is replaced by a new chamber.

The project “The Reduction of the Impact of the Connection of High-Power Transformers to the Electricity Network” is in progress and aims to reduce noise, disturbances, and voltage drops in the system, occurring due to magnetization currents when connecting high-power transformers, which may disturb the work of consumers or damage their equipment.

In order to ensure the quality of supplied electricity within the context of its growing demand, the DSO AB “Energijos skirstymo operatorius” plans for the reconstructions of the electricity network and is also implementing a pilot project regarding the use of storage systems in controlling the voltage within the network and reducing the costs of network reconstruction and has already begun installing voltage regulators as an alternative to more expensive network reconstructions. In 2020, a study, the purpose of which was to analyse the qualitative parameters of the distribution networks, was carried out. On the basis of the conclusions of the study, it is planned to install voltage quality recorders and their monitoring system within the distribution network. The recorders will be designed to record voltage drops while the monitoring system will be used to analyse and to later adopt technological solutions regarding interruptions as well as the improvement of other qualitative parameters of the network.

In 2020, the DSO carried out the installation of the equipment that is remotely controlled by the dispatcher. Short-circuit indicators with signal transmission to the dispatch control system were installed that help to speed up the location of the fault. Remotely controlled equipment is planned to be installed in reconstructed and new 10/0.4 kV transformer stations, transformer substations, and 10 kV distributions points. Switching equipment (1,249 units in 2020-2029) will be installed in 10 kV overhead lines to remotely switch on/off the power supply in case of failure and thus reduce the number of customers affected by the failure. The aim is to increase the share of customers connected to remotely controlled 10 kV lines from 8% (at the end of 2019) up to 25% (at the end of 2029). Digital protection relay is being installed in transformer substations and distribution points which will allow the DSO to see network parameters (voltages, currents, frequency) in real-time and to accurately localise a failure in the electricity network. The DSO carried out the establishment and development of the distribution management system (hereinafter referred to as DMS). The project includes:

1. The establishment of the DMS Outage management system. The system will help the DSO to monitor and manage the electricity network in one system in real-time. This will make it significantly easier to localise the failure and restore power more quickly. During the period of 2019-2020, the system was established in the major part of the DSO distribution system.
2. The establishment of active system management. In the further stages of DMS development, it is planned to deploy solutions that will allow ensuring active system management (including distributed generation, storage systems). It is also planned to install automatic power and voltage regulation equipment for newly connected producers of renewable energy sources (hereinafter referred to as RES).

In 2020, the DSO continued to implement self-healing network (which operates without the involvement of the dispatcher during faults) solutions. In 2020, >50 units of 10 kV overhead lines were configured where the localisation of failures takes place automatically in the DMS system. It is planned to further expand the installation of switching devices in the selected network

segments which would, without the intervention of the dispatcher, identify the damaged network section and disconnect (isolate) it.

In 2020, it was intended to further automate and integrate network operation planning and management tools/systems. Real-time network load monitoring and forecasting solutions have been implemented, which create preconditions for network optimisation. With the rapid growth in the number of distributed generation equipment, electric cars and equipment for the charging of said cars within the network, the distribution system faces major challenges as to how to ensure the management of the network load and the quality of supplied energy in the most cost-effective and optimal manner. The foreseen network planning algorithms will ensure sustainable network development and opportunities to integrate renewable energy sources in the most efficient way.

In 2020, the implementation of the advanced technological asset management system was started. To this end, it is planned to implement a common information system for the management of technological assets which will be designed to collect representative data on distribution networks that will lead to the transition to active management of assets and automated network maintenance works. In 2020, public procurement procedures were launched and in 2021-2022 it is planned to install and run the system.

The geographic information system (hereinafter referred to as GIS) was updated. The aim is to implement a single GIS for the electricity and gas sectors which will allow the DSO to perform the equipment maintenance more rapidly, to plan the necessary investments and network maintenance works, plan the connection of new customers faster and manage electricity losses more efficiently.

AB “Energijos skirstymo operatorius” plans to install smart electricity metering devices for electricity consumers. According to the investment plan coordinated with NERC on 19 September 2019, smart metering devices will be installed in two stages – until 2023 and until 2037. The implementation will begin from energy-intensive consumers and commercial consumers (until the end of 2023, approximately 1.2 million smart meters will be installed) and then for other consumers. The meters installed during the first stage will account for about 90% of the distributed electricity. The anticipated benefits of smart metering devices are as follow:

1. More efficient network management – minimised opportunities for illegal consumption/theft, more accurate investment in the network, optimised costs of meter maintenance and readings as well as other costs currently incurred by the DSO.
2. The opportunity for users to save and to decrease the consumption of energy – as the DSO pilot project and international experience in other countries demonstrated, a significant reduction in energy consumption has been observed with the implementation of smart metering devices – customers themselves have started to consume less by carefully monitoring their consumption. During the DSO pilot project customers on average consumed up to 6% less electricity.
3. Enabling competition – smart metering devices will have technical feasibilities to account for energy according to the individual plan chosen by the customer; therefore, independent suppliers will be able to compete for the customers better – to compete on services, their quality, prices or other individual solutions.

- Network tariffs

- Article 59(1)(o) of Directive (EU) 2019/944: Evolution of network tariffs

The NERC, in accordance with the provisions of the Law on Energy and the LE, approves the methodologies for the calculation of price caps for the services of electricity transmission, distribution, sets the price caps for state-regulated services and electricity, and assesses the prices and tariffs submitted by service providers. It also approves the fees for the connection of the electrical equipment of consumers and producers to electricity networks, the methodology for fees' determination, which also lays down the terms and conditions of the calculation of said fees, in accordance with the general requirements for the setting of fees specified in the LE.

At the end of 2015, the Methodology for the Setting of Price Caps for Electricity Transmission, Distribution and Public Supply Services and the Public Supply (hereinafter referred to as "Price methodology"), which implements the Long-Run Average Incremental Cost (hereinafter referred to as "the LRAIC") model that aims at improving the efficiency of the operation of electricity networks suited to the demand, was approved. In accordance with the new model, the price caps for electricity transmission and distribution services for the regulatory period of 5 years (2016-2020) were set.

The year 2020 was the fifth 2016-2020 regulatory period for transmission and distribution (of the main DSO) services. In 2020, the NERC decided to extend the regulatory period for transmission and distribution services for another year. In view of the fact that the LRAIC model estimated the costs of the TSO and the main DSO for only five years, the NERC amended the Price methodology, regulating how the values of fixed assets that have been optimized or attributed to the optimized using the LRAIC model, will be calculated (adjusted) during the extended regulatory period. In addition to this amendment, the following modifications have been made to the methodology:

- the possibility to adjust operating costs (OPEX) has been established in cases where the decision taken by the company will increase these costs, but other cost lines would be reduced by no less values.
- It has been established that in the new regulatory period the assessment of return on investment will be performed more often, i.e., in the second and fourth years of the regulatory period and at the end of the regulatory period. However, in order to keep the fluctuation of the allowable income level (and the prices of provided services, respectively) of the regulated activities of the operators as even as possible, a possibility is provided, by a reasoned request of the TSO and the main DSO, to assess the excess size of return of investment corresponding to the forecast criterion of the reasonableness of the Enterprise in another than given year and to reduce the allowable income level of the regulated activity by a determined size (or part of it).

In 2020, the Price methodology was developed by preparing and discussing with market participants the modifications in the Price methodology relating to the promotion of energy innovation and clean energy as well as to the evaluation of projects of public interest. In 2020, the recast Methodology on Rate of Return on Investments was adopted, which harmonised the NERC principles for setting the return on investment with the best practices of other CEER countries.

In 2021, it is planned to set a price cap for electricity transmission and distribution services for the next 5-year regulatory period. In cooperation with the winning service provider UAB "PricewaterhouseCoopers", a project to update the LRAIC model was launched. The updated LRAIC model will be used for the said setting of a price cap for electricity transmission and

distribution services for the next 5-year regulatory period. In 2020, the recast Description of the Procedure for the Assessment and Coordination of Investments of Energy Enterprises was started to be prepared.

The NERC assesses the costs of repairs, technical maintenance and operation, staff, administrative costs, and other costs of electricity TSO and the main DSO (AB "Litgrid" and AB "Energijos skirstymo operatorius"), small distribution network operators (AB "Achema", AB "Akmenės cementas", AB "Lifosa", and UAB "Dainavos elektra") and operating public supplier (UAB "Ignitis") as well as the electricity producer AB "Ignitis gamyba" with a significant influence in the electricity reserve power market, in accordance with the submitted quarterly reports. This makes it possible for the NERC to be constantly informed of the costs incurred by the regulated electricity transmission and distribution operators and to provide consultations on the issues of allocation of the incurred costs to regulated activities within the shortest possible period of time.

As of 2016, when setting the prices for electricity transmission services and electricity distribution (the main DSO), the NERC uses the LRAIC model, the purpose of which is to ensure the funding of the operator regarding necessary investments aimed at upgrading and optimising the depreciated elements of the network. The allowable income calculated in each following year shall be adjusted in accordance with the Methodology for the Setting of Prices of Electricity Transmission, Distribution and Public Supply Services and of Their Public Price Caps approved by Resolution of the NERC No O3-3 of 15 January 2015.

In 2020, when implementing the LRAIC model, transmission and distribution price caps were calculated in accordance with the approved Methodology for the Setting of Prices of Electricity Transmission, Distribution and Public Supply Services and Their Public Price Caps (see Table 1).

In 2021, the transmission service price cap of the TSO AB "Litgrid" amounts to 0.721 c/kWh, which is 0.092 c/kWh or 11.4% lower than the transmission service price cap established for the undertaking in 2020 (0.814 c/kWh). The change in the transmission service price cap (a decrease of 11.4%) was mainly due to:

- In 2018–2019, the received return on investment was higher than established by the NERC; therefore, the allowable return of investment was reduced by EUR 10 million (in 2020, windfall profit of the return on investment was not assessed);
- the costs of electricity purchases to cover the costs for own needs and technological equipment decreased by approximately EUR 3.1 million compared to 2020 (in 2020, it amounted to EUR 21.9 million).

The transmission price within the average undifferentiated electricity price amounts to about 6.3%.

The price cap for distribution services at a medium voltage of AB "Energijos skirstymo operatorius" for 2021 is 1.167 (0.091 c/kWh or 8.5% higher than in 2020), in low-voltage networks – 2.171 c/kWh (0.079 c/kWh or 3.8% higher than in 2019). The change in the price caps was mainly due to the lower forecast amount of electricity to be distributed and the fact that, in 2021, the return on investment adjustment, established in 2016-2017 by the NERC, reducing the allowable income of the undertaking was eliminated.

***Table 1.*** *Price caps for the services of electricity transmission and distribution in 2015-2021 (c/kWh)*

| Name of a regulated service | Provider of a regulated service | Price cap for a regulated service (c/kWh) | | | | | Price cap for a regulated service in 2021 (c/kWh) | Change compared to 2020, % |
|---|---|---|---|---|---|---|---|---|
| | | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| Electricity transmission | AB "Litgrid" | 0.691 | 0.672 | 0.619 | 0.658 | 0.814 | 0.721 | -11.4 |
| Electricity distribution in medium-voltage networks | AB "Energijos skirstymo operatorius" | 1.000 | 0.830 | 0.798 | 0.862 | 1.076 | 1.167 | 8.5 |
| Electricity distribution in low-voltage networks | AB "Energijos skirstymo operatorius" | 1.766 | 1.655 | 1.716 | 1.871 | 2.092 | 2.171 | 3.8 |

*Source: NERC.*

In 2020, the TSO AB "Litgrid" submitted information to the NERC that, in 2021, it plans to order a service ensuring the secondary emergency power reserve of 390 MW/h on average; due to the change of the Standard Terms and Conditions for the Balancing Service Contract, auctions will be held for the provision of these services, in which the Kruonis Hydro Accumulation Power Plant will also participate. The service of the tertiary active power reserve will be ordered in the volume of 527 MW/h from the winner of the auction for the tertiary active power reserve service – AB "Ignitis gamyba" and AB "ORLEN Lietuva". The service will be provided with the help of Unit 8 of the Lithuanian Power Plant (in the volume of 260 MW) and Unit 7 of the Lithuanian Power Plant managed by AB "Ignitis gamyba".

It should be noted that, in 2020, the NERC amended the Methodology for the Pricing of Electricity, Reserve Capacity and Services Ensuring the Isolated Operation of the Electricity System, which provided for the following key changes:

- *in view of the fact that the entity providing a service ensuring the secondary emergency power reserve is fully covered for the fixed costs of ensuring the secondary emergency power reserve and that the entity is left with half of the profits from the sale of electricity, generated by the transmission system operator (TSO) after the activation of the secondary emergency power reserve by setting the price cap for the service ensuring the secondary emergency power reserve or the upper-income limit, half of the return on investment is planned to be included in the costs of the secondary emergency power reserve;*
- *as the forecast and the actual volume of regulated service (product) may differ, it is estimated to assess the difference in the price of regulated service (product) between the level of imbalance return on investment included in the price cap of the regulated service (product) of the previous reporting period and the share of imbalance return on investment actually reimbursed or paid by the TSO to the person providing the regulated service;*
- *in the case of regulated services (products) that are being auctioned, the level of imbalance return on investment attributed to the regulated service (product) during the reporting period shall not be assessed if the person providing the regulated service (product) submitted a bid lower than the price cap of the regulated service (product) set by the NERC.*

In accordance with the amended Methodology for the Pricing of Electricity, Reserve Capacity and Services Ensuring the Isolated Operation of the Electricity System, the NERC set the price caps for the secondary emergency active power reserve, tertiary active power reserve, prevention and

liquidation of accidents, malfunctions, and the service of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system.

Taking into account that AB “Ignitis gamyba” has significant influence in the power reserve market, in 2020, the 2021 price caps for the services provided by this undertaking were set: these included the price caps for the secondary emergency active power reserve, tertiary active power reserve, services of the prevention and liquidation of accidents, malfunctions.

Also, taking into account the Rules for Market Research, the Results of the Electricity Reserve Power Service Market Research (approved by Resolution of the NERC No O3E-41 of 8 February 2019), it was regulated that, in the case wherein, prior to the beginning of the auction for the service of the tertiary active power reserve, the electricity TSO announces that additional capacities of the electricity producers capable of providing the service of isolated operation will be ordered, and the prices of the service of isolated operation would not be regulated in accordance with the procedure established in relevant legislation or, in accordance with the procedure established in relevant legislation, the prices of the service of isolated operation would be based on the full coverage of the costs of the service of isolated operation, and the capacities of all producers capable of providing the services of the tertiary active power reserve and isolated operation are required for the provision of said services, the entities AB “ORLEN Lietuva”, AB “Panevėžio energija” and UAB “Kauno termofikacijos elektrinė”, due to the lack of efficient competition, have the opportunity to set unfounded (disproportionately high) prices in the market of the tertiary active power reserve service, given that the entities AB “ORLEN Lietuva”, AB “Panevėžio energija” and UAB “Kauno termofikacijos elektrinė” are considered to be persons of significant influence in the tertiary active power reserve service, the price caps for the tertiary active power reserve service were set for said undertakings for 2021.

In accordance with the LE, the prices of producers providing system services of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system are not regulated, except for cases when:

1) the TSO receives an offer to provide the services of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system from one producer only or from several producers who are connected persons, or
2) the electricity generation capacities of all producers capable of providing the tertiary active capacity reserve and the services of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system are required to ensure the operation of the electricity system, and
3) when the TSO informs the producer and the NERC that the producer must provide the services of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system with the help of the electricity generation facility specified by the TSO.

In view of this, in 2020, the NERC established the 2021 price caps for the service of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system for AB “Ignitis gamyba”, UAB “Kauno termofikacijos elektrinė”, AB “Panevėžio energija”, AB “ORLEN Lietuva”, and AB “Achema”.

Taking into account the price caps for the services ensuring reserve power, the demand of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system, as well as the amount of services forecast by TSO for 2021, in 2021, the

price of system services was set at 0.762 c/kWh (said price includes the costs of the purchase of the services ensuring primary, secondary, tertiary active power reserve, the costs of the provision of the services of reactive power and voltage management, as well as of prevention and liquidation of accidents, malfunctions, including the demand of the service of isolated operation of the electricity system and/or prevention or liquidation of major accidents in the electricity system).

The NERC determines the need for services of public interest (SPI) funds, SPI prices, and distribution to SPI providers. In 2020, almost all SPI funds were used to support and promote local production (including balancing and centralised RES trade) from renewable energy sources (the estimated fund – EUR 120.851 million, actually paid – EUR 132.225 million). In addition, a major part of SPI funds was planned to be repaid in accordance with the provisions of the Law on Electricity that entered into force on 1 January 2019, i.e., consumers meeting the requirements set out in Article $741^1$(3) of the Law on Electricity are entitled to recover 85% of the share of the price of the services provided in the public interest, which is established by the NERC and related to the generation of electricity using renewable energy sources, for the amount of electricity consumed by the consumer in excess of 1 GWh during the previous calendar year (the estimated sum to be repaid – EUR 15.545 million, actually repaid – EUR 11.456 million). The total SPI budget for 2020 amounted to EUR 136.704 million, actually paid – EUR 145.077 million (estimated sum in 2019 – EUR 108.968 million, actually paid – EUR 98.557 million, the budget for 2021 amounts to EUR 117.078 EUR). The main reason for the difference between the paid and planned SPI funds is the difference between the forecast average electricity market price and the actual price.

In order to reduce the difference between the need for SPI funds and the funds actually collected, the SPI price was adjusted in the second half of 2020.

The SPI price for all persons set by the NERC in 2020 amounted to: in the first half – 0.683 c/kWh excluding VAT, in the second half – 1.215 c/kWh (in 2019 – 0.903 c/kWh, set for 2021 – 1.124 c/kWh).

Not later than by 30 November of the current calendar year, the NERC calculates, approves, and publishes on its website the fees for the connection of consumer equipment and the maximum design prices for the relevant year or, by a reasoned decision based on changes in the law, extends the approved and valid prices up to a maximum of 3 months. By Resolution No O3E-1260 of 30 November 2020, the NERC extended the application of the fees for the connection to the distribution networks of AB “Energijos skirstymo operatorius” until 31 January 2021 and by Resolution No O3E-1575 approved new fees for the connection to the distribution networks of AB “Energijos skirstymo operatorius” (valid from 1 February 2021). The fee for design works is distinguished separately: the consumer can choose whether the design of connection works will be prepared by the operator, who will be paid for the prepared design accordingly (design fee), or whether the design will be prepared by the consumer, who would receive compensation for the design prepared at this own expense (maximum countervailable design price). Therefore, when calculating the fee for the installation of 1 kW of power, the costs of design preparation will not be included. This will allow the consumers to clearly see the structure of the connection price.

The fees for the connection of electrical equipment to electricity networks (100%) calculated and approved by the NERC, which are applicable from 1 February 2021, are provided in the tables below for the following consumer groups:

- *Group I – consumers whose permissible power of connected electrical equipment or increased permissible power of electrical equipment (in such cases wherein the electrical equipment is connected to the electricity network under general (uniform) connection conditions, a single design and a single contract – the total authorised power) is less than 50 kW, and whose equipment does not require the installation, replacement or reconstruction of the operator's electricity facilities (0.4 kV and/or 10 kV cable and/or overhead lines, transformer substations, distribution stations and/or transformers, cable distribution cabinets) in order to be connected, and it is not necessary to prepare the design for the connection of the consumer's electrical equipment to the electricity networks, or it is necessary to prepare such design, but, in accordance with the Description of Procedure for Connecting the Electrical Equipment of Electricity Producers and Consumers to Electricity Networks, it is prepared and coordinated by the consumers; Consumers whose increase in the allowable capacity of electrical equipment meets the conditions of Consumer Group I shall be classified as Consumer Group II if such consumers have acquired the allowable capacity of electrical equipment using tariffs of Consumer Group II or III and wish to increase it after less than 3 years after the provision of this allowable capacity (conclusion of an electricity purchase-sale and/or transmission contract);*
- *Group II – consumers whose permissible power of connected electrical equipment or increased permissible power of electrical equipment is less than 100 kW (excluding the consumers of Group I);*
- *Group III – consumers whose permissible power of connected electrical equipment or increased permissible power of electrical equipment ranges between 100 and 500 kW (inclusive).*

***Table 2.*** *Fees for the construction of 1 m of electricity network and the installation or enhancement of 1 kW of permissible power (100%*), design preparation fee (when the design is prepared by the operator) and the maximum countervailable design price, EUR excluding VAT*

| Consumer group | Fee for the installation or enhancement of 1 kW of permissible electrical equipment power (EUR excluding VAT) | | | Fee for the construction of 1 m of electricity network (EUR excluding VAT) | | | Design preparation fee, EUR (VAT excluded) | | | Maximum countervailable design price, EUR (excluding VAT) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* | Valid from 01/04/2019 | Valid from 01/02/2021 | *Change, %* | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* |
| **I** | 17.19 | 15.75 | -8.35 | - | - | - | - | - | - | - | - | - |
| **II** | 135.69 | 96.23 | -29.08 | 34.93 | 34.28 | -1.84 | 696.48 | 628.61 | *-9.75* | 696.48 | 628.61 | *-9.75* |
| **III** | 85.34 | 56.12 | -34.25 | 34.93 | 37.43 | -4.94 | 1,013.29 | 835.05 | *-17.59* | 1,013.29 | 835.05 | *-17.59* |
| **Consumers whose connected or increased power exceeds 500 kW** | paid on the basis of the actual price of works | | - | paid on the basis of the actual price of works | | | paid on the basis of the actual price of works | | | 1,060.00 | 1,432.72 | *+35.16* |
| **Consumers whose connected or increased power is no less than 1 MW** | paid on the basis of the actual price of works | | - | paid on the basis of the actual price of works | | | paid on the basis of the actual price of works | | | 2,801.24 | 4,961.93 *** | *+77.13* |

** An equivalent 20% design preparation fee and 80% countervailable design price for vulnerable consumers, for other consumers** 50% design preparation fee and 50% countervailable design price.*

*** Other consumers (excluding: (1) vulnerable consumers, (2) consumers, connecting their electrical equipment to the distribution network for the first time which has a permissible power of at least 1 MW or the enhanced permissible power is more than 1 MW, who undertake to distribution network operator not to reduce the permissible power for 10 years from the moment of connecting the electrical equipment to the distribution network as well as (3) consumers, whose the permissible power or the enhanced permissible power of the electrical equipment is more than 250 kW and producers whose electrical equipment to be connected to electricity networks requires the installation of transformer stations, transformer substations, distribution points, and, in specified cases, constructors (customers) who wish to install these electricity networks and organise their installation in accordance with the procedure established by the Ministry of Energy and agreed with the distribution network operator.*

***Depending on whether the consumer signs the commitment contract not to reduce the permissible power for 10 years (if signed, 90% compensation, corresponding to EUR 4,465.74, shall be applied).*

*Source: NERC.*

For Consumer Groups I, II, and III, the fee for the installation or enhancement of 1 kW of permissible power decreased: for Group I – by 8.35%, for Group II – by 29.08%, for Group III – by 34.25%.

The connection fee for the constructed 1 m of electricity network was not calculated for Group I, as the connection of the consumers attributable to this group does not require the construction of an electricity network. The connection fee for the constructed 1 m of electricity network for Groups II and III decreased: for Group II – by 1.84%, for Group III – by 4.94%. The decrease in the fee for the construction of 1 m of electricity network was due to the fact that, during Q4 2019 – Q1-Q3 2020, a smaller number of electricity network meters was constructed and lower costs were incurred due to new contracts which result in lower prices.

For Consumer Groups II and III, the design preparation fee and the maximum countervailable design price decreased: for Group II – by 9.75%, for Group III – by 17.59%. The decrease in design preparation fee and the maximum countervailable design price was due to a higher number of lower value projects prepared during the reporting period. For consumers whose newly connected or enhanced permissible power is above 500 kW and for consumers whose newly connected or enhanced permissible power does not exceed 1 MW, the maximum countervailable design price increased by 35.16% and 77.13%, respectively. The increase of the maximum countervailable design price was due to the fact that more projects with a higher preparation cost and high-value objects, whose project preparation price has a statistically significant impact on the total average design price in the said groups, were prepared.

Since 1 February 2021, the percentages of connection fees have changed. From 1 February 2021, household consumers are attributed to the category of other consumers and pay 50% for the connection. The installation or enhancement of 1 kW of permissible power, the construction of a 1 m electricity network, basic connection fees of project preparation, and the maximum countervailable design price corresponds to 50% of the basic design price. Until 1 February 2021, the connection fee for household consumers was equal to 20% of the said prices and the fee for other consumers was equal to 40% of the said prices.

After 1 February 2021, a 20% connection fee remained valid for socially vulnerable consumers.

***Table 3.*** *Fees for the connection of the equipment of electricity consumers, design preparation fee (when the design is prepared by the operator) and the maximum countervailable design cost (when the design is prepared by the consumer) for socially vulnerable* consumers*

| Consumer group | Fee for the installation or enhancement of 1 kW of permissible electrical equipment power (EUR excluding VAT) | Fee for the construction of 1 m of electricity network (EUR excluding VAT) | Design preparation fee, EUR (VAT excluded) | Maximum countervailable design price, EUR (excluding VAT) |
|---|---|---|---|---|

| | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* | Valid from 01/01/2020 | Valid from 01/02/2021 | *Change, %* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **I** | 3.44 | 3.15 | *-8.43* | - | - | - | - | - | - | - | - | - |
| **II** | 27.14 | 19.25 | *-29.07* | 6.99 | 6.86 | *-1.86* | 139.30 | 125.72 | *-9.75* | 557.19 | 502.88 | *-9.74* |
| **III** | 17.07 | 11.22 | *-34.27* | 7.88 | 7.49 | *-4.95* | 202.66 | 167.01 | *-17.59* | 810.63 | 668.04 | *-17.59* |
| **Consumers above 500 kW** | - | | - | - | | - | - | | - | 848.0 | 1146.18 | *+35.16* |

*Source*: *NERC.*

In accordance with the provisions of the LE, when connecting the electrical equipment of socially vulnerable consumers to the network, 20% of the above-calculated fees are paid, when connecting non-household consumers, 40% of the above-calculated fees are paid, when connecting consumers with a permissible power of more than 1 MW (and who undertake not to reduce this power for 10 years), 10% of the actual connection costs are paid. In accordance with the Methodology for the Setting of Fees for the Connection of Electrical Equipment to Electricity Networks, the maximum countervailable design price for socially vulnerable consumers corresponds to 80% of the actual costs incurred by the distribution system operator in the previous calendar year when preparing one design unit.

**Methodology for the Setting of Fees for the Connection of Electrical Equipment to Electricity Networks**

The Methodology for the Setting of Fees for the Connection of Electrical Equipment to Electricity Networks confirms the possibility to recalculate the connection fees in the current year.

A reasoned decision based on the amendment of the legal provisions governing the setting of connection fees and/or maximum design prices for consumer equipment may extend the validity of approved and valid connection fees and/or maximum design prices for consumer equipment for a maximum period of 3 months.

It is provided to which consumer group the persons, whose electrical equipment to be connected or the permissible power of the electrical equipment to be enhanced does not require the installation, modification or reconstruction of the operator's energy facilities, belong to.

It has been specified that the consumer is considered to be the potential consumer when he applies not only for the connection of electrical equipment but also for the enhancement of the permissible power of the equipment.

New criteria have been regulated based on which, when calculating the connection fee for electrical equipment, the geometric distance of the constructed line, the sum of geometric distances of reconstructed lines, and when these distances are applied together shall be used.

The percentage of the costs incurred by the network operator, when connecting the equipment of a consumer, a producer, a prosumer or a person seeking to become a prosumer, to be paid by the consumers wishing to connect the electrical equipment or enhance the permissible power, was updated.

The cost of connection of consumer equipment also includes the cost of capitalised wages, not included in the prices of distribution services, of the operator's employees who are directly related to the connection of electrical equipment.

It was regulated in detail what information the distribution network operator must provide in the contract for the provision of the electricity network connection service.

In 2020, *the Methodology on Rate of Return on Investments* was amended where the following main principles for determining the rate of return on investment were established:

- ***The promotion of the cost of debt capital:*** *one of the components in calculating the cost of debt capital for companies starting a new regulatory period will be whether the company borrows cheaper than the average interest rate on loans announced by the Bank of Lithuania. If the borrowing is cheaper, the cost of debt capital will be increased by the share equal to the difference between the weighted average cost of debt capital, calculated as the weighted average of the relevant sector where the company operates, and the company's actual cost of debt capital. During the current regulatory period, two promotion caps will be applied: 1) the actual weighted average of the sector's debt capital cost and 2) the upper cap of debt capital cost according to the data published by the Bank of Lithuania when assessing the cost of debt capital of enterprises. NERC can also allocate up to a 1% premium to the cost of debt capital if the enterprise justifies that it meets one of the three conditions provided in Paragraph 6.1. of the Methodology on Rate of Return on Investments.*
- ***The structure of debt and equity capital:*** *in all cases, enterprises will be subject to an optimal 50% debt/50% equity capital structure.*
- ***Equity risk premium:*** *taking into account the practices and long-term forecasts of other countries, a fixed 5% equity risk premium is applied to regulated sectors.*
- ***Relative risk dimension:*** *when calculating the relative risk dimension "beta", the arithmetic mean "beta" of the non-levered equity of the relevant activity is used. The databases of the Council of European Energy Regulators or A. Damodoran are used as a data source for each regulated sector.*
- ***Promotion of investment contributing to climate change mitigation goals****: NERC will be able to apply an additional 1% premium of return on investment for investments contributing to the implementation of Lithuania's strategic climate change mitigation and environmental protection goals.*
- ***Application of Incentive Measures in Accordance with the Methodology for Additional Regulatory Incentives and Risk Assessment of Investment Projects****: NERC may also apply other regulatory measures related to the rate of return on investment to enterprises in the electricity and natural gas sectors in accordance with the Methodology for Additional Regulatory Incentives and Risk Assessment of Investment Projects.*

- Security and reliability regulation

- Article 59(1)(m) of Directive (EU) 2019/944: Network security and reliability rules

It is indicated in the Law on Electricity that the NERC establishes the requirements for the reliability of electricity transport and the quality of the services, as well as controls the ways in which said requirements are being implemented. According to the Requirements for the Reliability of Electricity Transport and the Quality of the Services of 2020, by 15 April of the calendar year of a new regulatory period, the requirements for the reliability of electricity

transport and the quality of the services are set for the new regulatory period. For the period of 2016-2020, the indicators have been set based on the average of the actual indicators of transport reliability for the period of 2011-2015.

The indicators of the reliability of electricity transport and the quality of the services, as well as their minimum levels, are calculated separately for the electricity transmission system and the distribution network (see Figures below). The lower the value of the indicator, the higher the level of the reliability of electricity transport. In the calculations, only those cases are assessed wherein the interruption of electricity transport has occurred due to reasons falling under the responsibility of the system operator or due to unidentified reasons. Interruptions that have occurred due to *force majeure* for reasons related to external effects have no impact on reliability indicators. The reliability of electricity transport via transmission networks shall be assessed on the basis of two indicators:

- *the amount of energy not supplied via the transmission network (hereinafter referred to as "ENS");*
- *average energy transmission interruption time (hereinafter referred to as "AIT").*

*Fig. 4. ENS and the minimum level of this indicator, MWh*

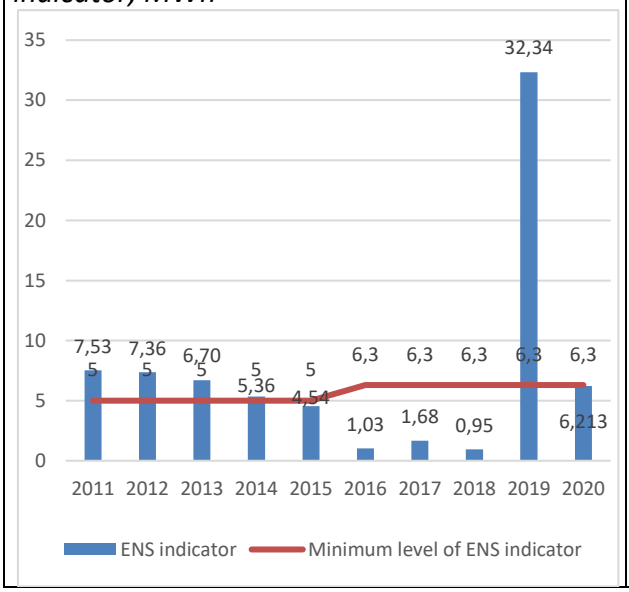
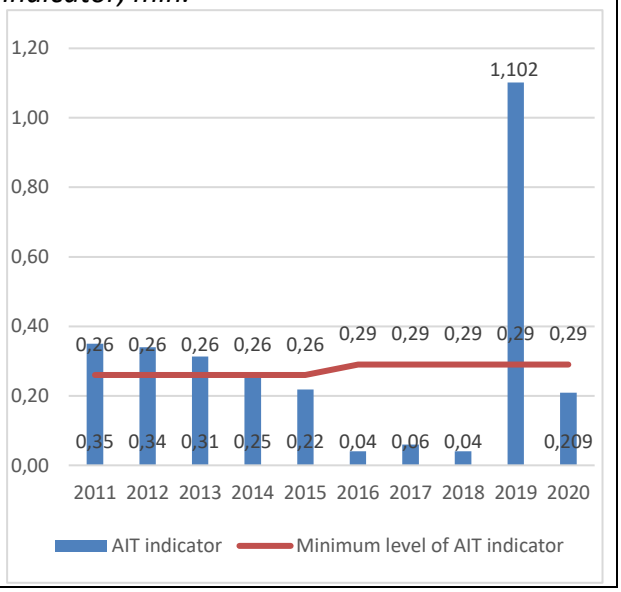



*Fig. 5. AIT and the minimum level of this indicator, min.*




*Source: NERC.*

The reliability indicators established by the NERC in 2020 oblige the TSO to ensure that the technical quality of the services is better than or equal to the minimum requirements, i.e., the average energy interruption time for the consumers should not exceed 0.29 minutes, the amount of energy not supplied should not exceed 6.3 MWh. In 2020, the values of both ENS and AIT indicators did not exceed the established minimum levels.

The reliability of electricity transport via distribution networks is assessed on the basis of two indicators:

- *System average interruption duration index (hereinafter referred to as "SAIDI");*
- *System average interruption frequency index (hereinafter referred to as "SAIFI").*

The reliability indicators established by the NERC in 2020 oblige the DSO to ensure that the technical quality of the services is better than or equal to the minimum requirements, i.e., the average electricity interruption duration (SAIDI) for the consumers should not exceed 52.12

minutes per year, the average number of interruptions (SAIFI) due to the fault of the DSO per consumer should not exceed 0.72 times.

*Fig. 6. SAIDI and the minimum level of this indicator, min. per consumer*

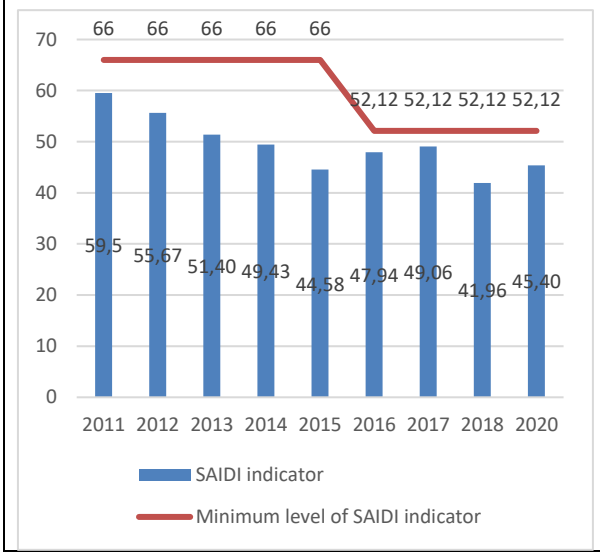
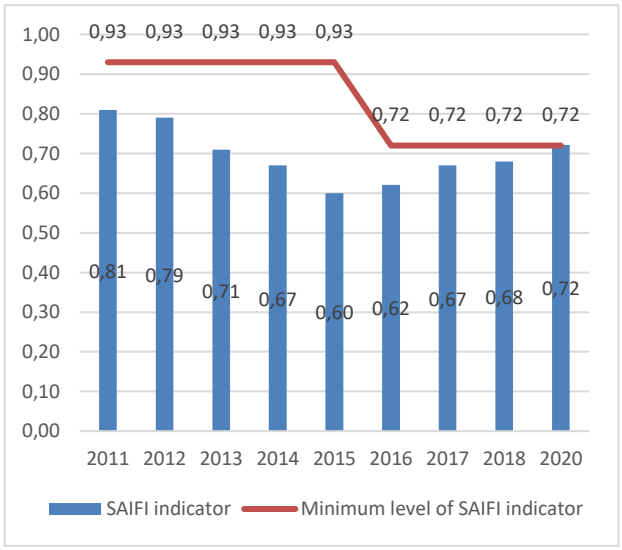



*Fig. 7. SAIFI and the minimum level of this indicator, times per consumer*




*Source: NERC.*

The indicators of transport reliability of 2019 established by the AB "Energijos skirstymo operatorius" are not submitted due to the determined cases during an unscheduled inspection in 2019 where interruptions were incorrectly classified by cause. In 2020, transport reliability based on the SAIDI indicator was 45.4 and did not exceed the set maximum value; based on the SAIFI indicator it was 0.72, which is equal to the maximum SAIDI value. The values of the indicators for 2020 have been determined according to the distribution of interruptions by cause.

The requirements establish the indicators of the quality of the services of electricity transmission and distribution. The following indicators are established for the providers of distribution services:

- *the percentage of new customers connected on time (within 20 days after the payment of the connection fee);*
- *the percentage of electricity transport renewed on time (within 5 working days for household consumers and within 2 working days for other consumers) to consumers who have paid their debts;*
- *the percentage of consumers informed about scheduled interruption on time (10 calendar days in advance);*
- *the percentage of malfunctions resolved on time (within 5 working days) for the consumers;*
- *the percentage of electricity transport renewed on time (depending on the reliability category) after an unscheduled interruption for the consumers;*
- *the percentage of the complaints of consumers and network users processed on time (within 30 calendar days).*

Only one indicator of the quality of the services is established for the TSO, namely the percentage of complaints processed on time (within 30 calendar days).

When, in 2019, the NERC carried out an unscheduled inspection of AB "Energijos skirstymo operatorius", the purpose of which was to assess whether the undertaking complied with the

Requirements for the Reliability of Electricity Transport and the Quality of the Services from 1 January 2012 to 28 February 2018 and it was established that AB "Energijos skirstymo operatorius" falsely attributed supply interruptions by cause, it was decided to amend the Description of the Indicators of Reliability of Electricity Transport and the Quality of Services, providing that calculating specific indicators of reliability, the interruptions will not be classified by cause. However, there are exceptional cases where, in the event of an interruption in the transmission or distribution network, the PSO or DSO will be able to submit the interruptions for assessment to NERC in order to eliminate them from the common list of unscheduled transmission interruptions. The amendments will be applied during the new regulatory periods for the indicators of the reliability of transport and the quality of services.

**The Description of the Indicators of the Reliability of Electricity Transport and the Quality of Services**

The division of the indicators of the transport reliability according to the underlying causes, including force majeure, was withdrawn; therefore, the minimum level of indicators of quality applicable to network operator will be determined estimating all interruptions – the division of indicators according to the underlying causes does not affect the end-users and is only used for the internal analysis of the causes; thus, avoiding errors in recording malfunctions and assessing the quality of operators' services.

The principle of setting minimum transport reliability levels is to be changed: indicators will be set on the basis of the average of the actual indicators of transport reliability of the period of the last five years with additional assessment of the task of improvement of transport reliability levels, which is determined by assessing the impact of planned investments (network reconstructions and modernisation) on transport reliability during the regulation period – this will ensure the efficiency of planned investments, included in the tariff paid by consumers, and improve the quality of transport reliability.

A new indicator of the quality of operators' service has been introduced – the planned timely completion of interruption works (measured as a percentage of all scheduled works, the time and duration of which has been notified to the consumer).

A higher minimum quality level of provided services has been established – 95% (previously 90%) for all services provided by operators (previously this indicator was assessed only in terms of complaint handling time).

The possibility not to include cases, the scope and nature of which may be considered exceptional, in the calculation of quality indicators was established for the operators (subject to a separate decision by NERC).

In order to reduce the administrative burden, the periodicity of the reports to be submitted by the operators has been changed – the reports will be submitted once a year (previously – once a quarter).

- Article 59(10) of Directive (EU) 2019/944: Congestion management

In accordance with Article 19(5) of the Electricity Regulation, the NERC prepares and publishes a report of congestion income for the year 2020 (hereinafter referred to as "the Statement"), which is also provided by ACER. The report is based on data provided by the TSO:

1. Pursuant to Article 19(5)(a) of the Electricity Regulation, information is provided on congestion income generated during the 12 months preceding 31 December of the previous calendar year, i.e., during the period of 01/01/2020-31/12/2020.

***Table 4.*** *Congestion income generated during the period of 01/01/2020–31/12/2020*

| Interconnection | Income generated, EUR |
|---|---|
| Lithuania – Latvia | 520,084 |
| Lithuania – Poland | 10,923,815 |
| Lithuania – Sweden | 20,937,036 |
| **In total:** | **32,380,934** |

*Source: NERC.*

2. In accordance with Article 19(5)(b) of the Electricity Regulation, information is provided on how congestion income has been used in accordance with Article 19(2) of the Electricity Regulation, including specific projects and the amount of income transferred to a separate line of the account. In the data, AB "Litgrid" indicated that the income was used in accordance with Article 19(2)(a) of the Electricity Regulation in order to ensure that the allocated capacity could actually be utilised, including compensation for non-compliance with the capacity guarantee, as well as in accordance with Item b in order to maintain or increase cross-zonal capacity by optimising the use of existing interconnections through coordinated corrective actions, where applicable, or in order to cover the costs of network investments, which are important in seeking to reduce interconnection congestion. Table 2 provides detailed information on the use of the generated income during the period of 01/01/2020-31/12/2020.

***Table 5.*** *Use of congestion income generated during the period of 01/01/2020-31/12/2020*

| | Used income, EUR |
|---|---|
| **Ensuring the utilisation of allocated capacity in accordance with Article 19(2)(a) of the Regulation** | **637,273** |
| **Network investments in accordance with Article 19(2)(b) of the Regulation:** | **8,005,346** |
| Expansion of 330 kV Bitėnai DP to 330/110/10 kV Bitėnai TS (Stage II) and the construction of the 110 kV electricity transmission line Pagėgiai-Bitėnai | 293,166 |
| Stage I of the expansion of the LitPol Link | 6,640,035 |
| Construction of 330 kV ETL Kruonis PSP–Bitėnai | 113,876 |
| Construction of HARMONY Link | 294,149 |
| Construction of 330 kV ETL Darbėnai–Bitėnai | 114,858 |
| Construction of a new 330 kV ETL Vilnius–Neris | 108,342 |
| Installation of new synchronous condensers in Lithuanian LPS | 425,310 |
| Construction of 330 kV switchyard "Mūša" | 15,611 |
| **Remaining income transferred to a separate internal account line** | **23,738,315** |
| **In total:** | **32,380,934** |

3. In accordance with Article 19(5)(c) of the Electricity Regulation, information on the amount used to calculate network tariffs must be provided.

Congestion income was not used when setting the transmission service price cap for 2021.

4. Under Article 19(5)(d) of the Electricity Regulation, information is provided on the verification of whether the amount referred to in Item c has been used following the Electricity Regulation and the methodology prepared in accordance with Article 19(3) and (4) of the Electricity Regulation. In Article 19(3) of the Electricity Regulation, it is established that if the priority objectives set out in Article 19(2) of the Electricity Regulation are duly met, income may be used as revenue, which must be taken into account by the regulatory authorities when approving the methodology for the calculation of network tariffs and/or the setting of network tariffs. The remaining income is transferred to a separate internal account line and kept there until it can be spent for the purposes set out in Article 19(2) of the Electricity Regulation. In Article 19(4) of the Electricity Regulation, it is also established that, under Article 19(2)(a) or (b) of the Electricity Regulation, income shall be used in accordance with the methodology that has been proposed by the operators of the transmission system in consultation with the regulatory authorities and stakeholders, and that has been approved by ACER. At the very least, the methodology shall specify the conditions under which income may be used for the purposes specified in Article 19(2) of the Electricity Regulation, the conditions under which said income may be held in a separate internal account line in order to be used for such purposes in the future, and for how long said income may be held in such separate account line.

Congestion income has not been used in accordance with Article 19(5)(c) of the Electricity Regulation, therefore, under Article 19(5)(d) of the Electricity Regulation, no further assessment is being carried out.

5. The balance of accumulated congestion income (31/12/2020) - EUR 37,083,229 - was added to the account of the UAB "EPSO-G" group (Table 3).

***Table 6.*** *The use of accumulated congestion income*

| | Used income, EUR |
|---|---|
| Accumulated income at the beginning of the period | 39,134,965 |
| Accumulated income at the end of the period | 62,519,293 |
| Accumulated balance at the end of the period* | 61,985,098 |
| **Accumulated congestion funds added to the account of UAB "EPSO-G" group – temporarily used to finance the activities of the Undertaking** | **37,083,229** |

* The difference between the balance and accumulated income is due to a mismatch between income (accounts) and revenue/expenses.

In 2019, the NERC received a request from the Undertaking to connect the account with the accumulated congestion funds to the account of the UAB "EPSO-G" group, thus avoiding the risk of inefficient intergroup use of the money and freezing of said money until 2023, until the funds will be used for the funding of the project of synchronisation with continental Europe. Having assessed the request of the Undertaking, the NERC agreed to the connection of the account with the accumulated congestion funds to the account of UAB "EPSO-G" group if AB "Litgrid" undertakes to ensure that the income generated from the congestion is used for the purposes set out in the guidelines of the then applicable Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 "On Conditions for Access to the Network for Cross-border Exchanges in Electricity and Repealing Regulation (EC) No 1228/2003" regarding the management and allocation of transmission capacity of interconnections between existing national systems. Also, following the principle of transparency, AB "Litgrid" should provide information on the accumulated income and its use to the NERC on an annual basis.

- Monitoring of the balance of demand and supply

- Article 59(1)(v) of Directive (EU) 2019/944: Investments in generation and storage capacities related to the security of supply

In accordance with the provisions of the LE, the NERC monitors and evaluates the implementation of the network development plan. Each year, AB "Litgrid" submits the 10-year plans of electricity network investments, which assess the scenarios for the development of foreseen new sources of generation.

In the plan submitted in 2020, it is predicted that by 2029, the installed capacity of electricity-producing sources will amount to 5,079 MW. About 66.5 % of this number would be made up of power plants using renewable energy sources (hereinafter referred to as "RES").

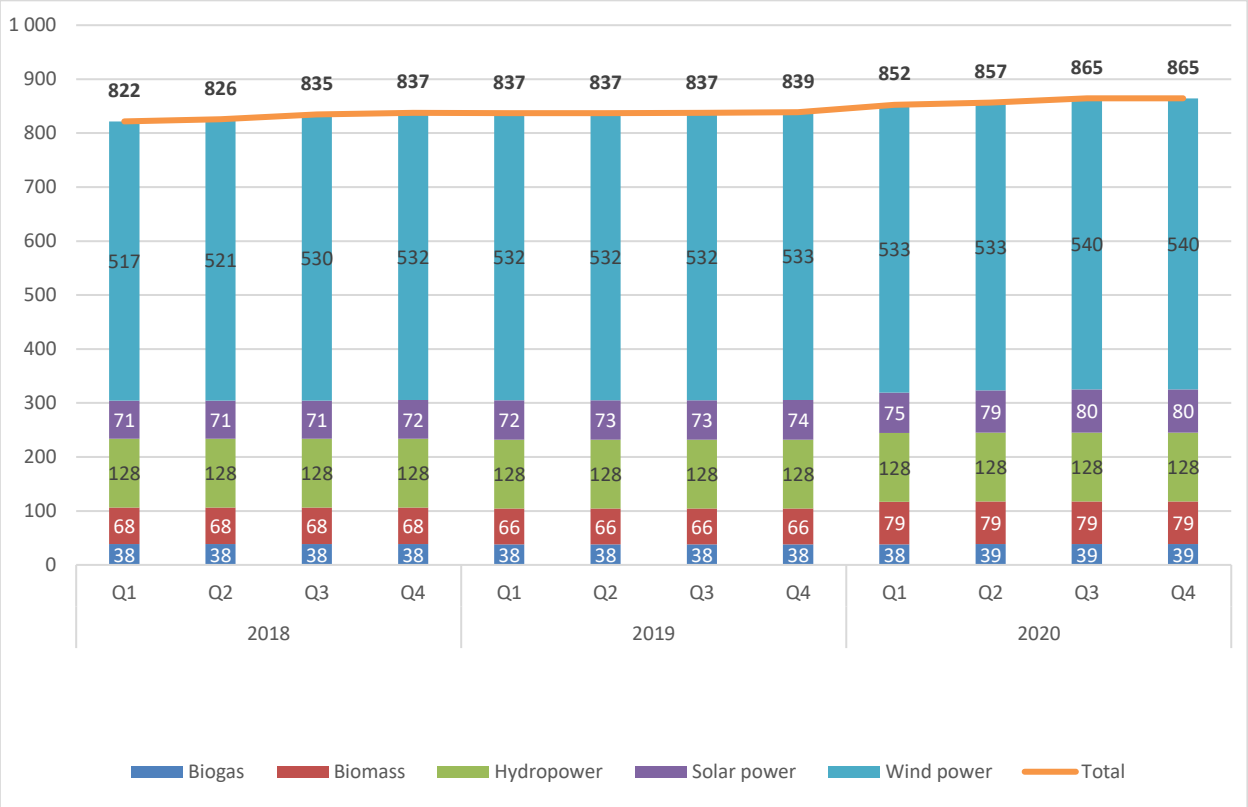
It should be noted that the LPS has sufficiently strong cross-system interconnections with the neighbouring countries and the new cross-system interconnections with Poland and Sweden ("LitPol Link" and "NordBalt") contribute to the enhancement of the security of supply of the system. Under these conditions, it is in any case technically possible to cover the lack of generation capacity (if such arises) with the help of imported electricity.

The NERC performs the monitoring of the investments in generation capacity by issuing permits for the development of electricity generation capacity and the generation of electricity to persons in accordance with the provisions of the LE, with the exception of those persons whose generation equipment has an installed capacity exceeding 30 kW and the electricity generated in said equipment is used only for personal and household needs without supplying the electricity to electricity networks, as well as persons intending to generate electricity in equipment having an installed capacity not exceeding 30 kW and producing electricity from renewable energy sources.

In 2020, as in 2019, the largest market share in the overall market structure of the installed capacity of renewable sources was held by wind power plants – 62.4%, hydroelectric power plants – 14.8%, solar power plants[4] – 9.2%, biomass power plants – 9.1 %, and biogas power plants – 4.5%.

[4] Excluding the solar power plants managed by producing consumers.

*Fig. 8. RES structure according to installed power in 2018–2020, MW*

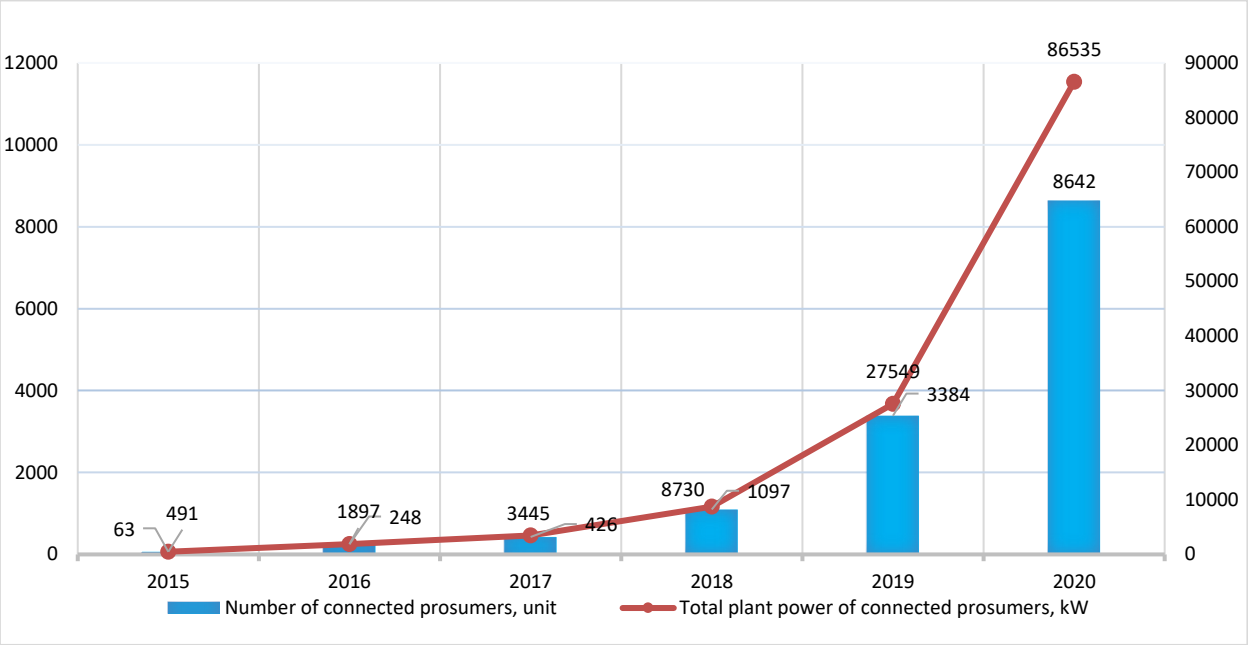



*Source*: *NERC.*

In 2020, the share of the installed capacity of the RES power plants (excluding prosumers) in the overall balance of installed power amounted to 23.2%.

In accordance with the provisions of the Law on Energy from Renewable Sources, the electricity network operator provides information to the NERC on a monthly basis on the connection conditions issued to prosumers and persons seeking to become prosumers and intending to construct or install power plants using renewable sources, for which, in accordance with the procedure established in the LE, a permit for the development of electricity generation capacity is not required in.

*Fig. 9. Number of prosumers connected to distribution networks and total plant power*




*Source*: *NERC.*

In 2020, compared to 2019, the number of prosumers producing electricity from RES increased by 2.6 times – from 3,384 to 8,642 – while the installed power increased from 27.549 MW at the end of 2019 to 86.535 MW at the end of 2020.

The growth in the number of prosumers producing electricity from RES is stimulated by greater possibilities to make use of financial support measures provided by the EU and more flexible conditions for the installation of a power plant: starting from October 2019, the power plants can be constructed, installed, and operated by other persons and they are transferred to the prosumers by the right of ownership or any other right. In addition, power plants may be geographically remote from the consumer object of the prosumers.

In the development plan for 2020-2029, prepared by the TSO AB "Litgrid", it is indicated that the contract on the pilot project "Installation of the Battery Energy Storage System in the LPS" was signed. According to the contract, by 31 December 2021, the 1 MW and 1 MWh battery energy storage system for testing the provisions of 11 different system services will have to be designed and installed at the Vilnius transformer substation. During the project, the possibilities of using battery storage systems in real operating conditions of Lithuanian electricity system will be tested, the areas of installation and use of high-capacity battery storage systems in Lithuania will be identified, and technical requirements for batteries providing different types of services will be determined.

In the investment plan for 2020-2029, prepared by the DSO AB "Energijos skirstymo operatorius" it is indicated that a pilot project on the use of storage systems for controlling voltage within the network and reducing the costs of network reconstruction is being carried out in 2020-2029.

The NERC will exercise the supervision of both TSO and DSO in order to ensure compliance with the provisions of the Electricity Directive (ED) on the management, development, and operation of storage facilities by the TSO and DSO. It should be noted that the NERC is actively involved in the transposition of the provisions of the said Directive into the national legislation.

**The Methodology for the Calculation of the Initial Electricity Demand**

The Methodology for the Calculation of the Initial Electricity Demand is designed to determine the initial demand for electricity for consumers and a variation of the demand. The Methodology provides that the calculated amount of initial electricity demand will be used to determine the number of services provided by the independent electricity aggregator.
Independent demand aggregators will provide information to AB "Litgrid" on the consumers for whom the independent demand aggregation service has been provided, i.e., on the coordination of the consumers' electricity demand or production in order to sell, buy, or place the unused or produced electricity (quantity or capacity) on the electricity or balancing markets.

***Operational network security***

Due to uncompetitive local production capacity, the majority of electricity was imported in 2020; however, in comparison with 2019, the local production significantly increased. In 2020, 42.95% of the total electricity consumed in the country was produced by power plants operating in Lithuania, which is 13 percentage points higher than that recorded in 2019 (29.95%). In 2020, electricity imports accounted for 86.3% of the total electricity demand in the country (the figure was 103.1% in 2019, 96.8% in 2018, and 89.6% in 2017). In 2020, the country generated 5.142 TWh of electricity, imported 11.261 TWh of electricity and exported 3.352 TWh. In 2020, the total electricity demand in the country was 13.051 TWh and the total electricity consumption was 11.973 TWh.

The amount of electricity that can be imported depends on the repairs carried out within the transmission network. In 2020, an average of 3.168 GWh could be imported to Lithuania every hour.

***Expected future demand and power anticipated for the coming 5 and 5–15 years***

In Lithuania, the maximum hourly electricity demand (net) in 2020 was 1,939 MWh, i.e., 4.58% lower than in 2019 (2,032 MWh), respectively in 2018 – 1,999 MWh, in 2017 – 1,896 MWh. In 2020, the maximum hourly demand for electricity within the distribution network amounted to 1,879 MWh, which was 8.42% higher than in 2019 (1,733 MWh), respectively in 2018 – 1,760 MW, in 2017 – 1,665 MWh.

The most important factors determining electricity consumption are changes in the country's economic level, which are best defined by the gross domestic product (hereinafter referred to as "GDP"). However, there are other factors that have a significant impact on the future electricity demand; thus, in the forecast of electricity demand, the following factors have been assessed:

- *GDP growth;*
- *the efficiency of electricity consumption;*
- *the number of electric vehicles and their electricity consumption;*
- *the number of heat pumps and their electricity consumption;*
- *distributed generation, which currently accounts for a very small share of the entire energy system. The development of distributed generation depends to a large extent on technological progress and competitiveness within the market, which, in view of the current prospects, will not lead to a significant change in the short term.*

It is projected that by 2029, the total electricity consumption in Lithuania will increase up to 14.7 TWh.

Over the course of 2020, AB "Energijos skirstymo operatorius" transferred 10.138 TWh (10.194 TWh in 2019) of electricity to its clients (including technological losses and own needs). The amount of electricity to be transferred in 2021-2023 is projected in accordance with the provisions of the Methodology for the Setting of Price Caps for Electricity Transmission, Distribution and Public Supply Services and the Public Supply approved by the NERC, i.e., it is planned that the electricity consumption will grow by a rate of change amounting to ½ of GDP. According to the projections of Lithuania's economic indicators of 29 March 2021 of the Ministry of Finance of the Republic of Lithuania[5], Lithuania's GDP growth projected for 2021-2023 was respectively 2.6%, 3.2%, and 3.2% (½ of GDP amounts to 1.3%, 1.6%, and 1.6% respectively).

In accordance with Article 44 of the LE, the guaranteed supply function is performed by the DSO for those consumers, whose equipment is connected to the electricity DSO system operator, and by the DSO servicing more than 100,000 consumers for those consumers whose equipment is connected to the electricity networks managed by the TSO. In 2020, the guaranteed supply of electricity of AB "Energijos skirstymo operatorius" amounted to 0.43 TWh (0.47 TWh in 2019, 0.51 TWh in 2018, 0.41 TWh in 2017). In accordance with the data of AB "Energijos skirstymo operatorius", a part of household consumers (over 97 thousand consumers consuming >5000 kWh/year, hereinafter referred to as "Stage I consumers"), to whom, after the beginning of the liberalisation process of the electricity retail market on 1 January 2021, the public supplier no longer provides the public supply service[6], has not chosen the independent supplier in due time so the increase of quantities of guaranteed supply consumers and guaranteed supply service is expected. At the end of 2020, there were 11% of Stage I consumers who did not choose an independent supplier while, in accordance with the data of 14 April 2021, there were 3%. The highest growth of guaranteed supply is projected for 2022-2023 as approximately 733 thousand household consumers assigned to Stage II of liberalisation (consuming 1-5 thousand kWh per year) and over 794 thousand Stage III consumers (consuming less than 1 thousand kWh per year) will have to choose an independent supplier.

In 2020, the public electricity supply amounted to 2.905 TWh, 2019 – 2.884 TWh. Due to liberalisation, as well as the increase in the number of prosumers, the volume of public electricity supply in 2021 and 2022 will decrease. The public supply will cease to be performed starting from 2023.

- Cross-border issues

- Article 59(1)(w) of Directive (EU) 2019/944: Technical cooperation between transmission system operators of the EU and third countries

In 2020, the existing level of technical cooperation with the operators from third countries, which is essential when seeking to ensure reliable operation and high quality of electricity of the LPS and to prepare for the desynchronisation from the UPS/IPS system in a timely and appropriate manner, continued to be maintained.

[5] https://finmin.lrv.lt/lt/aktualus-valstybes-finansu-duomenys/ekonomines-raidos-scenarijus

[6] In May 2020, the amendment to the Law on Electricity relating to the liberalisation of energy retail market was adopted.

In accordance with the official referral and proposal of the European Commission, the issues of desynchronisation from the UPS/IPS system are discussed in the BRELL (Belarus, Russia, Estonia, Lithuania, Latvia) Committee and the operational planning and management work group, where TSOs present information on the current situation of system development. The Committee meets twice a year, while the working groups meet as needed.

The BRELL agreement regulates technical cooperation issues, which are meant to ensure coordinated and reliable operation of a single synchronous zone. No new cooperation agreements were concluded with the TSOs of third countries in 2020; however, as the Law on Necessary Measures of Protection against the Threats Posed by Unsafe Nuclear Power Plants in Third Countries prohibits the provision of reserve services to Belarus, from 2021, AB "Litgrid" has decided to withdraw from this regulatory emergency reserve agreement where BRELL countries ensure each other with a 100 MW power reserve for liquidation of emergency disconnections at the discretion of the operator. This reserve will be guaranteed by local reserve capacity and in cooperation with the TSOs of the neighbouring EU countries.

AB "Litgrid", together with the TSOs of the Baltic countries, prepared and, in 2020, published the first draft of the Methodology on Cross-Zonal Capacity Calculation and Allocation with Third Countries. After evaluating this project, on 2 and 15 October, the NERC submitted comments and a request to AB "Litgrid" to provide the modelling of physical and commercial flows (use of technical connections) after the launch of the Astravets Nuclear Power Plant, which would allow to objectively assess the results of the calculation methodology for the third countries' capacity after the launch of the Astravets Nuclear Power Plant.

At the request of the NERC, AB "Litgrid" performed scenario calculations where, after the launch of the Astravets Nuclear Power Plant, the balance of the Belarusian electricity system would be approximately 580 MW; therefore, it will affect the final result of the calculations of capacity specified in the said methodology, i.e., it will affect the volume capacity with Russia and the results of changes of the Baltic electricity system: the capacities issued for trade with Russia and the results of electricity trade could increase compared to the actual volume of electricity imported from Russia and Belarus (except Kaliningrad), physical flows of electricity through the Belarusian-Lithuanian electricity transmission links would increase significantly.

- Implementation of network codes and guidelines

- Article 59(7) of Directive (EU) 2019/944: Network codes

- Demand connection
- Requirements for generators
- High-voltage direct current connections

When establishing the requirements of network codes for grid connection, the NERC has already approved the General Technical Requirements for the Grid Connection. The NERC regularly monitors the implementation of these requirements and advises market participants on these issues. The general technical requirements will ensure fair conditions of competition for all market participants, as well as security of the electricity system while integrating electricity produced from renewable sources, and will also facilitate the trading of electricity throughout the European Union by adopting effective measures.

- Operation

Pursuant to Regulation (EU) 2017/1485, which establishes guidelines for the operation of the electricity transmission system, the NERC approved the provisions prepared by AB "Litgrid" together with other TSOs in the capacity calculation region on the coordination of operational security of the regional network (ROSC) of all the TSOs of the Baltic region capacity calculation. The proposal sets out the procedure for establishing a joint regional action plan to ensure the smooth operation of the system both in each Member State and at the regional level. This methodology shall be used by the TSOs to coordinate actions to ensure the secure and efficient use of the transmission system networks. The methodology provides general principles for the reasonableness of remedial actions activation according to objective criteria in both the day-ahead and intraday markets. The proposal provides the assurance for the coordination of regional operational security in accordance with the requirements of the Regulation.

- Resolution of accidents and restoration of operation

The NERC, together with the national regulatory authorities of Estonia and Latvia, submitted comments to the TSOs on the methodologies submitted for approval of rules for the suspension and restoration of market activities and on rules for the settlement of imbalance in the case of market suspension, which had been developed on 24 November 2017 in accordance with Regulation (EU) 2017/2196 on a network code that establishes the requirements for the resolution of accidents within the electricity system and the restoration of operation (hereinafter referred to as "Regulation (EU) 2017/2196"). The process of the approval of said rules is still under way.

In April 2021, the TSO announced a public consultation on the updated document.

The NERC, after evaluating the standard terms and conditions of the electricity transmission service and the submitted proposals by AB "Litgrid", regarding the provisions of Regulation (EU) 2017/2196 that regulate the resolution of accidents and restoration of operation of the electricity system, stated that the requirements have already been put into practice. Lithuanian TSO:

- In the standard terms and conditions of the electricity transmission service contract, it has regulated the relations between the TSO and the network user in the event of liquidation of accidents as well as the measures of the system protection and restoration of operation.
- The contract between the TSO and AB "Energijos skirstymo operatorius" contains the instructions for the liquidation of accidents and disturbances, providing the principles of identifying the prioritised important network users and the conditions for their disconnection and reconnection of voltage.
- Provisions of the relationship between the TSO and the electricity network user in the operation of electrical equipment – conditions for security, restoration of the operation, activities of service providers, implementation of measures in their equipment, lists of responsible important network users and measures to be implemented for those important network users or principles of identification of such users and conditions for disconnection and reconnection of prioritised network users, as well as measures of the pilot plan are regulated in standard terms and conditions of electricity transmission service contracts.

When future legislative changes are made at the national level related to the implementation of Regulation (EU) No 2017/2196, the TSO will be obliged to resubmit revised proposals to the NERC for approval under the requirements of Regulation (EU) No 2017/2196.

- Allocation of forward capacity

In May 2020, the NERC, together with Baltic capacity calculation region national regulatory authorities, informed ACER that they could not agree on the methodology, prepared by TSOs of the Baltic capacity calculation region, for the calculation of long-term capacity of the Baltic capacity calculation region (Latvia, Lithuania, Estonia, Finland and Sweden) in accordance with the provisions of Article 10 of the Commission Regulation (EU) No 2016/1719 establishing a guideline on forward capacity allocation (hereinafter referred to as "Regulation (EU) No 2016/1719").

On 18 November 2020, ACER published the decision to request the TSOs of the Baltic capacity calculation region to resubmit a new and revised Proposal not later than 24 months after the decision of ACER. The main reason for the rejection was that ACER saw discrepancies in the Proposal to the requirements of Regulation (EU) No 2016/1719, most of which were related to the upcoming synchronisation of the Baltic synchronous area with the Continental synchronous area. The NERC, together with other national regulators in the Baltic States, will ensure the implementation of this ACER decision.

The NERC, in accordance with Regulation (EU) No 2016/1719, together with the national regulatory authorities of Finland, Latvia, and Estonia, prepared and announced a public consultation on the report "Analysis of Future Electricity Market Risk Hedging Opportunities in the Trade Zones of Finland, Estonia, Latvia and Lithuania" prepared by the consultants "Thema Consulting Group".

The report examines a number of future electricity hedging products offered by NASDAQ and analyses whether the products or product combinations offered in futures markets should be considered as sufficient for hedging against day-ahead price fluctuations in the relevant bidding zone. The report covers the bidding price zones of Finland, Estonia, Latvia, and Lithuania, as well as relating price zones in Sweden and Norway.

The analysis carried out in the report is necessary in order to comply with Regulation (EU) No 2016/1719. When analysing NASDAQ products, the following indicators were assessed: trading time range, "bid-ask" spread, traded volumes relative to physical consumption, and the sum of open interest relative to physical consumption. After evaluating the conclusions of this report, the NERC will make a decision on whether the derivative hedging products offered by NASDAQ in the Lithuanian bidding price zone are sufficiently effective.

- Capacity allocation and congestion management

The NERC has extended the deadline for the operation of several designated electricity market operators in the bidding zones of Lithuania, Latvia, and Estonia. This decision was made in response to a joint request from the Baltic TSOs and exchange operators for the need to provide a longer period within which appropriate agreements on the use of cross-zonal electricity transmission capacity must be concluded. Currently, the bidding zones of the Baltic States are

operated by the designated electricity market operator “European Market Coupling Operator”, while another operator – “EPEX SPOT SE”, which has been granted the right to operate, did not start its activities in 2019-2020.

Following the Commission Regulation of 24 July 2015 (EU) 2015/1222, establishing a guideline on capacity allocation and congestion management, the NERC approved the joint proposal on European cross-border intraday distribution of local costs (LIP13) prepared by AB “Litgrid” together with TSOs from Finland, Sweden, Estonia, and Latvia, as well as the nominated electricity market operator – “European Market Coupling Operator” (EMCO). The total costs include the integration of the Sweden-Lithuania and Estonia-Finland electricity interconnection into the integrated IT platform of the European Cross-Border Intraday Electricity Market (XBID). Costs are distributed to the TSOs implementing the project in proportion to the energy consumed in the country. The IT platform of the integrated European Cross-Border Intraday Electricity Market (XBID) in which trade among the countries and different platforms of market operators is conducted was launched on 12 June 2018. Due to the vast scope of the project, primarily, platforms were created separately on the regional level by later connecting all of them into the IT platform of the integrated European Cross-Border Intraday Electricity Market.

The NERC, together with other relevant regulatory authorities of European countries approved the decision on the Transit shipping arrangements for the exchange of energy and the financial settlements resulting from the single intraday coupling in all European bidding zones. In accordance with this decision, the NERC approved the Arrangements at the national level. Transit shipping – transmission of information on external and internal electricity trading plans on an exchange between different counterparties. These Arrangements define the conditions under which transit shipping administrative costs of the exchange operator are still paid by the exchange participants by paying the participant’s fee. TSOs acting as shipping agents shall continue performing transit shipping as they have done in the past.

- Electricity balancing

In 2020, the NERC adopted five decisions and ACER adopted nine decisions relevant to Lithuania on the implementation of the Balancing Network Code.

Taking into account the requirements of the Regulation (EU) No 2017/2195, which establishes the electricity balancing guidelines, the NERC approved the Standard Terms and Conditions of the Balancing Service Sale and Purchase Agreement and the Standard Terms and Conditions of the Imbalance Sale and Purchase Agreement prepared by AB “Litgrid”. The approved terms and conditions will be mandatory for the suppliers of balancing services operating in Lithuania and for the parties responsible for the imbalances. In the terms and conditions, the requirements are set out for the potential supplier of balancing services and the responsible party for the imbalances; it is also established how the trading of balancing electricity and imbalance is to be performed.

The main amendment of terms and conditions of contracts is related to the implementation of Electricity Regulation, in which the auctioning of balancing capacity for a day-ahead is established, i.e., balancing capacity will be booked on a daily basis instead of the previous practice of booking balancing capacity for a predetermined amount of capacity for a year in advance. This change will allow for efficient use of available generation capacity and ensure the

reliable operation of the energy system. Capacity auctions are one of the measures that, depending on the results of the LPS adequacy study, could be implemented in Lithuania and would promote the emergence of competitive electricity capacities necessary to ensure reliable electricity supply in the country.

The definition of imbalance has been also updated, the elements set out in the rule and formula of imbalance calculation have been harmonised with those in the definition of imbalance, provisions on the submission of mandatory balancing capacity service offers in the scope of available reserve capacity have been included and it was stipulated that after the transmission system operator activates reserve capacities, the offer price of the produced balancing energy may not exceed EUR 5,000/MWh.

The NERC also approved three TSO proposals related to TSO-TSO settlement rules on the intended and unintended energy exchanges. The approved procedures govern how and at what price the settlement of energy takes place between synchronously and asynchronously connected TSOs for the exchange of energy, i.e., energy volume that results from frequency fluctuations - volume remaining after the balancing market. A synchronous zone is an area with a common frequency in which synchronously interconnected TSOs, such as synchronous zones of the continental and northern Europe; Lithuanian, Latvian and Estonian energy systems operate as a separate zone, collectively referred to as the Baltic zone, which is a part of the major synchronous zone of the IPS/UPS energy system (consisting of Russia and other post-Soviet countries). In addition, the implementation of these rules is provided in the “Agreement between the Baltic TSOs on the Operation and Settlement of Baltic Coordinated Balancing Area”. These rules, when implemented, will ensure clear and non-discriminatory settlement and compensation conditions between TSOs.

In June, ACER published three additional documents aimed at further integration of EU electricity balancing markets.

The first decision approved the document on the implementation framework for the common European Union platform for the exchange of balancing energy which will effectively integrate all individual national balancing markets into a single EU electricity balancing market. Imbalance netting will be carried out under this platform. It is a platform based on which the TSO will coordinate its actions on the activation of reserves in order to prevent two or more different TSOs from activating reserves at the same time – one for reserve regulation downwards (in case of energy surplus in the system), the other upwards (in case of shortage of energy in the system). Defining the cooperation among the TSOs, these guidelines set out rules for optimising the function of the algorithm aimed to determine the distribution of cross-border imbalances in Europe. This platform will also allow the EU Member States to share the resources used by their TSOs to ensure a balance between electricity generation and consumption. This should allow increasing the security of supply, limiting carbon emissions, and reducing costs for consumers.

The second decision regards the methodology establishing a list of standard products for balancing capacity for frequency restoration reserves and replacement reserves. The Methodology provides the rules for effective exchange and sharing of reserves among the EU countries.

The third decision approved a co-optimized methodology for the allocation process of cross-zonal capacity which establishes an algorithm for determining the volume of cross-zonal transmission

system capacity to be traded among EU countries in the day-ahead market and the balancing capacity market. During this process, balancing capacity orders received by operators and electricity orders received by exchange operators from market participants are optimised in the common day-ahead algorithm of electricity exchange calculation. Accordingly, the optimisation results determine whether the cross-zonal capacity will be allocated to the balancing capacity exchange market or the day-ahead electricity trading market. In this way, it is intended to maximise market benefits and ensure the efficient and optimal allocation of the cross-zonal capacity of the transmission system.

In July 2020, ACER also published three more decisions related to the balancing network codes.

The first decision concerns the methodology for the classification of the activation purposes of balancing energy orders. The methodology provides description and rules for all possible activation purposes such as the activation of replacement and frequency restoration reserves, submission, description, and rules for balancing energy orders. The said rules set out the criteria, categories, and objectives regulating when the TSOs activate the replacement and frequency restoration reserves. These rules ensure a high level of transparency of balancing prices when balancing mechanisms are activated across Europe.

The second decision establishes the methodology for TSOs' common settlement rules for all intended energy exchanges. This should ensure the pricing principles, respected by the TSOs, for the settlement between balancing service providers and TSOs.

The third decision establishes the methodology for harmonising the imbalance settlement rules. The rules regarding the imbalance settlement guarantee that market participants are reimbursed by the TSOs for the costs incurred in providing balancing services. In case of a surplus in the system, the market participant that supports the system should receive a payment from the TSO to compensate for the costs. The new methodology ensures a consistent application of the imbalance settlement process across the Member States. The application of these rules across Europe ensures that market participants are incentivised to deliver on the electricity they have bought or sold. This increases the overall efficiency of the electricity system to the benefit of the end consumers.

The NERC also approved the application prepared by AB "Litgrid", together with other Baltic TSOs, to postpone the entry into force of the Regulation (ES) 2017/2195 provisions until 2025, establishing that in three years after the entry into force of this Regulation, Member States shall apply the imbalance settlement of 15 minutes. Currently, the imbalance settlement period is 60 minutes.

The NERC decision means that electricity market participants providing balancing services will also have a longer period to prepare for the application of these requirements of Regulation (EU) 2017/2195. The main reasons for approving the application are as follows:

- The imbalance settlement of 15 minutes requires large investments of market participants (especially for the improvement of IT infrastructure);
- It would be extremely difficult for market participants to apply the technical and trade changes required to implement the imbalance settlement of 15 minutes until 2021;
- a rapid switch to the imbalance settlement of 15 minutes would reduce market liquidity;

- market participants have been set with a gradual deadline to implement the requirements of the imbalance settlement of 15 minutes - until the Baltic States are synchronised with the continental European networks.

This year, the NERC, together with the regulatory authorities of the Baltic capacity calculation region commented on the proposal submitted by the TSOs on the cross-zonal capacity allocation methodology for the exchange of balancing capacity in the Baltic region. However, an agreement of all regulatory authorities regarding the approval of this methodology was not reached and the approval of the methodology was transferred to ACER. The NERC informs that ACER has announced a public consultation on this methodology, after which and the consideration of the comments of market participants, it will make a decision regarding the approval of the methodology. Efficient cross-zonal capacity allocation will contribute to the development of a market for cross-border balancing capacity. This methodology will be used to ensure the efficient and transparent allocation of cross-border capacity to balancing market and to the exchange or sharing of reserves.

## 3.2. Promotion of competition and functioning of the market

- 3.2.1 Wholesale market

- Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

- Article 59(1)(n) and (o) of Directive (EU) 2019/944

In order to ensure that the regulator can ascertain the reasonableness of the costs of entities, when assigning them to regulated activities, since 2019, the auditors inspect the reports, submitted to the NERC by the entities, following the technical task, i.e., specific requirements, approved by the NERC. The terms of the technical task may be reviewed annually: by adjusting the requirements or keeping the existing task. In 2020, the NERC maintained the technical task of regulated activity verification, i.e., the verification (audit) of the activity reports of regulated companies for 2020 shall be subject to the same requirements as in previous years.

In order to ease the administrative burden, electricity and natural gas DSOs serving less than 100 thousand consumers, liquefied petroleum gas (LPG) companies, as well as electricity companies recognised as having significant market power in the provision of replacement reserve service and/or providing an isolated electricity system operation service at a price regulated by the State and complying with other provisions of the NERC, may choose the technical task for the verification of regulated activity reports in 2020 – the technical task applicable to all regulated undertakings or the separate Technical Task for the Verification of Regulatory Activity Reports of Electricity and Natural Gas Undertakings, approved in September 2020.

**The Description of the Requirements for the Unbundling of Accounts and the Cost Allocation of Electricity Undertakings (20/01/2020)**

It has been decided to simplify the requirements for the regulatory accounting system of electricity undertakings that are recognised as having significant influence in the tertiary active power reserve service and/or provide regulated isolated electricity system service, in the cases established by the Law of Electricity, and the actual revenue of which, received from the said

services, in the last 3 years shall not exceed 5% income from all activities carried out by the electricity undertaking during those 3 years and which do not provide other service of state regulated prices.

The business unit of electricity generation activities has been supplemented with the services of frequency restoration reserve, replacement reserve, prevention or liquidation of major accidents in the electricity system as well as isolated operation of the electricity system.

The cost groups have been supplemented with the additional components of desulphurisation of reagents and the security of natural gas supply component to the transmission price of natural gas.

Change in the fixed assets resulting from the real property evaluation will not be taken into account when calculating the asset base of the regulated service of electricity undertaking.

Following the amendment to the Law on Electricity, in which the provision of the guaranteed supply was taken over by the distribution network operator (previously provided by the public supplier), the electricity guarantee service was attributed to the electricity distribution activity.

It is estimated that bad debts are recognised as distributable costs.

**The Description of the Requirements for the Unbundling of Accounts and the Cost Allocation of Electricity Undertakings (21/05/2020)**

In cases when consumers (in the electricity and natural gas sector as well as network and system users), who are included in the list of the affected by COVID-19 published by the State Tax Inspectorate under the Ministry of Finance of the Republic of Lithuania (hereinafter referred to as “STI”), and household consumers cannot cover their liabilities for the energy, drinking water supply, and wastewater treatment undertakings for the services priced by the State, the costs of bad debts for these services can be attributed to regulated price services (products) and relevant business units (debts must be incurred from the beginning till the end of the quarantine and two months after it, as well as there should be substantiating evidence that all lawful and reasonable steps have been taken to recover the debt).

There is an exception that the interest expense of short-term loans, necessary to cover the accounting deficit, by implementing the measures provided by the Government of the Republic of Lithuania, can be attributed to the services (products) of regulated prices and relevant business units, taking into account the tax deferral of the consumers (electricity undertakings, in case of the electricity sector, and system users, in the case of the natural gas sector), included in the STI’s list of the affected by COVID-19 infection and, in case of the electricity sector, the tax deferral of the public supplier for the period from the beginning to the end of the quarantine. The distributable interest expense is recognised as interest expense on both existing loans and new short-term (up to one year) loans concluded during the quarantine period and two months thereafter to balance the financial flows of undertakings in the regulated sectors.

In the electricity sector, the NERC regulates 11 entities: price caps are set (adjusted), while the accounts of activity and the unbundling of costs are regulated in order to avoid cross-subsidies between the activities.

In view of the results of the electricity reserve power market research and the demand for the tertiary power reserve service, AB “Panevėžio energija”, AB “Orlen Lietuva”, and UAB “Kauno termofikacijos elektrinė” may be regulated.

In 2020, the NERC adjusted the price caps for 6 infrastructure companies and 1 supply company – price caps were set for the new regulatory period. The regulatory period of the TSO AB “Litgrid” and DSO AB “Energijos skirstymo operatorius” has been extended for one year.

The NERC established the price caps for the services of AB “Ignitis gamyba”, the person of significant influence in the reserve power market, and AB “Orlen Lietuva”, AB “Panevėžio energija” and UAB “Kauno termofikacijos elektrinė”, the persons of significant influence in the reserve power market in the event of anticipated cases according to the electricity reserve power research.

After the TSO “Litgrid” informed that the availability of all power plants operating in the Republic of Lithuania and meeting the requirements of the isolated electricity system, i.e., the facilities of AB “Ignitis gamyba”, AB “Orlen Lietuva”, AB “Panevėžio energija”, AB “Achema”, and UAB “Kauno termofikacijos elektrinė”, is necessary to ensure the operation of the isolated electricity system, the NERC set price caps for the operation services of the isolated electricity system of the said undertakings for 2021.

In accordance with the provisions of the Law on Electricity, the NERC continuously monitors and controls the compliance of electricity market participants with the requirements of transparency, non-discrimination, and competition in the energy sector, their compliance with the conditions and requirements for licensed activities or activities regulated with the help of permits, the protection, and defence of consumer rights, and legitimate interests, including the reliability of the information provided to consumers. Entities operating in the wholesale electricity market shall make the information, established in separate legislation, publicly available. Under the approved description of the information to be made publicly available, the NERC publishes the list of the information published by the entities of the electricity sector[7] (hereinafter referred to as “the List”) on the NERC website. In accordance with the aforementioned description, the NERC also annually checks the manner in which the information contained in the List is made publicly available by the entities. Having identified deficiencies in the published information, the NERC draws up recommendations related to compliance of the prices of the services within the energy sector with the requirements of transparency, non-discrimination, and other requirements set out in legislation. In accordance with the provisions of the Law on Energy, these recommendations are published at least once every 5 years and submitted to the Competition Council of the Republic of Lithuania.

In order to carry out the monitoring of the market, the NERC, under the approved Rules for the Provision of Information of the Undertakings of Energy, Drinking Water Supply and Waste Water Treatment, Surface Waste Water Treatment, collects information from regulated entities that activities are subject to licences, permits, certificates and/or state-regulated prices. Based on the information submitted by said entities, in order to enhance the awareness of market participants and ensure that the market participants have access to reliable information, the NERC regularly

[7] https://www.regula.lt/elektra/Puslapiai/elektros-energetikos-sektoriaus-ukio-subjektu-viesai-skelbiamos-informacijos-sarasas.aspx

draws up half-yearly reports on the monitoring of the electricity market and publishes them on the NERC website[8].

The level of transparency related to wholesale prices is monitored following the provisions of REMIT. In addition, the NERC, in accordance with the Rules for the Monitoring of the Trading of Electricity and Natural Gas[9], approved by the NERC, has established limits on the disclosure of information that is considered to be publicly unavailable.

The monitoring of trade in the electricity market is carried out by analysing the behaviour of market participants, i.e., conditions of entering into transactions, including submission of orders to trade, explanations of market participants and other circumstances, in order to ensure that wholesale electricity markets are not abused. When implementing the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT), the NERC and ACER **carried out continuous monitoring of the wholesale electricity and natural gas markets,** analysis of information published on platforms for the disclosure of publicly unavailable information[10] in the Lithuanian bidding zone (in the gas and electricity sector, there were 12 incorrectly/inaccurately published urgent market messages (UMM)).

In 2020, the NERC also **carried out registration of market participants** (10 market participants were registered), assessment of bilateral contracts on wholesale energy products and their compliance with the requirements of REMIT, monitoring of orders and transactions submitted on the exchanges by market participants.

In order to create the preconditions for the development of effective competition within the electricity markets and prevent the abuse of significant influence of persons within the electricity markets, the NERC conducts market research following the Rules for Market Research. Accordingly, the NERC regularly publishes market research reports on its website and updates said reports, with the exception of information that is considered confidential, and publishes and updates the final decisions on the market research results or parts thereof without confidential information. It should be noted that no market research was carried out in 2020.

It should be noted that at least once in each half-year, the meetings of the National Committee for the Development of the Common Baltic Electricity Market, which is attended by the representatives of state institutions, market participants and related associations, take place. In these meetings, the relevant information is exchanged, problematic issues are discussed while clarifying their causes, and the steps to be taken in order to achieve efficient operation and development of the electricity market.

The NERC is actively involved in the creation of a common regional electricity market, including the development and implementation of various common legislation.

The harmonisation of rules between different EU countries should have a significant impact on the promotion of competition and the functioning of the market. The relevant implemented

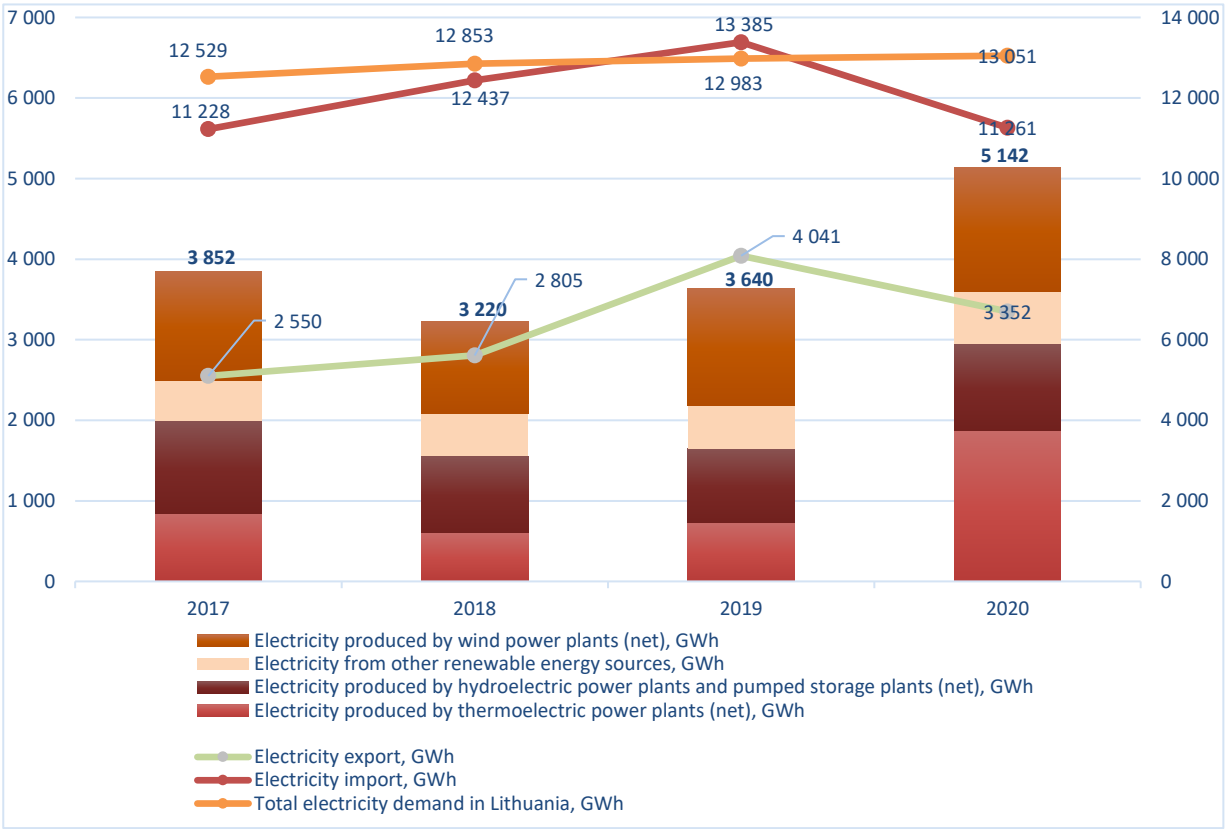
[8] https://www.vert.lt/elektra/Puslapiai/elektros-rinkos-apzvalga/rinkos-stebesena.aspx
[9] https://www.e-tar.lt/portal/lt/legalAct/fbc3b880c84711e69dec860c1f4a5372/asr
[10] https://umm.nordpoolgroup.com/#/messages?publicationDate=lastweek&eventDate=nextyear https://umm.getbaltic.com/public-umm

measures related to the implementation of the network codes are set out in the above section titled “Implementation of the network codes and guidelines”.

As in previous years, the NERC, in order to achieve transparency, enhancement the awareness of market participants and consumers, published all the information related to its activities on its website: said information included news, various clarifications, statistical information, information on ongoing meetings, public hearing material, etc.

Information on the country’s total electricity demand, the amount of electricity produced in the country (net), the amount of imported and exported electricity is provided below in Figure 10.

*Fig. 10. Electricity production, import, export and the total domestic electricity demand in 2017–2020*




*Source*: *NERC.*

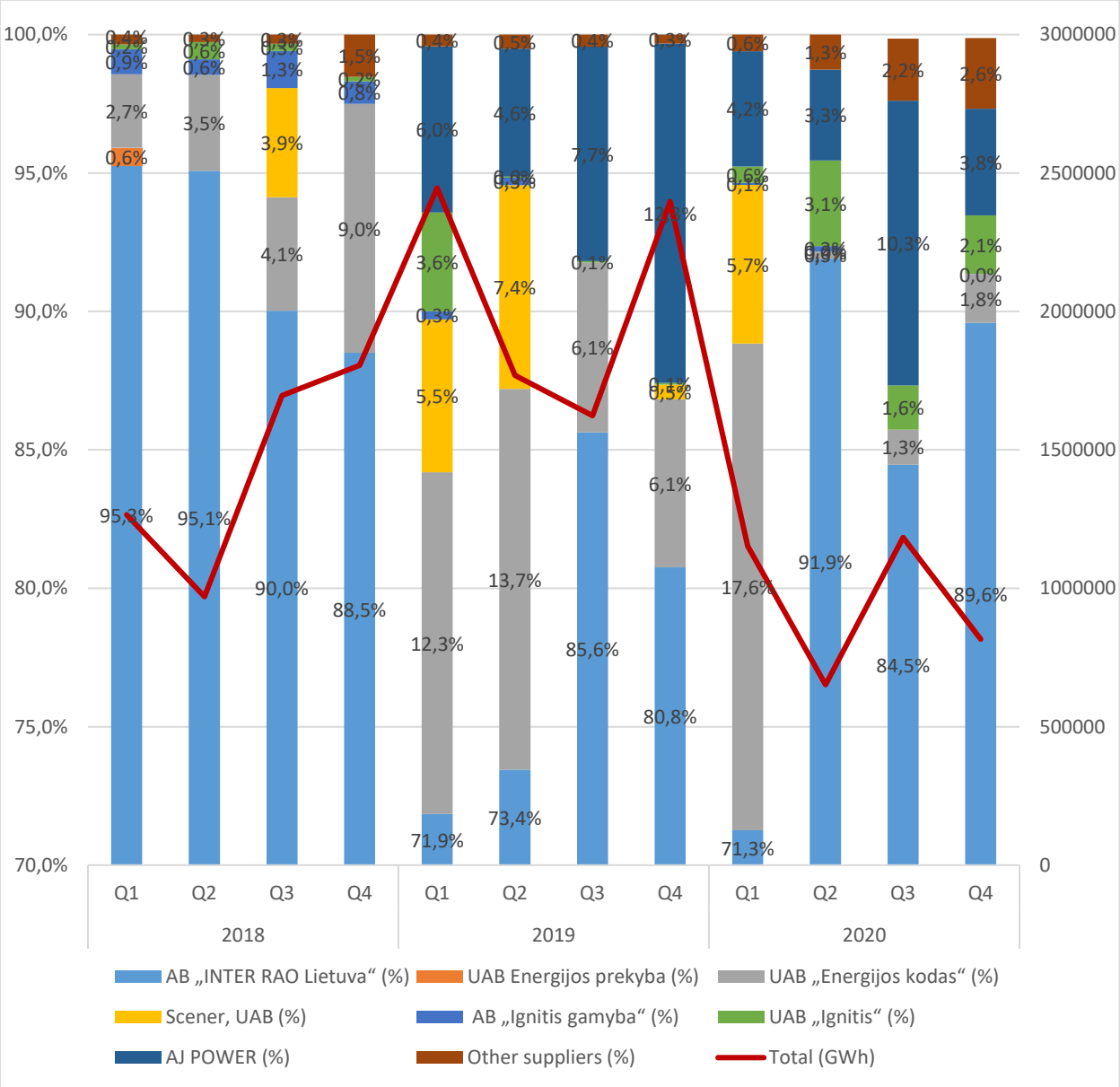
In 2020, the electricity price in the Lithuanian market amounted to EUR 34.02/MWh. 86.3% of the total electricity demand in the country was imported. Further information is available at www.nordpoolgroup.com.

In 2020, the sales of electricity on the electricity exchange were carried out by 10 suppliers, while the purchases were performed by 15 suppliers.

In 2020, there were 4 main suppliers in the wholesale electricity market: AB “INTER RAO Lietuva”, UAB “Energijos kodas”, AJ POWER, and UAB “Scener”. More than 80% of all sales of electricity on the electricity exchange in 2020 consisted of the volume of electricity sold by AB “INTER RAO Lietuva”. Considering the overall result of AB “INTER RAO Lietuva”, UAB

"Energijos kodas", AJ POWER, and UAB "Scener", it exceeded 98% of all sales of electricity on the electricity exchange in 2020.

*Fig. 11. Structure of the electricity sales market on the electricity exchange by undertaking, %, 2018–2020*

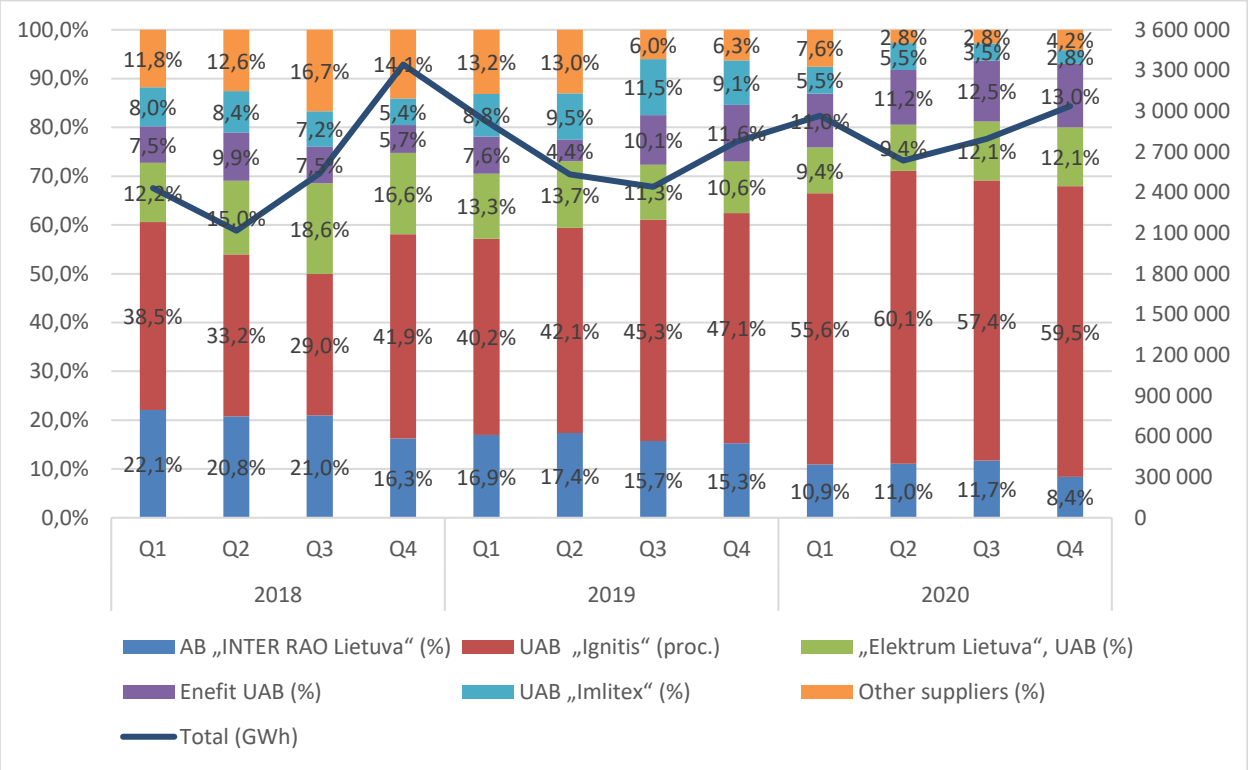



*Source*: *NERC.*

In 2020, more than 58% of all purchases of electricity performed by independent suppliers on the electricity exchange consisted of the purchases of UAB "Ignitis"[11].

[11] UAB "Energijos tiekimas" was merged with UAB "Lietuvos energijos tiekimas". In 2019, the undertaking changed its name to UAB "Ignitis"

*Fig. 12. Structure of the electricity purchases market on the electricity exchange by independent supplier, %, 2018–2020*




*Source: NERC.*

### 3.2.2 Retail market

- Monitoring of the price level, the level of transparency, the efficiency of market opening and competition

- Article 59(1)(o) of Directive (EU) 2019/944: Market opening and competition

In principle, the retail market is monitored analogously and controlled in accordance with the same principles set out in Chapter 3.2.1.

- *As of 2013, all commercial consumers pay for electricity at market prices, and, if necessary, the guaranteed supply to these consumers is ensured for no longer than 6 months. Household consumers also have the right to choose an independent electricity supplier and purchase electricity in the market or under bilateral contracts.*

In 2020, compared to 2019, the number of consumers in the country grew from 1,754,464 to 1,799,025, of which 162,620 were non-household consumers. During 2020, the consumption of non-household consumers purchasing electricity at public prices decreased slightly from 0.097 TWh to 0.095 TWh. The consumption of household consumers purchasing electricity at public prices during 2020 amounted to 2.9 TWh and was higher than that recorded in 2019 (2.79 TWh). Considering Stage I of the liberalisation process of the electricity retail market of household consumers, during which people, consuming more than 5,000 kW per year, had to choose an independent supplier of electricity, the number of household consumers that purchased electricity on the market at contract prices increased from 47 to 209,489, in comparison with the previous year. In Q1-Q4 2020, due to outstanding debt, AB “Energijos skirstymo operatorius” terminated the transmission of electricity to 2,425 customers, of which 2,364 were household

consumers. The termination of electricity due to debts is carried out at any time of the year. The termination of electricity is not carried out:

- *when the maximum daily air temperature is below minus 15 (fifteen) degrees Celsius;*
- *when the maximum daily air temperature is above plus 30 (thirty) degrees Celsius;*
- *on Fridays, Saturdays, Sundays, public holidays and days preceding public holidays.*

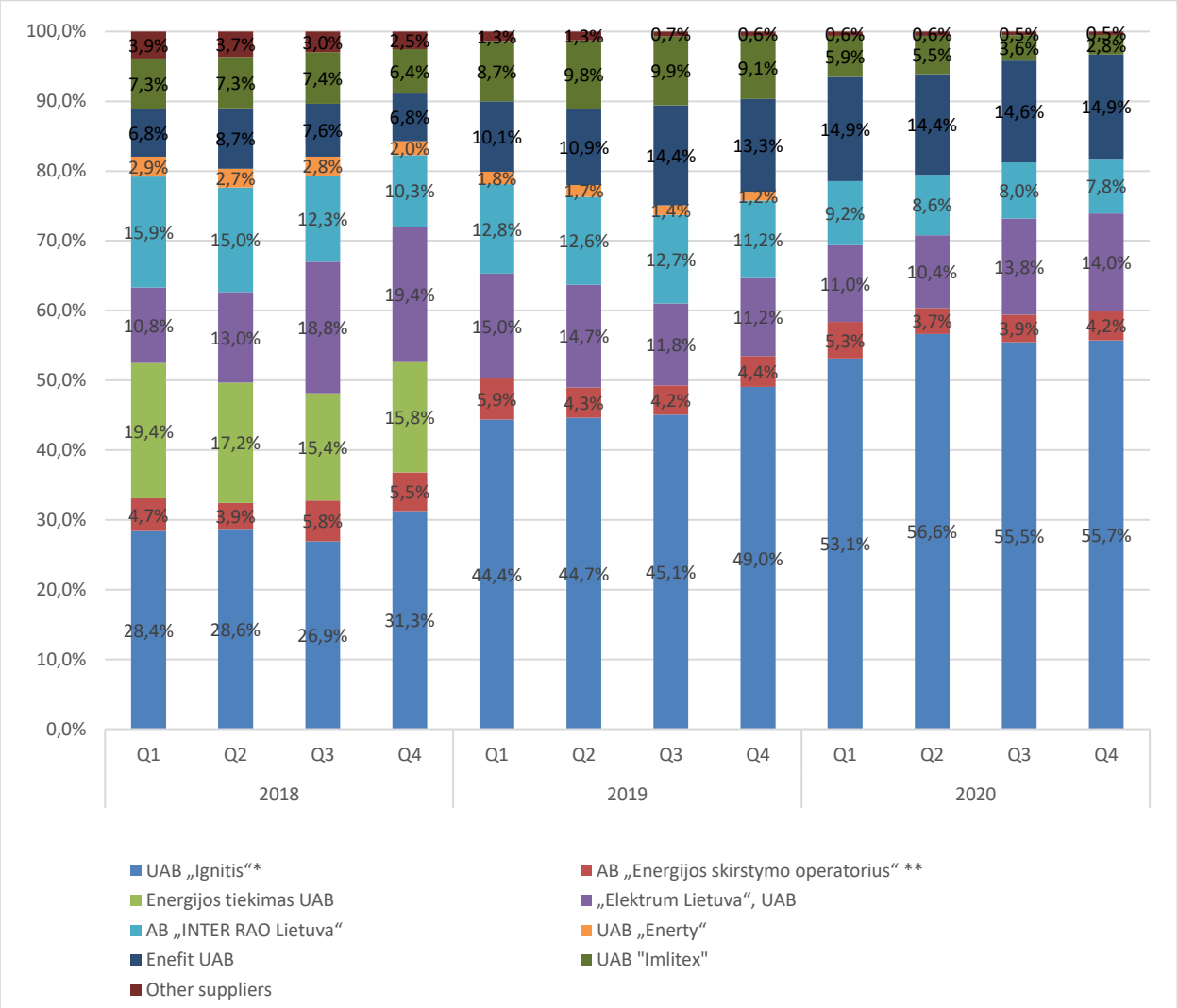
The 4 largest independent electricity suppliers in the independent supply retail market are as follows: UAB “Ignitis”, UAB “Elektrum Lietuva”, AB “INTER RAO Lietuva”, UAB “Enefit”. Their share in the retail market amounted to 90.7% according to the volume of electricity.

Amongst the largest independent electricity suppliers, in 2020, compared to 2019, UAB “Enefit” experienced the largest growth in its market share.

In the structure of the retail market of supply, the market share of UAB “Ignitis” accounted for more than 50% of the total electricity sales in the market in 2020. At the end of 2018, said undertaking began performing the activities of the public supply of electricity in place of UAB “Energijos skirstymo operatorius”. Following the 2019 merge of UAB “Lietuvos energijos tiekimas” with UAB “Energijos tiekimas” and the change of the name of the undertaking to UAB “Ignitis”, the said undertaking also performs the activities of the independent supply of electricity.

Compared to 2019, the share of the electricity sales of AB “Energijos skirstymo operatorius” in the retail market decreased and amounted to 4.3%. The decrease in the sales of said undertaking in the retail market was due to the fact that as of Q3 2018, it has ceased performing the activities of the public supply of electricity, i.e., the company provides the service of guaranteed supply of electricity. Other market participants maintained market positions similar to those observed in 2019.

*Fig. 13. Sales structure of the retail market by supplier, %, 2018–2020*




** Public supply of electricity. Up to 1 October 2018, the activities of the public supply of electricity were carried out by AB "Energijos skirstymo operatorius". In 2020, UAB "Ignitis" is carrying out the public supply of electricity and the independent supply of electricity.*

*** Guaranteed supply of electricity.*

*Source: NERC.*

In 2021, the average electricity price in the Lithuanian market amounted to 4.083 c/kWh. The public supplier's average annual retail price for a typical household consumer was 4.90 c/kWh (electricity purchase and public supply margin), while the price of the use of electricity networks or the service of transport was 5.41 c/kWh.

In 2021, the public price of electricity for household consumers purchasing electricity from medium-voltage networks is equal to 8.046 c/kWh (excluding VAT) or 0.380 c/kWh (4.73%) higher than in the second half of 2020; for the consumers purchasing electricity from low-voltage networks, it is equal to 11.393 c/kWh (excluding VAT) or 0.492 c/kWh (4.51%) higher than in the second half of 2020.

Electricity prices, their application, comparison with the prices applied in other countries and other related information is published on the NERC website www.vert.lt. The prices and tariff plans of the DSO AB "Energijos skirstymo operatorius" are published on the website www.eso.lt, distributed in customer service centres of AB "Energijos skirstymo operatorius", the consumers are also individually informed about new prices and tariff plans via the self-service website, while those who have submitted their contact details are informed by SMS or e-mail. In addition, AB

"Energijos skirstymo operatorius" informs its customers about the applied tariff plans and conditions for their application via the customer service telephone number 1852. The public electricity prices and tariffs of UAB "Ignitis", as well as the procedure of their application, are published on the website www.ignitis.lt, leaflets with said prices are distributed in the customer service centres of UAB "Ignitis", the consumers are also individually informed about new prices and tariff plans via the self-service website, while those who have submitted their contact details are informed by SMS or e-mail. In addition, UAB "Ignitis" informs its customers about the applied tariff plans and conditions for their application via the customer service telephone number 1802.

More data on the issues of market opening and efficiency is available in the CEER database.

- Article 59(1)(o) of Directive (EU) 2019/944: Prices for household consumers

In 2020, the NERC amended the Price methodology, which provides that the impact of the liberalisation of the electricity supply market in the respective year would be assessed when calculating and/or adjusting the public supply service prices; i.e., it is estimated that an additional (separate) component will be calculated and added to the distribution service to compensate for the difference between the funds actually collected by the public supplier and reasonable costs (including the price of money).

Household consumers, like commercial consumers, have the right to choose an independent electricity supplier and purchase electricity on the market or under bilateral contracts. Household consumers who have not chosen an independent electricity supplier, as well as vulnerable consumers, are supplied with electricity at the public electricity price by the public supplier operating in the territory specified in the licence.

Compared to the previous year, the average annual consumption per household consumer increased from 1,844 kWh to 1,859 kWh.

As of 1 October 2018, UAB "Lietuvos energijos tiekimas" has taken over the performance of the activities of public supply from AB "Energijos skirstymo operatorius". In 2019, said undertaking changed its name to UAB "Ignitis". UAB "Ignitis" is carrying out both the activities of public electricity supply and the activities of independent electricity supply. In 2020, the undertaking supplied 99.8% of the total amount of electricity consumed by household consumers, of which 99.0% was supplied at the public electricity price. In 2020, as in 2019, the share of the public supply of electricity in the retail market remained stable – about one-third of the total consumption.

In accordance with the provisions of the Law on Electricity, the electricity consumers whose equipment is connected to the electricity networks managed by the TSO receive guaranteed electricity supply provided by the DSO serving more than 100,000 consumers, while the electricity consumers whose equipment is connected to the electricity networks managed by the DSO receive a guaranteed electricity supply provided by the DSO. In 2020, 92,600 consumers used the services of the guaranteed supplier (50,189 consumers in 2019).

Public price cap for the supply of electricity*:* UAB "Ignitis" sells electricity to consumers paying in accordance with the public tariffs; thus, the NERC, when calculating the public price cap for the supply of electricity, assessed the amount of energy sold to household consumers, consuming

less than 5,000 kWh of electricity per year and who have not chosen an independent supplier – in 2021, the price cap for the service of the public supply of electricity at 0.397 c/kWh was set. Compared to 2020 (0.370 c/kWh), it is higher by 0.027 c/kWh. The main impact on the rise of the price cap in 2021, in comparison with 2020, was created by the reduction of the forecast volume of electricity supplied to the regulated household consumers due to the liberalisation of the energy retail market in the area of household consumers as well as by the increasing number of consumers producing electricity for their own needs; thus, the volume of electricity supplied by the public supplier is reduced correspondingly.

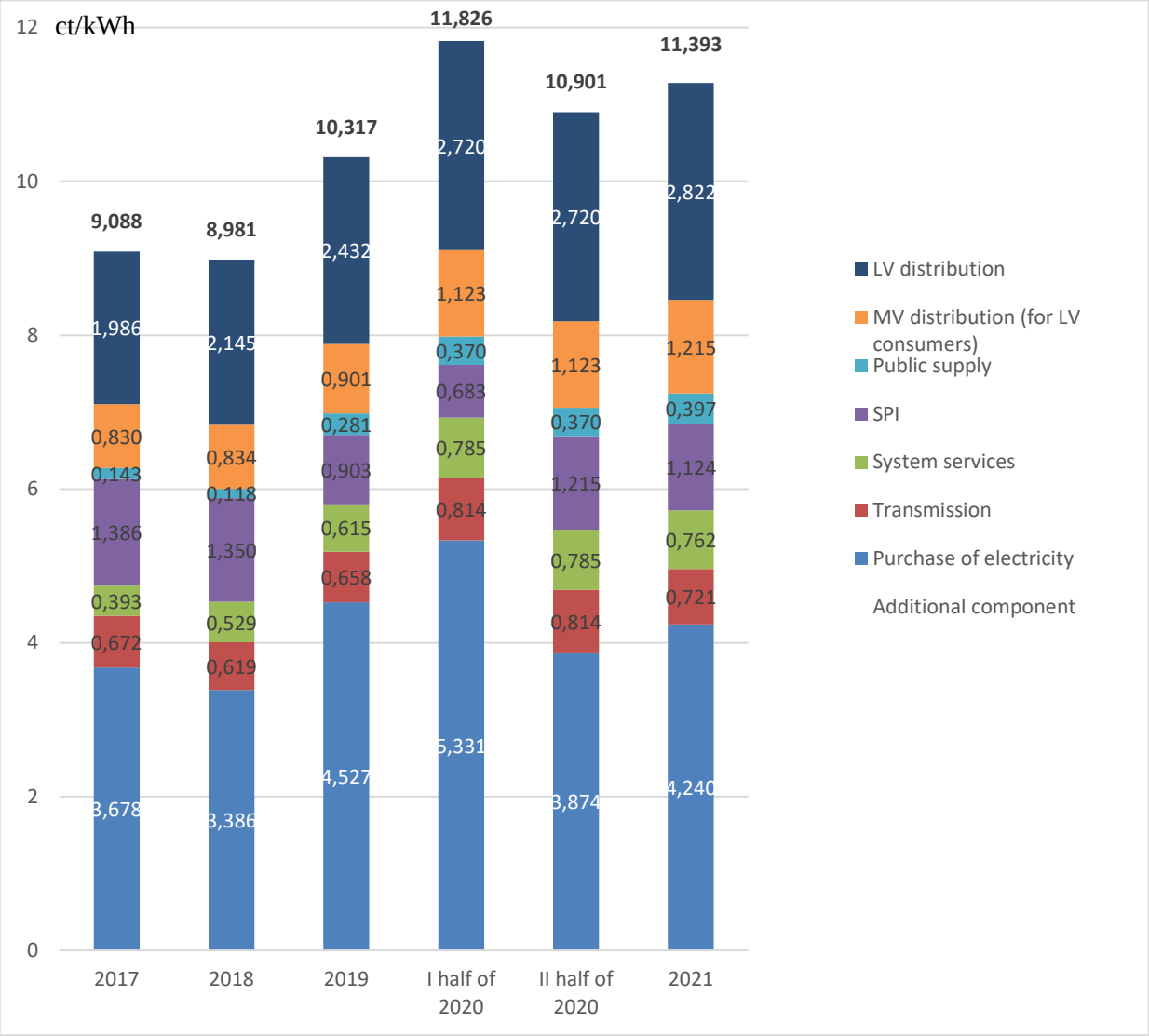
Household consumers pay for electricity in accordance with the public tariffs established by the NERC. For the final consumer, the price of electricity consists of:

- the purchase price;
- the price of services provided in the public interest;
- the price of system services;
- the price of transmission service;
- the price of distribution service in medium-voltage and low-voltage networks;
- the supply price;
- additional components.

Having established all the components of the price of electricity, in 2020, the NERC approved the 2021 public price of electricity for household consumers purchasing electricity from medium-voltage networks – 8.406 c/kWh (excluding VAT) or 0.380 c/kWh (4.73%) higher than in the second half of 2020; for household consumers purchasing electricity from low-voltage networks – 11.393 c/kWh (excluding VAT) or 0.492 c/kWh (4.51%) higher than in the second half of 2020. The public price cap for electricity in medium-voltage and low-voltage networks increases by about 4.7%. This change was mainly due to the increase in the price caps for the distribution service and public supply service and the purchase price of electricity for public supply, which was mainly influenced by the increase in the forecast electricity market price and the decrease in the volume of planned electricity distribution and supply. Also, an additional component is being added to the distribution price.

UAB “Ignitis” sells electricity to consumers paying in accordance with the public tariffs; thus, the NERC, when calculating the public price cap for the supply of electricity, assessed the volume of energy sold. In view of this, the NERC set the price cap for the service of the public supply of electricity at 0.370 c/kWh for 2020. Compared to 2019 (0.281 c/kWh), it is higher by 0.089 c/kWh. This was caused mainly by the changes in the legislation in 2019, related to the calculation of the demand of working capital attributable to the activities of public supply, the assessment of the difference in operational costs and additional operational costs, and the decrease in the amount of electricity planned to be distributed. Having established all the components of the price of electricity, in 2019, the NERC approved the 2020 public price of electricity for household consumers purchasing electricity from medium-voltage networks – 8.951 c/kWh (excluding VAT) or 1.191 c/kWh (15.35%) higher than in 2019, for household consumers purchasing electricity from low-voltage networks – 11.826 c/kWh (excluding VAT) or 1.509 c/kWh (14,63%) higher than in 2019. The public price cap for electricity in medium voltage and low-voltage networks increases by about 15%. This change was mainly due to the projected higher purchase price of electricity and the changes in other components of the public price cap.

*Fig. 14. Average electricity price in 2017–2021 (c/kWh excluding VAT)*




*Source: NERC.*

In 2020, the NERC approved the price of access to interconnection lines (hereinafter referred to as "AIL") applied in 2021, which amounts to EUR 5.76/MWh, i.e., which is 1.96% lower than that of 2020 (EUR 5.87/MWh). Relevant information about the price of AIL is published on the NERC website www.vert.lt (in English) under the heading "Regarding price of the service of access to interconnection lines"[12].

- Article 59(1)(o) of Directive (EU) 2019/944: Pre-payment system

The pre-payment system is applied to the following services provided by the largest DSO:

- *Disconnection-connection upon request of the client;*
- *Disconnection-connection after payment of a debt;*
- *Services of resistivity measurement;*
- *Services of smart metering implementation;*
- *Other services.*

[12] https://www.vert.lt/en/Pages/regarding-price-of-the-service-of-access-to-interconnection-lines.aspx

The pre-payment system of consumers purchasing electricity from the public electricity supplier applies to the services listed in the table below.

***Table 7.*** *Services of the public electricity supplier that are subject to a pre-payment system*

| Service group | Explanation of the service/comments |
|---|---|
| Remuneration due for bailiff's actions | Applicable to clients who have been made subject to debt recovery and bailiff's actions have been performed. |
| Remuneration due for notarial actions | Applicable to clients for the notarisation of enforceable titles for unpaid bills |
| Advance payment for the electricity consumed | Applicable at the request of the client when the client wishes to pay for electricity prior to the submission of the current bill and indicates the amount in kWh. Most commonly used by budgetary institutions at the end of a calendar year. |
| Fine for failure to comply with contractual obligations | The service has never been provided. |
| Legal action administration fee (lawyer's services, commission fee for payment order and confirmation of stamp duty order, other expenses) | Applicable to clients whose debt has been handed over to the court, judicial debt recovery has been carried out. |
| For interest awarded by the court | Cases where the court awards additional interest. |
| Stamp duty | Applicable to clients whose debt has been handed over to the court. |

- Article 59(1)(o) of Directive (EU) 2019/944: Dynamic price contracts

In 2020, approximately 1,100 dynamic contracts were concluded with household consumers. With the active liberalisation of the electricity market of household consumers and the introduction of smart meters, consumers started to choose dynamic price contracts (no dynamic price contracts were concluded in 2019). For consumers with smart meters, the DSO AB "Energijos skirstymo operatorius", and UAB "Ignitis" offer the electricity tariff plan under the title "Smart", in which the following time intervals are applied: the energy component of night, morning, day, and the energy components of evening. The time intervals of Saturdays, Sundays, and public holidays are broken down into the relevant time intervals of energy components of Night and Day.

- Article 59(1)(o) of Directive (EU) 2019/944: Use of smart meters

By the end of 2020, 52,147 smart meters had been installed in Lithuania. Throughout 2020, 7,969 smart meters were installed for household consumers.

In September 2019, having assessed in detail the project for the implementation of smart electricity metering in Lithuania in 2020-2023 submitted by the DSO AB "Energijos skirstymo operatorius", the NERC adopted the decision to coordinate it.

The DSO AB "Energijos skirstymo operatorius" plans to start a massive installation of smart meters in the second half of 2021 (100% for commercial consumers and 54% for household consumers, who consume more than 1,000 kWh/year). The NERC will perform remote

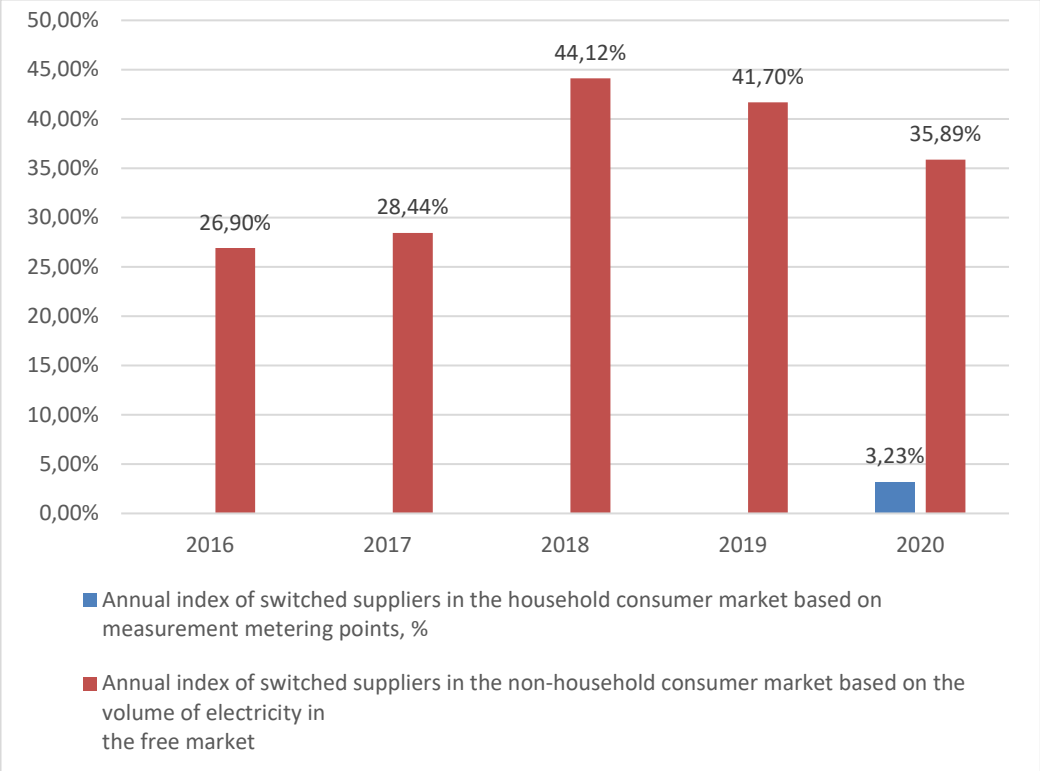
monitoring of the project's implementation, i.e., the NERC instructed AB "Energijos skirstymo operatorius" to develop a monitoring system by 31 December 2021 and to obtain the approval of the NERC regarding the said system. In 2022 and 2023 (no later than by 1 July), AB "Energijos skirstymo operatorius" will have to submit reports on the implementation of the project, as well as supporting documents, to the NERC in order to ascertain that the created benefits correspond to the financial and economic indicators of the investment project coordinated by the NERC. In subsequent periods, said reports will be submitted twice over the course of the regulatory period.

- Article 59(1)(o) of Directive (EU) 2019/944: Electricity supplier switching index

Following the adoption of the Law on Electricity amendments in May 2020 and after the launch of the liberalisation process of the electricity retail market, as indicated above, household consumers, like commercial consumers, also have the right to choose an independent electricity supplier and purchase electricity on the market or under bilateral contracts. Although, until 2019, household consumers were not inclined to switch suppliers (from 2016 to 2019, the external annual index of switched suppliers in the household consumer market based on measurement metering points was equal to zero), in May 2020, following the adoption of the Law on Electricity amendments and after the launch of the liberalisation process of the electricity retail market, a significant shift in the switch of the electricity supplier has been noticed. By 30 December 2020, 89% (87,208 consumers) admitted to Stage I, chose an independent electricity supplier; in total, the independent electricity supplier was chosen by 224,440 consumers (in total, there are over 1.642 million consumers in Stages I-III). In total, on 10 May 2021, 274,588 consumers have already chosen an independent supplier of electricity (there are more than 1.642 million consumers from all three stages).

The figure below shows the annual index of switched suppliers in the non-household consumer market based on the volume of electricity and in the household consumer market based on measurement metering points. In 2020, the annual index of switched suppliers in the non-household consumer market based on the volume of electricity in the free market amounted to 36.89% and, in the household consumer market, based on measurement metering points it amounted to 3.23%. In 2020, compared to 2019, the annual index of switched suppliers in the non-household consumer market based on the volume of electricity in the free market decreased slightly while in the household consumers market based on measurement metering points it increased up to 3.23%.

*Fig. 15. Annual index of switched suppliers in the non-household consumer market based on the volume of electricity in the free market and in household consumer market based on measurement metering points in 2016–2020, %*




*Source*: *NERC.*

- Article 59(1)(o) of Directive (EU) 2019/944: Charges for the services of technical maintenance

The NERC assesses the costs of electricity transmission operator and the main DSO (AB "Litgrid" and AB "Energijos skirstymo operatorius"), small DSOs (AB "Achema", AB "Akmenės cementas", AB "Lifosa", UAB "Dainavos elektra") according to annual reports on regulated activities, as well as repair, maintenance and operation, personnel, administrative and other costs. Economically justified technical maintenance costs for electricity transmission activities and electricity distribution activities are included in setting the price cap of the TSO transmission service and the price cap of the DSOs distribution services via medium-voltage and low-voltage networks.

- Article 59(1)(o) of Directive (EU) 2019/944: Link between the price of electricity for household consumers and the wholesale electricity price

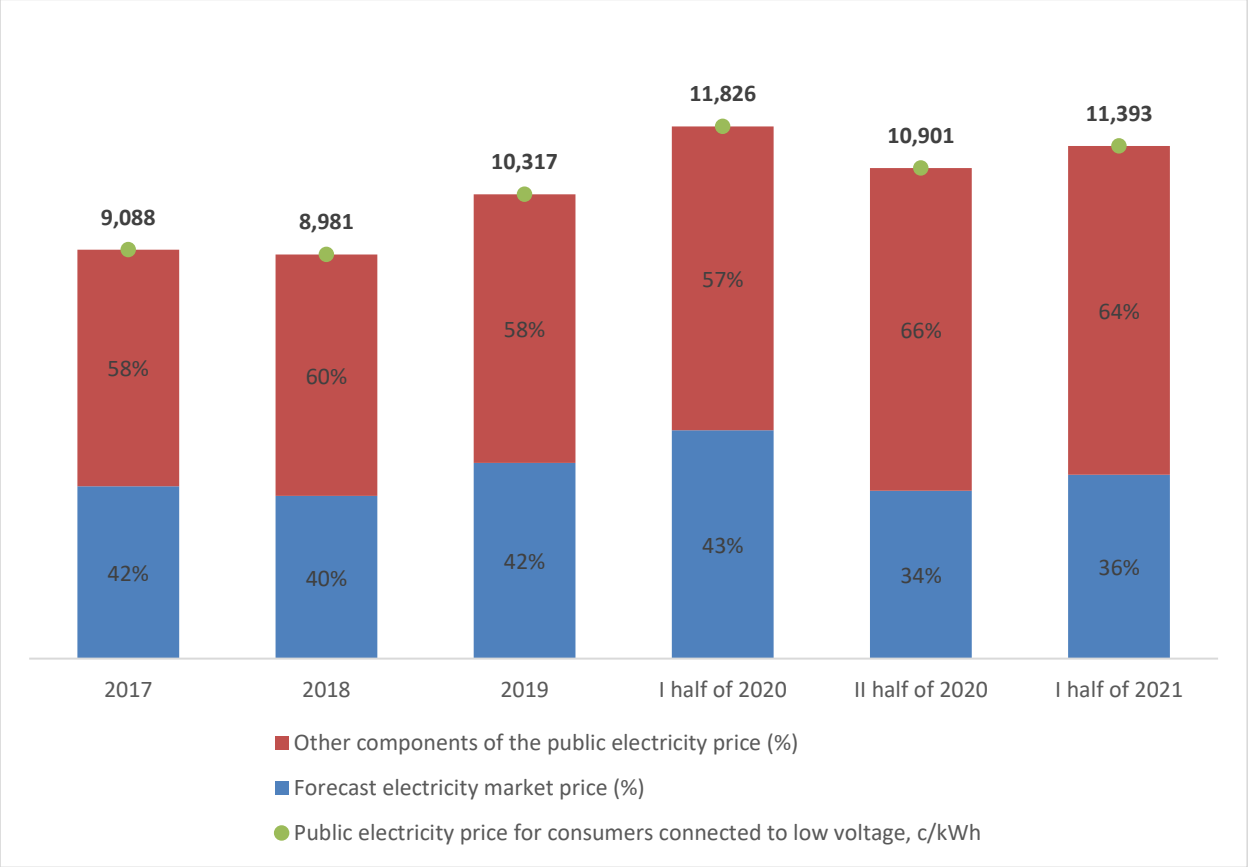
Under the Price Methodology approved by the NERC, one of the components of the public electricity price is the electricity purchase price, which consists of the forecast electricity market price determined by the NERC following the approved Methodology for the Setting of the Forecast Electricity Market Price and Reference Price, as well as other costs related to the purchase of electricity, such as electricity exchange taxes, costs of electricity balancing, and correction of the share of forecast and actual electricity purchase costs.

It should be noted that, in accordance with the Methodology for the Setting of the Forecast Electricity Market Price and Reference Price, the NERC sets the forecast electricity market price

for the coming calendar year or recalculates it for the current calendar year as a weighted average after assessing the following:

1. *Electricity prices and quantities traded on the electricity exchange in the territory of Lithuania during the day-ahead trading session without assessing the quantities traded in the manner specified in Item 3 of the aforementioned methodology at Central European Time for the last 12 calendar months ending on 31 August of the current calendar year or no later than two months prior to the application of the recalculated price if the forecast electricity market price is recalculated for the current calendar year.*
2. *Electricity prices and quantities traded on the wholesale electricity market under direct bilateral contracts concluded alongside the electricity exchange between Lithuanian producers and suppliers for the last 12 calendar months ending on 31 August of the current calendar year or no later than two months prior to the application of the recalculated price if the forecast electricity market price is recalculated for the current calendar year.*
3. *Electricity prices and quantities traded under auxiliary instrument trade on the energy resource exchange and based on a bilateral contract in the territory of Lithuania for the last 12 calendar months ending on 31 August of the current calendar year or no later than two months prior to the application of the recalculated price if the forecast electricity market price is recalculated for the current calendar year.*

*Fig. 16. Share (%) of the electricity market price within the public electricity price cap in 2017-2021*




*Source*: *NERC.*

The forecast electricity market price within the public electricity purchase price, which applies to household electricity consumers, accounts for more than 30% of the total public electricity price applied to consumers connected to low-voltage networks.

- Article 59(1)(o) of Directive (EU) 2019/944: Distortion or restriction of competition

Article 8(9)(15) of the Law on Energy establishes that the NERC monitors whether there are any occurrences of contractual practice that restricts competition, including exclusivity clauses whose application may prevent large non-household consumers from entering into contracts with more than one supplier at the same time or restrict their ability to do so.

The procedures of the Competition Council regarding submission of information about distortions or restrictions of the electricity market, including the provision of appropriate information, as well as submission of investigations into relevant cases within the market are carried out in accordance with the procedure established by the legal acts. The NERC conducts market research in order to ensure effective competition within the electricity sector, as well as to prevent market participants from applying excessive prices or using price pressure due to the lack of effective competition, thus causing harm to market participants. It should be noted that no such cases were recorded in 2020.

- Articles 59(1)(s) and 5(1) of Directive (EU) 2019/944: Competitive prices

In accordance with the provisions of the Law on Energy, at least once every 5 years, the NERC publishes recommendations relating to compliance of prices for the services within the energy sector with transparency, non-discrimination and other requirements laid down in legislation, and submits them to the Competition Council of the Republic of Lithuania. The NERC approved said recommendations by Resolution No O3-373 of June 2015 “Regarding the Approval of the 2015 Recommendations Relating to Compliance of Prices for the Services Within the Energy Sector with Transparency, Non-discrimination and Other Requirements Laid Down in Legislation”. The recommendations are published on the NERC website[13].

More information on electricity prices and competition in the retail market is provided in the chapter “Market opening and competition”.

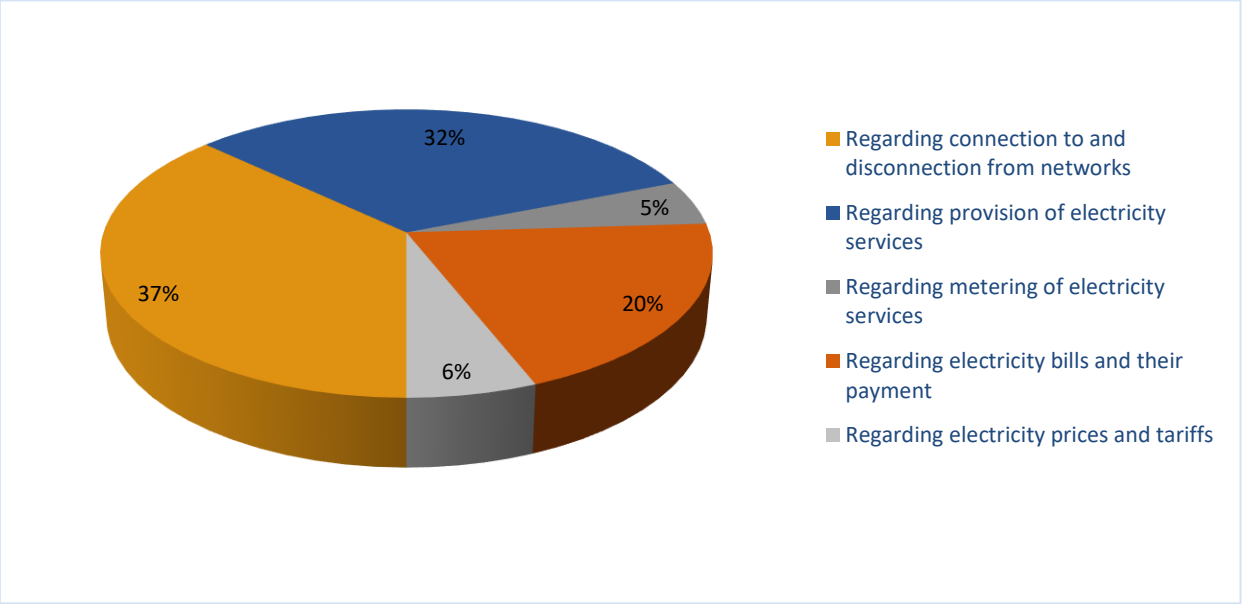
- **CONSUMER PROTECTION AND EXAMINATION OF APPLICATIONS**

  - Article 59(1)(o) of Directive (EU) 2019/944: Household consumer complaints

In 2020, the NERC received 409 applications regarding the electricity sector. It should be noted that a single application often raises several issues (e.g., bills and applied prices or bills and metering), so the number of received applications is lower than the total number of raised issues according to their nature.

[13] https://www.vert.lt/Puslapiai/statine/komisijos-nutarimu-sarasas.aspx.

*Fig. 17. Distribution (%) of applications within the electricity sector received in 2020 according to the nature of the application*

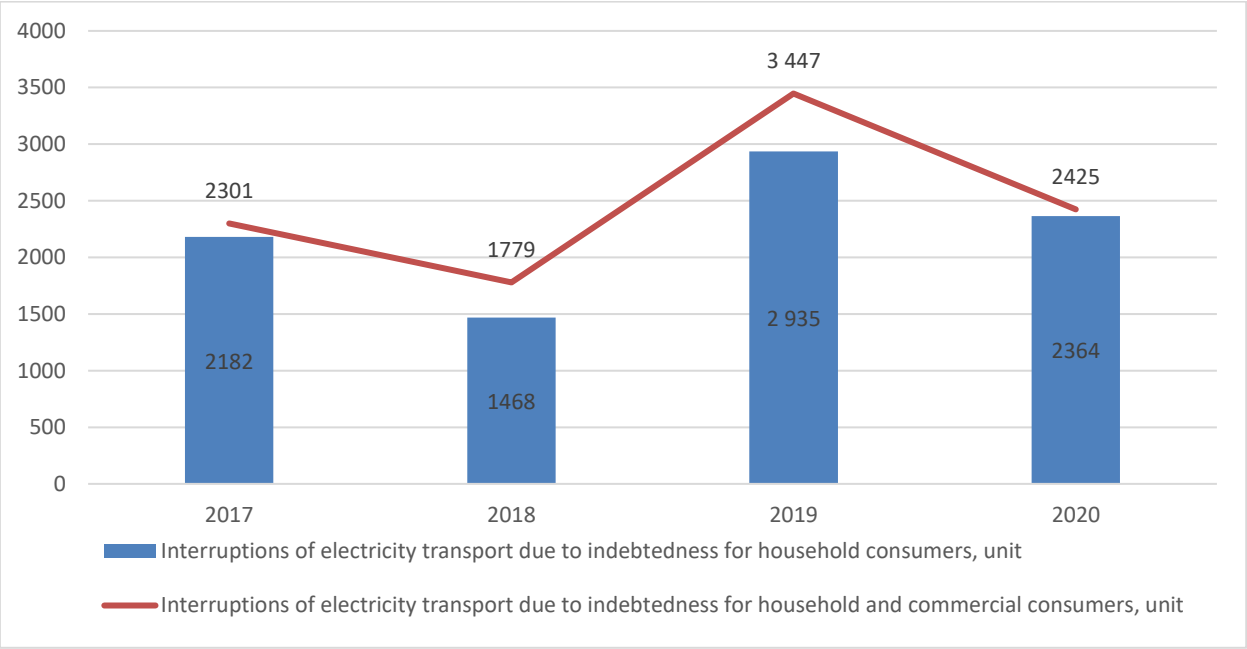



Source: NERC.

- Article 59(1)(o) of Directive (EU) 2019/944: Disconnection of consumers from the electricity network

The average number of working days from the date of the notification regarding the payment of the bill and the disconnection in the case of failure to pay the bill is 52 working days.

*Fig. 18. Interruptions of electricity transport due to indebtedness in 2016-2020*




Source: NERC.

In total, 2,425 units (of which 2,364 units for household customers, 61 units for business customers) of interruptions of electricity transport were carried out due to indebtedness in 2020.

- Article 59(1)(p) of Directive (EU) 2019/944: Contractual practice that restricts competition

In 2020, a contractual practice that restricts competition was not identified.

- Articles 5(2) and 59(1)(s) of Directive (EU) 2019/944: Protection of vulnerable consumers and consumers experiencing energy poverty

Measures for the protection of vulnerable consumers are provided for in the Law on Electricity and the Description of the Procedure for the Application of Additional Guarantees for Socially Vulnerable Electricity Consumers approved by Resolution of the Government of the Republic of Lithuania No 527 of 27 May 2015.

Under the Law on Electricity, household consumers, including vulnerable consumers, have the right to:

1) unilaterally terminate, free of charge, the electricity transport service contract and/or electricity sale-purchase agreement upon notifying the network operator and/or supplier in writing no later than 3 weeks prior to the planned agreement termination date;
2) conclude electricity sale-purchase agreements of indefinite duration with the public supplier in cases wherein the household consumer does not choose an independent electricity supplier or the independent supplier of their choice fails to fulfil the assumed obligations and the household consumer intends to purchase electricity from the public supplier, as well as an electricity sale-purchase agreement of indefinite duration with an independent supplier and an electricity transport service contract with the DSO.

On 1 January 2021, the public supplier terminates the electricity supply for all household consumers whose actual electricity consumption in the facility, during the period from 1 June 2019 to 31 May 2020, is no less than 5,000 kWh, as well as for household consumers whose facilities are connected to medium-voltage electricity networks; however, the public supplier shall continue the electricity supply to vulnerable consumers who have obtained the status of a vulnerable consumer at least once during the period from 1 June 2019 to 31 December 2020.

The Law on Electricity also provides for additional measures for the protection of the rights and legitimate interests of vulnerable consumers, i.e., the supply and/or transport of electricity may not be restricted and/or interrupted for vulnerable consumers when they fail to pay for the supplied electricity within the set time limit, do not pay or pay in part for the electricity transport service or other related services, provided that the debt owed by said vulnerable consumers to the distribution network operator or supplier is or was no larger than 3 basic social benefits.

In case vulnerable consumers fail to pay for the supplied electricity within the set time limit, do not pay or pay in part for the electricity transport service or other related services, the supply and/or transport of electricity may not be interrupted on Fridays, Saturdays, Sundays, public holidays and days preceding public holidays, or when the average daily air temperature is lower than -15°C or higher than +30°C, except in certain cases when electricity transport is temporarily interrupted through no fault of the network user and when electricity transport is interrupted through the fault of the network user. In such cases, the supply to the consumer may be interrupted on the day following the end of the circumstances set out in this item if said vulnerable consumer has been notified about the interruption in accordance with the procedure

laid down in the Rules for the Supply and Use of Electricity and other implementing legislation of said law.

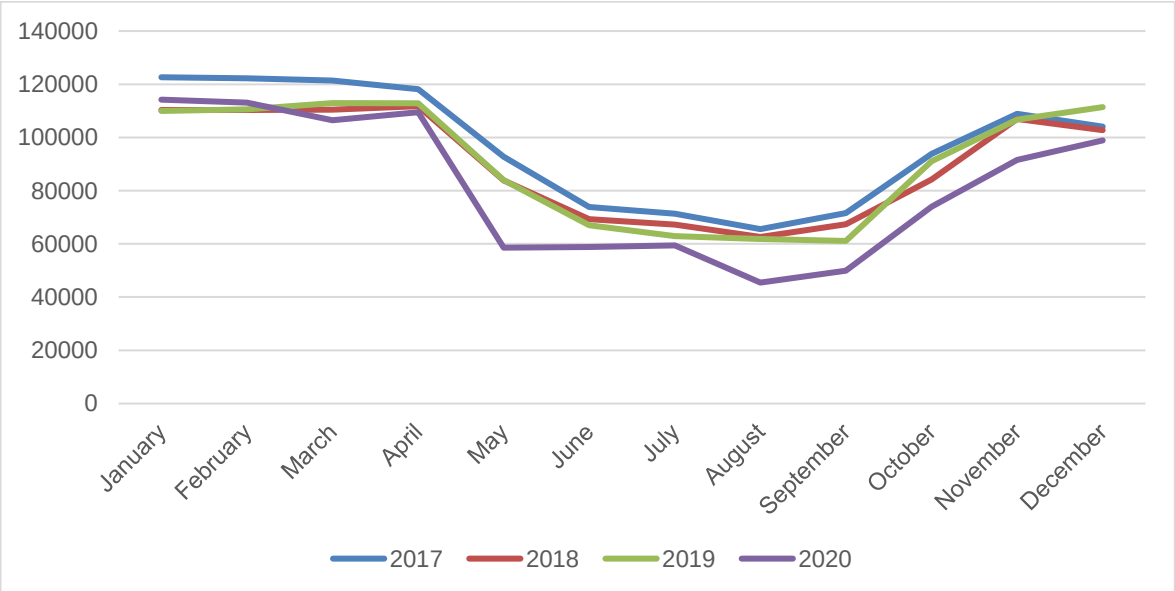
Vulnerable consumers have the right to pay the DSO or supplier by the last day of the month following the calendar month during which electricity has been transported and/or supplied to the consumer or other related services have been provided (except in cases wherein, at the request of the vulnerable consumer, longer time limits for payment have been agreed on).

When carrying out the connection of electrical equipment of vulnerable consumers to the electricity networks managed by the DSO, where the connection fee exceeds EUR 600, a share of 60% of the connection fee is paid within 10 calendar days from the signing of the connection service contract by the consumer, while the remaining share of the fee is paid within 10 calendar days from the end of the contract works. The provision of the connection service commences once the vulnerable consumer pays the first share of the connection service fee. The DSO informs the vulnerable consumer about the end of the works provided for in the work contract and provides the documents necessary for the payment in accordance with the procedure laid down in the connection service contract.

Also, if vulnerable consumers fail to pay for the supplied electricity within the set time limit, do not pay or pay in part for the electricity transport service or other related services, interest on late payment is not calculated for the 3 months following the date on which the time limit has been exceeded.

In the Description of the Procedure for the Application of Additional Guarantees for Socially Vulnerable Electricity Consumers approved by the Government of the Republic of Lithuania, it is established that if a vulnerable consumer wishes to receive a paper payment document, the DSO or public supplier may not require the consumer to cover the costs of submitting the paper payment document to the consumer.

*Fig. 19. Number of socially vulnerable consumers in 2017–2020*




Source: NERC.

- Article 5(3), (4) and Article 59(1)(s) of Directive (EU) 2019/944: Intervention by setting electricity prices for vulnerable household consumers

According to the provisions of the Law on Electricity, the public electricity supplier supplies electricity to vulnerable consumers at the public electricity price. This price is regulated by the State. More information on the prices of the public supply of electricity applied to vulnerable consumers is provided in the chapter "Prices for household consumers".

- Article 59(1)(t) of Directive (EU) 2019/944: Consumers consumption data

In accordance with the provisions of the Law on Electricity, consumers have the right to acquaint themselves with the electricity consumption data, including the amount of consumed electricity, as well as, after entering into a clear agreement, to allow any supplier to use their metering data free of charge, to which the consumer is also entitled to free of charge.

The network operator is responsible for the organisation of measurement and metering of the electricity transported via the electricity networks managed by them. The amount of electricity consumed by the consumers connected to the distribution networks and purchasing electricity from public or independent suppliers, which is to be established by the network operators based on meter readings, is recognised by the TSO as the actual amount of consumed electricity that must be purchased by the public or independent supplier.

After the end of the calendar month, no later than within 4 (four) working days, the DSO must provide the supplier with the available data on the amounts of electricity received from the distribution network and/or transmitted to the distribution network by the network users who are located in the territory indicated in the operating licence of the DSO and who have concluded electricity purchase and/or sales contracts with the said supplier.

If the electricity meter is not connected to the automated data reading system of the DSO, commercial users may:

- Declare their electricity consumption data on the operator's self-service website;
- The amount of consumed electricity may be calculated based on the annual average of electricity consumption if the consumer does not provide the actual readings within the time limit stipulated in the contract.

If the electricity meter is connected to the automated data reading system of the DSO, commercial users can see their electricity consumption data on the operator's self-service website, there is no need for the consumer to declare the data themselves. Customers of the main supplier UAB "Ignitis" can declare their electricity readings on the self-service website and pay for the services online or in cash, via the customer service phone number, e-mail.

- Articles 59(1)(y) and 14 of Directive (EU) 2019/944: Availability of a comparison tool for the offers of suppliers

In 2020, there was no available comparison tool for the offers of suppliers aimed at household consumers and micro-enterprises; however, the NERC is currently developing an Electricity Price Comparison Tool (hereinafter referred to as "Tool") that meets the requirements of the Clean Energy Package. The Tool will enable household electricity consumers to receive an offer of the

most suitable electricity price and make a more responsible and easier decision when choosing an independent electricity supplier.

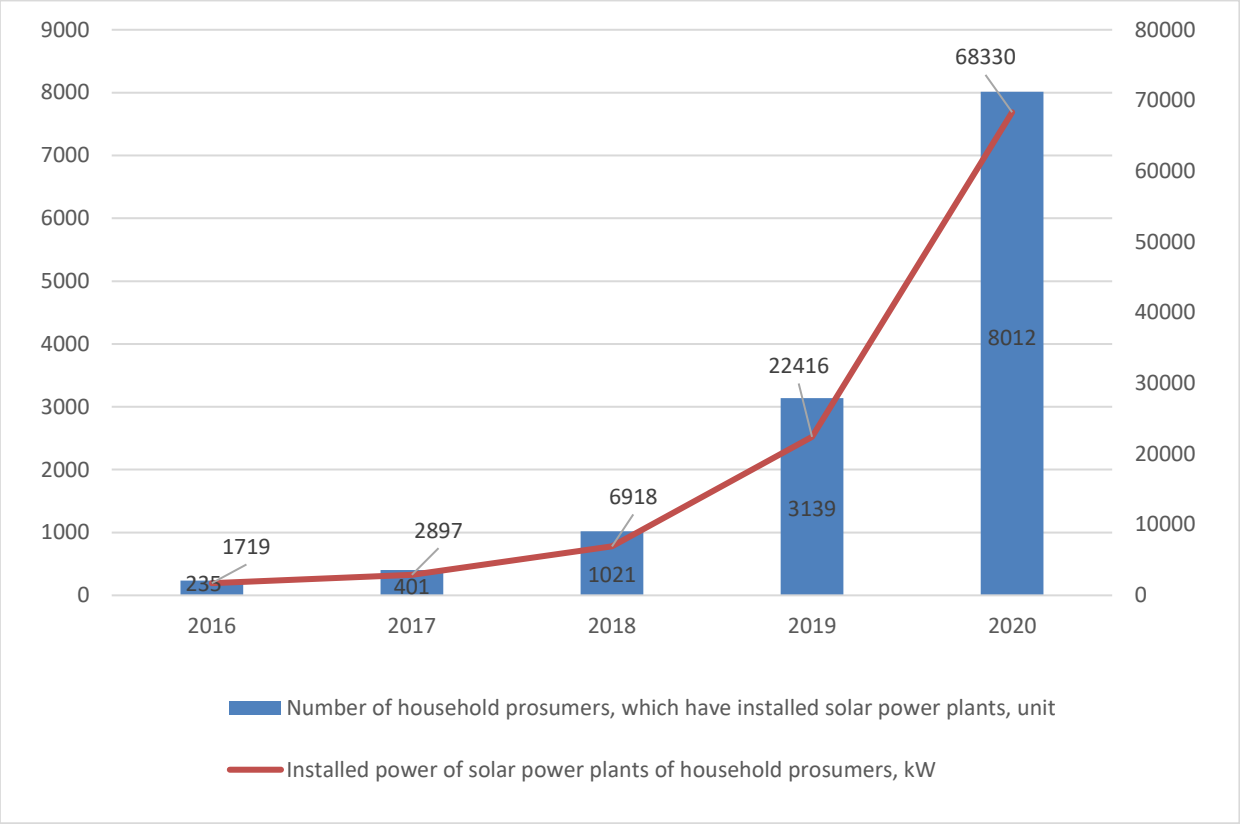
- Article 59(1)(z) of Directive (EU) 2019/944: Obstacles and restrictions regarding the consumption of self-produced electricity and the development of citizens' energy communities

In 2020, the law amending Articles 1, 2, 3, 4, 5, 6, 11, 13, 14, 16, 17, 20, $20^1$, 22, 25, 28, 29, 35, 37, 38, 39, 46, 48, 49, 55, 58, 59, 60, 61, 62, 63, $63^1$, 64 and the annex of the Law on Energy from Renewable Sources No XI-1375-, of the Republic of Lithuania, repealing Article $11^1$ and supplementing the Law by Article $20^2$, which has established the Conditions and General Principles for the Activities of Renewable Energy Communities, has been adopted (valid from 31/5/2020). In accordance with the provisions of said law, a renewable energy community acquires the right to sell the energy produced in the energy generation equipment managed by the right of ownership or any other right to its members at a price specified in the renewable electricity sale-purchase agreement, which may be equal to zero, while members of the renewable energy community acquire the right to use this electricity for personal purposes and household needs. The status of a renewable energy community can be acquired by public institutions, the shareholders of which meet the requirements established by law. This status is acquired by a permit to generate electricity, issued by the NERC. In 2020, the status of the Renewable Energy Community was not granted to any public institution.

So far, the concepts of active consumers and Citizen Energy Communities have not been established in national law; however, draft laws have already been prepared which provide that both active consumers and Citizen Energy Communities will be able to consume electricity generated by their power plants as well as to sell electricity to other persons or members of the community.

The NERC monitors the change in prosumers who have the right to consume electricity generated by owned or otherwise operated power plants (by supplying it to the network and then withdrawing it). The rapid growth leads to the conclusion that there are no significant barriers to the consumption of individually produced energy.

*Fig. 20. Number and installed power of household prosumers, which have installed solar power plants*




Source: NERC.

In 2020, compared to 2019, the number of household prosumers, which have installed solar power plants, grew by 2.6 times and the installed power of said power plants tripled, while compared to 2016, it increased by 34 and 40 times, respectively.

# 4. GAS MARKET

## 4.1. Network regulation

- Network and LNG tariffs for connection and access

o Report on the relevant new tariff regulation provisions

**Setting of upper-income limit**

The NERC sets the upper-income limit for the natural gas services for a period of five years which may be adjusted once a year. The NERC approves the specific transmission, distribution, and LNG regasification prices once a year after verifying that they do not discriminate against separate consumer groups and do not exceed the set upper-income limit.

In 2020, *the Methodology for determining the Rate of Return on Investments* was amended, where the main principles for determining the rate of return on investment were established (see more in Section 3.1 "Evolution of Network tariffs setting").

Also, in 2020, the requirements for the accounting of natural gas companies were changed by amending the *Description of the Requirements for the Separation of Accounting and Cost Allocation of Natural Gas Companies*:

- it was decided to treat the funds received from the contributions for the connection to the gas system as grants. This principle shall apply to the new investments in the connection of systems;
- new provisions regarding the increase of the authorised capital of a natural gas undertaking were approved; they establish how, in the case in question, the depreciation value would be calculated, if the authorised capital is increased by an asset contribution, and what additional information the undertaking should provide to the NERC.
- it was established that in cases when consumers in the electricity and natural gas sector (network and system users), who are included in the list of the taxpayers, recognised as affected by the emergency and quarantine, during which the Government of the Republic of Lithuania establishes restrictions on economic activities, and whom are subject to tax aid measures, published by the STI (hereinafter referred to as the "List"), and household consumers, who cannot cover their liabilities for the energy, drinking water supply, and sewage undertakings for the services whose prices are set by the state, the costs of bad debts for these services can be attributed to regulated price services (products) and relevant business units. The distributable expense of bad debts may be recognised as sums incurred from the beginning to the end of the quarantine and two months after it, while there is substantiating evidence that all lawful and reasonable steps have been taken to recover the debt;
- an exception is provided that the interest expense of short-term loans, necessary to cover the accounting deficit by implementing the measures provided by the Government of the Republic of Lithuania, can be attributed to the services (products) of regulated prices and relevant business units. The distributable interest expense is recognised as interest expense on both existing loans and new short-term (up to one year) loans concluded during the quarantine period and two months thereafter to balance the financial flows of undertakings in the regulated sectors.

- Article 41(1)(a) and (6)(a) of Directive 2009/73/EC

***Transmission activities***

The transmission activities in Lithuania are carried out by 1 transmission system operator (TSO) – AB "Amber Grid". The pricing model of entry and exit points is applied in transmission activities with an upper-income limit set and adjusted at the entry and exit points of the transmission system.

The NERC set the 2021 income level of transmission activities for **AB "Amber Grid"** at EUR 42,377.44 thousand, i.e., 17.47% higher than the level set for 2020 (EUR 36,073.93 thousand). The difference in the upper-income limit or income level in 2021 and 2020 was mainly due to the excess size of return on investment during the period of 2014-2018 – EUR 9,359.33 thousand, which significantly reduced the income level of transmission activities in 2020.

Having verified that the prices of the natural gas transmission services provided by AB "Amber Grid" do not discriminate against separate consumer groups and do not exceed the upper-income limit set for 2021 - EUR 42,377.44 thousand - the NERC approved **the transmission service prices at each entry and exit point**.

***Table 8.*** *Change in the upper-income limit of the transmission service of AB "Amber Grid" in 2015–2018 and Prices of long-term natural gas transmission services in 2019-2021 EUR(MWh/day/year)*

| | | **2015** | **2016** | **2017** | **2018** | **2019*** | **2020** | **2021** | **Change in 2020 and 2021, %** |
|---|---|---|---|---|---|---|---|---|---|
| At the entry points | Kotlovka GMS | 49.58 | 32.32 | 31.74 | 32.91 | 43.46 | 142.77<br>35.96*** | 142.77<br>35.96*** | 0 |
| | Kiemėnai GMS | 49.58 | 32.32 | 31.74 | 32.91 | 43.46 | 142.77 | 142.77 | 0 |
| | Klaipėda GMS | 0 | 10.5 | 20.03 | 32.91 | 9.56* | 35.69* | 35.69* | 0 |
| At the exit points | At the domestic exit point | 300.68 | 428.82 | 421.81 | 282.76 | 308.25 | 190.67 | 260.97 | 36.9 |
| | Kiemėnai GMS | 49.58 | 38.05 | 36.02 | 40.68 | 152.95 | 102.27 | 176.79 | 72.87 |
| | Šakiai GMS | 54.02 | 58.82 | 56.73 | 64.77 | 48.06 | 53.54 | 58.71 | 9.66 |

**In 2019, a new "postage stamp" principle was introduced in the Methodology for the Setting of Income and Prices for the State-regulated Natural Gas Transmission Activities.*

***A discount of 75% is applied at the entry point of Klaipėda gas metering station (GMS).*

****At the entry point of Kotlovka GMS, a capacity discount of 74.8% (on average) is applied with restrictions on transporting gas to a third country.*

Source: NERC.

Transmission price discount may be applied at the entry point of Klaipėda GMS (LNG terminal), as well as at the points of entry from the infrastructure designed in order to eliminate the exclusion of the gas transmission systems of the Member States, and at the points of exit to such infrastructure in order to enhance the security of energy supply and to promote the competitiveness of the natural gas market. In view of this, in 2021, the NERC approved the 75% discount applied to the entry point of Klaipėda GMS offered by AB "Amber Grid", and provided

for the compensation of the share of revenue not collected due to the application of the discount at the exit point of Kiemėnai GMS and the internal natural gas transmission system exit points.

In order to ensure competition for the import of natural gas from different sources, promote competition between natural gas suppliers and avoid creating additional market barriers for the use of the gas of the LNG terminal, as well as taking into account the decisions concerning FINESTLAT natural gas transmission price at the entry points of the common FINESTLAT price zone, the NERC set the proportion of the allocation of transmission service revenues between entry and exit points, applicable to the core network, at 62.95/37.05.

Also, the NERC, following the requirements of Commission Regulation (EU) No 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for natural gas (hereinafter referred to as the "Tariff Network Code") and the conclusions of ACER, applies a capacity discount of 74.08% at the entry point of Kotlovka GMS in 2021, with restrictions on transmitting gas to a third country (via the exit point of Šakiai GMS, without the possibility of delivering gas to other points and/or selling at the virtual natural gas trading point (natural gas market)).

Taking into account the long-term and short-term forecast contracted capacity, consumption capacity and the quantities at the entry and exit points of the transmission system, the calculated natural gas transmission prices do not exceed the income level set by the NERC for 2021, do not discriminate against transmission system users and ensure the absence of cross-subsidisation.

The average price per capacity unit in 2021 at the internal point of the Lithuanian transmission system amounts to EUR 260.97/(MWh/day/year), i.e., increases by 36.9%.

***Distribution activities***

In 2020, the NERC adjusted the upper-income limit of three DSOs: AB "Energijos skirstymo operatorius", UAB "Fortum Heat Lietuva", and AB agro firm "Josvainiai". For UAB "Intergas", the upper-income limit for the regulatory period of 5 years was set.

***Table 9.*** *Dynamics of distribution of the upper-income limit in the natural gas sector, EUR thousand, 2019-2021*

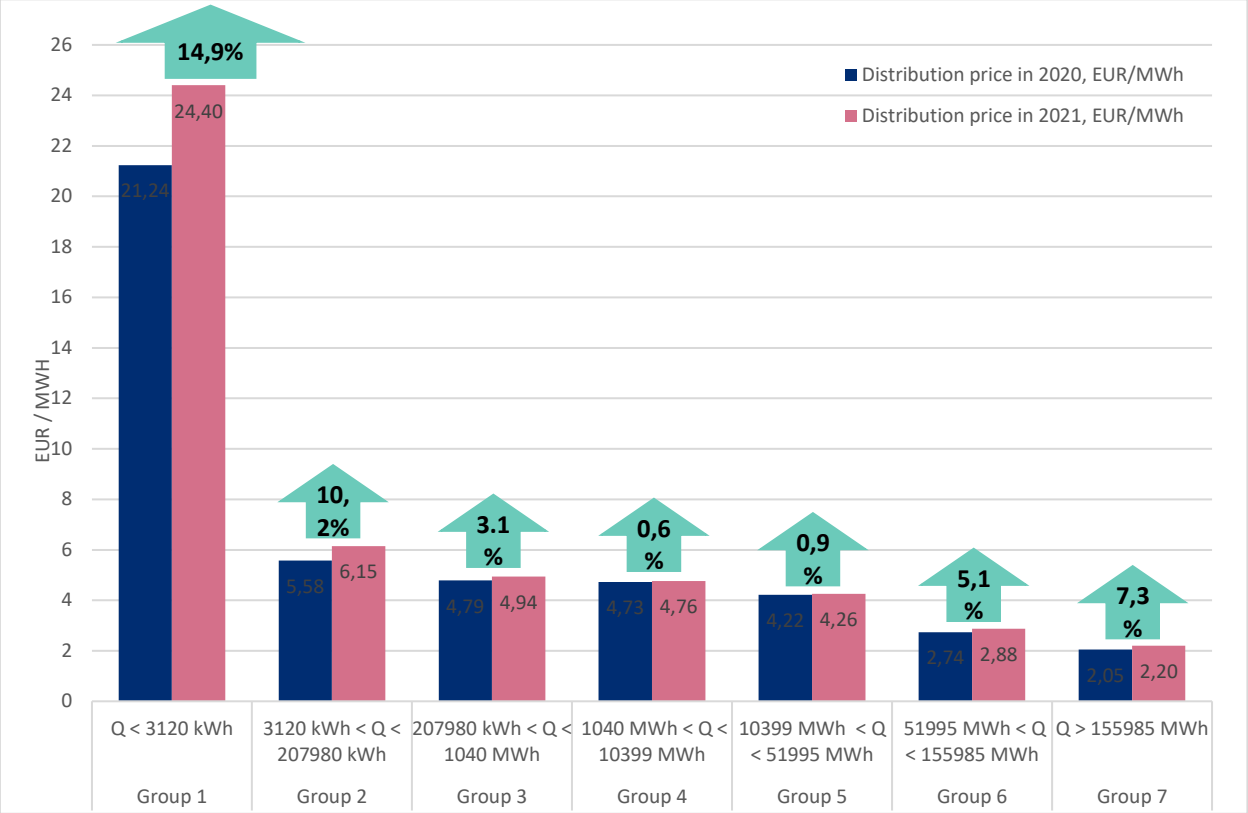
| Income level, EUR thousand | 2019 | 2020 | 2021 | Change 2021/2020, % |
|---|---|---|---|---|
| AB "Energijos skirstymo operatorius" | 36,465.031 | 36,965.477 | 39,661.616 | 7.29 |
| AB agrofirm "Josvainiai" | 50.369 | 54.084 | 53.349 | -1.36 |
| UAB "Fortum Heat Lietuva" | - | 132.566 | 162.827 | 22.83 |
| UAB "Intergas" | - | - | 2,589.286 | - |

Source: NERC.

Having analysed the actual data of AB "Energijos skirstymo operatorius" for 2020 and taking into account the submitted forecast data, the NERC set the upper-income limit for the natural gas distribution activities for 2021 at EUR 39,661,616. Compared to 2020, it increases by 7.29%. The upper-income limit increases mainly due to the lower share of the refunded sum of discrepancy from authorised revenue to the consumers of natural gas for the period 2014–2018.

The average natural gas distribution price of AB "Energijos skirstymo operatorius" – EUR 5.52/MWh - increases by 8.24% compared to 2020 (EUR 5.1 per MWh). Specific natural gas distribution prices are differentiated amongst individual consumer groups according to the amount of gas consumed. The change in the prices was determined mainly by the upper-income limit for the natural gas distribution activities set for 2021 by AB "Energijos skirstymo operatorius".

*Fig. 21. Prices of natural gas distribution services of AB "Energijos skirstymo operatorius", EUR per MWh, excluding VAT*




*Source: NERC.*

***Liquefied Natural Gas Terminal (hereinafter referred to as "the LNGT")***

In 2020, the following amendments were made to the Methodology for Setting of State-Regulated Prices within the Natural Gas Sector:

- *after providing financial justification for the decision, the LNGT operator was allowed to insure long-term leases using financial derivatives;*
- *the calculation of the price of the LNG congestion service was revised, providing the LNGT operator with a possibility to differentiate the congestion price;*
- *it is established that when calculating the additional component of the security of natural gas supply to the natural gas transmission price (hereinafter referred to as the "Security Component"), the differences in the share of the designated supply can be divided over time while estimating the purchase price of natural gas of the designated supplier for the coming year – unusual operating deviations may be estimated;*
- *the calculation of LNGT funds administration costs was regulated in detail.*

In 2020, the NERC adjusted and set the upper-income limit for the LNG regasification activities for 2021, which is lower by 10.5% – EUR 32,482,248 (in 2020 – EUR 36,287,300). The main reasons for the decrease in the upper-income limit for the LNG regasification activities are by EUR 1,965,107 established higher return on investment for 2014-2019 than set by the NERC and favourable USD exchange rate leading to the provided decrease in LNG terminal costs for long-term contracts by EUR 1,471,000 in 2021.

***Pricing of specific LNG regasification and congestion services***

The LNG regasification price consists of a fixed part and variable part: the fixed part is calculated per set consumption capacity unit of users of the transmission system (EUR/(MWh/day/year)), the variable part is calculated per unit of the quantity of LNG planned to be regasified (Eur/MWh).

The LNGT operator determines the variable part of the LNG regasification price by taking into account the development of the regional natural gas market, the possibilities of ensuring diversified natural gas supply to consumers of natural gas of the Republic of Lithuania under conditions of effective market competition, and by applying the principle of benchmarking based on the data of the regasification service price of other LNGT.

The NERC approved the fixed part of the LNG regasification price – EUR 151.38/(MWh/day/year) – and the variable part of the price – EUR 0.41/MWh. Compared to 2020, the fixed part of the price decreases by 22%, while the variable part increases by 17%. The decrease of the fixed part of the price is determined by the higher regasification price (variable part), the higher amount of planned regasified natural gas, and the lower upper-income limit. Due to the change in the variable part of the price (for the amount to be gasified), the Security Component will decrease which will provide benefit for all Lithuanian natural gas consumers. The change in the price of the variable part of regasification was determined by the revised calculation, assessing the competitive conditions for the gas entry in different points.

The NERC also set the price of the LNG congestion service for 2021 – EUR 0.53/MWh excluding VAT. Compared to the price in 2020, the price of the LNG congestion service decreases by 52.25%. The reduction in the price of congestion was due to lower costs of the congestion services as the LNGT operator uses part of the loan granted to finance the costs of the rent of the LNG storage vessel facility until 2024.

From 1 January 2021, the congestion price is differentiated:

- small-scale LNG cargo, the capacity of which does not exceed 15,000 $m^3$ of LNG – EUR 0.53/MWh;
- medium-scale LNG cargo, the capacity of which is from 15,000 $m^3$ to 50,000 $m^3$ of LNG inclusively – EUR 0.41/MWh;
- large-scale LNG cargo, the capacity of which exceeds 50,000 $m^3$; however, it shall not exceed the technical capacity of the LNG terminal to reload cargo of the relevant capacity – EUR 0.30 MWh.

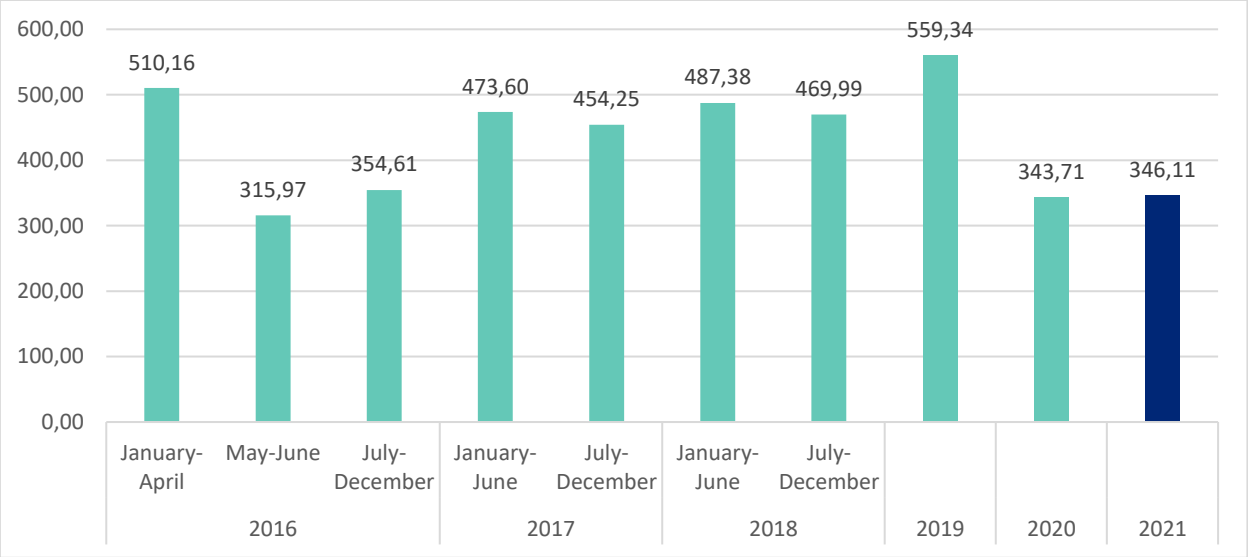
**Additional component for the security of supply to the natural gas transmission price**

In accordance with the procedure established by the NERC, the costs of the installation of the LNGT, its infrastructure and interconnection, which cannot be financed from other sources available to the undertaking implementing the LNGT project, as well as all fixed costs of the

operation of the LNGT, its infrastructure and interconnection, which are not included amongst other state-regulated prices, and reasonable costs of the supply of necessary volume of the LNGT are included in the Security Component.

The Security Component has been calculated as the sum of the fixed part of the LNG regasification price, reasonable costs of the supply of necessary volume of the LNGT and the costs of the administration of LNGT funds per one consumption capacity unit.

*Fig. 22. Additional component for the security of supply to the natural gas transmission price*




*Source: NERC.*

***Consumer connection rates***

In order to shorten the time limits of connection of new customers to the natural gas system and ensure that the connection fee is calculated reasonably by taking into account the actual costs incurred, the NERC amended **The Methodology for the Calculation of the Rates of the Connection of New Natural Gas Users, wherein:**

- *the setting of connection contributions for household consumers, which is based on the principle of geometric distance, was established to shorten the time limits for the connection of new consumers and reduce the administrative burden of gas undertakings;*
- *fixing the contributions and rates for the connection of non-household consumers will be based on the calculation of the present financial net value which will allow a more accurate reflection of the actual costs incurred by the operator in carrying out the connection works;*
- *in an effort to maintain the stability of contributions and rates, the value of contributions and rates are linked to the changes in the price caps of gas undertakings during the regulatory period and the adjustments of the return on investments of gas undertakings;*
- *the principles of setting connection contributions, which shall be applied when gasifying the general consumer group, were specified.*

In 2020, the NERC approved the rates applied by the natural gas DSO AB "Energijos skirstymo operatorius", AB agro firm "Josvainiai", UAB "Fortum Heat Lietuva", and UAB "SG dujos" for the connection of the systems of new household consumers to the natural gas networks that entered into force on 1 May 2020 and the rates applied by UAB "Intergas" for the connection of the systems of new household consumers to the natural gas networks that entered into force on 1 June 2020. The tariff for the connection of household consumer systems to the natural gas

networks consists of two rates: the rate irrespective of distance and the rate per metre of constructed gas pipeline.

In 2020, the NERC also approved the rates applied by the natural gas DSO AB "Energijos skirstymo operatorius" for the connection of the systems of new household consumers to the natural gas networks that entered into force on 1 January 2021. NERC for AB "Energijos skirstymo operatorius" household consumers of Group I, who consume up to 300 $m^3$ of gas per year, extended the connection rates valid until now (rate irrespective of distance – EUR 962.46 and rate per metre of constructed gas pipeline – EUR 41.17). Having analysed the data submitted by AB "Energijos skirstymo operatorius" on the connection of the systems of household consumers of Groups II and III, who consume more than 300 $m^3$ per year, the NERC approved the rate of AB "Energijos skirstymo operatorius" of EUR 599.34/unit applied to the consumer irrespective of the connection distance and the rate of EUR 28.69/m applicable for each meter of the gas pipeline required to be constructed for household consumers of Groups II and III. Compared to 2020, the rates for the connection of the systems of new household consumers to the natural gas networks applied by AB "Energijos skirstymo operatorius" increased by 2.1% and 3.02%, respectively. The main reasons for the increase of the rates are decreasing consumption of natural gas per consumer due to home energy efficiency, change of climatic conditions, increasing investments per kilometre of gas pipeline and per connection of a consumer, and longer gas pipeline per consumer.

***Table 10.*** *Changes in the rates applied by AB "Energijos skirstymo operatorius" for the connection of the systems of new household consumers, who will consume more than 300 $m^3$ of gas per year, to the natural gas networks in 2017-2021*

| Indicator | Rate irrespective of distance, EUR | Rate per metre of constructed gas pipeline, EUR/m |
|---|---|---|
| Connection rate during 1 January 2017 – 1 May 2020. | 228.12 | 13.67 |
| Connection rate during 1 May 2020 – 1 January 2021 | 586.99 | 27.85 |
| Connection rate from 1 January 2021 | 599.34 | 28.69 |

Source: NERC.

- Article 41(1)(s) and (n) of Directive 2009/73/EC

**Storage of natural gas**

Currently, there are no persons in Lithuania performing the activities of a natural gas storage operator. Also, operators do not provide linepack services and other ancillary services. System users use the Inčiukalnis Underground Natural Gas Storage Facility located in the Republic of Latvia. The Latvian TSO and the storage operator JSC "Conexus Baltic Grid" allocate the capacity of the gas storage facility in the Republic of Latvia in accordance with the submitted applications.

In 2020, there were no changes in the procedure for the accumulation of natural gas reserves. Under Article 47(1) and (2) of the Law on Natural Gas of the Republic of Lithuania (hereinafter referred to as "Law on Natural Gas"), to ensure a reliable supply of natural gas in the Republic of Lithuania, natural gas suppliers shall, while non-household consumers can, build up natural gas

storage, which may be used only in accordance with the procedure laid down by the Government or an institution authorised by the Government.

The NERC monitors the manner in which the supply undertakings build up and safe-keep the natural gas storage. These undertakings provide the relevant information to the NERC on an annual basis in the report on its activities and the ensuring of security. In its storage facility, UAB "Ignitis" stores the volume of natural gas necessary in order to supply vulnerable consumers with natural gas for a period of time established by the State, and the volume of gas necessary for non-household consumers who have signed contracts regarding uninterrupted supply of natural gas. On 1 September 2020, 396.4 GWh of gas was stored for household consumers (vulnerable consumers of Groups I and II). For non-household consumers, in accordance with contracts regarding uninterrupted supply of natural gas, about 2.8 GWh of gas was stored in 2020.

- Balancing
- Article 41(6)(b) of Directive 2009/73/EC

In 2020, there were no changes from the information provided in the report last year. The balancing regime is carried out following the Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks (hereinafter referred to as "Network Code on Balancing of Transmission Networks"). Accordingly, most of the provisions that are not applied directly are implemented in accordance with the legislation prepared by the TSOs[14], DSOs[15], and approved by the NERC. Said legislation lays down rules for the exchange of information, the pricing of imbalance charge, the setting of neutrality charge, and other aspects of the balancing regime[16]. The NERC performs the monitoring of the implementation of the mentioned regulation on a continuous basis.

- Cross-border issues
- Access to cross-border infrastructure, including allocation and congestion management: Articles 41(6)(c) and 41(9) and (10) of Directive 2009/73/EC

**Capacity allocation and congestion management**

Capacity allocation and congestion management are carried out in accordance with Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (hereinafter

[14] Rules for the Use of the Natural Gas Transmission System of AB "Amber Grid", coordinated by Resolution No O3E-785 of 28 November 2019 of the NERC (https://www.e-tar.lt/portal/lt/legalAct/13e188d011d711ea9d279ea27696ab7b/asr)
Rules for the Balancing of the Natural Gas Transmission System of AB "Amber Grid", coordinated by Resolution No O3E-263 of 24 August 2018 of the NCC (https://www.e-tar.lt/portal/lt/legalAct/435af730a79911e8acb39f2e6db7935b).

[15] Rules for the Use of the Natural Gas Distribution System of AB "Energijos skirstymo operatorius", coordinated by Resolution No O3E-792 of 28 November 2019 of the NERC (https://www.e-tar.lt/portal/lt/legalAct/ec27e5e011d711ea9d279ea27696ab7b)

[16] Methodology for the Setting of Income and Prices for the State-regulated Natural Gas Transmission Activities, approved by Resolution No O3E-314 of 5 October 2018 of the NCC (https://www.e-tar.lt/portal/lt/legalAct/2fd91460c89811e8bf37fd1541d65f38)

referred to as the "Network code on capacity allocation mechanisms"), and the Commission Decision (EU) 2015/715 of 30 April 2015 amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and the Council on conditions for access to the natural gas transmission networks. Accordingly, the majority of the provisions of said regulations that are not applied directly are implemented in accordance with the legislation prepared by the TSOs[4], the DSOs[5], and the LNGT operator[17], and approved by the NERC. These methodologies describe the characteristics of the offered products, the procedure for their booking and allocation. In order to harmonise the principles of access to the natural gas transmission system applied in Lithuania with those applied in the Latvian and Estonian gas market zone, the NERC has coordinated the Rules for the Use of the Natural Gas Transmission System of AB "Amber Grid" — the amendments entered into force in January 2020. It should be noted that there are no capacity auctions applied in Lithuania; however, the implicit capacity allocation method (ICA) is applied at the interconnection point of Lithuania and Latvia.

**Regional pricing**

In 2020, there were no changes from the information provided in the report last year. The NERC has been obliged to ensure that the pricing model of the natural gas transmission services, the procedure for inter-system compensation of transmission system operators, if applicable, and the prices of gas transmission services applicable at the regional level provide economic benefits for domestic consumers. The decision on the accession of Lithuania to the regional market zone will be adopted by the Government upon assessment of the conclusions submitted by the Ministry of Energy of the Republic of Lithuania and the NERC regarding the economic benefit of such a decision to domestic consumers.

In accordance with Article 28(1) of the Tariff Network Code, prior to each tariff period, the national regulatory authority shall conduct a consultation with the national regulatory authorities of all directly connected Member States, whose gas transmission systems are connected to the gas transmission system of the mentioned country, and the relevant stakeholders on the following:

- the level of multipliers,
- the level of seasonal factors (if applicable),
- the level of the discounts set out in Article 9(2) of the Tariff Network Code, i.e., price discounts at the entry points from the liquefied natural gas (LNG) storage (facilities/terminal) points (hereinafter referred to as "LNGT") (if applicable),
- the level of the discounts set out in Article 9(2) of the Tariff Network Code, i.e., price discounts at the entry points from the infrastructure developed in order to eliminate the exclusion of the gas transmission systems of the Member States and at the exit points to such infrastructure (currently not relevant to the entry-exit system of Lithuania),
- the level of the discounts set out in Article 16 of the Tariff Network Code, i.e., price discounts for interruptible capacity products.

In 2020, the NERC, taking into account the comments received during the public consultation, approved the prices of natural gas transmission services for the TSOs valid from 1 January 2021. In 2021, it was decided not to change the above-mentioned aspects of pricing applied in the

17 Rules for the Use of the Liquefied Natural Gas Terminal of AB "Klaipėdos nafta", coordinated by Resolution No O3E-246 of 18 July 2019 of the NERC (https://www.e-tar.lt/portal/lt/legalAct/5cced7b0a95311e9964cdd77475976b0)

current (2020) tariff period, except for seasonal factors at the domestic and Šakiai exit points, taking into account the slightly changing natural gas flows.

- Article 41(11) of Directive 2009/73/EC

**Handling of complaints and disputes**

In 2020, there were no changes from the information provided in the report last year.

- Article 41(1)(c) of Directive 2009/73/EC

**Cross-border agreements**

The decision on the creation of a common zone of transmission service prices of Lithuania and FINESTLAT countries and the applied inter-TSO compensation mechanism (ITC) was not adopted in 2020. In 2020, the Lithuanian transmission system is considered a separate price zone. However, in order to efficiently develop the regional gas market of the Baltic-Finnish countries, the entry point prices set for 2020 were harmonised with the other countries of the FINESTLAT price zone, i.e., the entry price is the same at all entry points of the Baltic-Finnish region.

As of 1 January 2020, FINESTLAT is functioning as a common natural gas price zone. The working group for the development of the Baltic-Finnish natural gas region is looking for solutions to facilitate agreement on a common natural gas market of the 4 countries. To achieve this goal, the workgroup for the development of a common region has been joined by the representatives of the European Commission, who share their insights and experiences in the development of the common market of natural gas. Under the auspices of the representatives of the European Commission, the Baltic-Finnish natural gas region integration process agreement was drafted and signed on 20 April 2020 by all regulators in the region, providing key integration tasks and deadlines, i.e., *Roadmap on regional gas market integration between Estonia, Finland, Latvia and Lithuania.* Also, in order to create an appropriate inter-system compensation mechanism, the TSOs of the 4 countries used the assistance of the consulting company “Artelys” and prepared a study that assesses the costs and benefits of integration of the natural gas markets of 4 countries. The consultants have to submit a proposal for the inter-system compensation mechanism applicable to the Baltic-Finnish natural gas region until the end of Q2 2021.

- Article 41(1)(g) of Directive 2009/73/EC

**Coordination of TSO investments**

The NERC coordinates investment projects related to the construction of new energy facilities, rebuilding, modernisation, reconstruction of existing energy facilities or development of energy facilities currently operating, etc. The Law on Energy provides for an obligation of the NERC to assess the reasonableness of investments. If investments are not coordinated with the NERC, they cannot be recognised as reasonable and are not included in the prices of regulated services. The NERC also coordinates and evaluates 10-year development plans prepared by the TSOs and the DSOs.

Every two years, by 1 July of each year, the natural gas transmission and distribution system operators draw up and submit to the NERC a 10-year development plan including a specific list of investment projects based on the current and expected supply and demand, as well as on the requirements meant to ensure security and reliability of supply. The plan is submitted to the NERC following the consultation with the stakeholders if legislation provides for such mandatory consultation. When assessing the plan, the NERC examines whether the plan takes all investment needs into account, whether it meets the requirements established in legislation and whether it is compatible with the 10-year network development plan of the EU. If doubts arise as to the compatibility with the network development plan of the European Union, the NERC consults ACER.

In October 2020, the NERC agreed on the TSOs' 10-Year Natural Gas Transmission Network Development Plan, which identifies the most important transmission infrastructure to be installed or upgraded, identifies new investments and those already decided, financing of works and implementation deadlines. The total value of the transmission network development plan of AB "Amber Grid" in 2020–2029 is EUR 229.15 million.

In July 2020, the NERC approved 4 investment projects of AB "Amber Grid", the total amount of which is EUR 3,910.2 thousand, of which EUR 946 thousand will be financed by the EU structural funds.

In October 2020, the NERC coordinated the investments of AB "Amber Grid" for the amount of EUR 2,588.8 thousand (financed from depreciation expenses). AB "Amber Grid" plans to allocate EUR 149.9 thousand for the acquisition of new assets, i.e., 5.79% of the amount of submitted investments, and for the renewal and modernisation of assets – EUR 2,438.9 thousand, i.e., 94.21%. Most of the investments are aimed at ensuring the security and reliability of the natural gas transmission system. The company will upgrade individual sections of the main gas pipelines to ensure the reliable and secure operation of the system, as well as will update the website to provide consumers with access to digital services.

In 2020, the NERC approved individual investment projects of AB "Amber Grid" for the amount of EUR 44.089 million, of which EUR 19.79 million will be financed from the EU structural funds.

- Implementation of network codes and guidelines

- Network Code on Capacity Allocation Mechanisms
- Network Code on Balancing of Transmission Networks
- Network Code on System Interoperability and Data Exchange

There were no significant changes in 2020 related to the improvement of the implementation of the Network Code on Capacity Allocation Mechanisms, the Network Code on Balancing of Transmission Networks and Commission Regulation (EU) 2015/703 of 30 April 2015 establishing the network code on system interoperability and data exchange rules. See also the sections on "Access to cross-border infrastructure, including allocation and congestion management" and "Balancing".

- Tariff Network Code

Considering the fact that, in 2022, Gas Interconnection Poland-Lithuania (GIPL) will become functional, on 16 December 2020, the NERC published the second public consultation document (the first public consultation document was published in 2019[18]) on the methodology for setting the prices for the services provided by the TSOs for the remainder of the regulatory period of the gas transmission prices (2022-2023). The consultation was conducted in accordance with Article 26 of the Tariff Network Code (periodic consultation covering the reference price methodology, tariffs and their derivation; it is mandatory at least once every 5 years) and Article 28 (consultation on discounts, multipliers, and seasonal coefficients).

The determination of the TSO allowable income level and the assessment of deviations from the allowable income and other indicators of the previous year (management of the regulatory account) were not part of this consultation and will be determined in accordance with the Methodology for the Setting of Income and Prices for the State-Regulated Natural Gas Transmission Activities.

It is expected that in 2022-2023 the period of application of specific prices will remain the same as in 2019 and will coincide with the calendar year. The established price regulation period is 5 years, the current price regulation period is 2019-2023.

The consultation covers only the methodological provisions for the rest of the current regulatory period, i.e., the tariff years 2022 and 2023. The transmission service prices, calculated according to the methodology (including the transmission service prices for the new connection with Poland (the new cross-border interconnection point is called Santaka)), their forecasts, and, accordingly, the attached price calculations are based on preliminary data. The final decision on prices applicable will be made after considering comments and suggestions received during a public consultation, recommendations made by the ACER, as well as evaluating the final level of the allowed income set by the NERC for 2022 and 2023.

Taking into account the opinion expressed in the document "Agency Report – Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Lithuania"[19] published by ACER on 4 July 2019, the public consultation document proposes methodological changes for 2022–2023:

- the level of TSO allowable income approved by the NERC is fully attributed to the transmission service. The costs of gas network units/branches that transmit gas exclusively to meet the needs of Lithuanian customers are identified and directly allocated to the relevant domestic exit point according to the applicable reference price methodology: reflecting real transmission costs, ensuring the absence of cross-subsidisation between domestic and cross-border exit points. This methodological change does not have a direct impact on final transmission prices;
- the amount of income collected through volume pricing is reduced from ~23% to 10% of the total allowable income level, and the price per unit of gas transmitted is the same at all exit points (reflecting the amount of costs directly determined by the volume of gas transmitted, i.e., variable costs), thus, ensuring compliance with TAR NC Chapter 4(3). This methodological change has a direct impact on transmission prices, i.e., it reduces the price

[18] https://www.vert.lt/en/Pages/PublicConsultationontariffmethodologyandindicative20202023tariffsofLithuanianTSOimplementationoftheNetwor.aspx

[19] Agency Report - Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Lithuania, http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Agency%20report%20-%20analysis%20of%20the%20consultation%20document%20for%20Lithuania.pdf

of the transmitted quantity and it is harmonised at all exit points of the transmission system, as well as it increases the prices of consumption capacity and reserved capacity;

- In order to reflect the related transmission costs and to ensure the absence of cross-subsidisation between Lithuanian domestic consumers, two Lithuanian domestic exit points are identified based on the significance criterion:
  - domestic exit point – Achema (Achema)
  - domestic exit point (other users of the Lithuanian TSO system).

This methodological change does not directly determine the change in final prices but allows maintaining the continuity of the differentiation currently applied at the only Lithuanian exit point between system users transporting up to 10.4 TWh and more than 10.4 TWh of gas per year through the domestic exit point to one natural gas delivery point.

All of these measures allow the requirements set out in Article 13 of the TAR NC to be met: cost reflection, transparency, non-discrimination, avoidance of cross-subsidisation, and the promotion of efficient gas trade and competition.

When setting prices for short-term capacity products, the multipliers applied at the entry points are lower than the ceilings set out in Article 13 of the TAR NC but identical to the multipliers applied to FINESTLAT. In 2022, it is proposed to keep the multipliers at the entry points (including the new Santaka (GIPL) point) at the same level that was set for the 2021 tariff year.

Seasonal coefficients are not applied at the exit points of Kiemėnai and Santaka, as there is no repetitive and strongly expressed seasonality of flows at these points. Thus, multipliers of the same level as at the entry points will be applied at the exit points of Kiemėnai and Santaka. Seasonal coefficients are applied at Lithuanian domestic and Šakiai exit points (from 2022 general seasonal factors are applied taking into account that these points have a similar trend of gas consumption, i.e., these points have a similar seasonality) together with multipliers. Pursuant to Article 2 (1) of the TAR NC, multipliers are unrestricted at points other than cross-border points, but seasonal factors and multipliers reflecting seasonality at these points are applied to the maximum extent (according to the provisions of Article 15 of the TAR NC) at Lithuanian domestic and Šakiai exit points.

***Table 11.*** *Key technical indicators of the natural gas network*

| Indicators | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Country's maximum consumption (TWh/day) | 0.355 | 0.355 | 0.405 | 0.405 | 0.405 |
| Capacity of the gas pipeline entry points (TWh/year) | 187.2 | 187.2 | 187.2 | 187.2 | 187.2 |
| Capacity of the gas pipeline exit points (TWh/year) | 64.53 | 64.53 | 66.35 | 66.36 | 66.36 |
| Maximum technical gasification capacity, $m3^3$/day | 10,244,300 | 10,244,300 | 10,244,300 | 10,244,300 | 10,244,300 |
| Total volume of LNG containers, $m^3$ | 170,000 | 170,000 | 170,000 | 170,000 | 170,000 |
| Number of TSOs | 1 | 1 | 1 | 1 | 1 |
| TSO network (km) | 2,115 | 2,115 | 2,115 | 2,113 | 2,113 |
| Number of DSOs | 5 | 5 | 5 | 4 | 5 |
| DSO network (km) | 8,533 | 8,906 | 9,091 | 9,602 | 9,820 |

Source: NERC.

It should be noted that on 16 April 2021, ACER published a conclusion on the principles of setting the tariffs for Lithuanian natural gas transmission services and their structure in 2022–2023 *(Agency Report - Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Lithuania*)[20].

## 4.2. Promotion of competition and functioning of the market

## 4.3.Wholesale market

***Participants and structure of the wholesale market***

In 2020, 23,397 GWh of natural gas in the wholesale market of natural gas was sold and (or) consumed, which shows an increase of 8.61%, compared to 21,542 GWh of natural gas sold and (or) consumed in 2019.

***Table 12.*** *Structure of the wholesale natural gas supply market in 2014-2020, GWh*

| Structure of the wholesale natural gas supply market | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| Under bilateral contracts in Lithuania | 21,548 | 23,711 | 18,329 | 18,856 | 17,463 | 18,831 | 19,710 |
| On the exchange* | 1,134 | 652 | 299 | 376 | 943 | 2,711 | 3,687 |
| **In total:** | **22,682** | **24,363** | **18,628** | **19,232** | **18,406** | **21,542** | **23,397** |
| Change compared to 2020, GWh | 715 | -966 | 4769 | 4165 | 4991 | 1855 | - |
| Change compared to 2020, % | 3.15 | -3.97 | 25.60 | 21.66 | 27.12 | 8.61 | - |

**Natural gas exchange transactions are assessed if the buyer's trading platform is located in Lithuania.*

Source: NERC.

- Monitoring the price level, the level of transparency, the level of market opening and competition, as well as efficiency

- Article 41(1)(i) of Directive 2009/73/EC

In accordance with the provisions of the Law on Natural Gas, the NERC continuously monitors and controls the compliance of entities operating in the natural gas sector with the requirements of transparency, non-discrimination, and competition in the natural gas sector established in the Law on Natural Gas[21] (hereinafter referred to as "the List") on the NERC website. In accordance with the aforementioned description, the NERC also annually checks the manner in which the information contained in the List is made publicly available by the entities. Having identified deficiencies in the published information, the NERC draws up recommendations related to compliance of the prices of the services within the energy sector with the requirements of transparency, non-discrimination, and other requirements set out in legislation. In accordance

[20]https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Agency%20report%20-%202n%20analysis%20of%20the%20consultation%20document%20for%20Lithuania.pdf

[21]https://www.regula.lt/dujos/Puslapiai/gamtiniu-duju-sektoriaus-ukio-subjektu-viesai-skelbiamos-informacijos-sarasas-.aspx

with the provisions of the Law on Energy, these recommendations are published at least once every 5 years and submitted to the Competition Council of the Republic of Lithuania.

In order to carry out the monitoring of the market, the NERC, under the approved Rules for the Provision of Information of the Undertakings of Energy, Drinking Water Supply and Waste Water Treatment, Surface Waste Water Treatment, collects information from regulated entities. Based on the information submitted by said entities, in order to enhance the awareness of market participants and ensure that the market participants have access to reliable information, the NERC regularly draws up half-yearly reports on the monitoring of the natural gas market and annual development reviews, which are published on the NERC website.

The monitoring of trade in the natural gas market is carried out by analysing the behaviour of market participants, i.e., conditions of entering into transactions, including submission of orders to trade, explanations of market participants, and other circumstances, in order to ensure that wholesale electricity markets are not abused. When implementing Regulation No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT), **the NERC and ACER carried out continuous monitoring of the wholesale electricity and natural gas markets**, analysis of information published on platforms for the disclosure of publicly unavailable information[22] in the Lithuanian bidding zone (in 2020, in the gas and electricity sector, there were 12 incorrectly/inaccurately published urgent market messages (UMM)).

In 2020, the NERC also **carried out registration of market participants** (10 market participants were registered), assessment of bilateral contracts on wholesale energy products and their compliance with the requirements of REMIT, monitoring of orders submitted on the exchanges and transactions concluded by market participants.

In order to create the preconditions for the development of effective competition within the natural gas markets and prevent the abuse of significant influence of persons within the natural gas markets, the NERC conducts market research in accordance with the Rules for Market Research. Accordingly, the NERC regularly publishes market research reports on its website and updates said reports, with the exception of information that is considered confidential, as well as publishes and updates the final decisions on the market research results or parts thereof without confidential information. It should be noted that no market research was carried out in 2020.

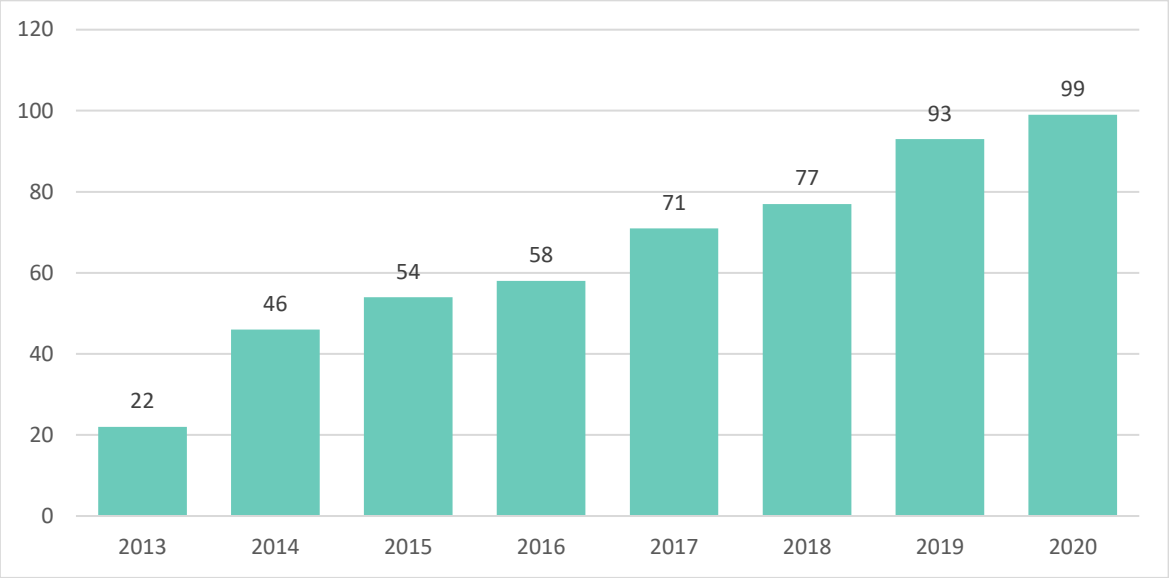
- Article 41(1)(j) of Directive 2009/73/EC

***Trade on natural gas exchanges***

In 2020, the number of participants in the natural gas exchange continued to grow steadily. In 2020, 99 exchange participants were registered on the natural gas exchange “Get Baltic”, while on the Lithuanian natural gas exchange platform, 71 participants were registered.

[22] https://umm.nordpoolgroup.com/#/messages?publicationDate=lastweek&eventDate=nextyear https://umm.getbaltic.com/public-umm

*Fig. 23. Number of participants of the natural gas exchange in 2013–2020*




Source: NERC.

On 1 January 2020, UAB "GET Baltic", the regional gas exchange operating in the Lithuanian, Latvian and Estonian markets, successfully launched its operations in Finland, becoming the single regional trading platform for the gas markets of the Baltic States and Finland. 7,206,319 MWh of natural gas was traded on natural of UAB "GET Baltic" gas exchange in 2020. Compared to the same period in 2019, the volume of natural gas sold on the UAB "GET Baltic" natural gas exchange was 152.10% higher.

In 2020, the average natural gas price on the exchange of UAB "GET Baltic" was EUR 12.22/MWh, or 35.79% lower than in 2019 (EUR 19.03/MWh). In 2020, the turnover of exchange trade amounted to EUR 88.1 million and it was 61.91% higher than in 2019.

Detailed information on the wholesale natural gas supply market is provided in the 2019 Review of the Energy and Drinking Water Supply and Waste Water Treatment Sectors prepared by the NERC[23].

- Article 41(1)(k) and (l) of Directive 2009/73/EC

In the area of ensuring the secure supply of natural gas, the NERC monitors the main terms and conditions of natural gas supply contracts regarding the ensuring of the reliability of the supply of natural gas between natural gas supply undertakings and consumers. To that end, supply undertakings provide information to the NERC on the main terms and conditions of concluded natural gas supply contracts on a yearly basis, while the NERC has the right to require natural gas undertakings to revise said contracts in such a way that they comply with the requirements laid down in the Law on Natural Gas and other legislation. If the natural gas undertaking fails to comply with this requirement, the NERC has the right, protecting the public interest, to appeal to a court for the amendment of the contract. In 2020, a contractual practice that restricts competition was not identified.

[23] https://www.vert.lt/Puslapiai/bendra/Veikla/veiklos-rezultatai.aspx

***Table 13.*** *Indicators of the wholesale natural gas market*

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Natural gas production | - | - | - | - | - |
| Number of active wholesale market participants | 9 | 8 | 11 | 9 | 12 |
| Share of biogas in the natural gas network | - | - | - | - | - |
| Natural gas demand, GWh* | 18,628 | 19,232 | 18,406 | 21,542 | 23,397 |
| Gas demand of energy producers | N/A | N/A | N/A | N/A | N/A |
| Imports, GWh | 24,222 | 27,374 | 23,639 | 28,402 | 30,487 |
| Transported via transmission networks to other EU countries, GWh | 368 | 2,599 | 2,308 | 5,990 | 7,960 |
| Main source of imports and its share, % | Gas pipeline 60.32 | LNGT 54.84 | Gas pipeline 64.68 | LNGT 65.32 | LNGT 65.30 |
| Number of natural gas supply sources | 2 | 2 | 2 | 2 | 2 |
| Market share of the three largest wholesalers, % | 97.8 | 98.8 | 95.1 | 98.2 | 88.13 |
| Volume of natural gas traded on the spot market of natural gas, GWh | 299 | 442 | 1,084 | 2,438 | 6,641 |
| Volume of natural gas traded on the futures natural gas market, GWh | - | - | - | 420 | 565 |
| Total volume traded on the natural gas exchange, GWh | 299 | 442 | 1,084 | 2,858 | 7,206 |
| Average spot price of natural gas, EUR/MWh | 18.07 | 17.47 | 22.87 | 18.42 | 12.05 |

*Under bilateral contracts and natural gas exchange transactions when the buyer's trading platform is located in Lithuania

Source: NERC.

- Article 41(1)(u) of Directive 2009/73/EC

There were no key changes related to the improvement of the harmonisation of data exchange processes for key market processes at the regional level in 2020. See section "Cross-border issues".

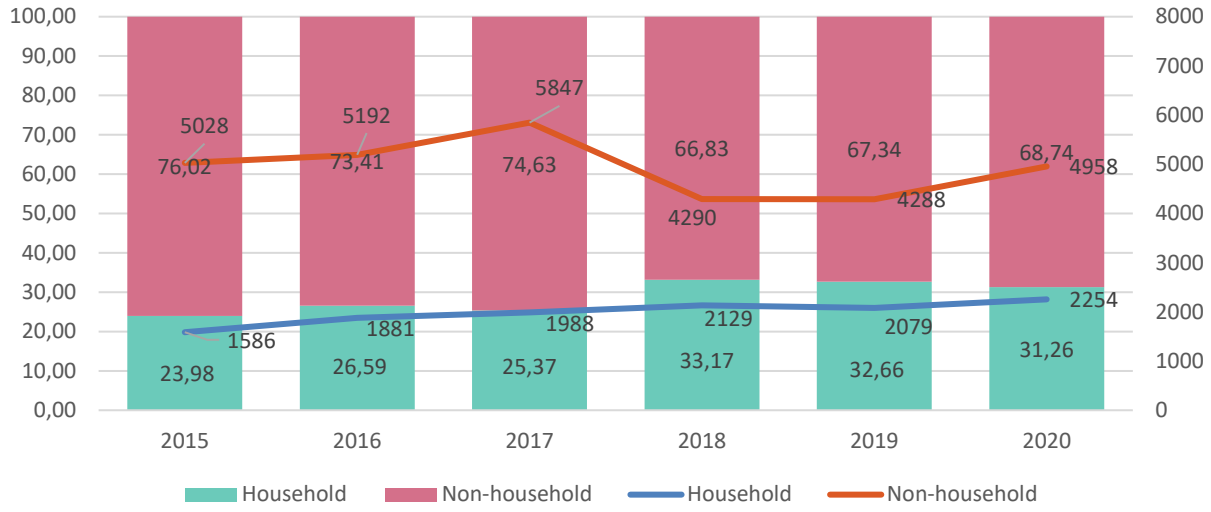
### 4.4. Retail market

- Monitoring the price level, the level of transparency, the level and effectiveness of market opening and competition

Statistics of the retail natural gas market are provided by assessing natural gas supply undertakings, market participants (natural or legal persons) who conclude natural gas supply contracts with final consumers[24].

[24] Excluding natural gas supply contracts for final consumers with a natural gas consumption capacity that exceeds the threshold set out in the second subparagraph of Article 2(1)(5) of REMIT (600 GWh).

*Fig. 24. Market structure by volumes of natural gas purchased in 2015–2020, GWh and %*




Source: NERC.

In 2020, there were 610.4 thousand natural gas consumers in Lithuania, of which 602.9 thousand were household consumers and 7.5 thousand were non-household consumers. In 2019, there were 595.3 thousand household consumers and 7.7 thousand non-household consumers.

Household consumers, who, in terms of the number of consumers, account for 98.78% of the whole retail consumer market, consumed only 31.26% of the natural gas supplied in the retail natural gas supply market. Non-household consumers purchased 68.74% of the volume of natural gas supplied in the retail natural gas supply market, although, as consumers, their number was extremely small compared to the number of household consumers, i.e., only 1.22%.

***Household consumer segment***

In 2020, 4 companies supplied gas to household consumers in the retail market. In 2020, household consumers consumed 2,254 GWh (8.4% more than in 2019). Household consumers paid EUR 46.80 million EUR for natural gas (45% less than in 2019). The decrease in revenue was due to decreased natural gas tariffs which were up to 30% lower than compared to 2019). UAB "Ignitis" remains the main supplier of natural gas to household consumers: In 2019, the market share of this undertaking accounted for 99.89% of all sales to household consumers.

***Tariffs for household consumers***

**Natural gas tariffs for household consumers** are recalculated twice a year. The natural gas tariff for household consumers consists of a fixed part payable on a monthly basis irrespective of the volume of natural gas consumed, and a variable part, which is paid for the volume of natural gas consumed.

In the middle of the year, only the variable part of the tariff is recalculated.

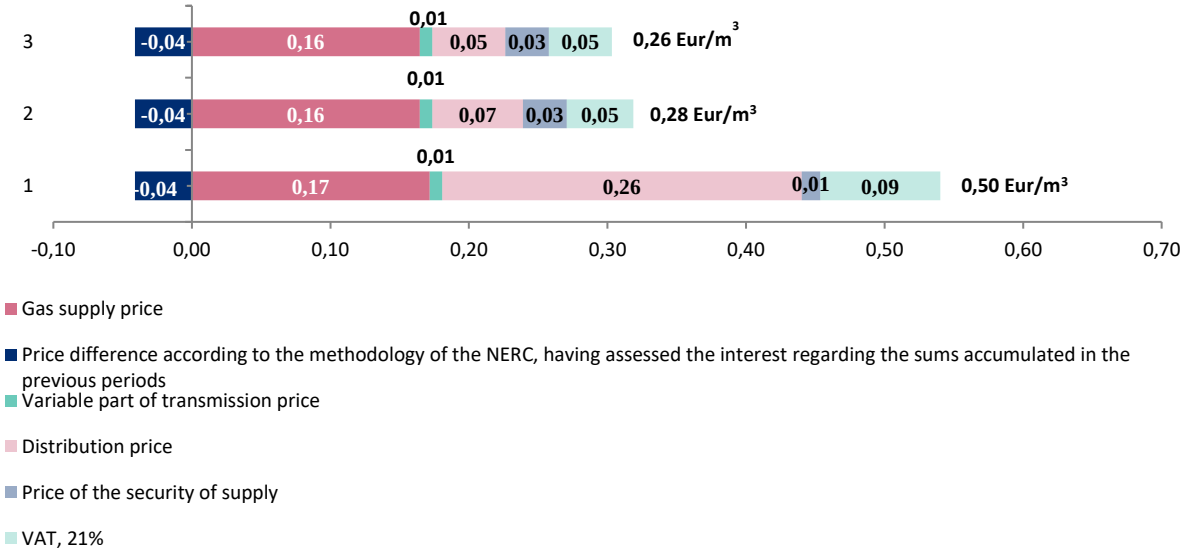
The following is included in the natural gas tariff for **household customers**: forecast natural gas price, the price of supply service, the price of the security of supply, transmission price (after assessing the Security Component), distribution price, the difference between the natural gas (product) prices forecast during the previous tariff validity period and the actual prices.

***Table 14.*** *Natural gas tariffs for household consumers (EUR including VAT/m³)*

| Undertaking | Group | First half of 2020 | | Second half of 2020 | | First half of 2020 | | Change, EUR | |
|---|---|---|---|---|---|---|---|---|---|
| | | Fixed part of the tariff | Variable part of the tariff | Fixed part of the tariff | Variable part of the tariff | Fixed part of the tariff | Variable part of the tariff | Fixed part of the tariff | Variable part of the tariff |
| UAB "Ignitis" | Group I | 0.56 | 0.55 | 0.56 | 0.47 | 0.56 | 0.50 | 0.00 | +0.03 |
| | Group II | 3.99 | 0.36 | 3.99 | 0.28 | 3.99 | 0.28 | 0.00 | 0.00 |
| | Group III | 3.99 | 0.35 | 3.99 | 0.27 | 3.99 | 0.26 | 0.00 | -0.01 |
| UAB "Fortum Heat Lietuva" | Group II | 3.94 | 0.43 | 3.94 | 0.35 | 3.94 | 0.39 | 0.00 | +0.04 |
| AB agrofirm "Josvainiai" | Group I | 0.63 | 0.30 | 0.63 | 0.29 | 0.63 | 0.29 | 0.00 | 0.00 |
| | Group II | 3.99 | 0.22 | 3.99 | 0.21 | 3.99 | 0.20 | 0.00 | -0.01 |
| UAB "Intergas" | Group I | 1.45 | 0.46 | 1.45 | 0.35 | 1.45 | 0.32 | 0.00 | -0.03 |
| | Group II | 1.45 | 0.40 | 1.45 | 0.30 | 1.45 | 0.27 | 0.00 | -0.03 |

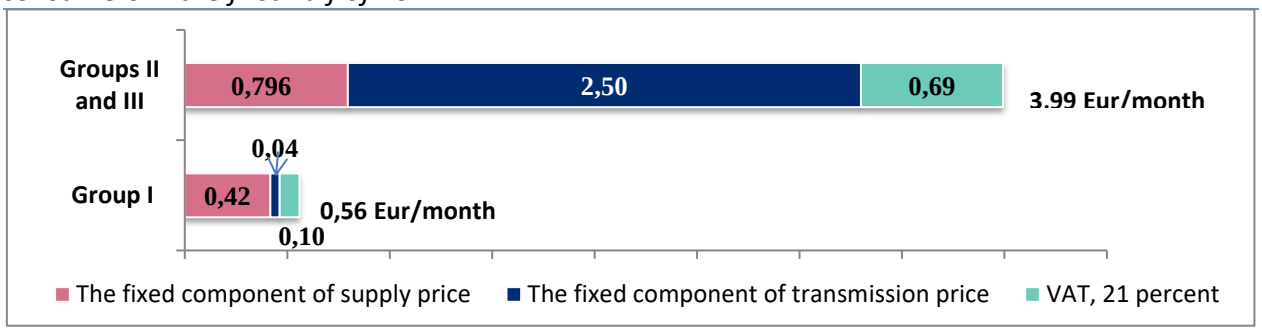
Source: NERC.

*Fig. 25. Structure of the variable part of the natural gas tariff of UAB "Ignitis" for household consumers in the first half of 2021*




Source: NERC.

*Fig. 26. Structure of the fixed part of the natural gas tariff of UAB "Ignitis" for household consumers in the first half of 2021*




Source: NERC.

A fixed monthly fee is paid to maintain the functionality of the gas system and to reserve power (securing of capacity) in the main pipelines, thus, ensuring that each consumer can receive a high-quality service at any time. The fixed fee also includes costs of metering and the conclusion of contracts (supply price).

### Competition and market: Retail market

***Table 15.*** *Retail market indicators (household consumers)*

| Retail market indicators (household) | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Natural gas consumption, GWh | 1,879 | 1,986 | 2,127 | 2,079 | 2,254 |
| Number of users | 566,200 | 575,314 | 587,570 | 595,253 | 602,978 |
| Number of registered suppliers | 4 | 4 | 4 | 4 | 4 |
| Number of active suppliers | 4 | 4 | 4 | 4 | 4 |
| Market share of the three largest suppliers in terms of the number of measuring instruments | 99.96 | 100 | 100 | 99.98 | 99.84 |
| Number of suppliers with a market share of more than 5% | 1 | 1 | 1 | 1 | 1 |
| Number of suppliers with more than 5% of the market consumers | 1 | 1 | 1 | 1 | 1 |
| *Share of consumers who have changed their supplier (allocated gas volume), %* | | 0.09 | 0 | 0 | 0 |
| *Share of consumers who have changed their supplier (in terms of the number of measuring instruments), %* | | 0.459 | 0 | 0 | 0 |
| Duration of the change of a supplier established in legal acts | 3 weeks | 3 weeks | 3 weeks | 3 weeks | 3 weeks |
| Average duration of the change of a supplier | N/A | N/A | N/A | N/A | N/A |
| Number of consumers paying in accordance with the regulated tariff | 566,200 | 575,314 | 587,570 | 595,253 | 602,978 |
| HHI by sales | 9,972 | 9,981 | 9,979 | 9,978 | 9,968 |
| HHI by the number of measuring instruments | 9,899 | 9,992 | 9,992 | 9,991 | 9,991 |
| Number of interruptions due to unpaid bills | 0 | 0 | 0 | 3 | 10 |
| Average price for a consumer consuming 9,000 kWh per year, EUR/year | 353 | 383 | 379 | 442 | 289 |

*Source: NERC.*

***Table 16.*** *Retail market indicators (non-household consumers)*

| Retail market indicators (non-household) | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Natural gas consumption, GWh | 5,192 | 5,847 | 4,290 | 4,299 | 4,958 |
| Number of users | 6,959 | 7,168 | 7,380 | 7,732 | 7,458 |
| Number of registered suppliers | | 40 | 33 | 23 | 30 |
| Number of active suppliers | | 16 | 15 | 16 | 20 |
| Market share of the three largest suppliers in terms of the number of measuring instruments | 98.37 | 99.33 | 92.41 | 94.94 | 93.20 |
| Number of suppliers with a market share of more than 5% | 2 | 2 | 2 | 3 | 2 |
| Number of suppliers with more than 5% of the market consumers | 1 | 1 | 1 | 1 | 1 |
| *Share of consumers who have changed their supplier (allocated gas volume), %* | | 0.219 | 6.76 | 10.68 | 16.80 |
| *Share of consumers who have changed their supplier (in terms of the number of measuring instruments), %* | | 0.434 | 1.96 | 1.96 | 3.80 |

| | | | | | |
|---|---|---|---|---|---|
| Duration of the change of a supplier established in legal acts | 3 weeks | 3 weeks | 3 weeks | 3 weeks | 3 weeks |
| Average duration of the change of a supplier | - | - | - | - | - |
| Number of consumers paying in accordance with the regulated tariff | 0 | 0 | 0 | 0 | 0 |
| HHI by sales | 7,004 | 6,958 | 6,752 | 5,897 | 3,704 |
| HHI by the number of measuring instruments | 9,634 | 9,666 | 9,480 | 9,183 | 8,150 |

*Source: NERC.*

***Monitoring of the retail natural gas market,*** Article 41(1)(i), (j), (k), (l) and (u) of Directive 2009/73/EC

The NERC carries out scheduled inspections of regulated gas undertakings to determine their compliance with the set cost and price level. In 2020, the NERC carried out 1 scheduled inspection of a regulated gas undertaking. The NERC, having conducted a **scheduled inspection** of UAB "Intergas", stated that in 2019, **the sum of EUR 18.822 was unreasonably included** in the costs of regulated natural gas distribution activities. During the inspection, the NERC also established that due to the differences between the forecast and actual regulated value of the assets, during the period 2019–2020, **EUR 117,270 higher normative profit was included** in the distribution price caps. The NERC **assessed** the difference in costs and the revised value of regulated assets by setting the upper limit of UAB "Intergas" natural gas distribution income for 2021–2025.

***See Chapter 4.2.1.***

- Consumer protection and dispute resolution

- Compliance with Annex I (Article 41(1)(o) of Directive 2009/73/EC)

In accordance with Article 4(3) of the Law on Energy, the NERC, while performing the functions of regulation, supervision, and control of energy activities, ensures, within its remit, the implementation of state policy in the field of protection of consumer rights within the energy sector. Safeguards to protect consumers are set out in Article 57 of the Law on Natural Gas. No changes were made in 2020.

- Ensuring access to consumer data (Article 41(1)(q), Item (h) of Annex I of Directive 2009/73/EC)

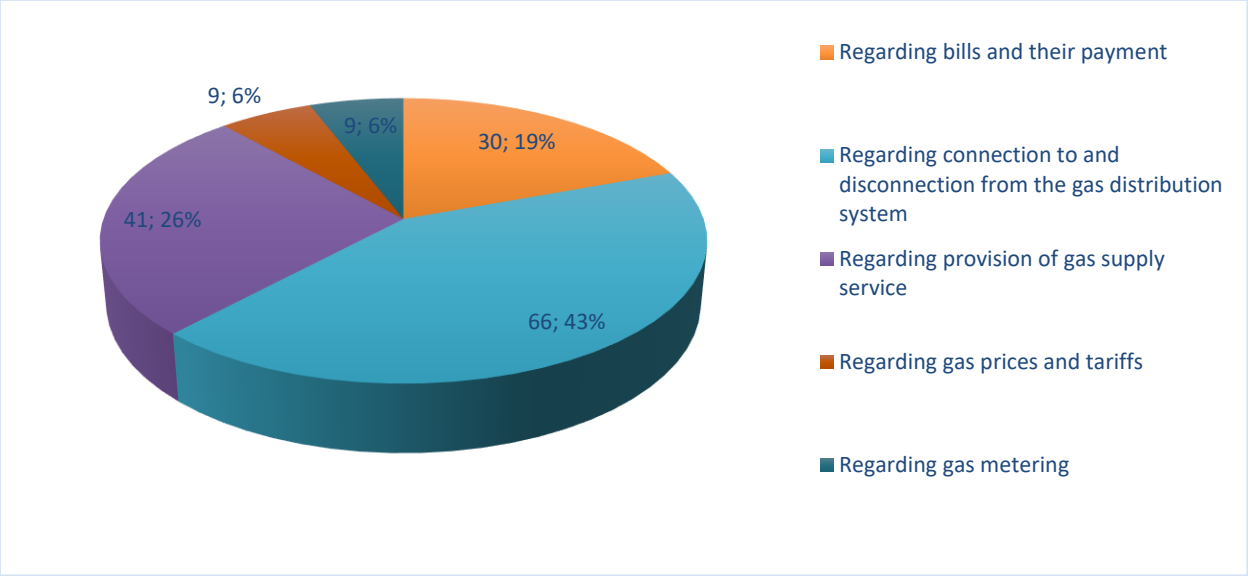
In 2020, compared to 2019, the conditions for access to consumer data remained basically unchanged. In accordance with the legal regulation, natural gas consumers must be provided with adequate and sufficient conditions for access to information and data on actual energy consumption, payments for the amount of energy supplied to them, and/or services related to energy supply. Adequate and sufficient means of access are considered to consist of the submission of an invoice to the consumer or electronic access to the consumer's payment data, or other reasonable means. **Electricity and gas consumers receive services and customer service in one place and on the same self-service website** www.e.ignitis.lt**.**

- Article 41(11), (4)(e) of Directive 2009/73/EC

In 2020, as well as in 2019, the procedure for receiving and examining complaints remained the same, no changes were made.

In 2020, the NERC received and examined 129 applications. The distribution of received applications according to the nature of the application is shown in the figure below.

*Fig. 27. Distribution (%) of applications within the gas sector received in 2020 according to the nature of the application*




Source: NERC.

***Table 17.*** *Consumer protection indicators*

| Consumer indicators | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| Number of household consumers | 575,314 | 587,570 | 595,253 | 602,978 |
| Number of consumers to whom the guaranteed supply is provided | 2,683 | 17 | 15 | 0 |
| Number of calendar days established in legislation between the notice regarding the payment of a bill and disconnection | 15 | 15 | 15 | 15 |
| Number of consumers disconnected due to unpaid bills | 0 | 0 | 3 | 10 |
| Number of consumers subject to energy poverty | N/A | N/A | N/A | N/A |
| Number of consumers paying according to the social tariff | N/A | N/A | N/A | N/A |

Source: NERC.

## 4.5. Security of supply

- Article 41(1)(t)

The NERC is not responsible for establishing or implementing the necessary temporary safeguards measures required in the event of a sudden crisis in the energy market or in the event of a threat to the physical protection or safety of persons, or to the security of equipment or installations or to the security of integrity of the system.

- Article 41(1)(h)

**Quality of services**

The LNG provides for the obligation of the NERC to establish indicators for the quality, including reliability, of services of natural gas undertakings, and the procedure for assessing them.

In accordance with the Description of the Indicators of Reliability and Quality of Services Provided by Natural Gas Undertakings, the Procedure for Their Assessment approved by the NERC, the minimum quality levels for each natural gas undertaking are set individually, for a specific price regulation period.

The main indicators of the quality of uninterrupted natural gas supply are as follows:

- system average interruption duration index (SAIDI) per consumer;
- system average interruption frequency index (SAIFI) per system user during the reference period.

The SAIDI and SAIFI indicators are differentiated according to the reasons for the interruption.

In August 2020, the NERC found that the actual indicators of the quality of activities of AB "Amber Grid", UAB "Intergas", UAB "Fortum Heat Lietuva", and AB agro firm "Josvainiai" meet the minimum quality levels set for a particular gas undertaking. Two actual indicators of the quality of activities of AB "Energijos skirstymo operatorius", i.e., the percentage of on-time arrival of the emergency services, the percentage of responses to a new customer's request for connection sent in due time, do not meet the minimum quality levels set for a particular gas undertaking. Other actual indicators of the quality of activities of AB "Energijos skirstymo operatorius" meet the minimum quality levels set for the gas undertaking.

Taking into account the change in the regulatory period of the upper-income limit of UAB "Intergas", the validity of minimum quality levels of UAB "Intergas" was extended until 31 December 2025 by the Resolution of the NERC.

- Monitoring of the balance of supply and demand

Every two years, after having consulted all the relevant stakeholders and taking into account the existing and forecast supply and demand, the TSO draws up and submits to the NERC a 10-year network development plan in accordance with the procedure established by the NERC. The network development plan shall contain efficient measures in order to guarantee the adequacy of the system and the security of supply.

Every year, the TSO and DSO also submit to the NERC reports on the undertaking's annual activities and ensuring of security, specifying the volumes of gas planned to be transmitted, distributed, and transported in transit through the territory of the Republic of Lithuania to the system users during the current year and the following two years. The TSO provides summarised information on the use of the relevant points of the transmission system, indicating in percentage the maximum capacity utilisation per month for the reference period, compared to the technical capacity of the relevant points.

In recent years the volume of gas transported by transmission system to the need of the Lithuanian market changes slightly every year: 2018 – 22.3 TWh, 2019 – 23.5 TWh, 2020 – 25.1 TWh of gas. In recent years, the volume of gas transmitted to the Kaliningrad region of the Russian Federation varied between 26 and 28 TWh. In 2019, compared to 2018, the volume of gas transported in transit slightly decreased – 26.0 TWh and in 2020 – 24.9 TWh of transported gas.

Using the alternative created by the LNG terminal in Klaipėda, the supply of gas to other Baltic countries began through Lithuania. 2.3 TWh in 2018, 6 TWh in 2019 and 7.9 TWh in 2020 of gas was transported to consumers/supply undertakings through Kiemėnai cross-border exit point.

- Measures to cover peak demand or shortage of suppliers

Under the normal conditions of operation of the transmission system and supply to Lithuania, the peak gas consumption is fully satisfied. In the event of gas transmission disruption, the following measures would be used:

- system users who have concluded uninterrupted supply contracts with a supply undertaking have gas storage stocked in Inčiukalnis Underground Storage Facility;
- in natural gas transmission contracts concluded with system users connected directly to the transmission system, priorities of the supply and transportation of natural gas are established and the sequence of restriction and phase-out of gas supply in the event of an emergency or disruption in the gas supply is specified;
- supply undertakings must follow the instructions of the TSOs and DSOs in the event of an emergency or disruption in the gas supply, as stipulated in the National Natural Gas Supply Emergency Management Plan.

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