



**Energy and Water Regulatory Commission (EWRC)  
Bulgaria**

**Annual Report  
to the European Commission**

**July 2024**

## TABLE OF CONTENTS

### LIST OF ABBREVIATIONS

<b>1. FOREWORD</b>	<b>4</b>
<b>2. MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS</b>	<b>6</b>
2.1. Evaluation of the market development and regulation	8
2.2. Report on the implementation of the Clean Energy Package	12
<b>3. ELECTRICITY MARKET</b>	<b>12</b>
3.1. Networks regulation and technical functioning	12
3.1.1. Unbundling	12
3.1.2. Network extension and optimization	13
3.1.3. Network tariffs	13
3.1.4. Security and reliability regulation	16
3.1.5. Monitoring balance of supply and demand	17
3.1.6. Cross-border issues	18
3.1.7. Implementation of Network Codes and guidelines	21
3.2. Competition and market functioning	21
3.2.1. Wholesale markets	21
3.2.2. Retail market	30
3.2.3. Consumer protection and dispute settlement	32
<b>4. NATURAL GAS MARKET</b>	<b>34</b>
4.1. Network regulation	34
4.1.1. Network and LNG tariffs for connection and access	35
4.1.2. Balancing	36
4.1.3. Cross-border issues	36
4.1.4. Implementation of Network Codes and guidelines	37
4.2. Competition and market functioning	40
4.2.1. Wholesale markets	43
4.2.2. Retail market	50
4.2.3. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition	53
4.2.4. Consumer protection and dispute settlement	55
4.3. Security of supply (if and insofar as NRA is competent authority)	59

## LIST OF ABBREVIATIONS

AAS of EA	Act on the Amendment and Supplement of the Energy Act
ACER	Agency for the Cooperation of Energy Regulators
AGRS	Automatic Gas Regulatory Station
BETP AD	Bulgarian Energy Trading Platform AD
BGH EAD	Balkan Gas Hub EAD
CCP	Commission for Consumer Protection
CCR SEE	Capacity Calculation Region South East Europe
CDM	Central Dispatching Management
CDP	Commercial Dispatching Platform
CEER	Council of European Energy Regulators
CPC	Competition Protection Commission
CS	Compressor Station
DAM	Day-Ahead Market
DSO	Distribution System Operator
EA	Energy Act
EMR	Electricity Market Rules
ESO EAD	Electricity System Operator EAD
ESSF	Electricity System Security Fund
EPS	Electric power system
ERSA	Energy from Renewable Sources Act
EWRC, the Regulator	Energy and Water Regulatory Commission
GDN	Gas Distribution Network
GMS	Gas Metering Station
GTN	Gas Transmission Network
GTTN	Gas Transit Transmission Network
HECG	High-efficient cogeneration
IBEX EAD	Independent Bulgarian Energy Exchange EAD
IDM	Intraday Market
IP	Interconnection Point
IPA	Industrial Parks Act
ITO	Independent Transmission Operator
NGMBR	Natural Gas Market Balancing Rules
NGTN	National Gas Transmission Network
NGTR	Natural Gas Trading Rules
OEPR	Ordinance №1/2013 on electricity price regulation
OLAES	Ordinance №3/2013 on licensing the activities in energy sector
OAS of OLAES	Ordinance amending and supplementing Ordinance № 3 of 21 March 2013
ONGPR	Ordinance №2/2013 on natural gas price regulation
PCI	Project of common interest
PEOR	Power Exchange Operational Rules
PPAT	Persons professionally arranging
RAS of PEOR	Rules Amending and Supplementing the Organized Power Exchange Operational Rules
RMESOCP	Rules of maintaining electricity supply offers comparison platform
SEEGAS	South-Eastern and Eastern European gas market
SDAC	Single Day Ahead Coupling
SLP	Standardized Load Profiles
SLR	Supplier of Last Resort
TSO	Transmission System Operator
VTP	Virtual trading point

## 1. FOREWORD

EWRC's priority in the electricity sector in 2023 was the harmonization of the by-laws with the current European and national legislation. In view of the transition process to full liberalization of the electricity market and the changes related to the new market model, the main task of the Regulator was to update the secondary legislation. Amendments to the Electricity Trading Rules increased the balancing market efficiency and contributed to the possibilities of energy supplies at minimum costs. A new Methodology for setting balancing energy prices was adopted, which created regulatory preconditions for operators of electricity storage facilities to become equal market participants. EWRC made amendments and supplements to the electricity Power Exchange Operational Rules, with the aim of reducing the financial risks for the exchange operator and ensuring transparency in the wholesale market.

In its pricing decisions, EWRC consistently applied a balanced and conservative approach, taking into account the interests of all participants, and did not allow sudden price changes. In 2023, electricity prices for the regulated market remained largely unchanged for residential customers, increasing by an average of 4.37%. EWRC managed to maintain the marginal prices of heating energy during the 2023-2024 heating season. Price changes were between 0.05% and 0.48%, regardless of the annual NSI inflation rate of 15%.

The Regulator continued to exercise regulatory control over the activities of energy companies. In 2023, 20 scheduled and extraordinary inspections were carried out in the electricity sector and 4 inspections in the heating sector.

With regard to the complaints received, EWRC complied with the statutory deadlines for their consideration and ruled 871 decisions. 181 complaints were accepted as well-founded, and the audited companies were given mandatory instructions to eliminate the causes.

In fulfilment of its powers under Regulation 1227/2011 (REMIT) for possible abuse and manipulation of the power exchange trade in the wholesale market, during the said period EWRC initiated three proceedings to establish a violation of Art.3 and/or Art.5 of the Regulation.

In the period 2019-2023, EWRC received a total of 61 reports and alerts of suspicious transactions, based on which a total of 47 preliminary investigations were initiated in accordance with Art.74a of EA. During this period, EWRC imposed property sanctions on nine companies, participants in the wholesale energy trading market, with a total amount of BGN 3 537 709.

With the upcoming full liberalization of the wholesale market and the expected significantly higher trading volume through the exchange platforms, EWRC will continue to have a major role in the process of complying with the rules of fair and competitive trading. Thus, the Regulator ensures that pricing in wholesale energy markets is based on effective competition without allowing market participants to manipulate exchange trading. Market control has been significantly improved through the introduced in 2023 specialized software package for statistical analysis and data processing. The software package makes possible the automation of the energy market monitoring and control and increases the accuracy and objectivity of the analyses and assessments of the power exchange market participants' behaviour.

In 2023 EWRC's activity in the natural gas sector was carried out in conditions of natural gas price decrease. There was a sharp change in the traditional seasonal trend of price levels and even the start of the heating season did not change the downward trend. From the beginning of 2023 till December 2023 a reduction of the regulated gas price approved by EWRC by about 51% was reported. Natural gas prices were positively influenced by the filled gas storages for the 2022-2023 heating season and the favourable weather conditions during the winter months, which reduced the natural gas consumption. The Regulator continued its activity in issuing licenses for trading in natural gas. 35 new traders have been granted a license, bringing their total number to 108. That contributed to increasing liquidity and competition in the natural gas market. A significant increase in the transactions of the various segments of the Balkan Gas Hub EAD platform was reported. The continued development of gas networks in the country is another positive trend.

EWRC ensured the realization of important projects for the country. During the year, a project for the expansion of Chiren UGS was launched, allowing the storage of 1 billion cubic meters of natural gas. The first hydrogen project for Bulgaria was included in the PCI list of projects of common and mutual interest published by the EC. The gas interconnection Bulgaria - Serbia was put into operation with capacity of 1.8 billion m<sup>3</sup>/year and reverse flow possibility. The interconnection power line between Bulgaria and Greece Maritsa East - Nea Santa has been completed. Bulgartransgaz EAD and ICGB AD launched market tests to assess the demand for incremental capacity at interconnection points.

**Assoc. prof. Ivan N. Ivanov, PhD**

*Chairman*

*Energy and Water Regulatory Commission*

## 2. MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

EWRC's main priority in the electricity sector in 2023 was the harmonization of the Regulator's by-laws with the current European and national legislation. In view of the transition process to electricity market full liberalization and the amendments to the Energy Act regarding the transition of household end customers from a regulated to a free market, by-laws have been amended, namely Electricity Market Rules and Ordinance №3/2013 on licensing the activities in energy sector. A new Methodology for setting balancing energy prices was adopted, which fulfils the requirement of European regulations and legislation. EWRC made amendments and supplements to the electricity Power Exchange Operational Rules, with the aim of reducing the financial risks for the exchange operator and ensuring transparency in the wholesale market.

In its pricing decisions, EWRC continuously applied a balanced and conservative approach, taking into account the interests of all participants, and did not allow drastic price changes. In 2023 electricity prices for the regulated market were insignificantly changed – for household customers they increased by an average of 4.37%. EWRC practically managed to maintain the marginal prices of heating energy during the 2023-2024 heating season. Price changes were between 0.05% and 0.48%, regardless of the annual NSI inflation rate of 15%.

The Regulator continued to exercise regulatory control over the activities of energy companies. In 2023, 20 scheduled and extraordinary inspections were carried out in the electricity sector and 4 inspections in the heating sector.

With regard to complaints received, EWRC complied with the statutory deadlines for their consideration and ruled 871 decisions. 181 complaints were accepted as well-founded and the audited companies have been given mandatory instructions to eliminate the causes.

The Regulator's activity in the natural gas sector in 2023 was focused on stabilizing natural gas prices and the market. The public provider Bulgargaz EAD secured the necessary quantities of natural gas for its customers under the long-term supply contract of piped natural gas with an Azerbaijani company, under supply contracts of liquefied natural gas at prices depending on the indices Title Transfer Facility (TTF) front month on the Dutch Gas Exchange and Henry Hub on the New York Commodity Exchange, and in some 2023 months natural gas quantities were also provided through extraction from Chiren UGS. LNG supplies have been carried out through terminals on the territory of Greece and Türkiye.

Natural gas price in 2023 decreased significantly after the record high levels in 2022. Since the beginning of 2023, the price at which the public supplier sells natural gas to end suppliers and to entities holding a license for thermal energy production and transmission, had decreased by about 51%, and in January 2023 EWRC approved price was BGN 179.33/MWh, and in December 2023 – BGN 87.50/MWh.

In August 2023 the price was BGN 59.67/MWh, which was a decrease by about 80% compared to the price in August 2022, which was BGN 297.89/MWh.

Natural gas prices have also been influenced by the good preparation of the European gas market for winter 2022-2023. As of 1 Jan 2023 Chiren UGS had been filled to 82.19% of its capacity, and as of 1 April 2023 its capacity was filled at 77.54%. On 1 Nov 2023 Chiren UGS was filled to 94.82%, and the average filling rate of underground gas storages in the EU member states on the same date was 95.05%. It should also be noted that the prices of the stored gas amounts in Chiren UGS were significantly higher than the market prices in 2023.

High temperatures during 2023 winter months suppressed natural gas consumption, led to low extraction levels from UGS and impacted the natural gas price. For that reason, a relatively

small amount of natural gas was injected into the underground gas storage during the injection season.

2023 also saw events such as: planned overhaul of gas infrastructure in Norway, due to which natural gas production in the country was reduced in the summer; strikes at three major LNG facilities in Australia; failure of the gas pipeline on the bottom of the Baltic Sea connecting Finland and Estonia, and the war in the Middle East, which led to a sharp increase in the price on the Dutch Gas Exchange TTF on certain days, which had an impact on natural gas prices in Europe and respectively in Bulgaria.

The gas interconnection Bulgaria - Serbia was put into operation, which improved the energy connectivity in the region. The total length of the gas pipeline connecting the national gas transmission networks of the Republic of Bulgaria and the Republic of Serbia is 170 km from the town of Novi Iskar - Republic of Bulgaria to the city of Nis - Republic of Serbia, of which about 62 km is on Bulgarian territory. The interconnection gas pipeline capacity is 1.8 billion m<sup>3</sup>/year, with of reverse flow possibility as well.

A project to expand the capacity of Chiren underground gas storage has been launched. The construction of ten new operational and three observation drillings has been foreseen. The storage of 1 billion cubic meters of natural gas will be made possible with the expansion of the storage facility, which is about 1/3 of the country's consumption. The Chiren UGS capacity expansion project is of strategic importance for improving energy security and increasing competition and liquidity in the natural gas market in the country and region. The project has the status of "project of common interest" and is part of the EU PCI lists.

The first hydrogen project in Bulgaria was included in the first EU list of projects of common interest and projects of mutual interest published by the European Commission. The project *Hydrogen Transmission Infrastructure in Bulgaria*, proposed by Bulgartransgaz EAD, is a key one for the realization of the concept of transporting pure hydrogen. The planned infrastructure consists of a new pipeline with a length of about 250 km and two compressor stations in the area of Dupnitsa and Kulata. It is planned to create a hydrogen interconnection point with the network of the Greek gas transmission operator DESFA in the area of Kulata/Sidirokastro. The new infrastructure will allow bi-directional transfer of both locally produced hydrogen and hydrogen from Greece.

In pursuance of the requirements of Art.26 of 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 (Regulation (EU) 2017/459), Bulgartransgaz EAD and ICGB AD have launched market tests to assess the demand for incremental capacity at interconnection points. The two companies, in cooperation with neighbouring operators, published the demand assessment reports based on the received indicative forecasts. Technical studies for incremental capacity have been launched.

Following promulgation in State Gazette, issue 99 of 13 Dec 2022, in §10 of the Transitional and Final Provisions of the Corporate Income Tax Act, item 4 and item 5 of Art. 176a of EA, the Natural Gas Release Program for 2023 and 2024 was terminated. Thus, the public supplier's obligation to offer gas quantities for sale on the organized natural gas exchange market has been removed.

## **2.1. Evaluation of the market development and regulation**

In 2023 EWRC took the necessary actions to develop and improve the secondary legislation in accordance with its legal powers and considering the dynamically developing public relations in the energy field. The purpose of that activity was for EWRC acts to comply with the national and European legislation in the relevant areas, to create conditions for the electricity markets development, as well as to overcome problems identified in the practice of applying EWRC acts.

In 2023 EWRC adopted the following secondary legislation acts:

**Ordinance amending and supplementing Ordinance No. 3 of 21 March 2013 on licensing the activities in the energy sector, promulgated, SG No. 18 of 24 Feb 2023, in force as of 24 Feb 2023 (OAS of OLAES).**

With § 7, item 2, b. "a" of the Transitional and Final Provisions (TFR) of the Industrial Parks Act (IPA, promulgated, SG issue 21 of 12 March 2021) a new item 8 has been created in para.1 of Art.39 of the EA, which provides for two new activities subject to licensing under this act, namely "electricity distribution in a closed electricity distribution network" and "natural gas distribution in a closed gas distribution network". According to the provision of Art.43, para.14 of EA, created by § 7, item 3 of the IPA TFR, a license for electricity distribution in a closed electricity distribution network and a license for gas distribution in a closed gas distribution network shall be issued by EWRC, under the conditions and in accordance with EWRC Ordinance No. 3 of 21 March 2013 on licensing the activities in the energy sector, (OLAES, promulgated, SG No. 33 of 5 April 2013, amended and supplemented, no. 52 of 22.06.2018, no. 98 of 13.12.2019, in force of 13.12.2019, no. 111 of 31.12.2020, in force as of 31.12.2020, amended, no. 65 of 06.08.2021, in force of 06.08.2021, amended. and supplement, no. 25 of 29.03.2022. According to § 8 of the IPA TFR, for the activity of electricity and/or natural gas distribution in a closed electricity or gas distribution network in a geographically separated industrial site, put into operation before the year 2000, a license may be issued under Art.39, para.1, item 8 of EA under special conditions and order determined by EWRC in OLAES. In view of the EA amendments and supplements, there was also a need for amendments to Ordinance No. 6 of 24.02.2014 on connection of electricity generators and customers to the transmission or distribution electricity networks (Ordinance No. 6 of 24.02.2014).

In view of the above, in December 2022, EWRC initiated proceedings to amend and supplement OLAES. Thus, with the adoption of the OAS of OLAES, a clear procedure was regulated, as well as objective criteria and conditions for licensing the activities "electricity distribution in a closed electricity distribution network" and "natural gas distribution in a closed gas distribution network". The adopted in Art.11 and Art.11a amendments include general conditions and criteria that must be met and fulfilled by every applicant for a license for these activities, and Art.11a contains specific preconditions for each of the three hypotheses provided for in the law, namely for the territory of an industrial park, of a geographically separated industrial site, put into operation after the year 2000, and of a geographically separated industrial site under § 8 of IPA TFR. With OAS of OLAES, amendments and supplements have been made in the conditions of the existing regime for issuing licenses and approving business plans by EWRC in order to facilitate the procedure, and the need to submit a number of documents required before the adoption of the OAS of OLAES has been removed.

In addition, with the adoption of OAS of OLAES, some provisions of the ordinance have been amended in order to reduce the administrative burden and introduce greater clarity in applying some of its provisions.

Next, with § 18 of the TFR of OAS of OLAES, in Ordinance No. 6, some norms have been created that introduced uniform criteria and methodology for network operators to use when determining the technical capabilities of distribution networks in drafting opinions on grid connection. Thus, all customers and generators will be placed on an equal footing, no matter on



which license territory they shall connect. Also, the amendments and supplements lead to the full implementation of the requirements of Ordinance No. 3 of 9 June 2004 on the design of electrical systems and power lines, thus avoiding the creation of inequality between customers and producers whose sites are located on the territory of the three different licensees, as well as the ability to set conditions for connection based on incorrect data.

**Ordinance amending and supplementing Ordinance No. 6 of 24.02.2014 on the connection of electricity producers and customers to the transmission or distribution networks, promulgated, SG No. 55 of 27.06.2023, in force of 27.06.2023 (OAS of Ordinance No. 6)**

With the Act on the Amendment and Supplement of the Energy Act – AAS of EA, promulgated in SG, no. 11 of 2023, an opportunity was introduced for the electricity transmission network operator, in the course of a connection procedure of a customer's site or an electricity producer, in the event that it is necessary to carry out an extension or reconstruction in the electricity transmission network, to propose connection with temporary access scheme for all or part of the facility's requested capacity. In this regard, Electricity System Operator EAD (ESO EAD) has proposed a draft containing provisions for the amendment and supplement of Ordinance No. 6.

Next, upon application of Ordinance No. 6, a need for the amendment and supplement to some of its provisions has been established, in view of the provisions of Art.116, para.12 and Art.117, para.13 of AE, which create an opportunity for the electricity transmission network operator to connect customers' sites under a temporary access scheme. In addition, the current Ordinance No. 6 does not regulate the terms in which the electricity transmission operator must coordinate the conditions for connecting customer sites and electricity producers to the relevant electricity distribution network, nor the scope of such coordination. Given that, Ordinance No. 6 is to be amended and supplemented in connection to the amendments and additions to EA, pron. in SG, no. 11 of 2023, as well as regarding the relevant coordination timeline by the electricity transmission network operator. A need to amend and supplement Ordinance No. 3 of 21.03.2013 on licensing the activities in the energy sector has also been identified in terms of further developing the existing by-laws related to licensing closed electricity distribution/gas distribution networks operators.

In view of the above, the OAS of Ordinance No. 6 has established secondary legislation framework for connection of customers' and producers' sites under a temporary scheme of access to the electricity transmission network and defined the basic rights and obligations of the electricity transmission network operator, customers and producers in relation to the realization of this legal possibility. OAS of Ordinance No. 6 complies with the requirements of EA, according to which the electricity transmission network operator shall be obliged to offer connection to a temporary access scheme to the customers/producers in the order of receipt of their requests. The amendments and supplements to Art.7, para.2 and Art.53 of Ordinance No. 6 regulate the deadlines, within which the electricity transmission operator shall agree the conditions for connecting customer sites and electricity producers to the relevant electricity distribution network.

Moreover, in compliance with the legal provisions, § 18 of the TFR OAS of Ordinance No. 6 has amended and supplemented the provision of Art.11a of OLAES, with the aim of developing the current by-laws related to licensing closed electricity distribution/gas distribution networks operators.

**Rules amending and supplementing the Electricity Market Rules promulgated SG No. 36 of 21 April 2023, in force as of 1 May 2023 (RAS of EMR)**

With the amendment of the Electricity Market Rules, promulgated, SG No. 76 of 2022 the requirements of Commission Regulation (EU) 2017/2195 of 23 Nov 2017 have been introduced, establishing a guideline on electricity balancing, as well as the requirements of Regulation (EU) 2017/1485 of 2 Aug 2017 establishing a guideline on electricity transmission system operation and Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal electricity market (Regulation 2019/943). A 15-minute settlement period has been introduced on the balancing energy market, as well as provisions providing for balancing services. However, the introduced amendments to the EMR were not sufficient for the normal functioning of

the balancing market, which is why in 2023 EWRC initiated a procedure for amending and supplementing EMR.

In the RAS of EMR, a completely new methodology for setting the prices of balancing energy has been adopted, creating a balancing costs calculating mechanism for coordinators of balancing groups in each settlement period, regulation status, imbalance position (surplus/shortage) and direction of payment between the independent transmission operator and the coordinators. With the introduction of the new methodology, the aim is to avoid incentives for market participants to deliberately be in a position of artificial shortage or artificial surplus, as well as to facilitate the coordinators of balancing groups when calculating the imbalance costs of the respective group for each settlement period. The methodology adopts a pricing model for the balancing energy price through the usage of the “Pay as Clear” method, where the price of balancing energy upon activation of bids for upward regulation, respectively the price of balancing energy upon activation of bids for downward regulation, is equal to the highest price of an upward balancing bid, resp. the lowest price of a downward balancing bid activated in a settlement period in the national market area. In addition, plus the marginal prices of balancing energy for upward and downward regulation, taking into account the specifics of the national market, including the existence of a regulated segment and marginal regulation prices, for each settlement period an average regulation price shall also be determined, which is the average between the lowest price of the upward regulation bids and the highest price of downward regulation bid in the merit order for the settlement period. The new methodology also introduces four regulation statuses, depending on whether no balancing energy was used in the given settlement period, or balancing energy was used only for upward regulation, downward regulation or simultaneously for downward and upward regulation.

Next, and in view of EA amendments, RAS of EMR have created regulatory prerequisites for the participation of closed electricity distribution networks operators and electricity storage facilities operators on the electricity markets, which guarantees that these new participants will be on an equal footing with other commercial participants and will be able to fully and effectively carry out their activities in accordance with their specifics.

The adopted amendments and supplements settle the relations between the energy market participants and the respective electricity network operators in connection to the services provided by the operators. Within the framework of *Electricity System Security Fund*, the aim is to create clarity in the relations between commercial participants and electricity network operators and, paying special attention to the so-called “hybrid units”, which are more and more common and for which so far there have been no rules and conditions for determining the electricity amount and type of prices at which they shall pay network services and public service obligations price.

RAS of EMR introduced some editorial changes to individual provisions of the rules. A final provision is also provided, where Art.19, para.3 of the Rules on the terms and conditions of granting access to the electricity transmission and distribution networks is brought into line with Art.11 and Art.13 of Ordinance No. 3 of 21.03.2013 on licensing the activities in the energy sector.

### **Rules amending and supplementing the Power Exchange Operational Rules, published SG, no. 50 of 2023 dated 9 June 2023, in force as of 9 June 2023 (RAS of PEOR)**

In 2023, EWRC identified a need to amend and supplement the PEOR (promulgated SG No. 55 of 19.06.2020, last revised SG No. 74 of 2022), with a view to mitigating some financial risks for the power exchange operator, including delayed performance or complete non-fulfilment of a trading participant’s obligation to pay on the intraday and day-ahead market segments, as well as non-fulfilment of a trading participant’s obligation to update the amount of available collateral to the level of the required amount or to maintain the amount of available collateral greater than the total obligation to the exchange operator, etc. The need to amend PEOR appeared also regarding the

registration procedure refinement, as well as creation of greater clarity regarding the terms and method of determining the traded products parameters in the intraday and day-ahead market segments and criteria for their activation and matching. Also, in result of the accumulated practice of the power exchange operator and its administration, a need to refine certain PEOR provisions has been found.

With PEOR amendments and supplements, a new mechanism for managing and limiting the financial risk for the operator is regulated, by introducing a limit for trading in short-term market segments, as a result of which the exchange operator no longer determines the required collateral, and the possibility has been created for trading participants to enter into transactions for the purchase and sale of electricity within the trading limit set by themselves. The amendments also introduced a check on the collateral of offers and transactions of trading participants on Intraday and Day-ahead market segments checked via the *Limit checking* functionality that shall not allow submitting offers, which maximum amount exceeds the remaining trading limit of the trading participant. The changes in PEOR Art.71 and Art.122 regulate all parameters of trading products on the Intraday and Day-ahead market segments as per Instruction № 6 Traded Products Specification.

Next, RAS of PEOR also amended the provisions of Art.13, Art.21, Art.22, Art.25 and Art.28 in order to ease the registration procedure on the exchange market, which would especially facilitate new trading participants.

In addition, RAS of PEOR amendments also refined and structured ETR from a legal-technical perspective.

#### **Methodology on implementation of the control powers of the Energy and Water Regulation Commission under the Energy Act, the Energy from Renewable Sources Act and the Regulation of Water Supply and Sewerage Services Act, adopted by EWRC decision under Protocol No. 345 of 10.11.2023, item 3 (the Methodology)**

By SEWRC decision under protocol No. 55 of 14.04.2014, item 2, a Methodology has been adopted regarding the implementation of EWRC control powers under the EA and RWSSSA. In view of the numerous amendments and supplements to the ZE regarding EWRC control powers, as well as in view of the newly created by the amended EWRC Rules of Procedures provision of Art.5, para.4, according to which EWRC adopts a methodology for the implementation of its control powers, in November 2023 the Commission, by decision under Protocol No. 345 of 10.11.2023, item 3, adopted a Methodology for the implementation of the control powers of the Commission for Energy and water regulation under the Energy Act, the Renewable Energy Act and the Water Supply and Sewerage Services Regulation Act.

#### **Market rules of the organized market place for natural gas of Bulgarian energy trading platform AD (BETP AD Market Rules)**

On the basis of Art.21, para.1, item 42 of EA, in 2023 EWRC approved Market rules of the organized market place for natural gas of Bulgarian energy trading platform AD. The Market Rules aim to create security in the public relations as a result of natural gas trading on an organized natural gas exchange market. In order to achieve clarity and precision, the Market Rules provisions have been systematically structured in separate chapters, regulating the activity organization and the rights and obligations of all trading participants including BETP AD in connection with their participation, respectively natural gas exchange market operation in the following directions: short-term spot products segment and long-term products segment. The approved rules contain as attachments the operational rules of the Organised market place committee of BETP AD, as well as samples of a membership contract and an application for membership in the market of BETP AD.

The adoption and implementation of the Market Rules aims to achieve clarity and security in the relations among trading participants, as well as between them and BETP AD in its capacity as an organized natural gas market operator.

Main priorities in the **gas sector** in the reported year were guaranteeing security of supply, ensuring a liquid and competitive natural gas market and connecting the Bulgarian natural gas market with EU member states gas markets in the region and in Europe in order to realize the implementation of the European energy policy of building a single interconnected pan-European natural gas market. The Bulgarian gas market liberalization and competitiveness depend on diversification of supply sources and the development of the gas transportation infrastructure.

Regulator's activity in the natural gas sector in 2023 aimed at creating prerequisites for achieving a liquid and competitive natural gas market and connecting the Bulgarian market with the natural gas markets of EU member-states in the region and in Europe. In the past year, EWRC licensed 35 natural gas traders, and their total number reached 108. With an increase in the number of market participants, the liquidity and competition in the natural gas market increased as well.

The steps taken by the Regulator in 2023 encouraged competition in the market, as well as the development of the liberalization processes in the sector.

Trading on an organized natural gas exchange market in 2023 was carried out successfully, and the number of registered participants also continued to increase. Traded volumes were higher than in 2022, indicating that there were opportunities for market development and increased competition.

## **2.2. Report on the implementation of the Clean Energy Package**

According to the provision of Art.59, para.1 (u) of Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market in electricity and amending Directive 2012/27/EU (Directive (EU) 2019/944), EWRC has the obligation to monitor the implementation of rules relating to the roles and responsibilities of transmission system operators, distribution system operators, suppliers, customers and other market participants pursuant to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity. This provision of the Directive has not been transposed into the legislation of the Republic of Bulgaria. In this regard, it should be borne in mind that EWRC has no powers to start up legislative initiative.

## **3. ELECTRICITY MARKET**

### **3.1. Networks regulation and technical functioning**

#### **3.1.1. Unbundling**

Pursuant to Article 59 (1), (j) of 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 (Directive (EU) 2019/944), EWRC should ensure that there is no cross-subsidisation between transmission, distribution and supply activities or other electricity or non-electricity activities. In this regard, Article 39, paragraph 1 of the Energy Act describes the types of activities subject to licensing. EWRC issues a license for each of the indicated activities, for a certain period and with specific conditions, which are an integral part of the decision for its issuance.

Pursuant to Article 37 of EA, energy companies keep separate accounting records for each activity subject to licensing, the activities subject to licensing and other activities, for each branch and enterprise, as well as for activities at regulated and freely negotiated prices. The rules for the

separate accounting of energy undertakings, including the assets for the purposes of pricing by groups of customers, as well as the accounts form and content for regulatory purposes, shall be determined by a decision of the Regulator. In addition, it should be noted that energy companies subject to an independent financial audit submit to the Regulator an audit report on compliance with the rules for keeping separate accounts.

### **3.1.2. Network extension and optimization**

Pursuant to Article 59, paragraph 1, (k) of Directive (EU) 2019/944, EWRC monitors the investment plans of the transmission system operators and provides in its annual report an assessment of the investment plans of the transmission system operators as regards their consistency with the ten-year Union-wide network development plan; such assessment may include recommendations to amend those investment plans.

In connection with the above, with EWRC Decision № ДПРМ -2 of 20.10.2023, the Plan for development of the transmission electricity network of Bulgaria for the period 2023 - 2032 was approved. The 2023-2032 ten-year development plan contains the basic electricity transmission infrastructure, which is planned for construction, expansion, reconstruction and modernization over the next ten years. It ensures timely and harmonious construction and commissioning of new elements in the electricity transmission network for economical and safe operation of the electric power system (EPS), in compliance with the security criteria and the current quality standards of electricity supply.

The annual estimated values of all costs for construction, expansion, reconstruction and modernization of the electricity transmission network objects and of the EPS protection and management systems for the 2023 - 2032 Ten-year plan, amount to 2 010 211 thousand BGN. For the period 2023-2025 ESO EAD intends to make investments at the amount of BGN 618 704 thousand or 30.8% of the total investment amount.

In view of the above, after examining the investment needs, the Regulator considered that the Transmission Electricity Network Development Plan of Bulgaria for the period 2023-2032 submitted by the independent transmission operator covered all investment needs and that it was in accordance with the ten-year plans of the network development in the European Union. The plan has been developed considering the available information on forthcoming changes in generation, supply, consumption and exchange with other countries, as well as the regional networks investment plans and the EU networks.

### **3.1.3. Network tariffs**

Pursuant to Article 21, paragraph 1, item 8 of EA, EWRC regulates prices in the cases provided for in the same act. Pursuant to Article 30, paragraph 1, items 1, 6, 9, 10, 13 and 17 of EA, prices subject to regulation by the Regulator are:

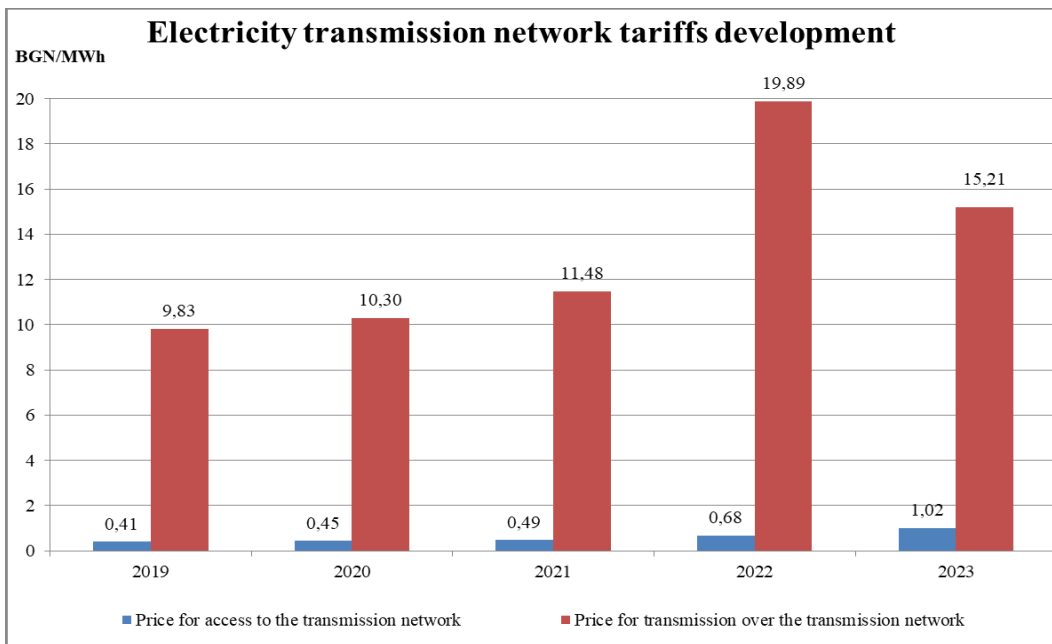
- access and/or transmission through the transmission network;
- access and/or transmission through the distribution networks.

In the pricing decisions during the said period, the Regulator consistently applied a balanced approach taking into account the interests of all participants, in order to avoid sharp price changes.

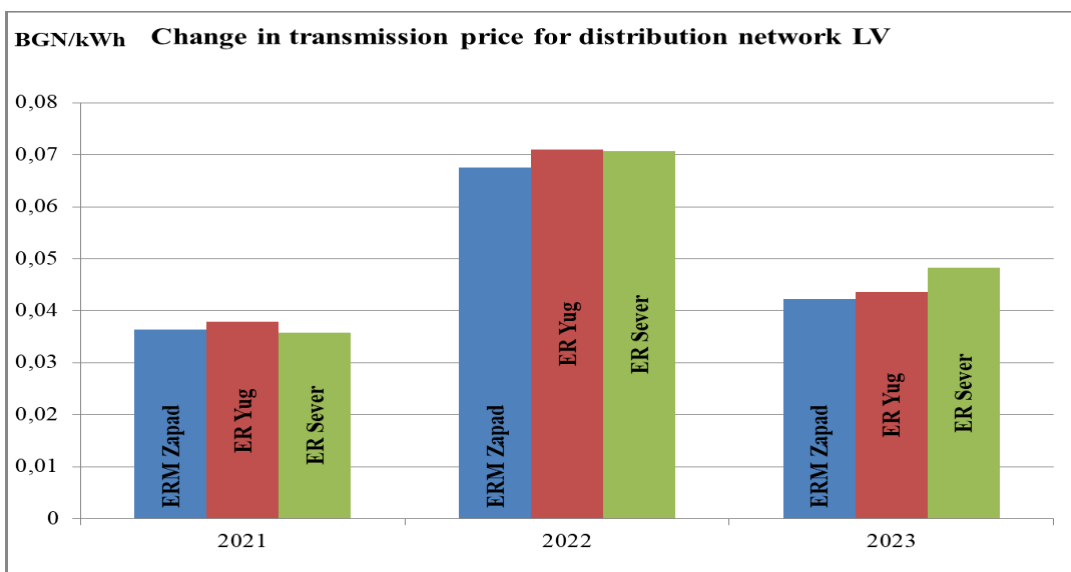
The network tariffs development for the period 2019 - 2023 is presented in the table below:

			2018	2019	2020	2021	2022	2023
<b>ESO EAD</b>	Access price to the transmission network	BGN/MWh	1.39	0.41	0.45	0.49	0.68	1.02
	Transmission price through the transmission network	BGN/MWh	8.45	9.83	10.30	11.48	19.89	15.21
	Access price to the transmission network for PvPP and WPP	BGN/MWh	3.02	5.14	5.28	5.40	5.26	4.86
	Access price to the transmission network for power generators, excluding PvPP and WPP generators	BGN/MWh	-	2.12	2.26	2.42	2.30	2.43
<b>ERM Zapad EAD</b>	Transmission price through the distribution network MV	BGN/kWh	0.00971	0.01002	0.00980	0.01076	0.01653	0.01065
	Transmission price through the distribution network LV	BGN/kWh	0.03245	0.03426	0.03355	0.03636	0.06759	0.04232
	Access price of non-household customers	BGN/kWh/day	0.01796	0.01989	0.01989	0.02151	0.02151	0.02683
	Access price of household customers	BGN/kWh	0.00519	0.00577	0.00568	0.00605	0.00648	0.00754
<b>EP Yug AD</b>	Transmission price through the distribution network MV	BGN/kWh	0.00884	0.0095	0.00915	0.00994	0.01643	0.0108
	Transmission price through the distribution network LV	BGN/kWh	0.03253	0.03576	0.03574	0.03783	0.07105	0.04366
	Access price of non-household customers	BGN/kWh/day	0.01733	0.01981	0.01977	0.0206	0.02256	0.02617
	Access price of household customers	BGN/kWh	0.00516	0.00599	0.00529	0.00598	0.00598	0.00803
<b>ERP Sever EAD</b>	Transmission price through the distribution network MV	BGN/kWh	0.0117	0.01274	0.01285	0.01312	0.02648	0.02108
	Transmission price through the distribution network LV	BGN/kWh	0.03278	0.03478	0.03531	0.03583	0.07073	0.04825
	Access price of non-household customers	BGN/kWh	0.00854	0.00896	0.02053	0.02073	0.02311	0.0309
	Access price of household customers	BGN/kWh	0.00854	0.00896	0.00890	0.00885	0.00885	0.00959
<b>ERP Zlatni Piasaci AD</b>	Transmission price through the distribution network LV	BGN/kWh	0.03303	0.03125	0.04429	0.06035	0.0453	0.04341
	Access price of non-household customers	BGN/kWh	0.00675	0.00644	0.01349	0.01325	0.00828	1.02
	Access price of household customers	BGN/kWh	0.00675	0.00644	0.01349	0.01325	0.00828	15.21

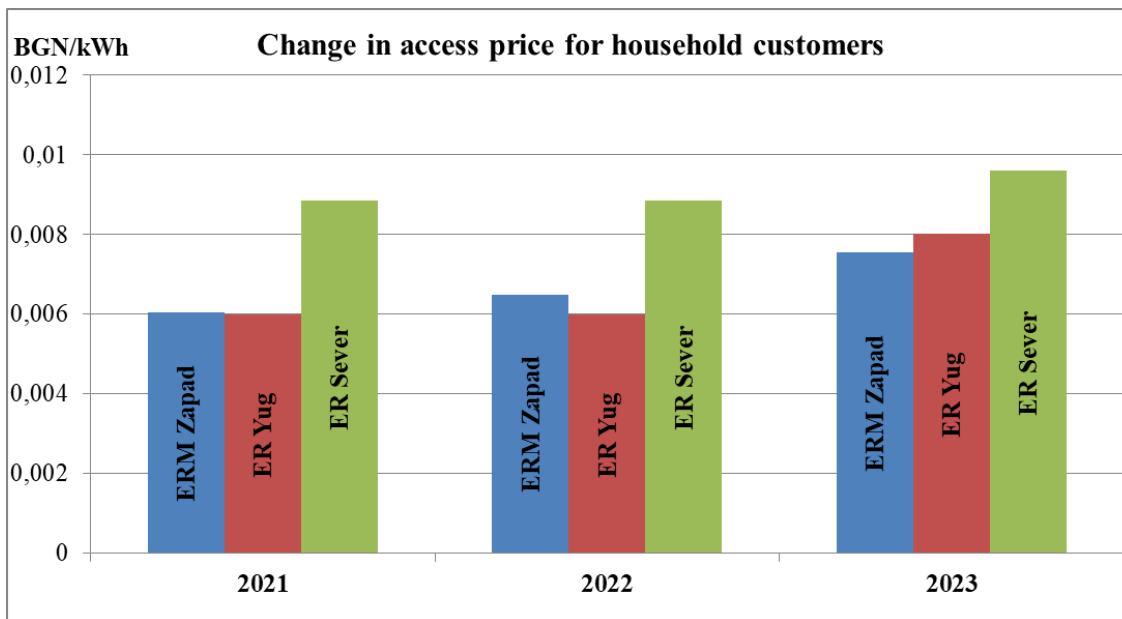
The graph below shows the change in transmission and access prices for the last five years. It could be noted that the transmission network access price has increased in 2022 by 38.8% and in 2023 it has increased in double. The transmission price in the transmission network maintains an upward trend, decreasing by 24% in 2023 compared to 2022, in 2022 compared to 2021 increased by 73%, in 2021 compared to 2020 increased by nearly 11.5 %, and in 2020, compared to 2019, it rose by only 4.78%.



The price of transmission through the electricity distribution network of low voltage in 2023 marks a significant decrease compared to 2022, which reached 37% for ERM Zapad EAD, 39% for EP Yug EAD and 32% for ER Sever EAD.



The graph below shows the movement of the access price for household customers over the last three years. It shows that in 2023 compared to 2022 it increased for the separate electricity distribution companies, and for ERM Zapad EAD it was increased by 16%, for EP Yug EAD – 34% and 8% for ER Sever EAD.



### 3.1.4. Security and reliability regulation

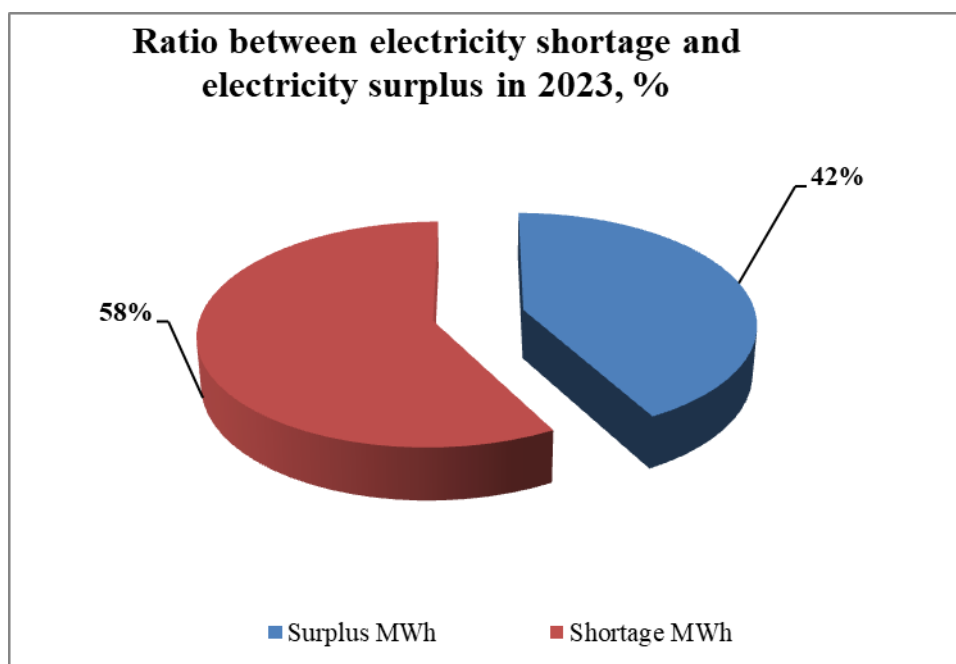
Auction rules on conditions for access to the network for cross-border exchange of electricity (Rules on transmission capacity allocation) and cross-regional cooperation between transmission system operators have been developed in line with Regulation (EU) 2019/943, by introducing common rules and procedures for the allocation and provision of available transmission capacity in both directions on the interconnections of the Bulgarian EPS and neighbouring power systems. The rules have also been drafted in conjunction with Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (Regulation (EU) 2016/1719) and Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing guidelines on capacity allocation and congestion management (Regulation (EU) 2015/1222). The purpose of these rules is to ensure optimal transmission network bottlenecks management, promoting energy exchanges development and coordinated allocation of cross-border capacity through non-discriminatory market-based solutions.

The Rules on transmission capacities allocation are to be submitted by ESO EAD every year for EWRC approval and the Harmonized allocation rules for long-term transmission capacities at the common borders between EU member states were approved on 29 Oct 2019 by ACER. Auction rules, users' registers and agreed transmission capacities to be allocated are published on ESO EAD website. The results of the annual, monthly and daily auctions organized by ESO EAD are publicly available on ESO EAD website and in the public section of the electricity market administration system. According to the above rules, ESO EAD performs the role of an auction operator for allocation of 50% of the agreed transfer capacities on the Bulgarian-Turkish border in both directions, as well as the daily transmission capacities on the border Bulgaria-North Macedonia. The Single Allocation Platform JAO allocates transmission capacities on an annual, monthly and daily basis on the Bulgarian-Greek and Bulgarian-Serbian borders, and on an annual and monthly basis on the Bulgarian-Romanian border. TRANSELECTRICA (Romania) is the auction operator to allocate the daily transmission capacities on the Bulgarian-Romanian border, and MEPSO (North Macedonia) - the annual and monthly transmission capacities on the border Bulgaria-North Macedonia. ESO EAD reports the data for which it is the auction operator in the ARIS system (ACER REMIT Information System). Data on other auctions are reported by JAO or the relevant auction operator.



### 3.1.5. Monitoring balance of supply and demand

Total energy shortage in 2023 was 1 646 095 MWh compared to 1 499 995 MWh in 2022, which is an increase of approximately 9.7%. Total energy surplus in 2023 was 1 194 351 MWh compared to 927 466 MWh in 2022, which is an increase by 29%. Percentages of electricity shortage and electricity surplus in 2023 are shown in the figure below.



Pursuant to Art.21, paragraph 1, item 8, proposition 2 of EA, the Regulator determines annually a marginal price for concluding transactions on the balancing energy market.

With Decision No. II-27 of 30.12.2022, in force as of 01.01.2023, EWRC set a marginal price for concluding transactions on the balancing energy market for upward regulation at the amount of DAM price + supplement of BGN 100, where DAM price is the IBEX EAD hour DAM price and a marginal price for concluding transactions on the balancing energy market for downward regulation at the amount of 30% of DAM price, where DAM price is the IBEX EAD hour DAM price, but not higher than the regulated price of HPP owned by National Electric Company EAD. Under Decision No. II-27 of 30.12.2022, the said marginal prices shall not be applied when concluding transactions for balancing energy that is purchased/sold from/to neighbouring energy systems under bilateral agreements or from a regional balancing market.

The Rules amending and supplementing the EMR, prom.SG, 76 of 2022, as of 1 Oct 2022 a 15-minutes settlement period has been introduced on the electricity balancing market in compliance with the requirements of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing and Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity. This amendment leads to a fourfold increase in the number of settlement periods, accordingly it can have a significant impact on the way and accuracy of forecasting the purchase/sale electricity quantities. At present, the lack of sufficient real data on the application of the 15-minute settlement interval does not allow an analysis of the achieved price levels for surplus and shortage. To that end, until accumulating a sufficient volume of real data on the reported amounts of imbalances of the balancing groups and the

achieved price levels, it is not possible to justify the need to change the approach that EWRC has used in determining the currently applied marginal contract price of transactions on the balancing energy market.

With Decision No.II-37 of 29.12.2023, in force as of 01.01.2024, determined as follows:

1. As of 01.01.2024 until the date on which the independent transmission operator has effectively joined all European balancing platforms according to Commission Regulation (EU) 2017/2195 of 23 November 2017, a marginal price for concluding transactions on the balancing energy market for upward regulation at the amount of “DAM price + BGN 100, but not lower than BGN 360/MWh”, where DAM price is equal to the IBEX EAD hour DAM price;

2. As of 01.01.2024 until 30.06.2024, but no later than the date, on which the independent transmission operator has effectively joined all European balancing platforms according to Commission Regulation (EU) 2017/2195 of 23 November 2017, a marginal price for concluding transactions on the balancing energy market for downward regulation in an auction for the procurement of a reserve with a volume of up to 200 MW and including at the amount of 30% of DAM price, where DAM price is the IBEX EAD hour DAM price, but not higher than the regulated price of HPP owned by National Electric Company EAD;

3. As of 01.07.2024 until the date, on which the independent transmission operator has effectively joined all European balancing platforms according to Commission Regulation (EU) 2017/2195 of 23 November 2017, a marginal price for concluding transactions on the balancing energy market for downward regulation in an auction for the procurement of a reserve with a volume of up to 200 MW and including at the amount of 30% of DAM price, where DAM price is the IBEX EAD hour DAM price;

4. As of 01.01.2024 until the entry into force date of the amended methodology under Art.105, para.13 of EMR, but no later than the date, on which the independent transmission operator has effectively joined all European balancing platforms according to Commission Regulation (EU) 2017/2195 of 23 November 2017, a marginal price for concluding transactions on the balancing energy market for downward regulation in an auction for the procurement of a reserve with a volume of up to 200 MW and including at the amount of 30% of DAM price, where DAM price is the IBEX EAD hour DAM price, but not higher than the regulated price of HPP owned by National Electric Company EAD;

5. As of entry into force date of the amended methodology under Art.105, para.13 of EMR till the date, on which the independent transmission operator has effectively joined all European balancing platforms according to Commission Regulation (EU) 2017/2195 of 23 November 2017, a marginal price for concluding transactions on the balancing energy market for downward regulation in an auction for the procurement of a reserve with a volume of up to 200 MW at the amount of BGN 200/MWh;

6. Marginal prices determined by that decision do not apply when concluding transactions for balancing energy that is purchased/sold from/to neighbouring energy systems under bilateral agreements or from a regional balancing market.

### **3.1.6. Cross-border issues**

Regarding the technical cooperation between the EU transmission system operators and third countries, the Bulgarian TSO is in close cooperation with the operators - members of the European Network of Transmission System Operators for Electricity (ENTSO-E). In connection with the entry into force of Regulation (EU) 2019/943, ESO EAD has sent letters with a proposal for cooperation with third countries in the South East Europe Region (non-EU members of ENTSO-E: Turkey, North Macedonia and Serbia) for the coordinated calculation of inter-zonal capacity under ACER methodologies for determining the 70% threshold of the cross-zonal capacity and for the coordinated calculation of operational security.

## **Market coupling projects in the day-ahead timeframe**

In connection with the realized market couplings on the Bulgarian-Greek border on 12.05.2021 and the Bulgarian-Romanian border on 27.10.2021, the free transmission capacity on a daily basis is no longer explicitly allocated through daily auctions, but is provided for implicit allocation to exchange market operators in Bulgaria, Romania and Greece. In the case of market decoupling, a Fallback Procedure already approved by the national regulators of SEE CCR shall enter into force according to Art. 44 of Regulation EU 2015/1222, on the basis of which, in case of market decoupling, the free transmission capacity for daily auctions will be explicitly allocated by the Joint Auction Office (JAO SA) according to the Shadow Auctions Rules.

For the remaining borders Bulgaria-Turkey, Bulgaria-North Macedonia and Bulgaria-Serbia, an explicit allocation of transmission capacity is required according to the provisions of Regulation (EU) 2019/943 in connection with the introduction of general rules and procedures for the allocation and provision of available transmission capacity in both directions along the intersystem sections of the electricity system of the Republic of Bulgaria and neighbouring electricity systems and in connection with Regulation (EU) 2016/1719 of September 26, 2016 establishing a guideline on forward capacity allocation (Regulation 1719/2016) and Commission Regulation (EU) 2015/1222 of July 24, 2015 establishing a guideline on capacity allocation and congestion management (Regulation 1222/2015). The aim is to ensure optimal management of bottlenecks in electricity transmission networks, promote the development of energy exchange and the coordinated distribution of cross-border capacity through non-discriminatory market-based solutions.

As of 1 October 2018 the Cooperation Agreement between ESO EAD and the single distribution platform came into force according to Art. 48 of Regulation 1719/2016, as a result of which the allocation of long-term transmission rights (annual and monthly) on the borders Bulgaria-Romania and Bulgaria-Greece auction zones shall be carried out by a single auction office (Joint Allocation Office SA, JAO SA), which has been selected by the European Network of Electricity Transmission System Operators to act as a single distribution platform in accordance with the requirements of Regulation 1719/2016.

According to Art.51, item 1 of Regulation 1719/2016 TSOs shall develop a joint proposal for harmonized allocation rules regarding long-term transmission rights (the Harmonized Rules). With Decision No. 3/2017 of 02.10.2017, the Agency for the Cooperation of Energy Regulators (ACER) adopted the first version of the Harmonized Rules. By Decision No 14/2019 of 29.10.2019 on the basis of Art.4, item 12 of Regulation 1719/2017 and in connection with Art.68, item 5 of Harmonized Rules, ACER adopted the amended proposal of all transmission system operators for Harmonized Rules for the allocation of long-term transmission rights according to Art.4, par.6, b(d) and Art.51 of Regulation 1719/2016.

With Decision No 6/2017, ACER approved that the regional specific annex for the South-East Europe Capacity Calculation Region (CCR SEE) to the Harmonized Rules for Allocation of Long-Term Transmission Rights in accordance with Art.51 of Regulation 2016/1719, should be applied for a delivery period as of 01.01.2019 and remaining in force in 2020 as well.

In connection with ACER Decision No 4/2020 dated 30.01.2020 regarding the amendment to the Algorithm Methodology, for IBEX EAD, in its capacity as a nominated electricity market operator (NEMO) in Bulgaria, an obligation arose to organize a new sub-segment to the intraday market segment together with the other NEMOs according to ACER Decision. This new sub-segment will involve the running of three auctions modeled after the Day-Ahead segment, but in the time frame of 15:00 CET on D-1 to 10:00 CET on D-Day. This should happen according to the developed road map of this pan-European project, where a deadline for putting it into real operation is foreseen - second quarter of 2024.

## Realized commercial electricity exchange according to schedules of trade participants

<b>EXCHANGES</b>		
<b>Realized commercial electricity exchange according to schedules of trade participants</b>		
<b>Border/Direction</b>	<b>2022</b>	<b>2023</b>
	<b>MWh</b>	<b>MWh</b>
Bulgaria - Romania	5 583 182	3 993 115
Romania - Bulgaria	736 899	5 414 969
Bulgaria - Serbia	2 803 087	1 866 188
Serbia - Bulgaria	524 640	1 706 023
Bulgaria – N Macedonia	2 934 309	2 540 360
N Macedonia - Bulgaria	135 414	775 803
Bulgaria - Greece	3 351 023	4 149 448
Greece - Bulgaria	707 714	1 387 222
Bulgaria - Türkiye	438 847	800 242
Türkiye - Bulgaria	847 624	624 772
<b>Physical electricity exchange between Bulgarian EPS and EPS of neighbouring countries</b>		
<b>Border/Direction</b>		
	<b>2022</b>	<b>2023</b>
<b>Import</b>	<b>MWh</b>	<b>MWh</b>
Physical border - total	1 469 114	4 414 018
Including:		
- Romania	1 183 656	3 524 224
- Serbia	42 295	259 975
- North Macedonia	22 025	42 870
- Türkiye	126 035	404 535
- Greece	95 103	182 414
<b>Export</b>		
Physical border - total	13 664 298	7 748 401
Including:		
- Romania	3 651 934	1 268 563
- Serbia	3 222 131	1 295 368
- N Macedonia	2 530 371	1 592 886
- Türkiye	2 293 437	1 289 354
- Greece	1 966 425	2 302 231
<b>Physical exchange with distribution companies</b>		
	<b>2022</b>	<b>2023</b>
	<b>MWh</b>	<b>MWh</b>
ESO EAD and ERM Zapad AD	9 019 917	8 961 845
ESO EAD and ERP Sever EAD	4 825 929	4 658 661
ESO EAD and EP Yug AD	8 084 296	8 003 397
ESO EAD and ERP Zlatni Piasaci AD	59 122	59 887
ESO EAD and NRIC	333 207	307 158
ESO EAD and OZRM BALKAN AD		-41 917

### 3.1.7. Implementation of network codes and guidelines

In compliance with European regulations and with the aim of ensuring full transparency and publicity, in 2023 EWRC continued to fulfil its obligations under network codes and regulations. During the said period, activities were carried out on the adoption of methodologies and accompanying papers in implementation of the European regulations in order to ensure the smooth operation of the activities for the single market coupling and to ensure the required available cross-border transmission capacity.

Given the above, in 2023 EWRC approved the following documents:

- Proposal of the SEE CCR TSOs for a Methodology for cross-zonal capacity calculation, in accordance with Art. 37 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing guidelines on electricity balancing;
- Proposal of the SEE CCR TSOs for a common Capacity calculation methodology for the Day-ahead and Intraday market time-frame, in accordance with Art. 21 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- Necessary steps to approve the definition of the minimum activation period to be guaranteed by the entities providing reserves for primary frequency regulation in accordance with Art. 5, par. 9 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation;
- Designation of Independent Bulgarian Energy Exchange EAD (IBEX EAD) as Nominated electricity market operator in accordance with Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- Request for amendment by the NRAs of Continental Europe synchronous area to the proposal of the transmission system operators to determine the minimum activation period to be ensured by FCR providers in accordance with Art. 156, par. 10 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

## 3.2. Competition and market functioning

### 3.2.1 Wholesale markets

Data on electricity generated and installed capacities in the period 2022 - 2023 have been summarized by years in the table below:

Electricity generated by energy sources	Installed capacity in MW		Electricity generated in MWh		Change in %
	2022	2023	2022	2023	
<b>1. NPP</b>	<b>1 893</b>	<b>1 893</b>	<b>15 615 000</b>	<b>15 342 941</b>	<b>-1.74%</b>
<b>2. TPP lignite coal</b>	<b>3 585</b>	<b>3 601</b>	<b>19 920 231</b>	<b>10 844 943</b>	<b>-45.56%</b>
<b>3. TPP black and brown coal</b>	<b>240</b>	<b>240</b>	<b>413 285</b>	<b>202 534</b>	<b>-50.99%</b>
<b>4. TPP natural gas</b>	<b>1 076</b>	<b>482</b>	<b>1 461 015</b>	<b>1 347 727</b>	<b>-7.75%</b>
<b>5. HPP, incl.</b>	<b>2 867</b>	<b>2 867</b>	<b>2 975 860</b>	<b>2 339 993</b>	<b>-21.37%</b>
5.1. PSHPP generation	1 386	1 386	444 333	420 668	-5.33%
5.2. PSHPP pumps *	932	932	51 621	77 071	49.30%
<b>6. RES, incl.:</b>	<b>930</b>	<b>1 502</b>	<b>1 514 767</b>	<b>2 423 130</b>	<b>59.97%</b>

6.1. WPP	358	358	769 315	809 580	5.23%
6.2. PvPP	548	1 120	647 006	1 558 739	140.92%
6.3. Biomass PP	25	25	98 447	54 810	-44.32%
<b>Total: 1+2+3+4+5+6</b>	<b>10 592</b>	<b>10 584</b>	<b>41 900 158</b>	<b>32 501 269</b>	<b>-22.43%</b>

\* the PSHP pumps work represents electricity consumption and the electricity volumes under 5.2 are not included in the sum in item 5

Data used for the installed capacities connected to the transmission network and the generated net electricity in 2022 and 2023 has been provided by ESO EAD. Regarding installed capacities, a sharp increase in photovoltaic power plants has been reported, with 1120 MW for 2023 compared to 2022 when they were 548 MW. The total electricity generated by producers connected to the transmission network for 2023 was 32 501 269 MWh and was by 22% less than the net electricity produced in 2022, which was 41 900 158 MWh.

When analysing the differences between the generated electricity quantities of the plants connected to the electricity transmission network in 2023, in comparison to 2022, the following trends can be observed: a significant decrease in the generation by TPP lignite coal (by 46%), decrease in TPP black and brown coal (51%), an insignificant decrease in NPP (0.23%) and in HPP (21%). A massive increase in the electricity generation from photovoltaic plants has been observed by 141%.

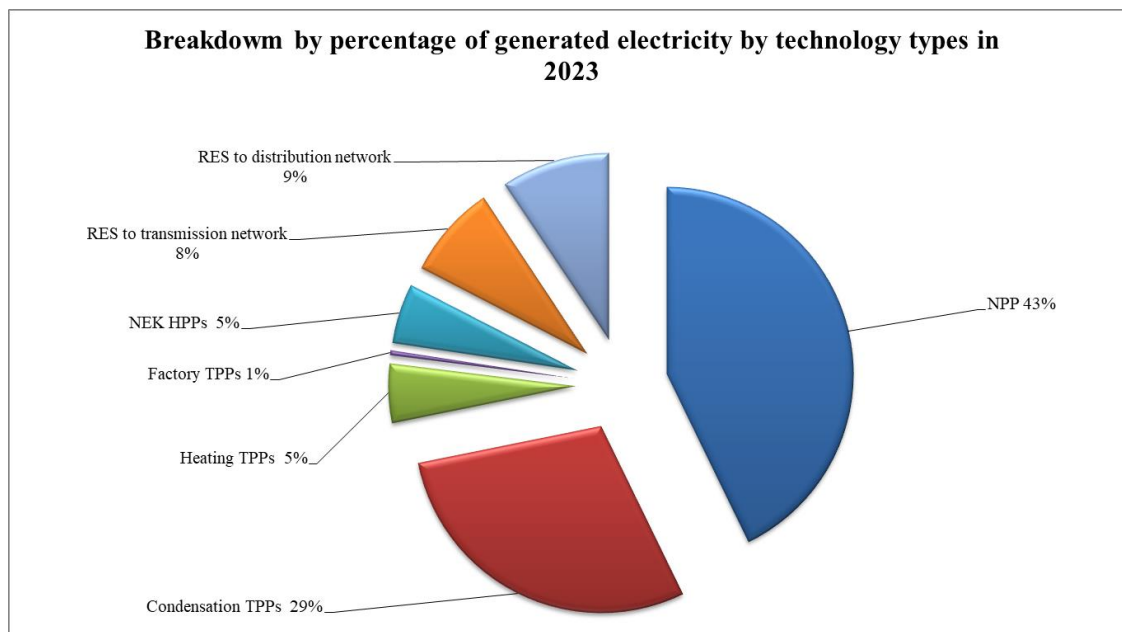
The following table presents the installed capacity in MW, connected to the electricity distribution networks and the energy produced in 2023 in MWh.

	ERM Zapad EAD		EP Yug AD		ERP Sever EAD		ERP Zlatni Piasaci AD		Total	
	Installed capacities	Gen. electricity	Installed capacities	Gen. electricity	Installed capacities	Gen. electricity	Installed capacities	Gen. electricity	Installed capacities	Gen. electricity
<b>Coal</b>	37.22	31 317	0.00	0	0.00	0.00	0.00	0.00	37.22	31 317
<b>Natural gas</b>	0.00	166 589	21.01	60 884	225.68	117 952	0.00	0.00	246.68	345 425
<b>HPP</b>	224.26	564 561	95.79	173 866	14.58	20 816	0.00	0.00	334.62	759 243
<b>WPP</b>	18.57	26 618	47.90	60 390	280.35	687 264	0.00	0.00	346.81	774 271
<b>PvPP</b>	493.93	444 037	899.19	928 742	322.42	319 001	0.87	344.46	1 716.41	1 692 125
<b>Other</b>	15.65	35 273	28.62	79 961	5.91	19 017	0.00	0.00	50.18	134 251
<b>Total</b>	<b>790</b>	<b>1 268 395</b>	<b>1 093</b>	<b>1 303 844</b>	<b>849</b>	<b>1 164 050</b>	<b>0.872</b>	<b>344</b>	<b>2 732</b>	<b>3 736 633</b>

From the data presented, it is clear that the largest amount of installed capacities (1 093 MW) for electricity generation were connected to the distribution network of EP Yug AD, respectively, the biggest amount of electricity produced was there (1 303 844 MWh). Total generation capacities connected to the electricity distribution networks were 2 732 MW and the energy produced 3 736 633 MWh. In 2023 installed capacities connected to the electricity distribution companies increased by 25% with the largest increase in PvPP, namely by 49%.

The graph below shows the percentage distribution of electricity generated in 2023 by technology type. Total electricity generated by producers connected to the transmission and distribution networks in the Republic of Bulgaria in 2023 was 35 861 159 MWh, allocated depending on the primary energy source and the production technology used. The largest share in the generated electricity was that of NPP with 15 342 941 MWh or 43%, condensation TPPs with

10 414 122 MWh or 29%, followed by RES with 6 260 547 MWh or about 18% (respectively RES allocated to the transmission network - 8% and RES to the distribution network - 9%).



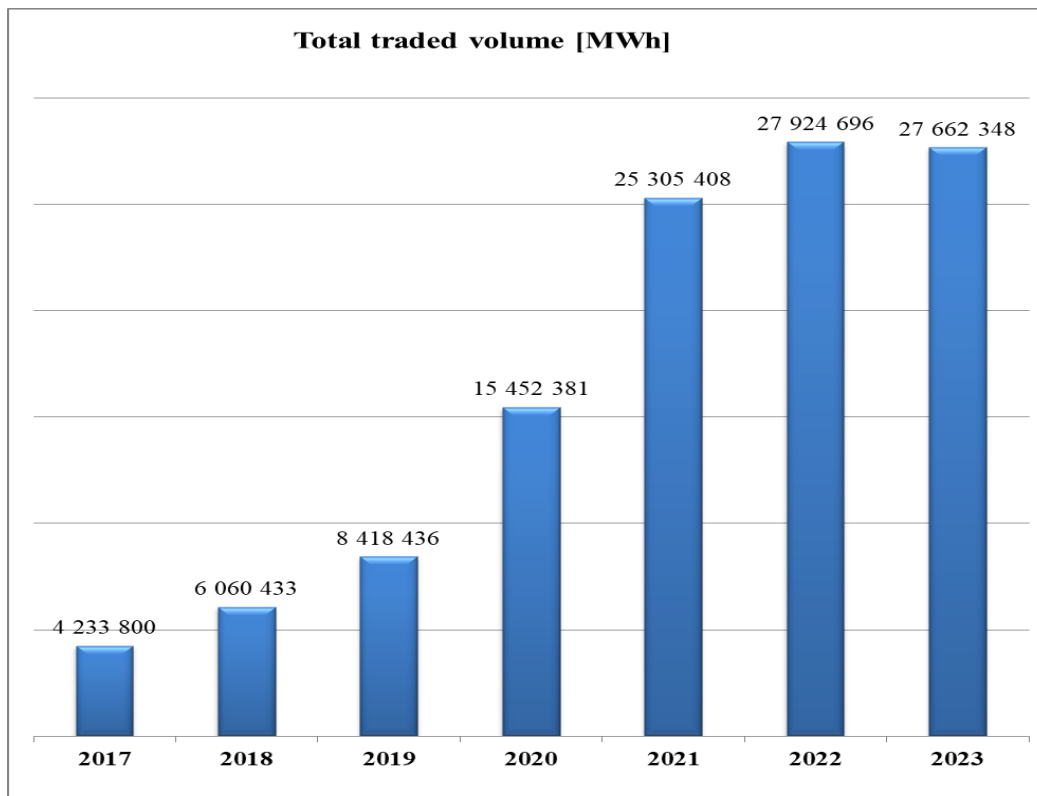
### **Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition**

In connection with the obligation under Art.59, par.1(n) of Directive (EU) 2019/944, EWRC monitors the level of transparency, including wholesale prices, and ensures that electricity companies fulfil transparency obligations. In this regard, an analysis of the wholesale trade in electricity has been made.

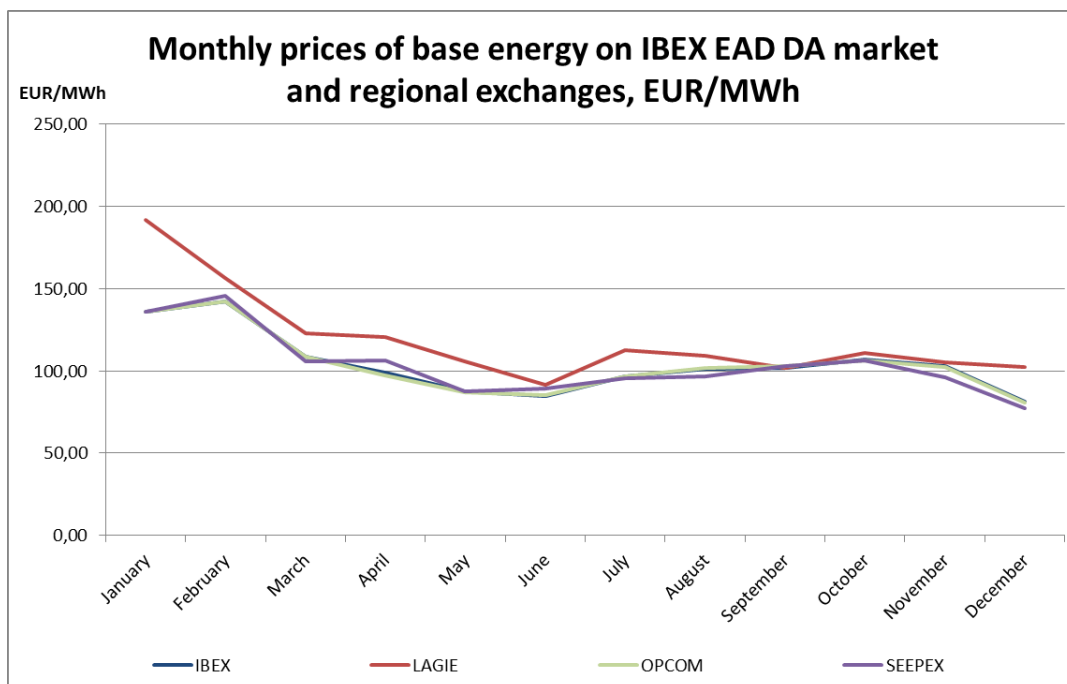
The main wholesale trade is carried out through the three segments of the Independent Bulgarian Energy Exchange EAD (IBEX EAD), namely day-ahead market, intraday market and centralized bilateral contracts market.

#### **Day-ahead Market**

In 2023 day-ahead market base energy traded volumes had no significant change compared to 2022. Data can be seen below.

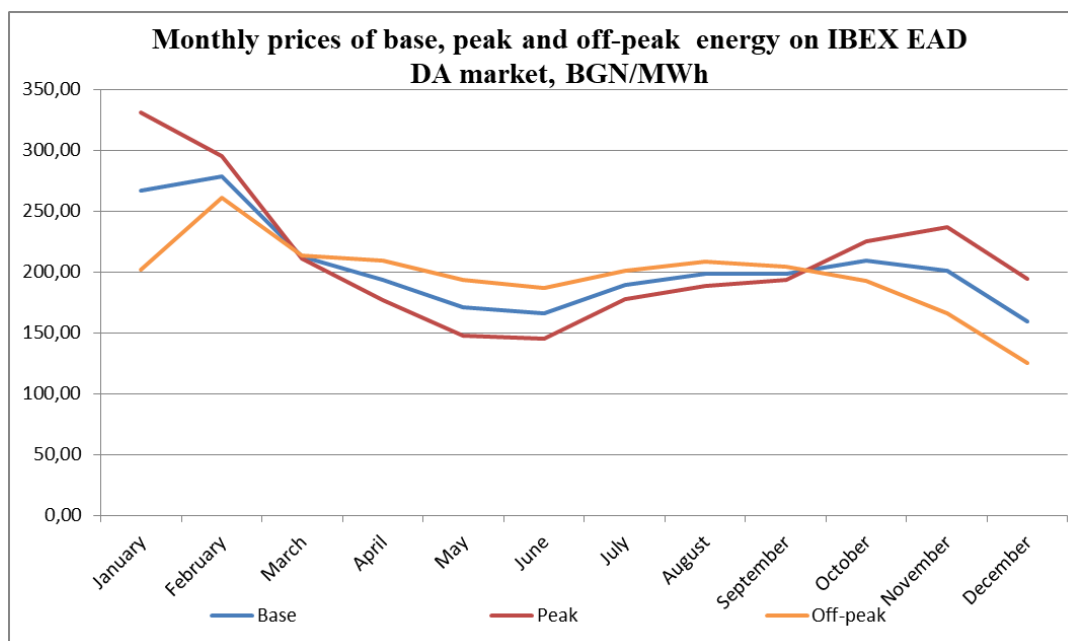


A comparative graph of prices and traded volumes on IBEX EAD Day-ahead market and on regional exchanges is presented in the following figure. The analysis includes average monthly prices for baseload EUR/MWh of traded volumes on the Day-ahead market in 2023 on the following regional exchanges: IBEX (Bulgaria), LAGIE (Greece), OPCOM (Romania) and SEEPEX (Serbia). As can be seen from the graph, there is a downward trend in the 2023 price and similar values for the regional exchanges.



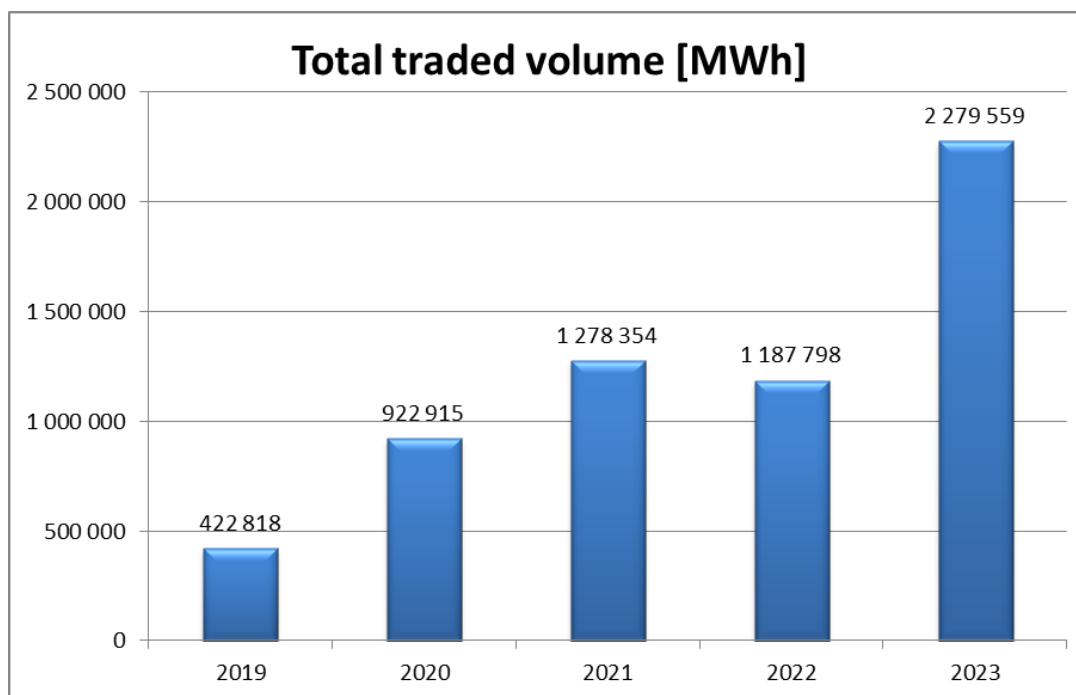


The following graph shows the levels of monthly prices of base, peak and off-peak energy on IBEX EAD Day-ahead market, in BGN/MWh.



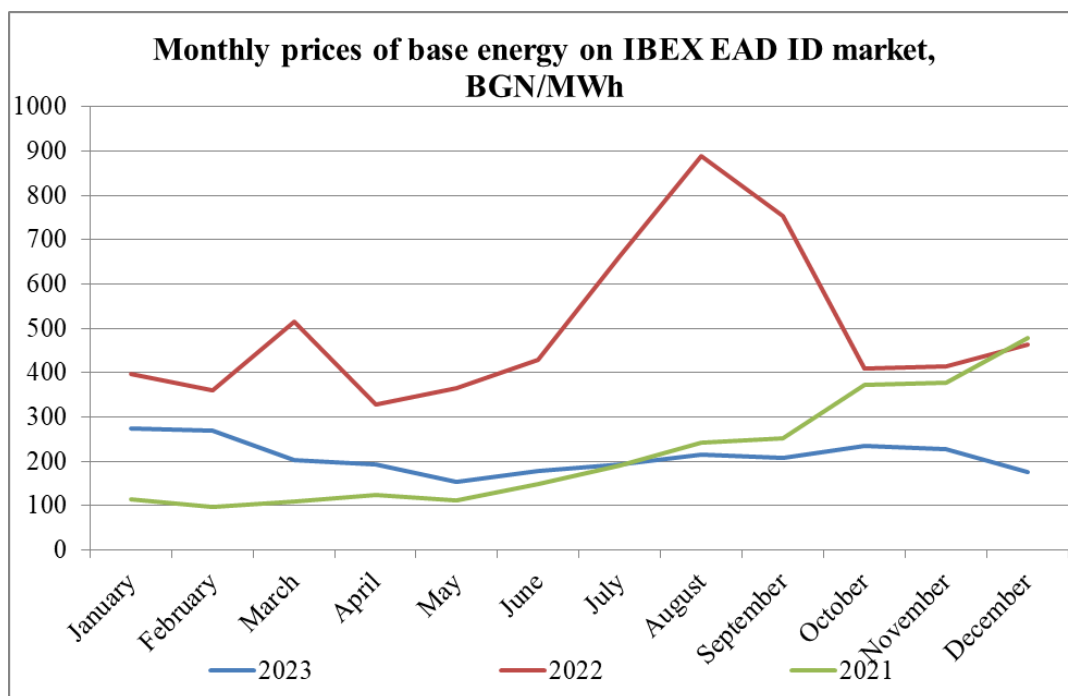
### Intraday Market

In 2023 the intraday market total traded volume was 2 279 559 MWh and it marks a considerable increase by 92% in comparison to 1 187 798 MWh in 2022. Data can be seen below:

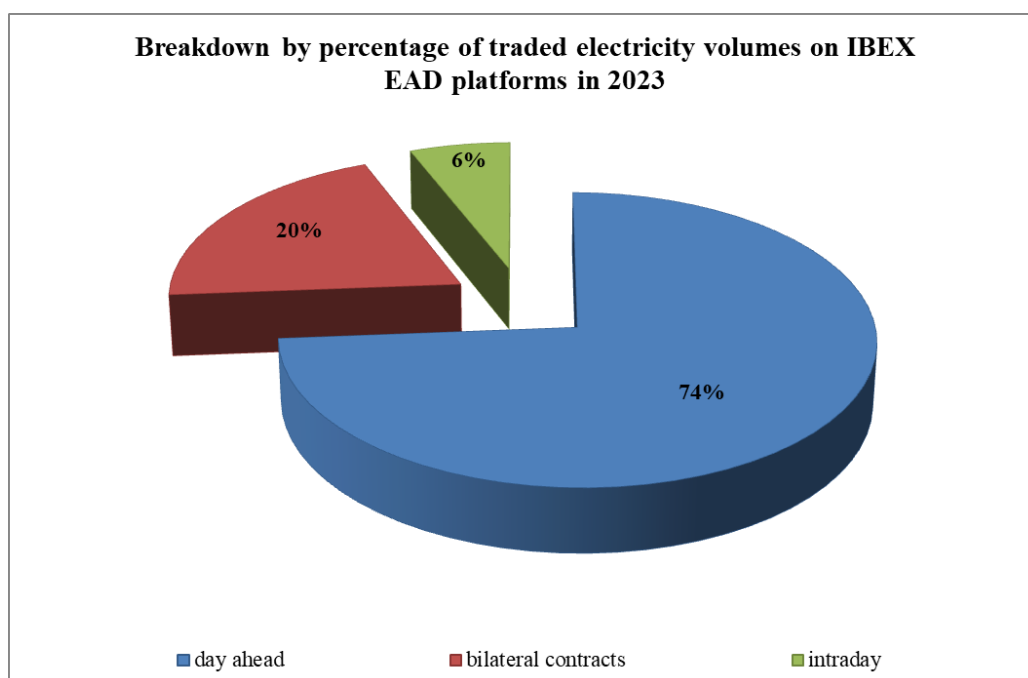


The graph below shows the average weighted monthly prices of electricity traded on IBEX EAD intraday market in the last three years.

In 2023 monthly prices of electricity in BGN/MWh traded on IBEX EAD intraday market have a significant drop compared to 2022.



Total electricity amount traded on the IBEX EAD platforms in 2023 was 37 482 GWh: 27 662 MWh on the day-ahead market, 2 279 GWh on the intraday market and 7 539 GWh on bilateral contracts. Quantities percentage can be seen in the following figure:



Summary indicators that characterize the dynamics of the wholesale electricity market development for the period 2017-2023 are shown in the table below:

Wholesale electricity market indicators	2017	2018	2019	2020	2021	2022	2023
Total electricity generation, GWh	45 430	46 531	39 476	36 799	42 521	41 900	32 501
Total number of active electricity traders	97	89	85	38	40	65	128
Total electricity consumption, excl. pumps, GWh	38 864	38 218	37 794	36 723	38 631	29 653	29 029
Import volume, GWh	3 425	3 118	4 026	3 707	1 857	1 469	4 414
Export volume, GWh	8 906	10 931	9 822	7 115	10 634	13 664	7 748

**Statistical data for the day during the year with the highest electricity consumption in the country**

Day with highest electricity consumption in:	Electricity consumption (gross), GWh	Registered on
2017	164	Tuesday, 10 Jan 2017
2018	148	Tuesday, 27 Feb 2018
2019	150	Tuesday, 08 Jan 2019
2020	137	Tuesday, 21 Jan 2020
2021	143	Tuesday, 19 Jan 2021
2022	151	Wednesday, 26 Jan 2022
2023	150	Wednesday, 08 Feb 2023

### **Implementation of Regulation (EU) No. 1227/2011**

“Monitoring and Control of the Implementation of Regulation (EU) No. 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency” Division (REMIT Division) at EWRC is committed to the implementation of 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, Regulation (EU) No. 1227/2011).

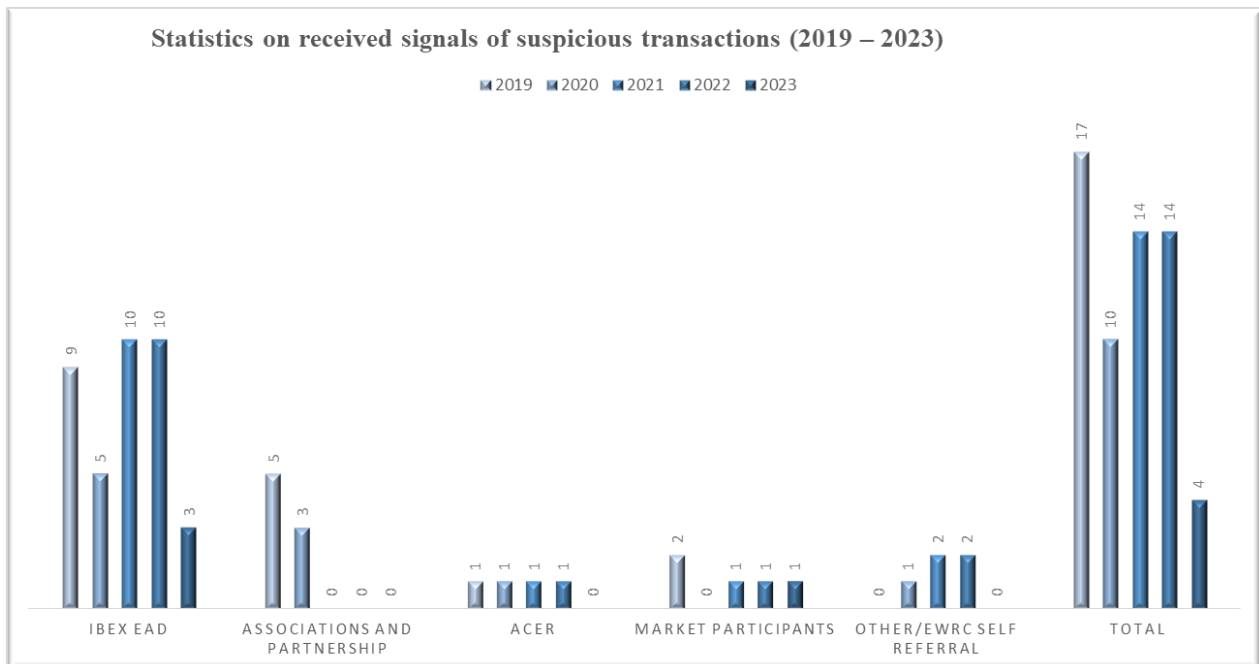
The Regulator’s activity was aimed at ensuring equal access of market participants to the wholesale electricity power exchange markets, monitors the observance of transparency in trade, deters and sanctions market abuses within the meaning of Regulation (EU) No. 1227/2011.

One of the main activities of the REMIT Division is finding violations of Art.3 and Art.5 of Regulation (EU) No. 1227/2011, pursuant to Chapter Seven “a” of the Energy Act.

In 2023, in accordance with Art.15 of REMIT, the REMIT Division received 3 reports on suspicious transactions from Independent Bulgarian Energy Exchange EAD (IBEX EAD) and 1 report from ESO EAD with allegations of a violation of Art.3 and/or Art.5 of Regulation (EU) No. 1227/2011 on an organized exchange market for wholesale electricity trading. No was received

signal from ACER in accordance with Art.16 of REMIT.

In the period 2019-2023 total number of 61 reports was filed at EWRC pursuant to Art.74a, para.1 of EA with suspicions of violation of Art.3 and/or Art.5 of REMIT Regulation.

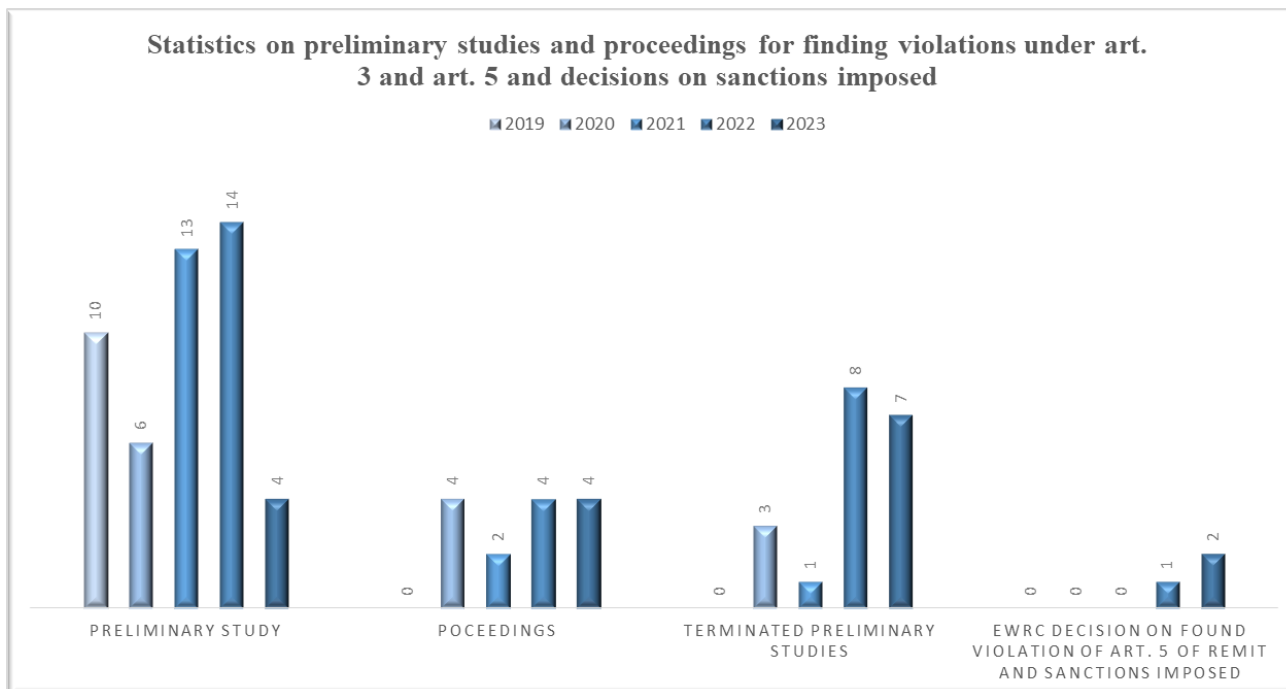


In case of found initial data on market manipulation within the meaning of Art.3 and/or Art.5 of REMIT, the REMIT Division officials, by EWRC Chair’s order, carry out a preliminary investigation on the presence of a justified assumption of a violation. After completion of the preliminary investigation, if sufficient evidence of a violation has been found, EWRC may, by decision, initiate proceedings to establish a violation under Art.3 and/or Art.5 of Regulation (EU) No. 1227/2011. These investigations are carried out in partnership with ACER, in accordance with Art.16 of the Regulation. For each individual case, EWRC shall regularly exchange information on the development of cases with ACER. This exchange follows strict rules to ensure complete confidentiality and prevent leakage of information on ongoing cases outside REMIT Division staff.

In view of the stated requirements for guaranteeing complete confidentiality in the investigation of ongoing cases, EA provides for EWRC decision and minutes of sittings related to the preliminary investigation and the establishment of a violation under Art.3 and/or Art.5 of Regulation (EU) No. 1227/2011, not to be published on EWRC website. Based on the above, EWRC cannot provide specific information on the progress and outcome of ongoing investigations, as it would be in violation of the requirements of ACER and Art.74a, para 8 of EA.

Based on all received reports of suspicious transactions and signals, a total of 47 cases of preliminary investigation were formed in the REMIT Division pursuant to Art.74a of EA for the period 2019-2023, all relating to the wholesale electricity market. The formed preliminary investigations are less than the number of received reports and signals for the same period, because several signals were received for one and the same suspicious transactions. For the purpose of procedural economy and to achieve a complete clarification of the investigated cases, these signals have been incorporated into one preliminary investigation. The purpose of the preliminary investigation is to establish whether there is sufficient data in the report, on the basis of which a reasonable assumption can be made that a violation of Art.3 and/or 5 of Regulation (EU) No. 1227/2011 is in place. When EWRC considers that the suspicion of a violation is supported by the facts presented in the preliminary investigation report, it initiates proceedings by a decision under

Art.74a, para.5 of EA to establish a violation of Art.3 and Art.5 of Regulation (EU) No. 1227/2011.



In 2023, EWRC initiated three proceedings to establish a violation of Art.3 and/or Art.5 of Regulation (EU) No. 1227/2011, and due to lack of data on committed violations, terminated 7 preliminary investigations and one proceeding.

In 2023, in accordance with Art.74 (n) of EA, EWRC took two decisions establishing a violation of Art.5 of Regulation No. 1227/2011 and imposed property sanctions to:

1. Energy Supply EOOD – BGN 165 238;
2. Most Energy AD – BGN 1 057 026;
3. Kummer OOD – BGN 1 057 026.

By EWRC decision of 23.03.2023 a property sanction at the amount of BGN 165 238 was imposed to Energy Supply EOOD for violation of Art.5 of Regulation (EU) No. 1227/2011. In its decision, the Regulator found that the company manipulated the IBEX EAD Intraday market segment in the period 01.01.2021 - 31.03.2022 by using “layering” and “spoofing” specified as manipulative practices in ACER guidelines for the implementation of the Regulation. In that way, the company was able to reduce the short-term price of wholesale energy products in its favour.

By its decision of 14.11.2023 EWRC imposed property sanctions to two market participants for violation of Art.5 of the Regulation of - Most Energy AD and Kummer OOD, at the amount of BGN 1 057 026 for each of them. The two companies manipulated the wholesale energy market on the organized exchange market, IBEX EAD Bilateral Contracts segment, through transactions that sent misleading signals to other market participants about the price of the wholesale energy product. All three companies appeal the property sanctions imposed on them by EWRC in court.

In connection with findings of proceedings initiated against two market participants for an alleged violation of Art.5 of REMIT, EWRC sent a signal to Sofia City Prosecutor's Office by jurisdiction.

Pursuant to Art.74(n) of EA and Art.155(u), para.2 of Ordinance No.3 of 21.03.2013 on licensing the activities in the energy sector, REMIT Division officials have carried out preventive,

current and subsequent control for compliance with the obligations under Articles 4, 8, 9 and 15 of Regulation (EU) No. 1227 /2011.

Regarding the persons professionally arranging transactions with obligations under Art.15 of the Regulation, REMIT Division issued mandatory guidelines to IBEX EAD to cease the practice of approving suspicious transaction reports by the IBEX EAD executive director, as this function should be performed by an independent member of IBEX EAD Board of Directors or to apply another appropriate way, according to ACER guidelines by 30.10.2023. IBEX EAD fulfilled the order within the deadline.

During subsequent control for compliance with the obligations of Art.15 of REMIT by Electricity System Operator EAD (ESO EAD), officials issued an order to the company to prepare and present a strategy for monitoring the wholesale energy market and to ensure operational independence in the preparation of reports on suspicious transactions. In the course of the meeting on the subsequent control, ESO EAD presented data giving rise to doubts about a violation of Art. 5 of REMIT by several market participants (commercial companies) in the balancing market administered by ESO EAD. The data was formatted as a report and sent to EWRC, and that was the first case of ESO EAD reporting an alleged violation of the Regulation according to the company's obligation under Art.15 of REMIT.

Regarding carried out current control in 2023, in accordance with Art.74o of EA, in connection with market participants' obligations compliance under Art.9 of REMIT, EWRC officials appointed by Chair's order, issued mandatory guidelines to 73 market participants who had not complied with their obligation under Art. 9, paragraph 1 – to indicate by 31.12.2022 a platform certified by ACER in the Centralized European Register of Energy Market Participants (CEREMP) for the disclosure of inside information in accordance with Art.4 of Regulation (EU) No. 1227/2011. After the issued mandatory guidelines, the market participants fulfilled their obligation within the stipulated period.

Market participants that carry out transactions with wholesale energy products, for which there is a requirement to be reported to ACER in accordance with Art. 8(1) of REMIT shall be registered with the national regulatory authority. In this regard, in 2023 EWRC registered 16 new market participants for trading in wholesale energy products (electricity) and updated the data of 139 registered market participants. The total number of market participants trading wholesale electricity by the end of 2023 and registered by EWRC in CEREMP is 219.

In 2023, EWRC's capacity to investigate potential manipulation of organized wholesale energy markets was increased, including through human resource development, participation in ACER and CEER working groups, as well as a joint training with the Romanian Energy Regulator (ANRE). The REMIT Division has seriously expanded the scope of inspections by developing new tools for monitoring and controlling wholesale energy markets. By the end of 2023 EWRC received a specialized software package of statistical analysis and data processing especially developed for REMIT purposes as grant from IBS Bulgaria EOOD. The application enables to enhance the accuracy and objectivity of assessments of the behaviour of energy exchange participants.

### **3.2.2 Retail market**

In the retail market, there are four electricity distribution network operators that are licensed to distribute electricity to customers connected to the distribution network at low and medium voltage level in the respective designated territories:

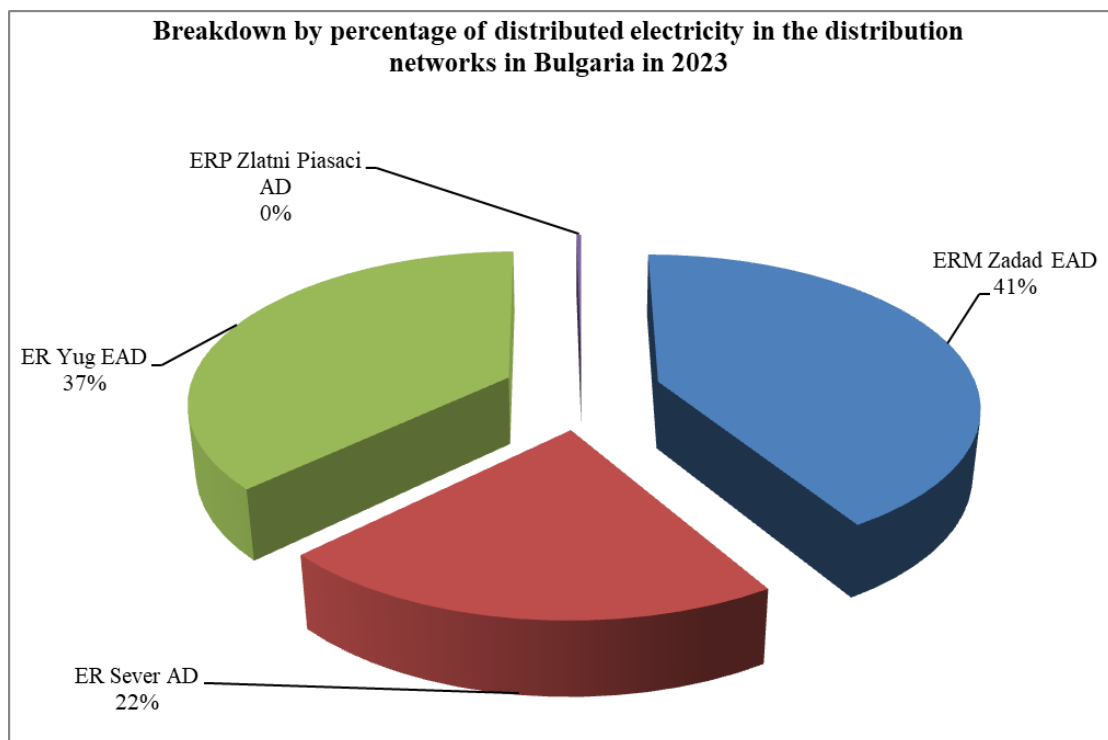
- ERM Zapad AD operates on the territory of 10 districts in Western Bulgaria;
- Electrodistribution North AD operates on the territory of 9 districts in North Bulgaria;

- Elektrorazpredelenie Yug EAD operates on the territory of 9 districts in South Bulgaria;
- ERP Zlatni Piasaci AD has a limited geographical area of activity in Varna region.

Retail market consists of three groups of suppliers from supply point of view:

- Free market supplier - a trader/producer/power exchange that supplies electricity to household and non-household customers at prices based on demand and supply;
- Supplier of last resort (SLR) – a supplier that guarantees the universal service provision as a last resort in accordance with a license obtained from EWRC. It has the obligation to supply electricity to customers connected to the distribution network that have not chosen an electricity trader or when the electricity trader they had chosen failed to provide the supply due to non-customer reasons. The SLR end selling prices are determined under EWRC methodology on electricity prices of a supplier of last resort;
- End supplier (ES) - supplies low voltage electricity to sites of household and non-household end consumers connected to the low voltage electricity distribution network at regulated prices determined by EWRC.

Energy distribution companies' market shares, as electricity volumes, distributed through their own networks, are calculated on the basis of reported by them data for 2023 by ESO EAD. The largest share of electricity transmission is traditionally for ERM Zapad EAD with 41% or 8 961 845 MWh, the second one is Elektrorazpredelenie Yug EAD with 37% or 8 003 397 MWh and third is Electrodistribution North AD with 22% or 4 658 661 MWh. The graphic allocation is shown on the figure below:



From a demand perspective, the retail market consists of two segments: household customers and non-household customers. Total number of customers connected to distribution companies in 2023 was 5 295 032, of which household – 4 719 330. Total number of customers with an end supplier was 4 717 006, and total number of customers in the free market, including with SLR, was 577 747.

## Retail market development indicators

### Household customers

Consumption in the household customers market decreased in 2023 compared to 2022 by 3.29%. The reported decrease shows that a significant number of small business users have already concluded a contract with an electricity trader and purchase the volumes they need on the organized exchange market.

The number of household customers increased from 4 479 397 in 2017 to 4 719 330 in 2023. The number of household customers that changed supplier was insignificant.

Retail market indicators (households)	2017	2018	2019	2020	2021	2022	2023
Electricity consumption, MWh	11 068 228	10 965 494	14 729 883	13 979 423	12 088 565	11 865 505	12 256 090
Total number of electricity household customers	4 479 397	4 495 926	4 513 355	4 544 739	4 586 448	4 664 328	4 719 330
Number of customers at regulated tariffs	4 476 283	4 493 660	4 511 737	4 541 659	4 581 982	4 660 949	4 717 006
Number of customers supplied by Supplier of last resort (SLR)	618	213	114	1 233	4 644	3 101	2 118
Number of working days between the bill payment notification and the interruption in cases of actual non-payment	3 to 40	3 to 40	3 to 41	3 to 40	3 to 40	3 to 40	3 to 40

### Non-household customers

The average time for switching supplier was between 20 and 30 days for different electricity distribution companies.

Retail market indicators (non-households)	2017	2018	2019	2020	2021	2022	2023
Number of customers	605 990	611 588	624 910	629 863	631 433	578 845	575 702
Number of customers who switched their supplier	86 055	101 932	79 290	20 754	23 920	171 672	10 461
Active traders	45	46	45	40	40	65	128
Average time for switching supplier (days)	18	18	18	18	18	18	20

### 3.2.3 Consumer protection and dispute settlement

The terms and conditions of complaints' filing and handling are regulated by EA and by the Ordinance on licensing the activities in the energy sector. EWRC handles complaints of: networks and facilities users against transmission and distribution network operators, extraction companies, natural gas storage facilities operators and LNG operators, related to the way these entities perform their duties under EA; customers against electricity and natural gas suppliers, including end suppliers



regarding their duties' performance under EA; as well as licensees against other licensees regarding their duties' performance under EA.

Within two months of filing a complaint, EWRC may assist an amicable dispute settlement. The term may be extended by another two months if the nature of the dispute requires collecting additional data and information by EWRC. The procedure is voluntary and confidential. Under the amicable disputes' settlement EWRC does not make a ruling/decision and the procedure ends with an agreement.

In case no amicable settlement has been achieved or the parties reject amicable settlement, EWRC shall decide on the complaint within two months after receiving it. That period may be extended with another two months if the character of the dispute requires gathering of additional data and information by EWRC. With the agreement of the appellant, the extended period may be extended with two more months. When EWRC finds a complaint being justified, it issues a decision with binding guidelines on the implementation of the law. EWRC decisions are subject to appeal before the Administrative Court - Sofia City within a 14-day period of their notification.

In 2023 the total number of electricity complaints filed in EWRC was 1 442; 1 346 of them were against licensed companies in the electricity sector and under the provisions of art.22, para.1 of EA, administrative proceedings have been started.

The largest number of complaints was against ERM Zapad EAD and Electrohold Sales EAD. Next were complaints against Electrodistribution North EAD and ENERGO-PRO Sales AD, followed by Elektrorazpredelenie Yug AD and EVN Bulgaria Elektrosnabdiavane EAD. No complaints were filed against Elektrorazpredelenie Zlatni Piasatsi AD and ESP Zlatni Piasatsi OOD. Complaints against enterprises licensed for electricity trade activities mainly concerned contractual relations between the parties.

In 2023, 25 complaints were filed against ESO EAD. No complaints against NEK EAD have been registered.

In 2023, EWRC received 687 complaints from household customers against licensed electricity sector enterprises.

EA, Chapter Three: Regulation of the activities in the Energy Sector, Section VI: Measures for Protection of Energy Service Clients of the Energy Act, regulates the protection measures for power consumers that involve also:

- regulated mandatory content of the contracts signed with energy services customers;
- information provided by the energy enterprises that are contracting parties in the contracts with energy customers;
- energy enterprises draft and present for approval to EWRC rules on their work with consumers of energy services;
- energy enterprises, supplying energy, shall establish informational centres for consumers of energy services, as well as information on the work with them;
- energy enterprises, providing services of public interest shall determine special procedures for providing vulnerable consumers with information, related to consumption and supply termination to vulnerable consumers in the general conditions of supply and use of networks and in the rules on work with consumers of energy services;
- end suppliers shall inform customers, together with the last month invoice of every semester, when the electricity or natural gas metered consumption of the end customers in the said semester

was higher by more than 50% of the metered consumption in the respective semester of the preceding calendar year;

- the customer may request from the electricity distribution network operator to carry out metrological expert check of commercial measuring device;
- where by initiative of the end supplier the electricity or natural gas supply to the customer is to be terminated, the end supplier shall be obliged to notify the customer thereof by a method chosen by the latter, not later than three days before the date of supplies termination. If the customer has not stated a specific method of notification, notification would be done by a method at end supplier's option.

In fulfilment of its powers, EWRC monitors the implementation of the regulated legal measures on energy services consumers' protection.

As per art.59, para 1(t) 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, the regulatory authority shall have the duty to ensure non-discriminatory access to customer consumption data, the provision, for optional use, of an easily understandable harmonised format at national level for consumption data, and prompt access for all customers to such data pursuant to Articles 23 and 24 of the Directive.

As per art.38b, para.1, items 3 and 8 of EA, energy enterprises - contracting parties - shall provide for their consumers of energy services information on: actual quantities consumed and provided service value in accordance with the agreed metering frequency at no additional cost of that service; the conditions for providing electronic billing information and electronic bills.

In accordance with art.38b, para.2 of EA, the energy supplier shall provide to its customers a wide selection of payment methods, including advance payment systems, which shall be fair and adequately representing the potential consumption.

Art.38b, para.3 of EA stipulates that the energy supplier shall provide to another energy supplier information of a household customer's consumption, if so provided in an explicit agreement between the customer and the energy supplier.

These provisions guarantee customers' access to data on energy consumption and their provision and use in an easily understandable format.

## **4. NATURAL GAS MARKET**

### **4.1. Network regulation**

In exercising its regulatory powers, EWRC is guided by the following basic principles: development of competitive and well-functioning regional markets within the European Union; preventing restriction or distortion of competition on the energy market; creating incentives for competitive energy market development, where the conditions so permit; creating incentives for effective development of secure, reliable and efficient networks in accordance with the customers interests. EWRC monitors gas networks development for the benefit of all participants, which will ensure sufficient and available capacity for all, monitors prevention and distortion of market competition and its effective functioning, monitors the degree and efficiency of natural gas market

opening. EWRC monitors the security of supply, ensuring a balance between natural gas supply and demand on the national market, the level of expected future consumption and the estimated additional capacity under planning or construction, and the quality and level of networks maintenance and overcoming the shortage of suppliers or traders.

#### **4.1.1. Network and LNG tariffs for connection and access**

Prices for network connection, access and transmission of natural gas through transmission and/or distribution networks shall be subject to regulation by EWRC, except in the cases when the Regulator at its discretion approves a methodology determining the price for access and transmission through the transmission network.

EWRC regulates and determines the terms and conditions of price formation for connection to gas transmission and distribution networks.

Regarding the prices for access and transmission of natural gas through the transmission network, EWRC has approved the Methodology for determining prices for access and transmission of natural gas through the gas transmission networks, owned by Bulgartransgaz EAD. According to Art.18a, para.1 of the Methodology for each price period by 1 March, the operator shall submit to the Regulator a proposal for: entry and exit points/zones for which access and transmission prices are set; access pricing coefficients for booking short-term capacity products based on the price of reference firm capacity; seasonal multipliers to determine the prices for the reservation of short-term capacity products; discount on the formation of access prices for booking interruptible capacity products; discount in determining access prices for entry/exit points to/from natural gas storage facilities; discount on the formation of access prices for entry points from liquefied natural gas (LNG) facilities and for entry points from and exit points to infrastructure designed to overcome the isolation of Member States with regard to their transmission systems. EWRC shall adopt a decision to approve the multipliers, seasonal factors and discounts after carrying out a consultation in accordance with Art. 28 of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (Regulation (EU) 2017/460) - Art.18a, paragraph 2 of the Methodology. By decision № M-1 of 19.06.2023 EWRC approved pricing elements for Bulgartransgaz EAD for the period 01.10.2023 - 30.09.2024. Pursuant to Art.21 of the Methodology, the tariff structure of prices for access and transmission of natural gas through the gas transmission system shall be determined by the operator. On the basis of the revenue requirements and pricing elements approved by EWRC Decisions № НГП-1 of 2.10.2020 and № M-1 of 19.06.2023 Bulgartransgaz EAD has set prices for access and transmission through the gas transmission networks owned of Bulgartransgaz EAD, for the gas year 01.10.2023 - 30.09.2024. Access and transmission prices have been published on Bulgartransgaz EAD website [https://www.bulgartransgaz.bg/files/useruploads/files/prozrachnost-tarifi/TAR%20Period%202023\\_2024/Prices\\_2023-2024.pdf](https://www.bulgartransgaz.bg/files/useruploads/files/prozrachnost-tarifi/TAR%20Period%202023_2024/Prices_2023-2024.pdf).

Prices for access and transmission through the IGB interconnector are determined according to the IGB Tariff Code approved by EWRC together with the Regulatory Authority for Energy, Waste and Water of the Republic of Greece.

Prices for natural gas access and transmission through the gas distribution network may include the following components: access price (capacity price) and transmission price (price for transported natural gas quantities) under the contract for transmission through the gas distribution network. The transmission price through the distribution network shall be formed on the basis of the approved annual revenue requirements for the approved estimated natural gas quantity for distribution. According to Art.44, para 4 of EA any persons whom have been granted natural gas distribution licenses shall not be granted licences for other activities, subject to licensing under EA, except licences for natural gas supply from an end supplier, if the customers connected to the gas distribution network in the respective area are less than 100 000. EWRC has also issued licenses for the activity “natural gas supply by end supplier” to the companies holding a license for the activity

“natural gas distribution”. Prices for natural gas supply by end suppliers to customers connected to the respective gas distribution networks shall be determined on the basis of costs for purchasing natural gas and approved estimated annual revenue requirements for natural gas supply. In exercising its regulatory powers with regard to price regulation, the Regulatory Authority is guided by the principles under Art.23 and Art.31 of EA. According to Art.3, para 2, item 2 of ONGPR, when applying the “price cap” method for gas distribution companies, the regulatory period lasts from 2 to 5 years. The gas distribution companies’ price regulatory period allows for avoiding large price fluctuations over the years and ensures predictability for the end customers. Energy companies shall submit applications for price approval no later than three months before the expiry of the previous price period.

There is one underground gas storage facility in Bulgaria – Chiren UGS, built on the depleted gas condensate field site near the village of Chiren, Vratsa region. Bulgartransgaz EAD is the owner and operator of Chiren UGS and provides natural gas storage services based on license № JI-214-10 of 29.11.2006 for natural gas storage issued by EWRC. Chiren UGS is connected to Bulgartransgaz EAD gas transmission network. UGS main purpose is to cover seasonal irregularities in consumption and guarantee security of natural gas supply. Tariff structure for natural gas access and storage in the storage facilities is proposed by the operator according to Art.53 of the Guidelines on pricing natural gas access and storage in storage facilities, applying “rate of return on capital” regulation (published State Gazette, № 2 of 9 January 2015). By Decision № II-34 of 13.08.2020, EWRC has approved prices for natural gas access and storage in the storage facilities to Bulgartransgaz EAD.

#### **4.1.2. Balancing**

Natural gas market balancing is performed on the basis of the approved by EWRC Natural Gas Trading Rules, Natural Gas Market Balancing Rules and a Daily Imbalance and Neutrality Charge Calculation Methodology (Imbalance Methodology).

Natural Gas Market Balancing Rules set a balancing regime in accordance with Commission Regulation (EU) No. 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks (Regulation (EU) No. 312/2014). Conditions have been created for the transmission system operator and all market participants to conclude transactions for short-term standardized products through a natural gas trading platform. The possibility to offer natural gas for purchase and sale through market mechanisms was enabled, so that network users can balance their portfolios efficiently and that the transmission system operator can use flexible natural gas products in balancing the transmission network aiming to increase natural gas market liquidity and transparency in transactions with short-term products. Imbalance methodology ensures non-discriminatory imbalance charges formation for transmission system users, creating conditions for efficient management of their balance portfolios, as well as for their responsible balancing of incoming and outgoing quantities of natural gas. Full compliance with Regulation (EU) No. 312/2014 has also been achieved, in particular with the imbalance charge and the neutrality charge requirements and the credit risk management mechanisms. Clear conditions for imbalance and neutrality charges calculation have been created, both for transmission system operator and for all market participants. Network users are able to balance their balance portfolios, and prerequisites for disciplining them are established. Transparent and non-discriminatory rules as well as transparent imbalance charges, reflecting the actual balancing costs shall increase the short-term gas market liquidity in the country.

#### **4.1.3. Cross-border issues**

Transparency requirements concerning transmission system operators are set in Art.18 of Regulation (EC) No. 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No.

1775/2005. Each transmission system operator shall make public the information on technical, contracted and available capacities in digital expression for all relevant important points including entry and exit points on a regular and rolling basis and in a user-friendly and standardised manner. According to Art.18, paragraph 4 of Regulation (EC) No. 715/2009, the relevant points of a transmission system on which the information is to be made public shall be approved by the regulatory authority after consultation with network users. In this regard, by Decision № BT-1 of 30.09.2022 EWRC approved an updated list of important points of Bulgartransgaz EAD transmission system, for which information on the technical, contracted and available capacities was publicly disclosed in accordance with Regulation (EC) No. 715/2009. By Decision № BT-1 of 17.02.2023 EWRC adopted a Joint Decision of the Energy and Water Regulatory Commission and the Regulatory Authority for Energy, Waste and Water of the Republic of Greece (RAAEY) for the approval of important points for the IGB gas pipeline, for which information on technical, contractual and available capacity was publicly disclosed in accordance with Regulation (EC) No 715/2009.

By Decision № Д-1 of 31.03.2023 EWRC adopted a Joint Decision of the Energy and Water Regulatory Commission and the Regulatory Authority for Energy, Waste and Water of the Republic of Greece, granting ICGB AD derogation from Art. 14, paragraphs 1 to 6 of Council Regulation (EU) 2022/2576 of 19 December 2022 enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders (Regulation (EU) 2022/2576). By that decision a mechanism under Art. 14, paragraph 7(a) of the same Regulation with regard to the IGB interconnection points has been introduced.

By Decision № Д-2 of 31.03.2023 EWRC granted to Bulgartransgaz EAD derogation from Art. 14, paragraphs 1 to 6 of Regulation (EU) 2022/2576, introducing a mechanism under Art. 14, paragraph 7 (c) of the Regulation with regard to the Bulgarian transmission system interconnection points.

By Decision № TK-1 of 19.06.2023 EWRC adopted a Joint Decision of the Energy and Water Regulatory Commission and the Regulatory Authority for Energy, Waste and Water of the Republic of Greece regarding the yearly capacity auctions conducted by ICGB AD in accordance with the auction calendar of the European Network of Transmission System Operators for Gas (ENTSOG).

By Decision № TK-2 of 24.08.2023 EWRC adopted a Joint Decision of the Energy and Water Regulatory Commission and the Regulatory Authority for Energy, Waste and Water of the Republic of Greece on the capacity auctions for short-term capacity products conducted by ICGB AD according to the ENTSOG' auction calendar.

By Decision № CH-HC-1 of 28.09.2023 EWRC adopted a Joint Decision of the Energy and Water Regulatory Commission and the Regulatory Authority for Energy, Waste and Water of the Republic of Greece regarding notification of the replacement of ICGB Supervisory Board member due to resignation.

#### **4.1.4. Implementation of network codes and guidelines**

- **Capacity Allocation Mechanisms NC (CAM NC)**

Pursuant to Commission Regulation (EU) 2017/459, Bulgartransgaz EAD has introduced an electronic capacity booking platform - Regional Booking Platform (RBP). Network users book capacity on the RBP platform at entry and exit gas transmission network points, using standard

capacity allocation mechanisms as required by CAM NC. Registered network users have the right to book and use capacity products in the national gas transmission network. The procedures for allocating annual, quarterly, monthly, daily and intraday capacity products shall be carried out according to the timetables set out in the Capacity Auction Calendar published by ENTSOG.

Bulgartransgaz EAD cooperates with the adjacent transmission network operators in order to coordinate the maintenance (network repairs) in accordance with Art.4 of Regulation (EU) 2017/459. The Bulgarian TSO regularly exchanges information with the adjacent transmission network operators as per Art. 7 of Regulation (EU) 2017/459 on the basis of the Interconnection Agreements concluded. Firm capacity products, announced by Bulgartransgaz EAD, go through a bundling procedure under Art.19, §1 of Regulation (EU) 2017/459. If impossible to ensure the bundling of firm capacity products at RBP, as well as in case of differences between the technical and bundled capacities, these capacities shall be offered as unbundled capacity products (providing capacity at the respective interconnection point only in Bulgartransgaz EAD gas transmission network).

Pursuant to the provisions of Regulation (EU) 2017/459, ICGB AD has implemented and has been using electronic capacity booking platforms. ICGB AD network users have the opportunity to request capacity through auctions on PRISMA and RBP capacity booking platforms. Auctions for the interconnection points at Komotini with the transmission system operators TAP and DESFA have been performed on PRISMA. Auctions for the interconnection point at Stara Zagora with the Bulgarian TSO Bulgartransgaz EAD, as well as for the exit point at Kardzhali have been held on RBP. Available capacity is offered in accordance with the ENTSOG' auction calendar.

- **Balancing NC (BAL NC)**

In compliance with Regulation (EU) 312/2014, gas TSO Bulgartransgaz EAD has admitted the Balkan Gas Hub EAD trading platform for natural gas trade as complying with Regulation requirements and criteria. EWRC has approved the Balkan Gas Hub EAD Trading Platform and has designated the company as a trading platform operator. Trading on the platform shall be carried out on an anonymous basis, in accordance with the provisions of Regulation (EU) 312/2014. Through the platform, trading participants may post and accept, as well as revise and withdraw, bids and offers for gas purchase and sale in order to meet short term fluctuations in gas demand or supply, under the applicable rules of the trading platform, on which the transmission system operator trades for balancing purposes. The trading platform offers short-term standardized products intraday and day-ahead. The platform complies with the requirements of Regulation (EU) 312/2014 regarding the transaction notification content, continuous trading regime for short-term standardized products, as well as the types of such products, the criteria to be met by the trading platform for providing trading participants with sufficient information to confirm the transaction after its conclusion, as well as to submit transaction notifications to the transmission system operator and to provide information on the change of the marginal purchase price and the marginal selling price after each transaction.

Marginal purchase and sale prices applicable for the purposes of determining the imbalance charge by the transmission system operator shall be calculated in accordance with the terms and conditions of the Daily Imbalance and Neutrality Charge Calculation Methodology, and shall be published by the transmission system operator. In 2023 the small adjustment to the natural gas balancing price was 8%.

For the purposes of balancing the natural gas market, the TSO introduced a Commercial Dispatching Platform (CDP), which has been operational since 1 January 2017. Network users and traders have access to CDP with individual credentials where they can submit their bids, transaction notifications and receive data on their imbalances every hour, as well as daily and monthly reports. Trade notifications are submitted directly to the CDP. A re-nomination procedure cycle has been

introduced in accordance with Regulation (EU) 312/2014 at both interconnection points, as well as at all entry and exit points in the country.

Pursuant to Regulation (EU) 312/2014, ICGB AD provides network users with access to a virtual trading point (VTP) for balancing trading portfolios. ICGB AD VTP is included as a separate segment of the Balkan Gas Hub EAD trading platform. ICGB AD also has implemented a Daily Imbalance Charge Calculation Methodology for IGB, approved by EWRC and the Greek regulatory authority RAAEY.

- **Interoperability and Data Exchange NC**

In compliance with Commission Regulation (EU) 703/2015 of 30 April 2015 establishing a network code on interoperability and data exchange rules, the TSOs Bulgartransgaz EAD and ICGB AD have concluded an Interconnection Agreement for the Stara Zagora interconnection point (IP).

Bulgartransgaz EAD has concluded interconnection agreements (IA) with the Greek gas TSO DESFA SA for the Kulata/Sidirokastron IP and with the Romanian gas TSO TRANSGAZ SA for the interconnection points Negru Voda 1/Kardam IP, Negru Voda 2,3/Kardam IP, Ruse/Giurgiu IP.

Bulgartransgaz EAD has concluded interconnection agreements with the Turkish gas TSOs: with BOTAS for the Strandja/Malkochlar IP and with TAGTAS for the Strandja 2/Malkochlar IP; with the Serbian TSOs: with Gastrans d.o.o. for the Kireevo/Zajecar IP and with Transportgas Srbija d.o.o. for the Kalotina/Dimitrovgrad IP and with the gas transmission operator of North Macedonia GA-MA AD for the Kyustendil/Zhidilovo IP.

ICGB AD has concluded an Interconnection Agreement with the Trans-Adriatic Pipeline (TAP) TSO for the Komotini IP.

- **Tariff (TAR NC)**

Regulation (EU) 2017/460 provides for the obligation to carry out consultations on the proposed reference price methodology. Pursuant to Art.6 (1) of Regulation (EU) 2017/460, the reference price methodology shall be set or approved by NRA as referred to in Art.27 of Regulation (EU) 2017/460. The reference price methodology to be applied shall depend on the findings of the periodic consultations carried out in accordance with Art.26 by TSO or NRA, as decided by NRA.

In connection with the above, by Decision № PTIII-1 of 01.12.2017, pursuant to Art.6 (1), Art.26 (1) and Art.30 of Regulation (EU) 2017/460, EWRC designated Bulgartransgaz EAD, in its capacity as a gas transmission system operator, to conduct consultations under Art.26 of Regulation (EU) 2017/460, as well as to publish before the tariff period beginning the information under Art.30 and the conditions set in the Regulation. Pursuant to Regulation (EU) 2017/460 and EWRC decision, Bulgartransgaz EAD held a consultation on the proposed methodology for reference price, as well as the related data, justifications and elements according to Art.26 of Regulation (EU) 2017/460.

With regard to multipliers, seasonal factors and discounts for each tariff period, pursuant to Art.28(2) of Regulation (EU) 2017/460, an obligation to carry out subsequent consultations with the national regulatory authorities of directly connected Member States and with relevant stakeholders is foreseen, and following such consultation the national regulatory authority shall take a motivated decision on the multipliers and seasonal factors levels and the calculations referred to in Art.15 of Regulation (EU) 2017/460 and the discounts values referred to in Art.9, paragraph 2 and Art.16 of Regulation (EU) 2017/460. In this regard, the TSO submitted a consultation document regarding the multipliers, seasonal factors and discounts that Bulgartransgaz EAD will apply for determining the transmission tariffs for the 2024/2025 gas year at RAAEY and EWRC for opinion. Following the consultation, EWRC by its decision, approved for Bulgartransgaz EAD multipliers, seasonal factors

and discounts in setting access prices for short-term capacity products for the period 1 Oct 2024 – 30 Sep 2025.

## 4.2. Competition and market operation

In 2023, key natural gas market participants in the country were:

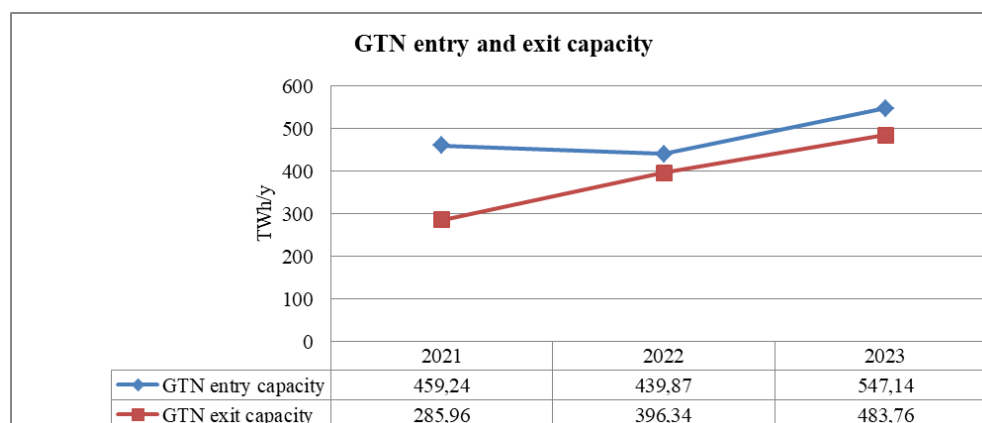
- Bulgartransgaz EAD – combined operator, performing gas transmission and gas storage activities;
- ICGB AD - Gas Interconnector Greece-Bulgaria (IGB) operator;
- Bulgargaz EAD – public provider, ensuring gas supplies to end suppliers and to license holders for heat production and transmission at prices regulated by EWRC;
- Gas extraction companies – carrying out natural gas extraction on the territory of the country;
- Gas traders – concluding gas supply transactions with the public provider, end suppliers, customers, other gas traders, production companies, gas storage undertakings and with gas transmission and distribution network operators;
- Gas distribution companies – performing activities “natural gas distribution” and “natural gas supply by end suppliers” and delivering natural gas to customers connected to the distribution networks in the respective licensed territories;
- Non-household customers connected to the gas transmission network;
- Non-household and household customers connected to the gas distribution network.

### Bulgartransgaz EAD

According to EA, the gas transmission network operator shall be obligated to make gas transmission network extension and reconstruction related to the connection of the gas distribution networks facilities, mining enterprises, natural gas storage facilities, LNG facilities and facilities for gas production from renewable sources, as well as non-household customers.

The total length of Bulgartransgaz EAD gas transmission network as of the end of 2023 was 3443 km. In 2023 a new gas transmission network with a length of 125 km was built together with the following new facilities - GMS Kalotina, AGRS Panagyurishte, AGRS Zlatitsa, AGRS Dragoman and AGRS Slivnitsa. The company’s investments made in the transmission system and facilities amounted to BGN 177 661 000. There were 234 customers connected to the Bulgartransgaz EAD gas transmission network.

Gas transmission network entry capacity is 547.14 TWh/year, and the exit capacity is 483.76 TWh/year.





EWRC shall approve to Bulgartransgaz EAD a ten-year network development plan of the transmission network and shall monitor and control its implementation. In drawing up the 10-year plan, the transmission system operator shall take into account the information available on upcoming changes in production, supply, consumption and exchange with other countries, investment plans for regional networks and networks within EU, as well as natural gas storage facilities investment plans. The Regulator shall consult all current or potential network users on the 10-year network development plan of the transmission network in an open and transparent manner. By Decision № ДПМР-1 of 13.09.2023, EWRC approved the Ten-Year Network Development Plan of Bulgartransgaz EAD for the period 2023-2032.

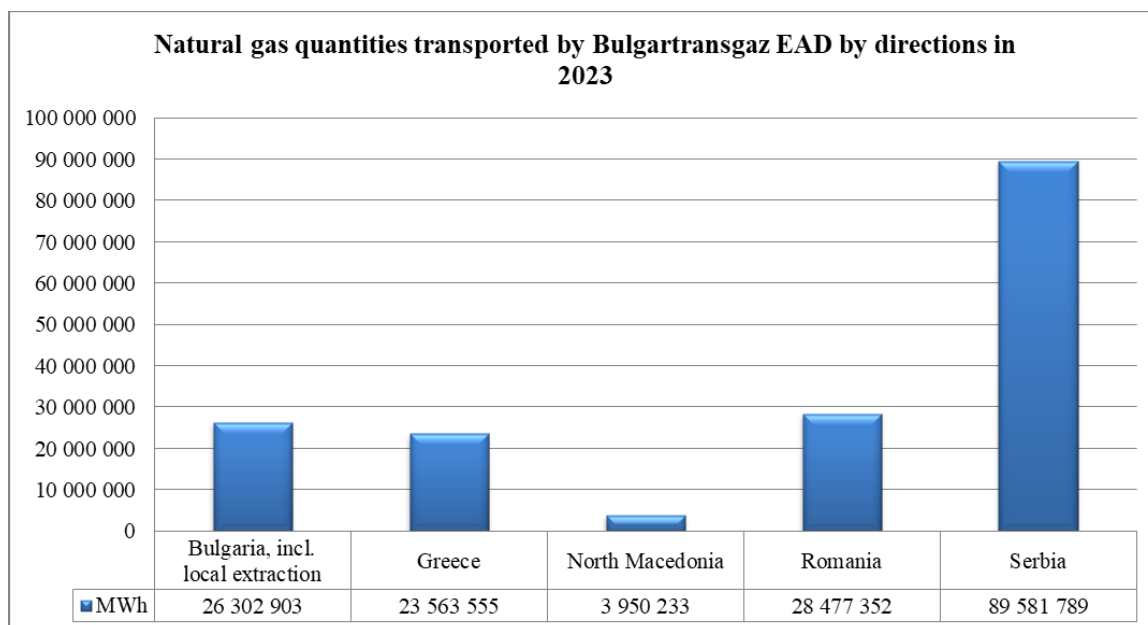
The structure of gas transmission network users who carried out transmission on territory of the Republic of Bulgaria in 2023 was as follows:

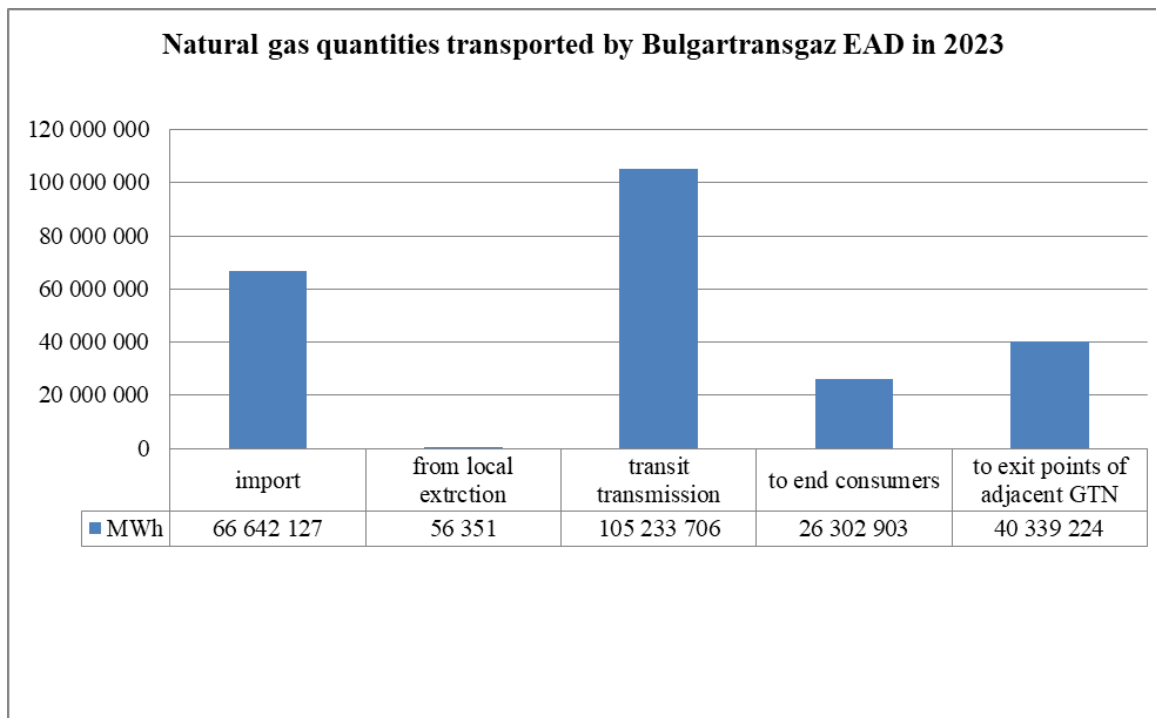
- public provider;
- two end suppliers;
- one non-household customer
- ten natural gas traders.

Transmission network users who transported natural gas outside the territory of the Republic of Bulgaria in 2023 were 35 natural gas traders.

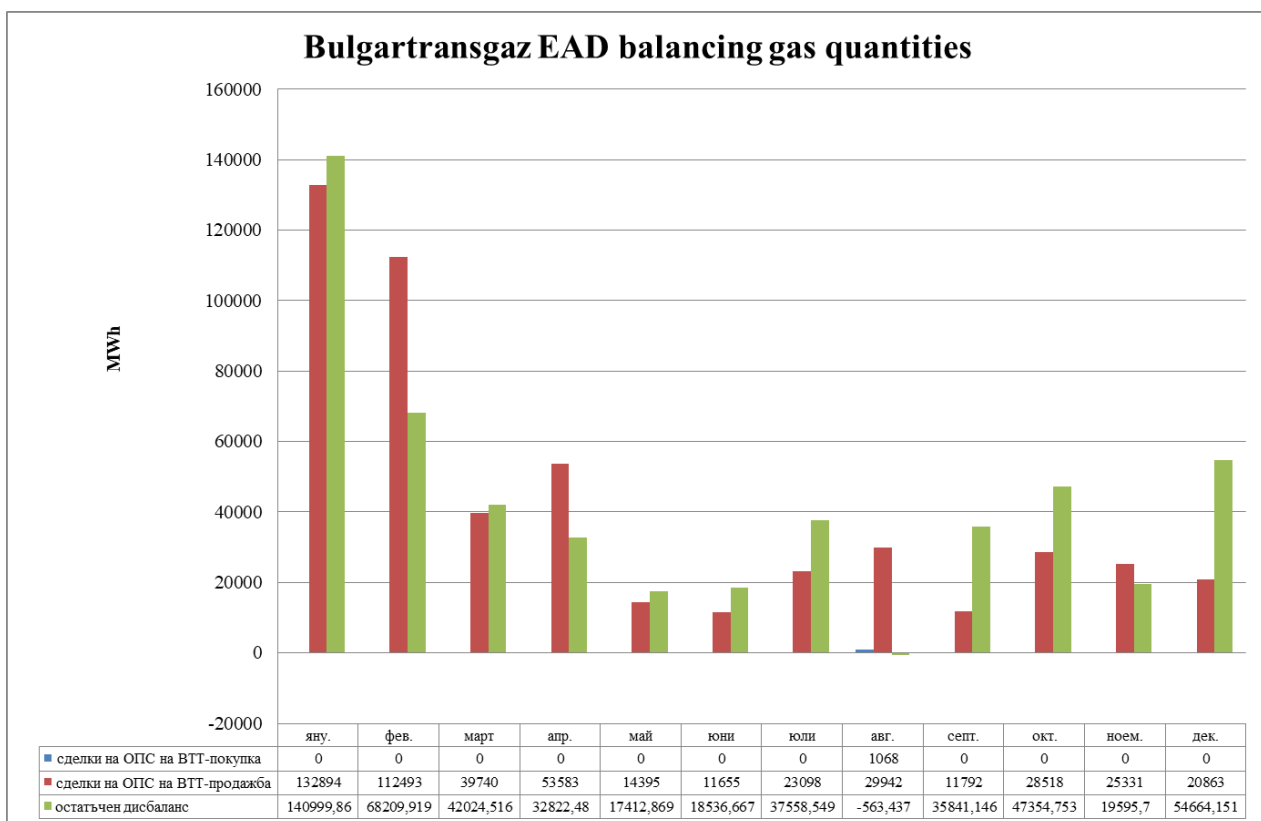
In 2023, natural gas quantities from imports and local production transported by Bulgartransgaz EAD through the gas transmission network were 171 875 833 MWh, including 56 351 MWh from local production.

Natural gas quantities transported by Bulgartransgaz EAD in 2023 by direction are indicated in the following graph:





For balancing the network, in 2023 Bulgartransgaz EAD sold at a VTP 504 304 MWh and purchased 1068 MWh natural gas.



Currently there is one underground gas storage facility in Bulgaria – Chiren UGS, which has 24 exploitation wells, a compressor station with a total installed capacity of 9 MW and other technological facilities to ensure the injection, production and quality of stored natural gas. Chiren UGS is owned and operated by Bulgartransgaz EAD. A project for Chiren UGS expansion was

launched during the year. It is planned to construct ten new production and three observation drillings. With the expansion of the storage facility, it will be able to store up to 1 bcm natural gas, which is about one-third of the country's consumption. Chiren UGS expansion project is of strategic importance for improving energy security and enhancing competition and liquidity in the natural gas market in the country and the region. It's a project of common interest (PCI) included in EU PCI lists. The investments made in 2023 in Chiren UGS injection facilities amounted to BGN 158 029 thousand. In 2023, 2 360 168 MWh of natural gas were injected into Chiren UGS, including 629 911 MWh under the Emergency Plan and 1 730 257 MWh for commercial storage. Natural gas extracted in 2023 amounted to 2 277 893 MWh, incl. 760 474 MWh under the Emergency Action Plan and 1 517 419 MWh commercially stored natural gas. Stored natural gas for 2023 was 4 780 893 MWh, incl. 3 036 871 MWh under the Emergency Action and 1 744 022 MWh commercial storage. Through the gas quantities stored at Chiren UGS, seasonal fluctuations in supply and consumption in the country are compensated. The UGS has essential role to ensure security of gas supply in the country, provision of balancing gas, as well as to maintain gas transmission system security and stability.

### **ICGB AD**

IGB interconnector started commercial operation on 1 October 2022. ICGB AD is the owner and operator of IGB gas pipeline. IGB connects the Greek gas transmission network near the town of Komotini with the Bulgarian transmission network at Stara Zagora. It is also connected to the Trans Adriatic Pipeline (TAP). The overall length of IGB is 182 km (151 km in Bulgaria and 31 km in Greece) and the technical capacity is 3 bcm that could be increased to 5 bcm per year by building a compressor station.

IGB entry and exit capacity in forward direction Greece – Bulgaria and in the opposite direction Bulgaria – Greece is 38.86 TWh/y.

The total natural gas transported through the IGB in 2023 was: 15 540 272 MWh/y in direction Greece – Bulgaria and 121 730 MWh/y in direction Bulgaria – Greece. The natural gas transported during the year within the released capacity amounted to 14 926 984 MWh/y, and within the unreleased capacity – 746 742 MWh/y. The maximum daily amount of natural gas transported is 88 644.757 MWh/d.

The investments made in 2023 in the IGB gas pipeline and its facilities amounted to BGN 2 114 thousand. In 2023 the gas distribution network of Citigas Bulgaria EAD was connected to the IGB in the town of Kardzhali.

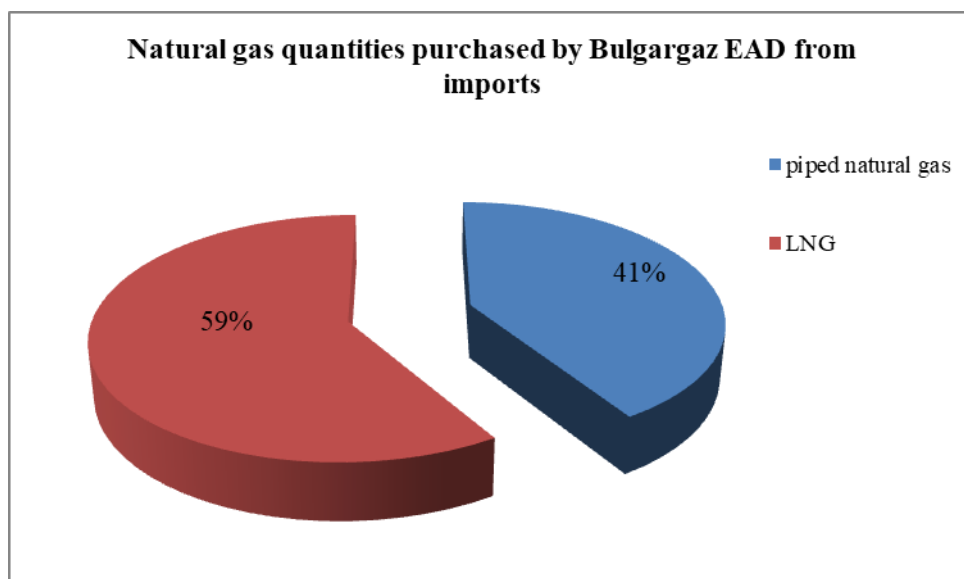
#### **4.2.1. Wholesale markets**

The main quantities of natural gas needed for domestic consumption are provided by imports with a small part of local production. Natural gas supply on the territory of the Republic of Bulgaria is carried out through a gas transmission network owned by Bulgartransgaz EAD for directly connected customers and through gas distribution networks (GDN), owned by the relevant gas distribution companies to which non-household and household customers are connected. Through the gas transmission network, natural gas is also transferred to neighbouring countries of the Republic of Bulgaria, as well as from and to Chiren UGS. In 2023 natural gas supply for the local market was carried out by Bulgargaz EAD, Gas Exploration and Production AD, Petroceltic Bulgaria EOOD and natural gas traders.

### **Bulgargaz EAD**

In 2023, Bulgargaz EAD purchased natural gas for the domestic market under the long-term pipeline gas supply contract with an Azerbaijani company, under LNG gas supply contracts at prices depending on the Title Transfer Facility's (TTF) front month indices on the Netherlands Gas Exchange and Henry Hub on the New York Mercantile Exchange (NYMEX), and in some months of 2023, natural gas from Chiren UGS were also delivered. LNG deliveries were carried out through terminals on the territory of the Republic of Greece and the Republic of Turkey.

To ensure its customers demand, Bulgargaz EAD has purchased 25 464 100.374 MWh natural gas, as follows: 10 457 306.375 MWh of pipeline gas from the Azerbaijani company and 15 006 793.999 MWh LNG.



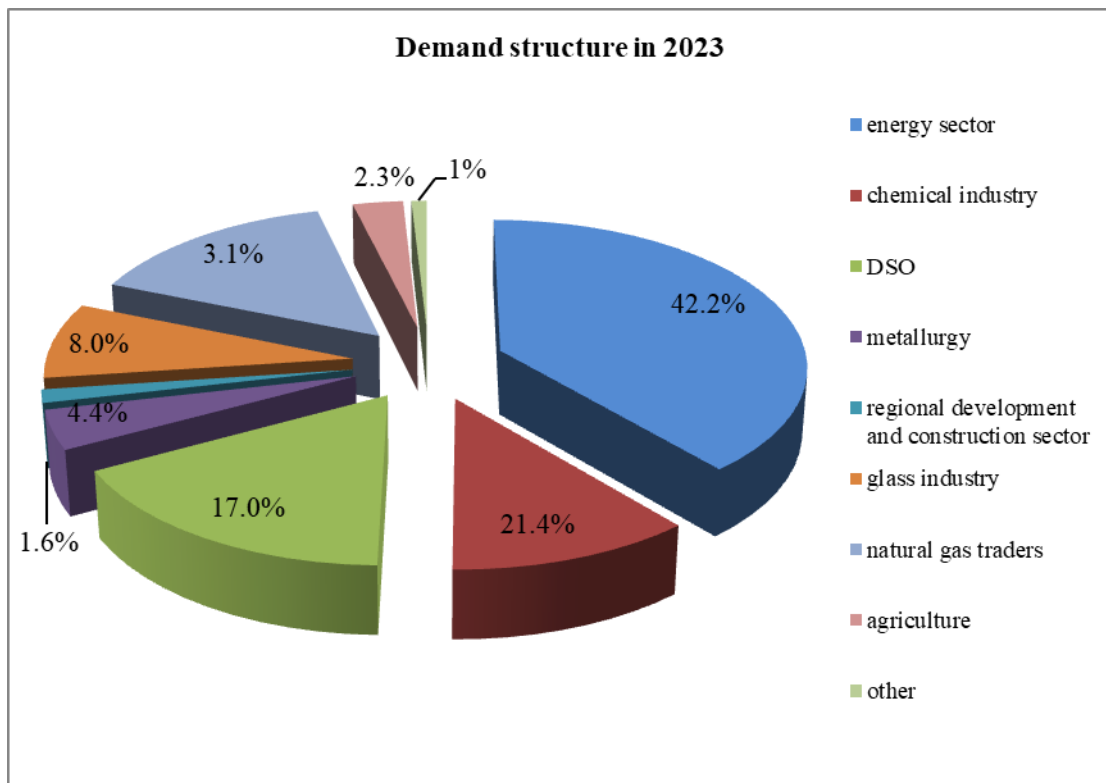
Natural gas sold by Bulgargaz EAD amounted to 24 122 926 MWh, of which 23 593 147 MWh were sold in Bulgaria and 529 779 MWh were sold abroad.

Bulgargaz EAD purchased 3 000 MWh natural gas on the gas exchange market in Bulgaria. Natural gas sold by Bulgargaz EAD on the organized exchange market in Bulgaria amounted to 3 527 448 MWh. Bulgargaz EAD purchased 132 247 MWh natural gas for balancing and sold 506 971 MWh for the same purpose.

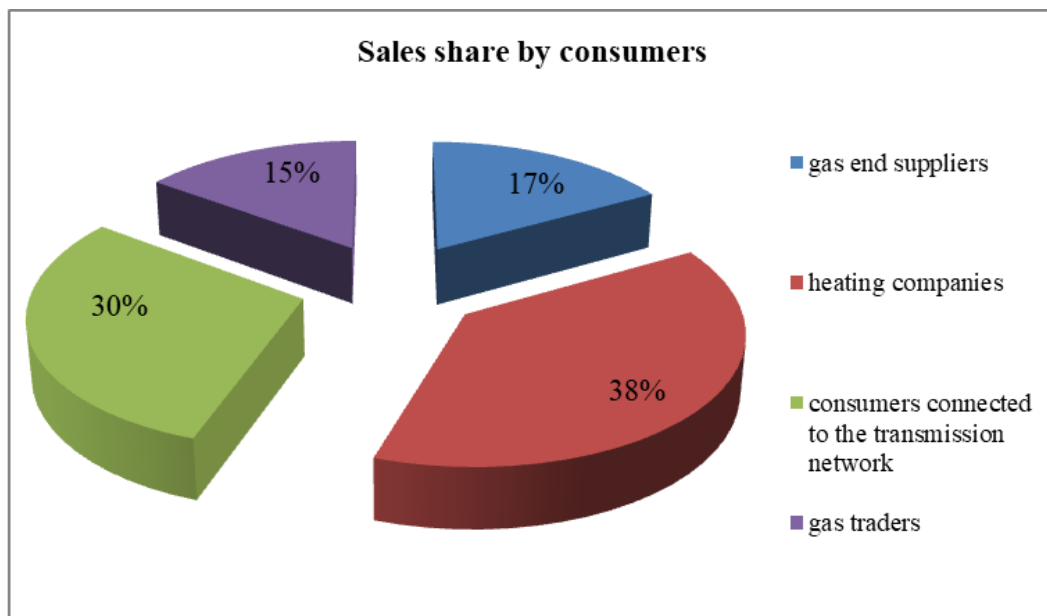
Consumption structure of the natural gas sold by Bulgargaz EAD in 2023 was as follows:

- energy sector – 9 154 663MWh;
- chemical industry – 2 703 499 MWh;
- distribution companies – 3 989 020 MWh;
- metallurgy – 1 012 232 MWh;
- regional development and construction sector – 340 944 MWh;
- glass industry – 1 955 191 MWh;
- agriculture – 698 664 MWh;
- natural gas traders – 3 527 448 MWh;
- other – 211 487 MWh.

Consumption structure by industry of the natural gas sold by Bulgargaz EAD is presented in the chart below:

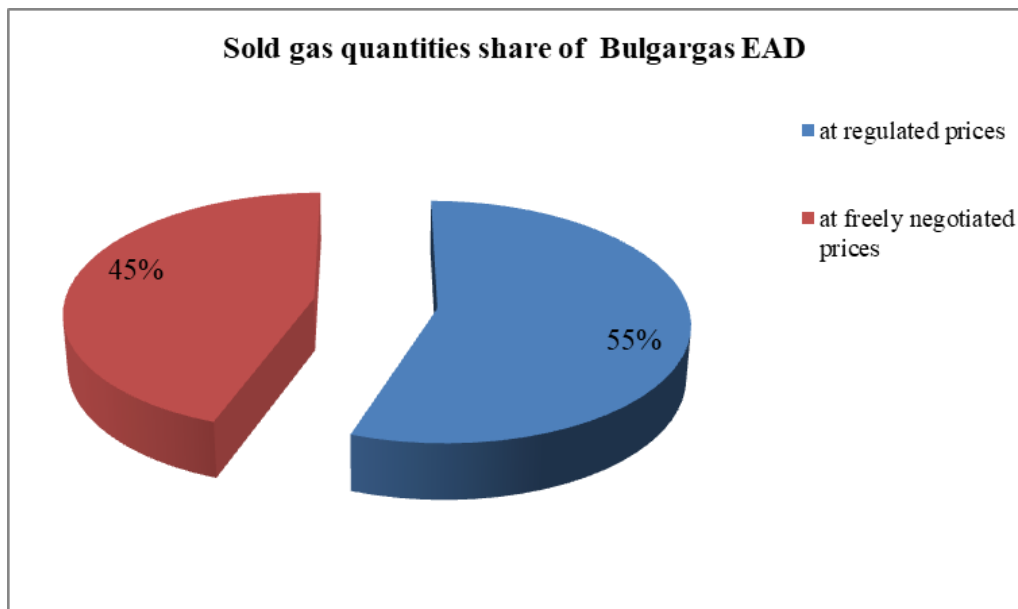


In 2023 Bulgargaz EAD sold natural gas to end suppliers, district heating companies, customers connected to the gas transmission network and natural gas traders. Share sales per clients are presented in the chart below:



In 2023 Bulgargaz EAD sold to clients in Bulgaria the following quantities of natural gas:

- at regulated prices – 13 081 161 MWh;
- at freely negotiated prices – 10 511 986 MWh.



Natural gas quantities stored by Bulgargaz EAD in Chiren UGS, including the available storage, withdrawal and injection in 2023, were as follows:

- available storage as of 1 Jan 2023 – 2 937 968 MWh;
- withdrawal – 601 552 MWh;
- injection – 876 971 MWh;
- available storage as of 31 Dec 2023 – 3 213 387 MWh.

Bulgargaz EAD customers' structure as of 31 Dec 2023 was as follows:

- at regulated price – 27;
- at freely negotiated price – 117;
- on the anonymous segment – 48, incl. 45 on Balkan Gas Hub and 3 on BETP AD.

#### Extraction companies

Oil and Gas Exploration and Production AD and Petroceltic Bulgaria EOOD are the extraction companies in the country.

In 2023 Oil and Gas Exploration and Production AD extracted 48 046 MWh natural gas and sold 39 831 MWh, of which 18 047 MWh were sold to one end customer, 16 305 MWh to two gas distribution companies and 5479 MWh to two traders. The remaining quantities were for the company's own needs. The extraction company didn't sell natural gas on the gas exchange market.

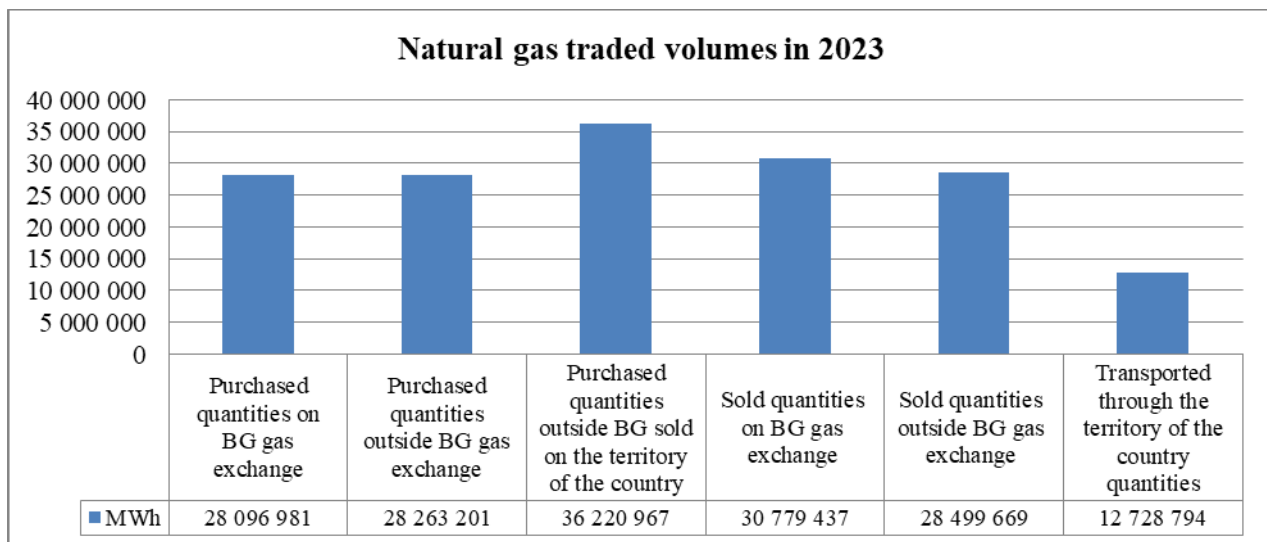
Petroceltic Bulgaria EOOD extracted 56 351 MWh natural gas in 2023, selling part of the quantities on the gas exchange market, and selling the remaining quantities under a bilateral contract to a natural gas trader.

#### Natural gas traders

Out of 108 licensed natural gas traders as of 31.12.2023, 65 companies have carried out natural gas transactions, 41 companies have not carried out licensing activities, and one company has not provided information. 14 natural gas traders have stored natural gas in Chiren UGS.

In 2023, natural gas traders purchased 56 360 182 MWh natural gas in the Republic of Bulgaria, including: 28 096 981 MWh on the gas exchange market and 28 263 201 MWh outside the gas exchange market. The natural gas purchased outside Bulgaria and sold in the country in 2023 was 36 220 967 MWh.

The natural gas sold in Bulgaria was 59 279 106 MWh, including: 30 779 437 MWh on the gas exchange market and 28 499 669 MWh outside the gas exchange market. The natural gas transported through the territory of the country in 2023 was 12 728 794 MWh. The data is presented in the graph below:



As of 1 Jan 2023 the natural gas stored in Chiren UGS by natural gas traders amounted to 1 760 450 MWh, extracted quantities being 1 582 162 MWh, and the injected - 1 389 217 MWh. Accordingly, the available natural gas as of 31.12.2023 was 1 567 504 MWh.

### Natural gas exchange markets

#### **Balkan Gas Hub EAD trading platform**

The number of registered Balkan Gas Hub EAD members as of 31.12.2023 was 91, of which about 39% were international companies with experience in trading natural gas on European markets and managing a rich portfolio. About 55% of the participants were local natural gas traders, among whom large industrial natural gas consumers in the country. Compared to the end of 2022, the number of platform members increased by 42% (from 64 to 91).

The short-term segment of the trading platform offers short-term standardized products intraday, day ahead and weekend, as well as temporal and locational products for the TSO network balancing purposes. The long-term segment of the trading platform offers products traded on a medium and long-term basis - weekly, monthly and month balance, quarterly, calendar year(s). In this segment, Balkan Gas Hub EAD also offers the following services: conclusion of standardized contracts traded on screen on an anonymous basis; administration of non-anonymous bilateral contracts traded on the platform through registration in the Trayport “Trades” module, as well as brokerage service.

In 2023, a total of 25 327 transactions were concluded on Balkan Gas Hub EAD trading platform and a total of 46 126 637 MWh of natural gas was traded, including by Bulgartransgaz EAD, as follows:

*Short term segment*

Number of transactions on the short-term segment increased from 7246 in 2022 to 23 604 in 2023. In January 2023 there were 1413 transactions, reaching their highest number in August 2023 – 2998 transactions. The average monthly transactions during the year were 1967. Traded natural gas increased from 4 137 162 MWh in 2022 to 12 796 928 MWh in 2023.

*Long-term segment (including VTP transactions and a brokerage service)*

Number of transactions on the long-term segment increased from 452 in 2022 to 1723 in 2023. In January 2023 there were 19 transactions, and in September 2023 there were 185 transactions, which was the highest number in the reporting year. The average monthly transactions during the year were 144. Traded natural gas increased from 12 187 708 MWh in 2022 to 33 329 709 MWh in 2023.

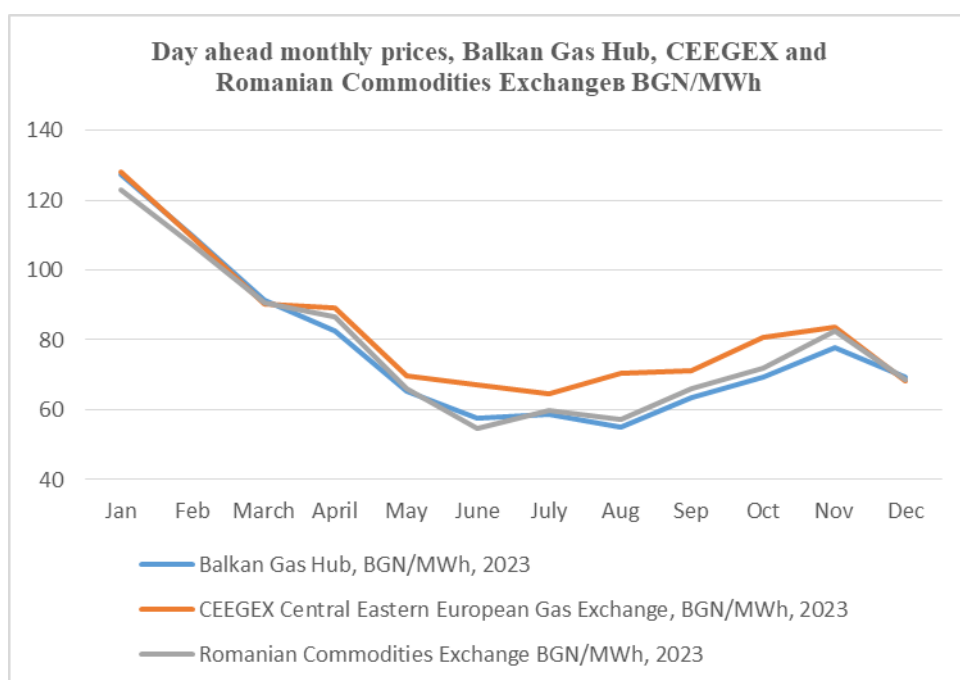
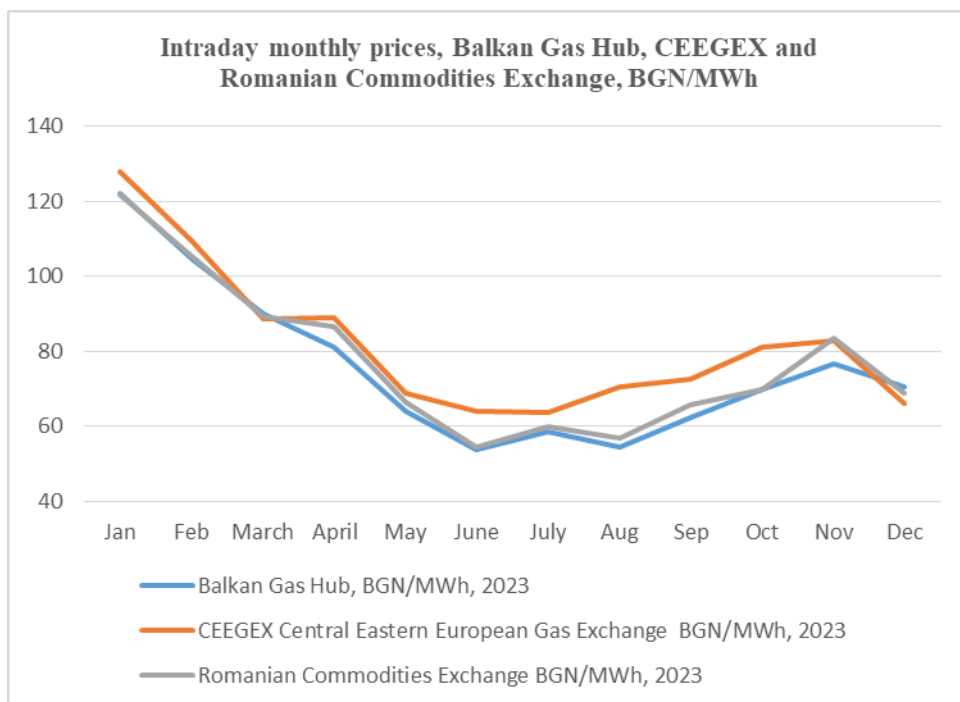
The lowest price reached on the trading platform for a monthly product was BGN 40.20/MWh in July 2023, and the highest price reached for a monthly product was BGN 219.49/MWh in January 2023.

Bulgartransgaz EAD has conducted a total of 8 successful auctions for natural gas purchase for technological needs for a total of 449 250 MWh and has concluded 1462 short-term transactions on the BGH trading platform.

*Brokerage services* - through which products and services for end customers are offered to natural gas consumers and end suppliers directly connected to the gas transmission system, who do not have access to the gas transmission networks and to VTP, but would like to purchase natural gas at exit points from registered Balkan Gas Hub EAD (BGH) members for their own needs. In this case, the end customer/end supplier has the status of a non-trading user and shall not pay membership and transactions fees under the applicable price list. A non-trading user shall be entitled to use BGH brokerage services by signing a Brokerage Services Agreement, and shall be granted with special rights to access a specialized section of BGH website. A non-trading user shall not have access to the trading platform's screens, but shall purchase quantities at the exit point, to which it is connected through registered BGH members. The total number of transactions under the BGH brokerage service for 2023 was 1349.

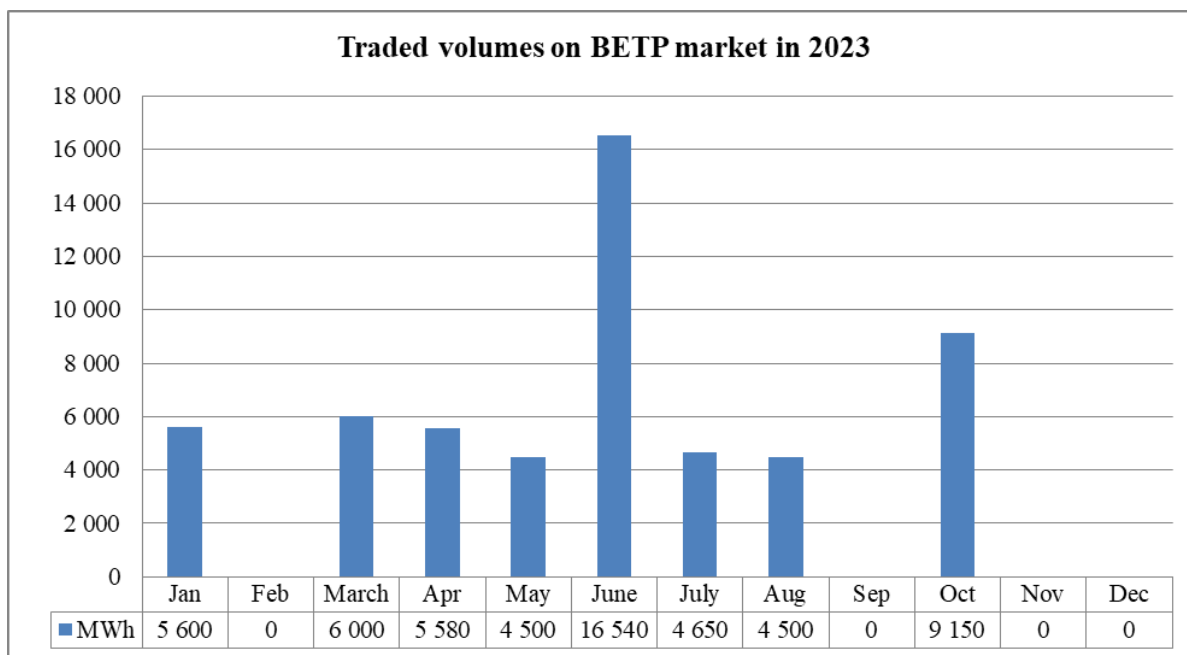
Comparison of Balkan Gas Hub intraday and day-ahead product prices to prices on neighbouring gas exchanges:





### **Bulgarian Energy Trading Platform AD**

As of 31.12.2023, 11 members are registered at Bulgarian Energy Trading Platform AD (BETP AD). In the year, 11 transactions under bilateral contracts were concluded for a total of 56 520 MWh, presented by months in the graph below:



#### 4.2.2. Retail market

Non-household customers and gas distribution networks are connected to Bulgartransgaz EAD gas transmission network.

The number of non-household customers connected to the gas transmission network at the end of 2023 was 234. Most of the gas distribution networks in the country are also connected to the gas transmission network. Three gas distribution networks are connected to local extraction facilities and receive natural gas from local extraction, and two of these networks simultaneously receive alternative supplies. There are gas distribution networks not connected to the gas transmission network, and gas supply is carried out through trucks delivering natural gas with bottles.

The main supplier of customers connected to the gas transmission network is Bulgargaz EAD (192 customers by the end of 2023). Supplies to customers connected to the gas transmission network have also been carried out by natural gas traders.

At the end of 2023, 25 DSO companies licensed for the activities “natural gas distribution” and “natural gas supply from an end supplier”, operate in 36 license territories of Bulgaria, covering 174 municipalities, representing 65% of all municipalities in the country.

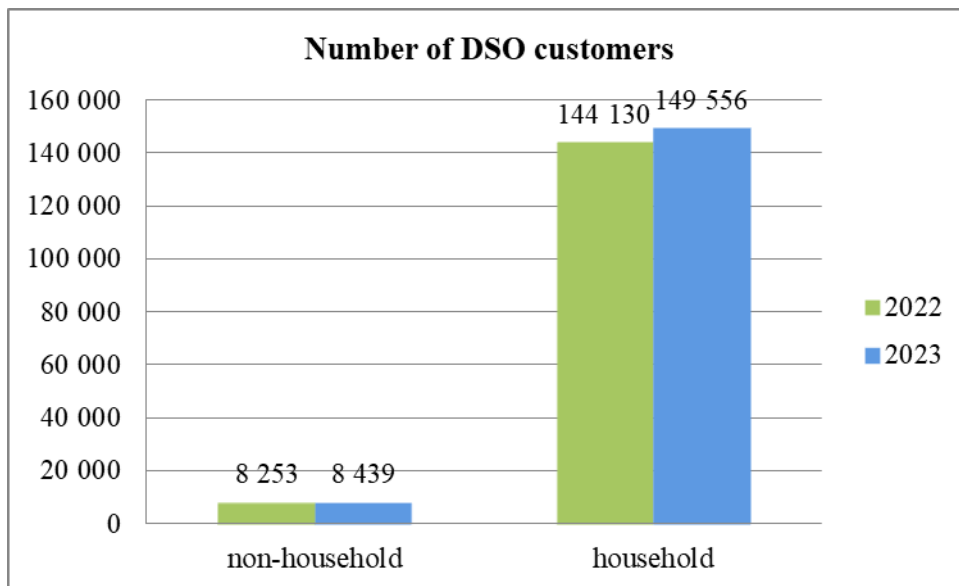
The necessary infrastructure for natural gas distribution in the country is under construction and the number of household customers connected to the gas distribution network (GDN) is low. The regulatory mechanism applied by EWRC provides incentives for gas distribution companies to continue GDN development and new customers’ connections in order to gradually increase natural gas consumption.

The constructed gas distribution network in 2023 was 73 703 m, and the total GDN length within the country was 5 664 606 m. The investments made by the distribution companies in 2023 were BGN 31 036 thousand.

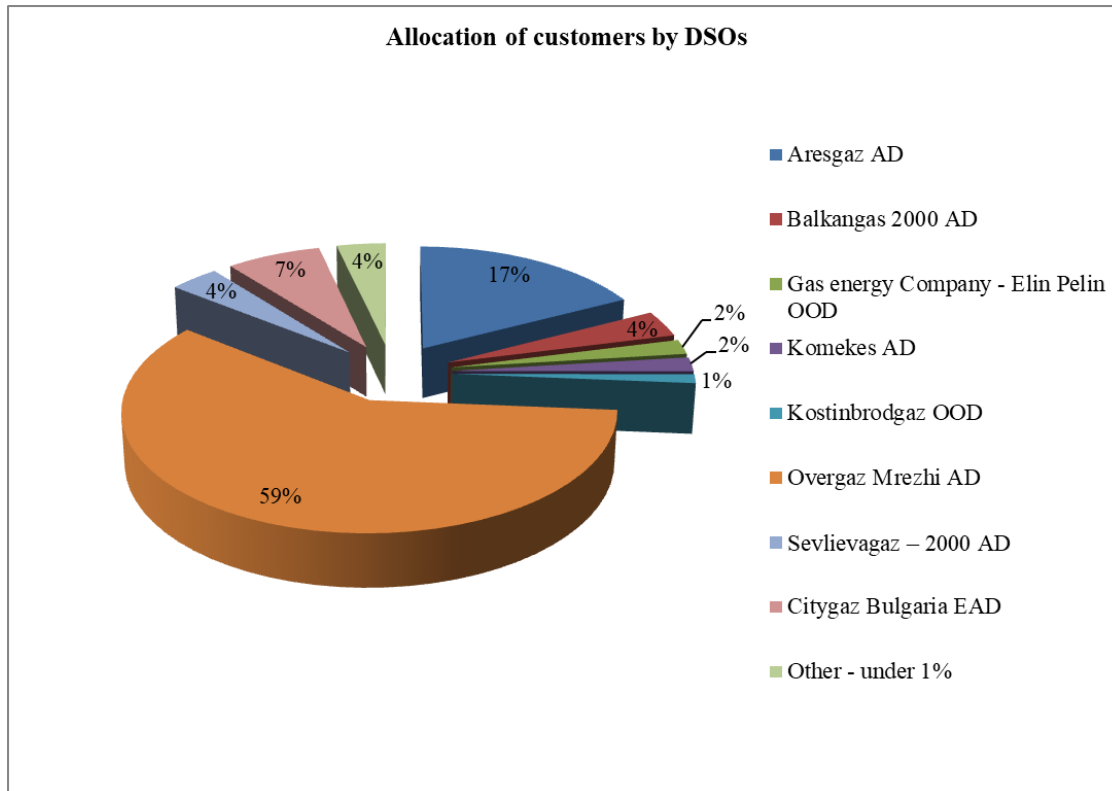
Total number of the gas DSOs’ clients as of 31 Dec 2023 was 157 995, of which 8 439 (5.3%) non-household customers and 149 556 (94.7%) household customers. The customers’

number has increased from 152 383 in 2022 to 157 995 in 2023, an increase of 3.7%. The non-household customers have increased by 2.3%, and the household – by 3.8%.

The numbers of non-household and household customers in the licensed territories for 2022 and 2023 are presented in the graph below:

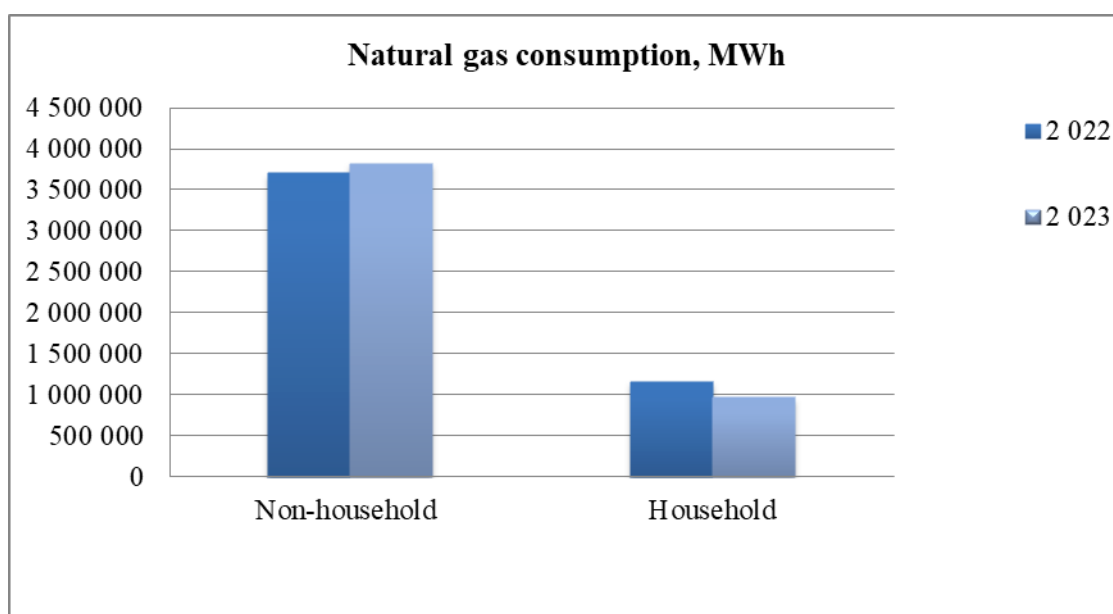


Breakdown of natural gas consumers by companies is presented in the graph below:

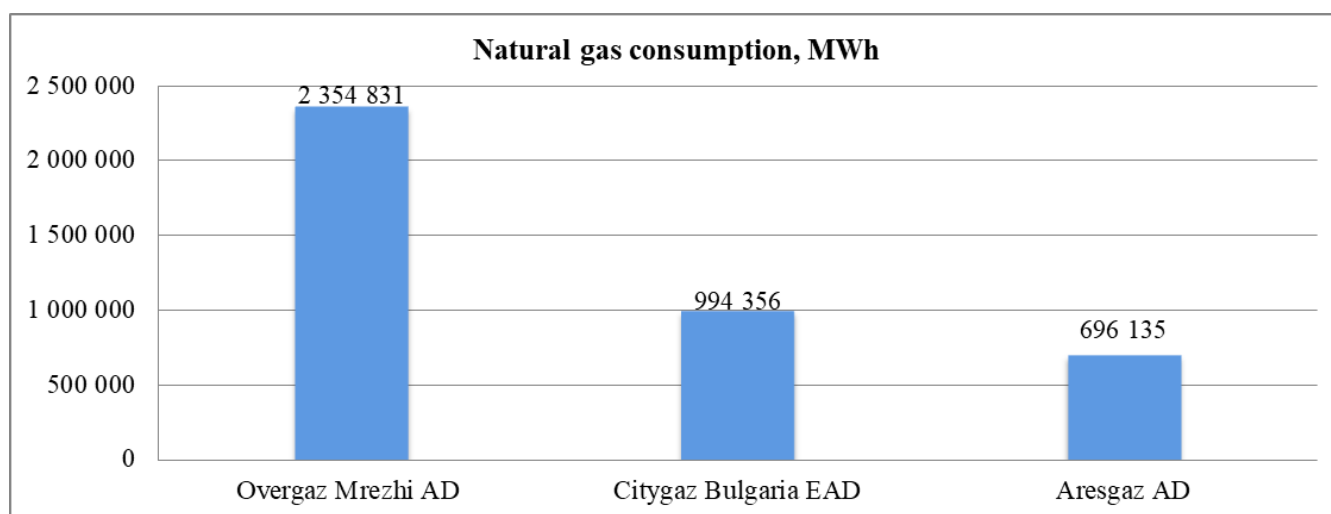


Overgas Mrezhi AD serves the largest number of customers – 93 699, which is 59% of all natural gas customers in the country, followed by Aresgas AD with 17%, Citygas Bulgaria EAD with 7%, Sevlievogas 2000 AD with 4%, Balkangas 2000 AD with 4%.

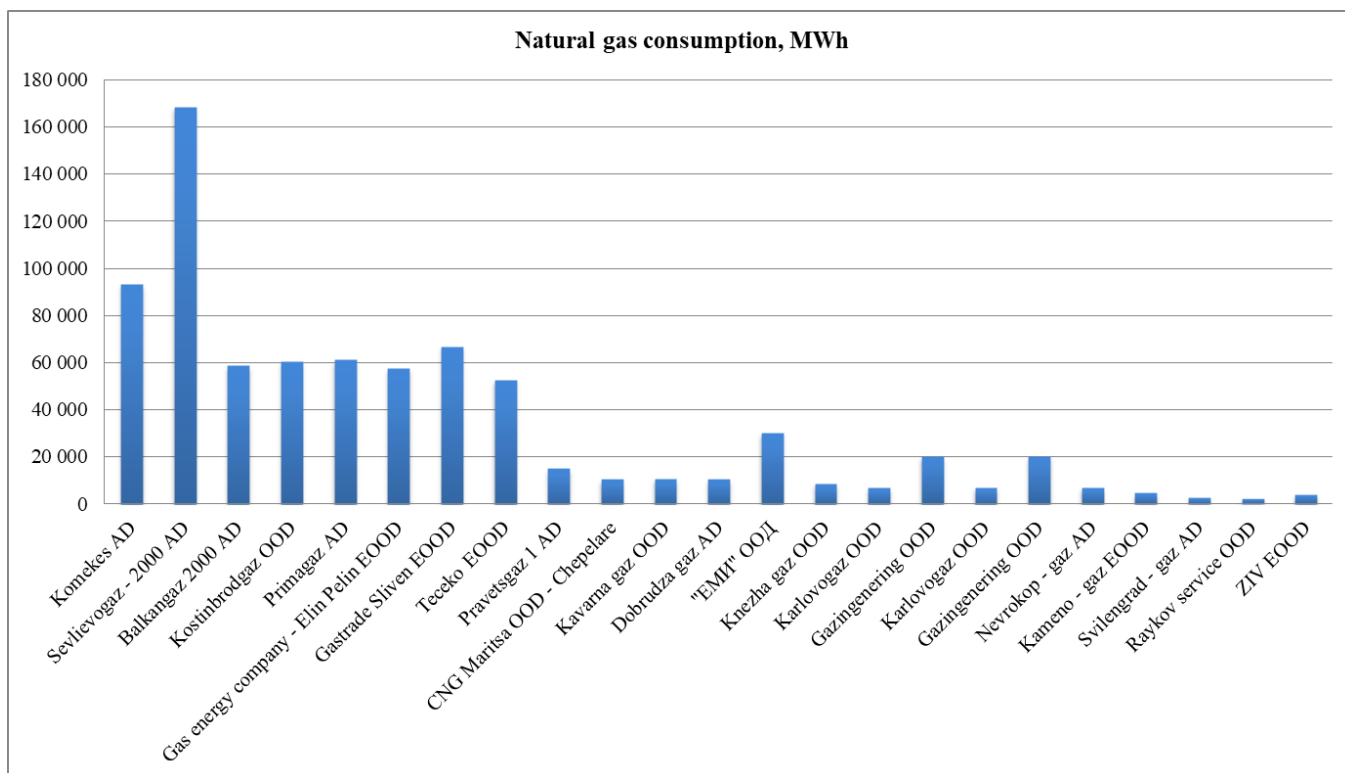
Total DSOs customers consumption in 2023 was 4 794 853 MWh, a decrease of 1.7% compared to 2022, when consumption was 4 877 195 MWh. The decrease is due to the lower household customers' consumption in 2023. Non-household customers' consumption increased from 3 708 562 MWh in 2022 to 3 826 322 MWh in 2023, and household customers' consumption decreased from 1 168 633 MWh in 2022 to 968 531 MWh in 2023. The share of non-household customers' consumption in 2023 was 80% and the share of household customers' consumption was 20%.



Customers of Overgas Mrezhi AD, Citygas Bulgaria EAD and Aresgas AD had the highest consumption in 2023:



Gas consumption of the other companies' customers is presented in the graph below:



In 2023 four non-household customers connected to the gas distribution network changed their supplier, while no change of supplier was reported for household customers.

#### **4.2.3. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition**

In exercising its regulatory powers with regard to price levels, EWRC is guided by the main principles of developing competitive and well-functioning regional markets within the European Union and preventing the restriction or distortion of competition in the energy market.

Gas price regulation is carried out in accordance with EA and Ordinance № 2 of 19 March 2013 on Natural Gas Price Regulation (ONGPR). According to EA, the prices at which end suppliers sell natural gas to customers connected to the relevant gas distribution networks, connection prices and prices for access and transmission through the transmission networks shall be subject to regulation by EWRC. The Regulator shall approve prices, at which the public provider sells natural gas to end suppliers and to entities holding a license for production and transmission of heat energy.

ONGPR sets out natural gas price regulation methods, rules for price formation or determination and amendment, procedure for providing information, submission of price proposals and their approval; methods for energy enterprises compensation of costs incurred by imposed public service obligations under EA; terms and conditions on networks connection price formation; terms and conditions on natural gas access and transmission through transmission and/or distribution networks price formation. Prices subject to regulation are formed by the energy companies in accordance with EA and ONGPR. The Regulator's guidance on price regulation is binding for energy companies. EWRC approves prices for transmission through the gas distribution networks, prices for natural sale from end suppliers and prices for connection to the gas distribution networks based on analysis of the data presented in the applications and based on reasoned justification by

applicants that the proposed prices will enable the companies to realize the investment and production programme parameters in their business plans.

Prices of natural gas distribution and natural gas supply by end supplier are regulated under the price cap method under Art.3 of ONGPR. EWRC approves tariff structures by customers' groups, reflecting the allocated annual revenue requirements for the service for each consumer group, based on submitted cost service study. The existing tariff structures and prices for end customers of the gas distribution companies are differentiated depending on consumption type (household and non-household), consumption evenness and unevenness and the relevant consumption.

Gas market liberalization is an important part of European energy policy and is linked to the strategic objectives of improving security of supply and natural gas supply sources diversification, as well as building an interconnected and single pan-European gas market.

One of the main EWRC guiding principles is to prevent restriction/distortion of competition in the energy market, as well as to ensure a balance between the interests of energy companies and consumers. The Regulator monitors the existence of restrictive contractual practices and exclusivity provisions which may prevent non-household customers from concluding contracts with more than one supplier at a time or restrict their choice of suppliers. In exercising its powers, EWRC shall analyse the performance of regulated energy companies, in order to prevent abuse of monopoly position or restriction/distortion of competition in the energy market in Bulgaria. EWRC may refer to the Commission for Protection of Competition (CPC), which in turn shall review the submitted information and after assessing the data on a case-by-case basis may initiate proceedings under the Law on Protection of Competition. When, in exercising its powers, EWRC finds that a licensee distorts or restricts competition, it shall refer the matter to CPC. EWRC shall assist CPC by providing any necessary information and documents that may be used by CPC with regards to the case. In case CPC finds by a decision that the licensee distorts or restricts competition, EWRC may impose coercive measures provided for in EA, and in case of a systematic violation of competition rules established by CPC, EWRC may revoke the license.

EWRC continuously monitors the market in order to ensure non-discrimination between all market participants, as well as between participants of one and the same category and to promote efficient competition and proper market operation. EWRC is in close cooperation with the Commission for Consumer Protection (CCP), as well as with other non-governmental consumer protection organizations.

EWRC monitors the level and efficiency of market opening and competition and is guided by the following basic principles: development of competitive and well-functioning regional markets within the European Union; preventing the restriction or distortion of competition on the energy market; creating incentives for the development of the competitive market for energy activities, where conditions permit so; creating incentives for effective development of secure, reliable and efficient networks in accordance with the customers interests. EWRC monitors gas networks development for the benefit of all participants, which will ensure sufficient and available capacity for everyone and monitors market competition and its effective functioning.

### **Implementation of Regulation (EU) No 1227/2011**

In the conditions of increasing competition on the gas market and growth in the gas exchange trade volumes, in accordance with Regulation (EU) № 1227/2011, EWRC monitors the market in order to prevent opportunities for market manipulations.

In 2023 no signals were received from the two persons professionally arranging transactions in wholesale energy products (PPATs), according to Art.15 of the Regulation: Balkan Gas Hub EAD

and Bulgarian Energy Trading Platform AD, for possible violations of Art.3 and/or Art.5 of Regulation (EU) № 1227/2011.

In fulfilment of Art.74n of EA and Art.155u, paragraph 2 of Ordinance № 3 of 21.03.2013, officials from EWRC REMIT Division carried out on-going monitoring of the compliance with the obligations under Art.15 of Regulation (EU) № 1227/2011 of Balkan Gas Hub EAD. A statement of findings with the relevant prescriptions has been drawn up, incl. to ensure operational independence in the suspicious transaction reports preparation and access by the REMIT Division to trading data on the relevant organised market.

In 2023, EWRC registered 8 new market participants for wholesale energy trading (in natural gas) and updated the data of 30 registered participants in CEREMP. The large number of system data updates was a result of the current control carried out in accordance with Art.74n of EA and Art.9 of Regulation (EU) № 1227/2011.

#### **4.2.4. Consumer protection and dispute settlement**

EA transposes the requirements of Directive 2009/73/EC aiming to ensure effective and adequate consumers rights and interests protection, strengthen and guarantee their rights and ensure greater transparency of market relations. The requirements of Annex 1 to Directive 2009/73/EC are enforced regarding the energy services contracts content that should be disclosed to consumers prior to the conclusion or confirmation of the contract.

In exercising its regulatory powers, EWRC is guided by general principles defined in EA, including ensuring a balance between the interests of energy companies and customers, equality between different categories of energy companies and between consumer types and establishing end customers' protection measures. To protect energy customers' rights EWRC closely cooperates with the Commission for Consumer Protection, the Ombudsman of the Republic of Bulgaria, as well as a number of consumer protection NGOs.

As a specialized state authority EWRC regulates the activities in the energy sector, approves the General conditions of contracts provided for in EA and the Rules on work with energy services consumers developed by energy companies that provide services of public interest. These contracts have mandatory content defined in EA, guaranteeing consumers' rights protection. The contracts shall state: term of the contract; temporary suspension conditions, termination of service provision and of the contract; rights of energy services consumers, including information concerning the procedure of considering complaints and making decision on them, conditions for unilateral termination of the contract by the user of energy services including upon a change of the contractual conditions and prices, incl. the possibility for such termination without additional payment. They provide for conditions and procedures of setting-off and reimbursement of sums in case of failure to comply with the requirements for quality of the contracted services. Licensees providing services of public interest are obliged to guarantee consumers' rights protection and equality between customer groups in the contracts' General conditions and Rules on work with energy services consumers. EWRC shall ensure that the approved General conditions include the content of invoices or bills which reflect the actual consumption and contain specific data on the metering device number, natural gas consumption, value added tax (VAT) and a price breakdown by components, if approved.

Energy companies shall provide to their customers information about: payment methods; prices of supply suspension or resumption; prices of maintenance services and prices of other services related to the licensed activity; procedure of switching supplier and information that energy services users do not owe additional payments when switching supplier, including a final equalizing

bill at each supplier switching; a procedure of handling complaints and ruling on the actual quantities consumed, as well as the service provided value in accordance with the agreed metering frequency at no additional cost. The information shall be presented in the invoices or together with them in informational materials and on the websites of the energy companies. In accordance with that procedure, the energy and natural gas suppliers shall provide also to energy services users a checklist adopted by the European Commission, containing practical information about their rights.

Energy companies shall provide customers with detailed information on daily, week, month and annual consumption where smart metering systems are used, by providing the final customers (via the Internet or via the metering device interface) with data for a period covering not less than 24 previous months or since the entry into effect of the supply contract, if that is more recent. Natural gas suppliers shall provide customers with a wide range of payment methods, including advance payment systems that are fair and adequately reflect the expected consumption. Energy companies shall notify the domestic energy services customers of each proposed change to the contractual conditions and prices of the services provided, as well as of the customers' right to terminate the contract unilaterally within 30 days as of the notification date, if they do not accept the new conditions and/or prices. The end supplier shall inform the customer, together with the invoice, on the last month of each 6-month period, when the reported natural gas consumption of the end customer for that 6-month period is higher by more than 50% than the reported consumption for the respective 6-month period of the previous calendar year.

Energy companies performing natural gas supply shall establish information centres where they will both provide users with information on energy services and customers' relations.

Complaints handling terms and conditions are regulated by EA and Ordinance № 3 on licensing the activities in the energy sector. EWRC shall consider complaints of: networks and facilities users against transmission and distribution network operators, extraction companies, natural gas storage facilities operators and LNG operators related to the way these entities perform their duties under EA; customers against energy and natural gas suppliers, including end suppliers, regarding their duties under EA as well as licensees against other licensees regarding their duties' performance under EA.

EWRC may assist an amicable dispute settlement on a complaint. In case no amicable settlement is achieved or the parties reject amicable settlement, the Regulator shall decide on the complaint within two months after receiving it.

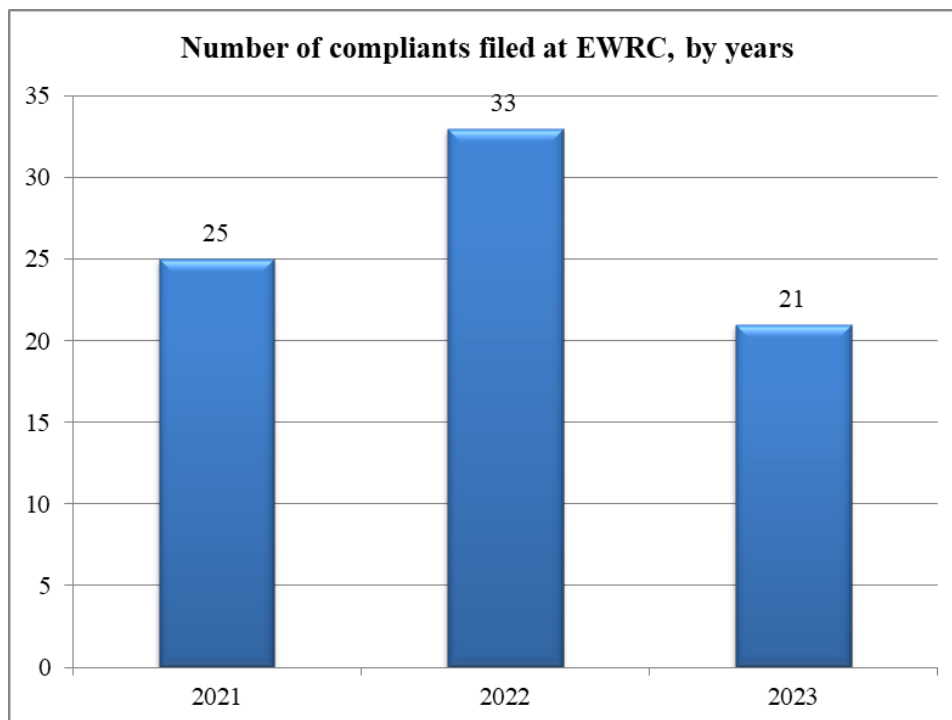
Periodically EWRC checks the licensees' obligations fulfilment regarding the creation of a specialized unit for work with consumers within the company's structure, in which a sufficient number and qualified personnel must be appointed; the maintaining of a sufficient number of customer service centres to cover the needs of the license territory; provision of services to customers in accordance with the quality indicators of natural gas supply adopted by EWRC; maintenance of a quality management system for the licensing activity, certified by an independent competent organization; maintaining a system for receiving and processing complaints.

### **Complaints filed at EWRC**

The total of 21 complaints in the gas sector was filed at EWRC in 2023. Of these, 17 were within EWRC competence, incl. 16 complaints from customers against licensees and 1 from licensee against licensee. 4 complaints were not within the Regulator's competence and they were forwarded to the relevant companies.



The graph below presents information on complaints filed by year for the period 2021 – 2023.



For each complaint received by the Regulator an administrative file is created. The complaint is formally checked to see whether it meets EA and OLAES requirements. On a complaint that is within EWRC competence, an investigation is carried out, after which it is sent for a written opinion to the company against which the complaint has been filed. The investigation of the complaint shall be completed with a written report with a draft decision thereto, including an analysis of all the facts and circumstances thereof. The report shall be submitted to the Regulatory Authority at a closed session, which shall rule on the administrative file opened on the complaint.

In 2023, there was a decrease in the number of complaints submitted to the Regulator, which indicates that companies inform their customers of their rights and obligations according to the contracts general terms and users' procedures rules, including the manner of complaints filing and handling. Energy companies promptly examine the complaints and satisfy reasonable ones.

The number of complaints submitted to EWRC in 2023 concerning the natural gas sector remains low compared to the other three sectors. Out of 157 995 natural gas customers, complaints were filed by 21 customers, representing 0.01% of these customers.

The main reason for the insignificant number of complaints filed at EWRC and the companies can be the small percentage of gasified sites in the country, respectively the small number of natural gas domestic and business customers.

In addition, essential is the fulfilment of controlled by EWRC licensees' obligations related to the establishment of a specialized unit for working with clients in the company structure, in which sufficient and qualified personnel must be appointed, incl. maintaining a sufficient number of customer service centres to cover the needs of the license territory; provision of services to customers in accordance with the quality indicators of natural gas supply adopted by the Commission; maintenance of a quality management system for the licensing activity, certified by an independent competent organization; maintaining a system for receiving and processing complaints.

The subject of the complaints received by EWRC was as follows in number:

- connection to gas distribution network – 2;
- inaccurate metering of natural gas consumption – 1;
- unfair commercial practice - replacement of a meter without prior notification – 1;
- disagreement with specific clauses of natural gas supply contracts – 2;
- interruption of gas supply due to lack or delay in payment – 3;
- invoicing: cancellation of a debit note issued by the company for the amount of natural gas consumed; high natural gas prices – 4;
- disagreement with gas distribution and supply prices – 3;
- a price charged without being due under a contract – 1;
- outside EWRC’s competence – 4.

In 2023 the Regulator issued decisions on 20 complaints, 6 of which were received in 2022, by accepting three of the complaints as well-founded, giving mandatory instructions to the licensed companies and setting deadlines for their implementation. The companies have fulfilled the given mandatory instructions on time.

EWRC took decisions by which it closed the files on seventeen complaints, as follows:

- in eight complaints the proceedings were terminated due to lost legal interest;
- three complaints EWRC accepted as unfounded;
- two contained various requests, which EWRC found inadmissible and unfounded;
- two were declared inadmissible by EWRC and were terminated due to failure to remedy irregularities within the statutory time limit;
- one was withdrawn by the complainant and the administrative proceedings were terminated;
- in one compliant administrative proceedings were suspended until the final ruling of the Sofia District Court.

EWRC did not issue decisions during calendar year 2023 on three complaints due to the factual and legal complexity of the cases, and the Regulator issued decisions on them in 2024.

### **Complaints received in the gas distribution companies**

The number of customer complaints submitted at the gas distribution companies in 2023 was 33. Customers filing the complaints were 0.02% % of all 157 995 DSO customers in 2023. There was a decrease in complaints filed in gas distribution companies compared to those filed in 2022, when they were 69.

Companies use different sources to raise customer awareness about the services provided and the possibilities to receive information about disputes settlement, clarification of the customers’ rights on filing complaints and the possibility to address EWRC in case they are not satisfied with the received answer. They inform their clients via company’s webpage, telephone, e-mail.

<b>Household customers indicators</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Number of household natural gas customers	112 210	124 652	138 087	144 130	149 556
Number of natural gas household customers, having been connected to the gas distribution network of the company and which have switched natural gas supplier	0	0	0	0	0

Number of disconnections of final household consumers due to non-payment	2 104	1 741	2493	2981	2 088
Number of working days between notification to pay a bill and disconnection in cases of non-payment in practice	18	18	18	18	18
Number of household vulnerable customers according to paragraph 1, item 66c of EA Supplementary Provisions	6	8	12	12	13
Number of household customers with smart meters	3281	5589	14 316	45 409	74 356

There has been a significant increase in installed smart meters of household customers, which increased from 3 281 in 2019 to 74 356 in 2023.

The average percentage of household customers who have been disconnected due to non-payment in the period 2019 – 2023 is relatively constant and amounts to about 2%.

Although all gas distribution companies provide their customers with information on the switching procedure and that energy service users do not owe any additional payments when changing supplier, there has been no switching supplier by household customers yet. They remain customers of the end suppliers.

#### **4.3. Security of supply (if and insofar NRA is competent authority)**

The Ministry of Energy is the state body that conducts the energy policy in the country. The Minister of Energy is the competent authority concerning security of supply in the meaning of Art.3, paragraph 2 of Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) № 994/2010 (Regulation (EU) № 2017/1938). Pursuant to Art.8, para.2, letters (a) and (b) of Regulation (EU) 2017/1938 the competent authority of each Member State, shall, after consulting the natural gas undertakings, the relevant organizations representing the interests of household and industrial gas customers, including electricity producers, electricity transmission system operators, and, where it is not the competent authority, the national regulatory authority, establish: a preventive action plan containing the measures needed to remove or mitigate the risks identified, including the effects of energy efficiency and demand-side measures in the common and national risk assessments and in accordance with Article 9; an emergency plan containing the measures to be taken to remove or mitigate the impact of a disruption of gas supply in accordance with Article 10. In compliance to Regulation requirement, an inter-institutional group has been established, appointed by the Minister of Energy, which shall draft the above-mentioned documents. Representatives of EWRC have been included and they have participated in the documents drafting process.