

## ANNUAL REPORT



### TABLE OF CONTENTS

>>

P. 4-5

INTRODUCTORY REMARKS

01

P. 7-9

**WHY TGE** 

02

P. 11-13

OWNERSHIP STRUCTURE

03

P. 15-17

COMPOSITION
OF THE TGE BOARD
IN 2023

04

P. 19-23

HIGHLIGHTS OF 2023

05

P. 25-29

TGE REGULATORY ENVIRONMENT



06 P. 31-33

ENERGY TRANSITION
AND TGE
DEVELOPMENT
PLANS

07

P. 37-55

TGE OFFER AND SUMMARY OF TURNOVER IN 2023 08

P. 59-61

EDUCATIONAL INITIATIVES

09

P. 63-67

DIALOGUE WITH
MARKET PARTICIPANTS
AT NATIONAL AND
INTERNATIONAL LEVEL

10

P. 69-71

ESG On TGE



### TGE CONTINUED TO STRIVE TO SET THE TONE FOR CHANGE IN FNFRGY MARKETS BY OFFERING **SOLUTIONS** THAT PAVE THE WAY.

#### Dear Sirs,

I am pleased to present you with the annual report on the activities of TGE. Traditionally, we would like to depict in a condensed and, I hope, interesting way the most important events and information related to the operation of the Exchange and its environment that took place in the previous year.

Undoubtedly, from a legislative point of view, the most significant in 2023 has been the enactment of special laws concerning the price regulation of electricity and natural gas. These regulations significantly affected the conduct of business by participants in the energy markets and, therefore, the members of the Exchange. Another issue that had a significant impact on the operation of TGE was the abolition of the so-called exchange obligation for the sale of electricity. These changes, combined with a general energy crisis and a sharp increase in energy prices, converted into a decrease in the level of liquidity and trading volumes on the markets of TGE, in particular – on the forward markets. Such developments were dictated by an understandable reluctance to trade over a longer time horizon due to price fluctuations and regulatory insecurity.

TGE continued to strive to set the tone for change in energy markets by offering solutions that pave the way, particularly in the context of the ongoing energy transition. In 2023, we introduced – guided by the clearly articulated expectations of our stakeholders – two new instruments in the forward market: lowPeak (10-hour pre-evening peak) and highPeak (5-hour evening peak). Thanks to these products, it is possible to manage one's trading portfolio more efficiently, including prosumers', taking into account the ever-increasing share of generation from renewable sources. But that is not all there is. We are constantly improving and expanding our offering, working on solutions for 15-minute instruments, intraday auctions (IDA) or developing the market for financial instruments.

Of course, we also try to go beyond our 'national backyard' and actively participate in initiatives related to deepening the integration of energy markets at the European level. Representatives of TGE have participated in the SEEGAS initiative, set up by the Energy Community Secretariat, as well as in international working groups operating within the NEMO Committee and the Market Coupling Steering Committee. At this point, it is also worth boasting that in December 2023, the President of the Energy Regulatory Office re-designated (for another four years) the Polish Power Exchange as the Nominated Electricity Market Operator (NEMO) for the Polish price area. This is undoubtedly an expression of trust and confidence in the competence of TGE as an active participant in the process of building a single EU energy market.

TGE – in line with its slogan (pl. Tworzymy Gwarantujemy Edukujemy; en. Trading, Guaranteeing, Educating) – not only creates solutions and guarantees the security of quotations, but also educates. We try to pass on our knowledge and expertise to those who are just about to build modern energy markets. Last year, we signed two agreements (Memorandum of Understanding documents) with partners from Eastern Europe: the Moldovan state-owned company Energocom and the Ukrainian Energy Exchange (UEEX). With these agreements, we hope to contribute to significantly expand area where energy trading is conducted on the basis of transparent and clear rules, with integrity and objectivity as its core basics.

To conclude, a few more words about accolades and records. Record daily trading volumes were exceptionally common on the spot electricity market. After all, the highest volume on the Day-Ahead Market was traded for the delivery day of 31 August 2023 – at a level of almost 352 GWh. In the Intraday Market, on the other hand, the record daily volume was ultimately close to 139 GWh, which took place for delivery on 31 December 2023. In July, the Exchange was appreciated for the fourth time by the London-based Capital Finance International (CFI.co) magazine, which awarded it the title *Best Commodities Exchange ESG Strategy Europe 2023*. We are also being rewarded in Poland – in September TGE was awarded the title of *Innovator* in the Energy category in the WPROST 2023 Innovators competition organised by Capital Point and the editors of "Wprost" weekly magazine!

I wish you an enjoyable read of the Report and already invite you to celebrate our 25th anniversary with us, which we will enter in December 2024!

Piotr Listwoń

President of the Management Board of TGE\*

" TGE - IN LINE WITH ITS SLOGAN - NOT ONLY **CREATES SOLUTIONS AND GUARANTEES** THE SECURITY OF QUOTATIONS, **BUT ALSO** EDUCATES.

<sup>\*</sup>CEO of TGE from July 2024.





#### TRADING > GUARANTEEING > EDUCATING

# WHY TGE



## TGE IS THE LEADING EXCHANGE IN CENTRAL AND EASTERN EUROPE

TGE is the largest – in terms of traded volumes of electricity and natural gas – energy exchange in Central and Eastern Europe.

It is a key player in the EU market, enjoying Nominated Electricity Market Operator status.

One of the most important – if not the most important – goals intentions of the TGE is the absolute and unconditional subordination of its activities to the applicable national and European regulations stemming from the common energy market.



## TGE IS A DYNAMIC TEAM OF EXPERTS

TGE is made up of passionate people for whom the challenges of a constantly changing business and regulatory environment are a continuous inspiration to set new ambitions and push their own limits.

The Exchange is looking for solutions to enable energy market customers to more effectively implement their own strategies in the spirit of energy transition.

By setting the highest standards, both in terms of its operations and its consideration for its employees and their comfort, TGE provides an inspiring place to work for the most valuable and creative individuals.



## TGE PURSUES A FLEXIBLE PRODUCT STRATEGY

The comprehensive range of instruments and products allows market participants to flexibly tailor the scope of orders placed and transactions concluded, as well as other solutions offered by TGE.

TGE's service portfolio also includes a range of information and reporting tools. As a result, data users are able to make business decisions based on the broadest and, importantly, accessible knowledge base, and fulfil their regulatory obligations through an entity that ensures the highest standards in this regard.



## TGE CONTINUOUSLY IDENTIFIES AND SETS MARKET TRENDS

TGE aims to learn from the good practices of leaders organising regulated commodity markets in countries with a much longer tradition of economies based on healthy, competitive free market foundations.

The Exchange closely follows what is happening in the energy sector at national and European level in order to develop new solutions on the basis of these observations, allowing market participants to make the most of their own potential and creativity.



## TGE OFFERS SECURE AND TRANSPARENT TRADING RULES

TGE continuously and adequately to the level and type of potential risk, monitors all orders submitted by trading participants into the exchange system and the operations performed on them – in order to prevent abuses and to disclose justified cases of suspected mishandlings on the its exchange markets.

TGE also pursues the objectives of the European REMIT regulation through the mass collection of transaction data, which is then analysed for potential risks. Reporting can only take place by entities that have obtained Registered Reporting Mechanism (RRM) status assigned by ACER. TGE obtained such status on 12 August 2015, as one of the first reporting entities in the European Union.



## TGE'S CAPITAL GROUP OFFERS POST-TRADE SERVICES

The comprehensive nature of TGE's offering also means that it is able to settle transactions concluded on the Exchange. Its subsidiary, the Commodity Exchange Clearing House (IRGiT), is the provider of services in this regard. Thanks to its authorisation by the Polish Financial Supervision Authority (KNF) to operate a clearing house and a settlement house, IRGiT is the guarantor of correctly and timely cleared transactions.



## TGE MAINTAINS HIGH ETHICAL STANDARDS

One of TGE's priorities is to blaze paths and set new standards for the ethics of its business activities.

This is demonstrated by the application of ESG principles through the incorporation of the "WSE Group ESG Strategy 2025" and the adoption of the "Code of Good Practice for Members of the Polish Power Exchange regarding the prevention of market abuse and the preservation of trading integrity and transparency".





#### TRADING > GUARANTEEING > EDUCATING

## OWNERSHIP STRUCTURE

TGE HAS BEEN PART OF THE WARSAW STOCK EXCHANGE CAPITAL GROUP (WSE CG) SINCE 2012, WITH THE WARSAW STOCK EXCHANGE (GIEŁDA PAPIERÓW WARTOŚCIOWYCH W WARSZAWIE S.A.) BEING THE SOLE OWNER OF TGE. THE IMPORTANCE OF THE TGE CAPITAL GROUP IN THE WSE'S CAPITAL STRUCTURES IS EVIDENCED BY THE FACT THAT REVENUES FROM THE MARKETS OPERATED BY TGE AND THE ACTIVITIES OF THE OTHER ENTITIES IN THE TGE CG ACCOUNTED FOR 35.3% OF THE WSE CG'S REVENUES IN 2023.

The TGE Capital Group brings together entities operating in key commodity market segments:



#### TOWAROWA GIEŁDA ENERGII S.A. (TGE)

The parent company of the TGE CG. It operates trading platforms for energy products and agri-food commodities, registers of certificates of origin and guarantees of origin, as well as education and information activities.





It is authorised by the Polish Financial Supervision Authority to operate a clearing and settling house, under which it can act as an exchange clearing house and settle transactions concluded on the commodity market, making it an entity that facilitates risk management and guarantees the security of transactions concluded on the platforms provided by TGE.



#### **INFOENGINE S.A.**

It provides services of a Market Operator for electricity market participants based on the legal regulations constituting the provisions of the Grid Code of the Transmission System Operation (IRiESP), developed by Polskie Sieci Elektroenergetyczne S.A., which define the role of the Market Operator in the area of providing services of a Trading Operator and Entity Responsible for Trade Balancing. In addition, the company provides advisory services to trading companies, consumers and public institutions or RES power generators.





#### TRADING > GUARANTEEING > EDUCATING

# COMPOSITION OF THE TGE BOARD IN 2023



#### PIOTR ZAWISTOWSKI

PRESIDENT OF THE MANAGEMENT BOARD

Graduate of the University of Economics and the Wrocław School of Banking.

He held key positions in the TAURON Group – CEO of TAURON Obsługa Klienta Sp. z o.o., as well as Vice-President of the Management Board for Customer and Trading at TAURON Polska Energia S.A. He assumed the position of CEO of the TGE in October 2017.

He has held key positions in significant institutions related to the energy sector. He was Chairman of the Governing Board of the Association of Energy Trading, a member of the Governing Board of the Polish Electricity Committee, and sat on the Supervisory Boards of TGE or IRGiT.

Piotr Zawistowski has more than 20 years of experience in the energy industry, specialising primarily in strategic planning and management and the identification of global markets. His outstanding knowledge of the mechanisms of energy markets was confirmed by his membership, for two terms, on the board of Europex, an organisation that brings together 27 energy exchanges and market operators from across Europe.



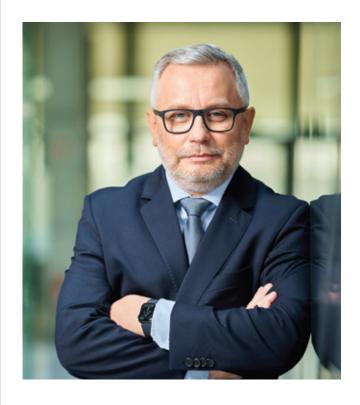
#### PIOTR LISTWOŃ

VICE-PRESIDENT OF THE MANAGEMENT BOARD, OPERATIONS

Graduate of the Strategic Management Department of the School of Management (POU/Oxford Brookes University), where he also obtained an MBA.

In April 2018, he took up the position of Vice-President of the Board of Directors for Operations of TGE, serving in parallel as Vice-President of the Board of Directors of the IRGiT since October 2023. He is on the Supervisory Board of the Warsaw Stock Exchange Foundation and is also Chairman of the Supervisory Board of InfoEngine S.A.

Piotr Listwoń has many years of experience in the trading and clearing of commodity forward and financial instruments markets, as well as international transactions carried out within the framework of the European electricity market coupling mechanism. The international recognition of Piotr Listwoń's qualifications and experience is undoubtedly demonstrated by his appointment to the Board of Directors of the international Association of Power Exchanges (APEx).



#### JAROSŁAW ZIĘBIEC

VICE-PRESIDENT OF THE MANAGEMENT BOARD, BUSINESS DEVELOPMENT

Graduate of the Faculty of Transport Economics at the University of Gdansk.

Early in his career, he spent 12 years with the Warsaw Stock Exchange, where he was responsible, among other things, for the launch, development and marketing of the financial derivatives market, as well as the creation of the structured products market and the introduction of the first ETF fund. He also worked in the London office of Bloomberg, cooperating with exchanges in the Central and Eastern European region.

He was a member of the Europex Working Group on Financial Markets at the European Association of Energy Exchanges (Europex Working Group on Financial Markets, Integrity & Transparency – WG FM). Being the Director of the Strategy and Projects Office of TGE, he oversaw the creation and execution of the company's strategy and coordinated the implementation of projects. He has served as Vice-President of Business Development since October 2023.

Jarosław Ziębiec is an expert in creating and implementing development strategies for financial and commodity markets. He has gained extensive professional experience, among others, by cooperating with national and foreign supervisory authorities.





#### TRADING > GUARANTEEING > EDUCATING

## HIGHLIGHTS OF 2023

## KEY EVENTS AND RECORDS IN 2023



signing of a cooperation agreement (Memorandum of Understanding) with the Moldovan state company Energocom S.A.



#### MAY

selection of the winners of the 9th "Platinum Megawatt" media competition

#### JANUARY

- the first transaction on the Property Rights Forward Market (RTPM), within the framework of the Organised Trading Facility (launched on May 2020)
- first records on spot electricity markets

#### JUNE

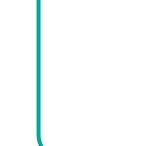
- the introduction of two new instruments on the Electricity Forward Market: lowPeak and highPeak
- gala of the Summary of the Exchange Year 2022 in the framework of the 15th Trading Forum in Ostróda
   presentation of awards for the most active companies and brokers





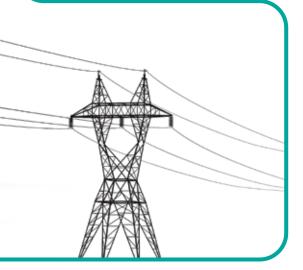
#### JULY

TGE named Best Commodities Exchange ESG Strategy Europe 2023 by London-based magazine Capital Finance International (CFI.co)



#### AUGUST

the record for daily electricity trading volume in the entire history of the Day-Ahead Market (351,858.3 MWh)



#### SEPTEMBER

- signing of the Memorandum of Understanding between TGE and IRGiT with the Ukrainian Energy Exchange (UEEX)
- TGE was awarded the title of *Innovator* in the Energy category in the WPROST 2023 Innovators competition, organised by Capital Point and the editors of the weekly "Wprost" magazine

#### DECEMBER

- TGE re-designated by the President of the Energy Regulatory Office as the Nominated Electricity Market Operator (NEMO) for the Polish price area
- the record for daily electricity trading volume in the entire history of the Intraday Market (138,783.6 MWh)

## VOLUMES IN 2023

#### **ELECTRICITY MARKET**

#### A RECORD YEAR ON THE SPOT MARKETS!

TOTAL

147.5 TWh



**SPOT MARKET** 

63.2 TWh

+91.4%



**FORWARD** MARKET

84.2 TWh

**-22.2**%

down y/y

#### **NATURAL GAS MARKET**

TOTAL

133.1 TWh

SPOT MARKET

18.2 TWh

-19.7%

down y/y

**FORWARD** MARKET

114.9 TWh

**-3.4**%



#### **PROPERTY RIGHTS MARKET**

TOTAL TRADING VOLUME OF PROPERTY RIGHTS FOR RENEWABLE ELECTRICITY

19.7 TWh



TOTAL TRADING VOLUME OF PROPERTY RIGHTS **FOR ENERGY EFFICIENCY** 

110,390 toe +12.7% up y/y

#### REGISTER OF GUARANTEES OF ORIGIN

A RECORD YEAR!

TOTAL

42.3 TWh +1.1% up y/y







#### TRADING > GUARANTEEING > EDUCATING

## TGE REGULATORY ENVIRONMENT

## NATIONAL LEGISLATION

THE ENERGY TRANSITION IS TAKING NEWER AND NEWER DIRECTIONS. INVARIABLY, HOWEVER, TGE AIMS TO INTERACT WITH INDUSTRY PLAYERS IN THE ENERGY AND FUEL SECTOR AND WITH THE EXCHANGE MEMBERS, ADAPTING ITS ACTIVITIES TO THE DYNAMICALLY CHANGING LEGAL AND REGULATORY ENVIRONMENT.

The rules of operation of TGE are set out in the following legal acts:

- Commodity Exchange Act defines the institutional framework for the operation of the TGE; describes the rules for trading in exchange commodities, regulates aspects of the operation of commodity exchanges and exchange clearing houses, and establishes the duties and powers of supervision over these institutions.
- Energy Law Act a fundamental piece of legislation for the functioning of electricity and natural gas markets in Poland; until 2022, it contained, inter alia, regulations concerning the so-called exchange obligation for electricity and natural gas, i.e. the obligation to sell these commodities through regulated markets, including a commodity exchange.
- Trading in Financial Instruments Act the regulatory framework for the Financial Instruments Market (FIM), which is the venue for trading in CO₂ emission allowances, and the Organised Trading Facility (OTF), which allows trading in forward contracts whose underlying instrument is the property right to certificates of origin for energy produced in RES and physically delivered electricity or gas.

■ The Renewable Energy Sources Act, Energy Efficiency Act and Promotion of Energy from High Efficiency Cogeneration Act – the key legal acts that define the rules for trading on the Exchange's Property Rights Market resulting from certificates of origin of electricity and energy efficiency, as well as the guidelines for the TGE's Register of Certificates of Origin and Register of Guarantees of Origin, which are the foundations of the support systems for energy generation from renewable sources and for increasing the level of energy efficiency in the economy. Safe, secure trading of property rights and guarantees of origin is a key element of the aforementioned support system as a component of the energy transition and decarbonisation process.





### IMPACT OF REGULATORY CHANGES ON THE POLISH ENERGY MARKET IN 2023

In 2023, TGE operated in a specific regulatory environment, the result of exceptional market circumstances. This is because the legal solutions (and their subsequent amendments and modifications) adopted back in 2022 as the state's response to the rising costs of energy supply to end users, were in force throughout this period:

- Act of 7 October 2022 on special solutions for the protection of electricity consumers in 2023 due to the situation on the electricity market;
- Act of 27 October 2022 on emergency measures to limit electricity price levels and support certain consumers in 2023 – this law imposes an obligation on TGE to publish so-called reference prices, which the Exchange started to implement from 10 November 2022;
- Act of 15 December 2022 on the special protection of certain consumers of gaseous fuels in 2023 in connection with the gas market situation.

In the context of the above regulations, as well as their multiple amendments throughout 2023, it is important to emphasise the importance for all energy market players of predictability and certainty in the actions of state authorities. This is particularly important when adopting solutions which, on the one hand, are intended to bring relief to energy consumers but, on the other hand, impose regulatory burdens on other market participants that are often disproportionate and – what is worse – difficult to define clearly. For these reasons, it should be of paramount importance to be able to thoroughly consult the proposed legislative solutions with all stakeholders so that they can adequately prepare for the changes introduced.

The consequence of the implemented regulations was probably a reduction in liquidity on the Polish exchange market, which is important insofar as its level translates directly into the reliability of indexes quoted on a given exchange, which are then used by the clearing manager (as part of support systems clearing) in determining, for example, market indexes of the electricity price on the balancing market by the TSO. It is also not without significance that the aforementioned quotations provide a reference point for settlements made as part of bilateral (OTC) transactions. The lack of sufficient liquidity in spot and forward markets may also affect the final value of indexes and benchmarks for establishing quotations of other instruments. All these elements should be taken into account when designing regulatory solutions that restrict the freedom of trading on wholesale (including exchange) energy markets.

In addition, it should be emphasised that in 2023 the market operated without the exchange obligation for the sale of electricity by generation companies, which was abolished back in 2022 as part of an amendment to the Energy Law. The abandonment of this obligation translated into reduced liquidity in the exchange markets (in particular the forward market), which affected the level of transparency in the wholesale market by simultaneously increasing the importance of contracting by the companies within vertically integrated groups.

## EU LEGISLATION

EU regulations key to the functioning of TGE:

- CACM regulation relevant to the implementation by the TGE of the NEMO function within the single cross-border energy markets;
- **Regulation 1031/2010** laying down the terms and conditions for the auctioning of CO<sub>2</sub> emission allowances;
- **REMIT Regulation** on transparency and integrity of energy markets;
- Regulation 943/2019 concerning rules for the functioning of the internal market in electricity;
- **Directive 944/2019** on common rules for the internal market in electricity.

Referring to the EU regulatory environment, it is impossible not to mention the draft *Electricity Market Design* (EMD) regulation published by the European Commission in March 2023, which was finally agreed in December 2023.

On the basis of the inadequacies identified (such as the excessive linking of final consumer energy prices to short-term markets, which in turn were often disproportionately influenced by fossil fuel prices), the EU legislator suggested that significant modifications should be made to the rules governing the energy sector.

Ultimately, the intention was to reduce the potential for price fluctuations and, at the same time, maintain the incentive to invest in the solutions needed to meet ambitious climate targets. The idea is that increasing liquidity in the markets and maximising the availability of energy from renewable sources will promote long-term price stability for final consumers. This is to be achieved through a catalogue of postulated tools the implementation of which by Member States European Commission wants to promote. These include PPAs, financial contracts for difference and, in terms of ensuring energy security, products related to peak demand reduction or flexibility services at distribution network level, taking advantage of the opportunities provided by renewable sources.

The possible asymmetry between counterparties in terms of risk protection is also not insignificant. In the latter context, calls for the introduction of financial guarantees, which could be based on existing models, such as the collateral systems used by commodity exchanges or solutions involving the guarantee of clearing and delivery by exchange clearing houses, should be welcomed.







/TGE TRADES/

# ENERGY TRANSITION AND TGE DEVELOPMENT PLANS

OBSERVING THE CHANGING MARKET, POLITICAL AND REGULATORY ENVIRONMENT, THE EXCHANGE IS CONSTANTLY WORKING TO ADAPT AND MAKE ITS OFFERING AS FLEXIBLE AS POSSIBLE. IT HAS BEEN ACTIVELY INVOLVED IN THE ELECTRICITY MARKET DESIGN (EMD) REFORM CONSULTATIONS, PARTICULARLY WITH REGARD TO THE PROPOSED MODIFICATIONS TO THE NEMO OPERATING RULES AND ADJUSTMENTS TO THE OPERATION OF THE FORWARD MARKET. THE LEGISLATIVE AND REGULATORY SOLUTIONS ADOPTED AS PART OF THIS REFORM WILL GENERATE SIGNIFICANT EFFECTS FOR FINAL CONSUMERS, FOR EXAMPLE IN TERMS OF PRICE STABILISATION, INCREASED MARKET LIBERALISATION, INTEGRATION OF RENEWABLE ENERGY SOURCES IN ELECTRICITY SYSTEMS OR THE OVERALL COMPETITIVENESS OF THE EU INDUSTRIAL SECTOR.

ON A DIMENSION RELEVANT TO EXCHANGE TRADING, THE FINAL SHAPE OF THE EMD WILL RESULT IN MODIFICATIONS TO THE FUNCTIONING OF LOCAL/NATIONAL MARKETS AND INCREASED COMPETITIVENESS OF SPOT MARKETS. THE FINAL ALIGNMENT OF TGE'S OFFERING WITH EMD-RELATED CHANGES WILL TAKE PLACE AFTER THE IMPLEMENTATION OF THE REFORM IN THE MEMBER STATES, WHICH IS SCHEDULED FOR MID-2024.

#### NEW SCHEDULE OF OUOTATIONS ON THE DAM

The change to the Day-Ahead Market quotation schedule, which is the result of the implementation of the EMD reform in July 2024, was preceded by consultations with Exchange members and submitted to the Market Council for its opinion. The analyses and simulations of the session scheduling options carried out made it possible to select the optimal solution.

#### 15-MINUTE INSTRUMENTS ON THE INTRADAY MARKET

The implementation of the solutions adopted as part of the *Clean Energy for all Europeans* package also included a reform of the balancing market, in particular the switch to 15-minute settlements. Amendments to the "Terms and Conditions for Balancing" (TCB) implemented by Polskie Sieci Elektroenergetyczne (PSE) in this regard and approved by the President of the Energy Regulatory Office provided the impetus for TGE to take steps to supplement the offer on the Intraday Market for electricity with 15-minute instruments, which took place in June 2024. Further steps will include the introduction of analogous solutions on the Day-Ahead Market, which will, however, depend on the pace of change in European markets.

#### **INTRADAY AUCTIONS**

The initiative to introduce intraday auction (IDA) transmission capacity pricing is linked to the implementation of the requirements under Article 55 of the CACM Regulation. By pricing cross-border transmission capacity shortfalls, IDA is an extension of the Single Intraday Coupling market, which has so far been based on a continuous quotation system. The launch of the intraday auction took place in June 2024.

#### CONTRACTS WITH DYNAMIC PRICING

As part of the ongoing changes associated with the energy transition and the growing importance of renewables, contracts for the sale of electricity based on dynamic prices (*Time of Use Rates* – TOU) are being developed. Under such a contract, the value of the energy supplied varies over the course of the day, reflecting price fluctuations in wholesale markets due to time of day, season, availability of generation and demand for energy. The reference point for dynamic tariffs is the power exchange price, changing at 15-minute intervals.

Within the framework of the described project, implemented in August 2024, an important role were ascribed to TGE, which will provide the necessary data for trading participants using the new electricity pricing model. The expected effect is an increased interest in the spot markets organised by TGE (in particular the prices formed there) from new groups of participants, i.e. individual final customers, including households and small and medium-sized entrepreneurs.

In general, it is anticipated that the introduction of dynamic pricing will bring significant benefits to both final customers and the electricity system as a whole:

- **financial** by adjusting electricity consumption to times of day when prices are lower;
- in terms of sustainability by making more effective use of the renewable energy sources;
- increasing the flexibility of the electricity system through more efficient demand management and the ability to adjust generation capacity to current demand.





The year 2023 was a time of consistent work on TGE's offering. In modifying the range of services and introducing new products, the Exchange, on the one hand, had to take into account the changes resulting from the implementation of successive regulations and, on the other, took into account both market trends and the expectations of the stakeholders themselves, dictated, among other things, by technological developments. Each newly introduced solution was in line with the highest standards of security, integrity of trading and certainty of settlement of transactions concluded by Exchange members.

Against the backdrop of an evolving customer demand profile as a result of the increased share of renewable generation and prosumers' own generation, the TGE has made two new types of instruments available on the Electricity Forward Market in 2023:

- **lowPeak:** for delivery during the 10-hour pre-evening peak, from 7 a.m. to 5 p.m. (trading hours 8 a.m. to 5 p.m.) on weekdays;
- **highPeak:** for delivery during the 5-hour evening peak, from 5 p.m. to 10 p.m. (trading hours 6 p.m. to 10 p.m.) on weekdays.

The above products expand TGE's offer in the forward market, responding to the expectations of trading participants, who thus gain tools to increase the efficiency of trade portfolio management. According to the assumptions, the new solutions will contribute to: a reduction in the costs and risk of hedging contract positions, an increase in the flexibility of hedging tools and a reduction in margins for products with shorter delivery periods, as well as more complete market information on prices for the changing demand profile or the projected situation in the NPS.





### /TGE GUARANTEES/

# TGE OFFER AND SUMMARY OF TURNOVER IN 2023

### **ELECTRICITY**

## ELECTRICITY IS TRADED ON THE SPOT MARKETS (INTRADAY MARKET AND DAY-AHEAD MARKET) AND ON THE FORWARD MARKET, I.E. ON THE ORGANISED TRADING FACILITY (OTF).

#### THE DAY-AHEAD MARKET

Prices on the DAM provide a benchmark for bilateral (OTC, over the counter) contracts concluded on the domestic OTC market. The DAM allows its participants to close their buy/sell portfolios on an ongoing basis and in a secure manner at specific

times of the day. Trading takes place one or two days prior to delivery of the commodity (electricity).

The DAM offers hourly, block and weekend contracts (base, peak, off-peak).

#### TGE provides 6 price indexes, indicating the day or time of delivery and the type of quotation used in the calculation:

#### **TGeBase**

arithmetic average of the weighted average hourly prices of a given delivery day, calculated on the basis of all hourly, block and weekend contracts

#### **TGePeak**

arithmetic average of the weighted average hourly prices of the peak period of a given delivery day (7 a.m. to 10 p.m.), calculated on the basis of all hourly, block and weekend PEAK contracts

#### **TGeOffPeak**

arithmetic average of the weighted average hourly prices of the off-peak period of a given delivery day (0 a.m. to 7 a.m. and 10 p.m. to 12 p.m.), calculated on the basis of all hourly, block and weekend OFFPEAK contracts

#### TGe24

arithmetic average of the hourly prices for a given delivery day, determined in the single rate at 10.30 a.m.

#### TGe15

arithmetic average of hourly prices of the peak period of a given delivery day (7 a.m. to 10 p.m.), determined in the single rate at 10.30 a.m.

#### TGe9

arithmetic average of the hourly prices of the off-peak period of a given delivery day (0 a.m. to 7 a.m. and 10 p.m. to 12 p.m.), determined within the single rate at 10.30 a.m.



#### INTRADAY MARKET

The IDM operates on the TGE as the European Electricity Intraday Market (SIDC), currently covering 25 countries (Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden). In this way, the idea of providing opportunities for cross-border electricity trade between market participants operating in different EU countries has come to fruition.

Trading on this market takes place 24 hours a day, in a continuous trading system covering instruments with next-day delivery. Transactions are concluded in euro, but settlements between the Exchange and domestic market participants (carried out by the IRGiT) are made in PLN.

#### **FORWARD MARKET**

Transactions are concluded on the Organised Trading Facility (OTF) within the Electricity Forward Market for products with electricity delivery (RTPE).



## VOLUMES AND PRICES IN THE ELECTRICITY MARKET IN 2023

In 2023, the volume of gross electricity generated in Poland amounted to 163.6 TWh, a decrease of approximately 6.6% compared to the previous year. At the same time, gross domestic electricity consumption stood at 167.5 TWh – a decrease of approximately 3.4% compared to 2022¹.

Electricity trading on TGE in 2023 was marked by records on the spot markets – in November, the trading volume on both spot markets reached 6.25 TWh. It is worth noting here that in previous years the maximum level was reached in December 2022 (3.44 TWh). As for the Day-Ahead Market, November was also the record month with 5.98 TWh (in previous years, the month with the highest turnover on the DAM – 3.11 TWh, in December 2019). For the Intraday Market, the best month of 2023 was January with a turnover level of 604 GWh (the previous record of 429 GWh was achieved in December 2022).



#### **VOLUMES**

The volume of electricity traded in 2023 on all markets organised by TGE was equal to 147.5 TWh, an increase of 4.3% compared to 2022. This volume also represented 95.5% of net domestic electricity consumption.

Spot market volumes increased by 91.4% year-on-year to a record 63.2 TWh. There were record volumes on both the Intraday Market (4.8 TWh, up 143.8% year-on-year) and the Day-Ahead Market (58.4 TWh, up 88.1% year-on-year). In contrast, turnover on the Electricity Forward Market (RTPE) reached 84.2 TWh, a decrease of 22.2% compared to 2022.

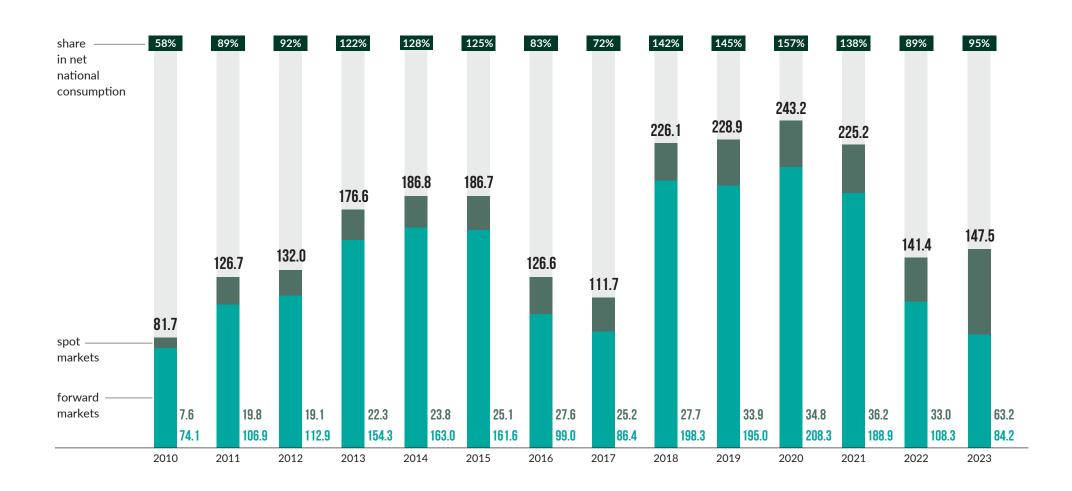
#### **PRICES**

Compared to the exceptional year of 2022, a general trend of decreasing average prices in both spot and forward markets could be observed in 2023.

The weighted average BASE price on the Day-Ahead Market was 533.62 PLN/MWh in 2023, down of 262.55 PLN/MWh from the previous year. On the Forward Markets, on the other hand, the weighted average price of the annual contract with base load delivery in 2024 (BASE\_Y-24) amounted to the 642.19 PLN/MWh in 2023 and this is a decrease of 467.85 PLN/MWh compared to the quoted price of the BASE\_Y-23 contract in 2022.

<sup>&</sup>lt;sup>1</sup> Source: PSE, https://www.pse.pl/dane-systemowe/funkcjonowanie-kse/raporty-roczne-z-funkcjonowania-kse-za-rok/raporty-za-rok-2023 (accessed 26.06.2024).

## HISTORICAL SNAPSHOT OF ELECTRICITY VOLUMES TRADED ON THE TGE MARKETS (TWh)





## NATURAL GAS

TRADING ON THE NATURAL GAS MARKET, AS IN THE CASE OF ELECTRICITY, IS CARRIED OUT ON THE SPOT MARKETS (INTRADAY MARKET AND DAY-AHEAD MARKET) AND ON THE FORWARD MARKET, WITHIN THE ORGANISED TRADING FACILITY (OTF)

#### THE DAY-AHEAD MARKET

Being one of the two components of the spot market, it allows the product portfolio to be tailored to demand on the day of delivery.

Trading takes place daily, in a continuous trading system. Daily contracts traded daily (GAS\_BASE, SGT\_BASE and GLW\_BASE) and weekend contracts traded on Thursdays and Fridays (GAS\_WEEKEND) are available.

#### Market developments are illustrated by the following indexes:

#### ■ TGEgasDA

volume weighted average price of transactions on DAMg for GAS\_BASE instrument for a given delivery day

#### TGEsgtDA

volume weighted average price of transactions on DAMg for SGT BASE instrument for a given delivery day

#### TGEglwDA

volume weighted average price of transactions on DAMg for GLW\_BASE instrument for a given delivery day

#### INTRADAY MARKET

Trading is carried out on the delivery day, in a continuous trading system, taking place daily, on hourly instruments. Price volatility is reflected by analogues of the Day-Ahead Gas Market with three daily indexes: TGEgasID, TGEsgtID and TGEglwID.

#### **FORWARD MARKET**

Transactions are concluded on the Organised Trading Facility (OTF) within the Gas Forward Market (RTPG).



### **VOLUMES AND PRICES** IN THE NATURAL GAS MARKET IN 2023



#### **VOLUMES**

Natural gas trading volumes on the TGE totalled 133.1 TWh in 2023, down 6.0% year-on-year in comparison with 2022. Turnover on the spot market was 18.2 TWh (down 19.7% year-on-year), while on the forward market it reached 114.9 TWh (down 3.4% year-on-year). In terms of the spot market, the volume on the Day-Ahead Market for gas was 14.9 TWh (down 17.4% y-o-y) and on the Intraday Market for gas was 3.4 TWh (down 28.4% y-o-y).

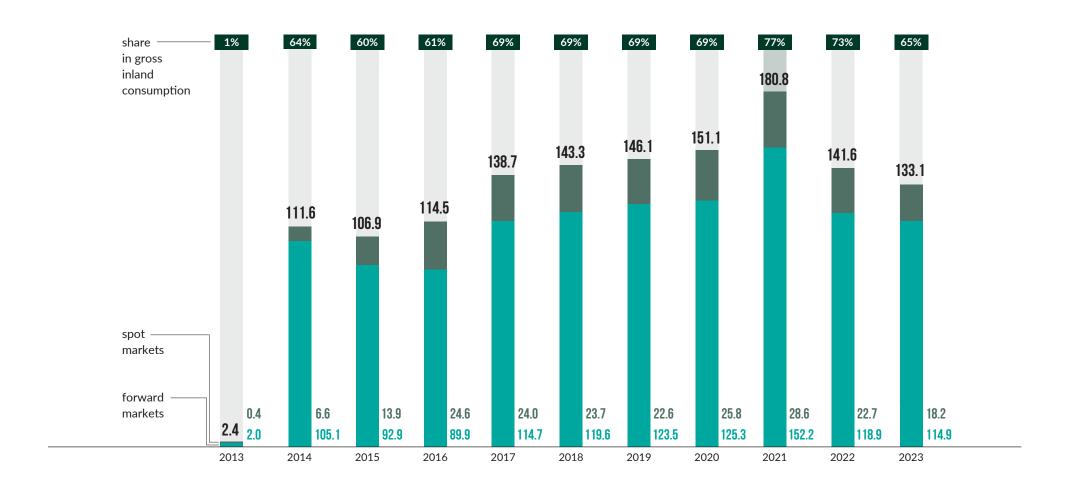
The volume of natural gas traded on TGE in 2023 accounted for 65.4 per cent of the share of gross domestic natural gas consumption of 203.4 TWh.

#### **PRICES**

As in the case of electricity, the natural gas market could see a drop in prices, both on the spot and forward markets.

The weighted average price on the DAM&IDMg reached 213.94 PLN/MWh in 2023, a year-on-year decrease of 333.85 PLN/MWh. On the forward market, on the other hand, the weighted average price of the contract with delivery in 2024 (GAS\_BASE\_Y-24) stood at 267.65 PLN/MWh, i.e. 278.73 PLN/MWh lower than the corresponding price quoted for the GAS\_BASE\_Y-23 contract in 2022.

## HISTORICAL SNAPSHOT OF NATURAL GAS VOLUMES TRADED ON THE TGE MARKETS (TWh)





IN 2023, ELECTRICITY GENERATION FROM RENEWABLE SOURCES IN POLAND INCREASED BY MORE THAN 27.6% Y-O-Y (FROM 27.6 TO 35.2 TWH), WHILE THE VOLUME OF INSTALLED RES CAPACITY AUGMENTED FROM 21.6 GW IN 2022 TO 27.2 GW (A SURGE OF 26.5%), TRANSLATING INTO A SHARE OF RENEWABLES IN THE TOTAL INSTALLED CAPACITY OF ELECTRICITY SYSTEM OF 40.16%<sup>2</sup>.

#### The Property Rights Market trades in rights arising from the following certificates:



#### GREEN CERTIFICATES

certificates of origin for electricity generated from renewable energy sources

/PMOZE, PMOZE\_A/



#### BLUE CERTIFICATES

certificates of origin for electricity generated from renewable energy sources in agricultural biogas plants

/PMOZE-BIO/



#### BRONZE CERTIFICATES

certificates of origin for agricultural biogas and its introduction into the distribution network

/PMBG/



### WHITE CERTIFICATES

certificates of energy efficiency obtained by entities that have implemented energy efficiency measures aimed at saving energy consumed

/PMEF\_F and annual instruments/

In addition, it is possible to trade property rights on the forward market, within the framework of the Property Rights Forward Market (RTPM), where property rights (of the PMOZE\_A type) can be contracted further into the future using financial instruments.

IN 2023, REVENUES FROM PROPERTY
RIGHTS TRADING ON TGE ACCOUNTED FOR
ALMOST 12.6% OF THE WSE GROUP'S
COMMODITY MARKET REVENUES.
IT IS WORTH NOTING THAT ON 5 JANUARY
2023, THE FIRST TRANSACTION WAS
CONCLUDED ON THE PROPERTY RIGHTS
FORWARD MARKET, WITH DELIVERY IN
MAY 2024 (INSTRUMENT F-OZE\_05-24),
FOR A VOLUME OF 1000 MWH
(1 FORWARD CONTRACT) AND AT A PRICE
OF 205.00 PLN/MWH.

VOLUMES AND PRICES
ON THE PROPERTY
RIGHTS MARKET
IN 2023 —
CERTIFICATES OF ORIGIN
FOR ENERGY FROM
RENEWABLE SOURCES

#### **VOLUMES**

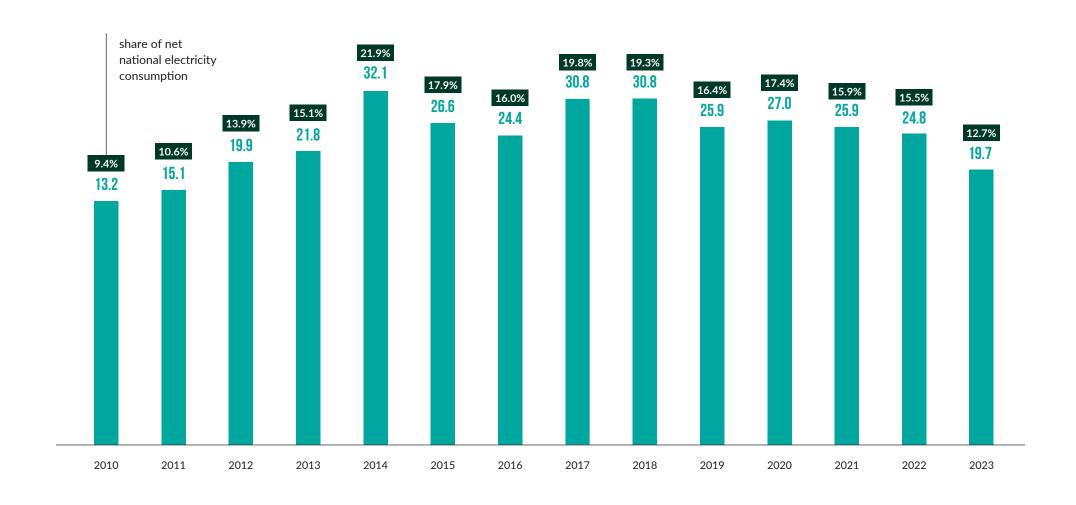
The total volume of trading in property rights for electricity from renewable energy sources is set at 19.7 TWh in 2023, down 20.5% on the previous year.

#### **PRICES**

The weighted average price at the PRM sessions was 158.18 PLN/MWh for the PMOZE\_A instrument, which is 33.62 PLN/MWh less compared to 2022.



TRADING VOLUMES OF PROPERTY RIGHTS RESULTING FROM CERTIFICATES OF ORIGIN FOR ELECTRICITY PRODUCED FROM RES (PMOZE, PMOZE\_A AND PMOZE-BIO INSTRUMENTS), BOTH ON THE SPOT (PRM) AND FORWARD (OTF) MARKETS, HISTORICALLY (TWh)





# VOLUMES AND PRICES IN THE PROPERTY RIGHTS MARKET IN 2023 — ENERGY EFFICIENCY CERTIFICATES

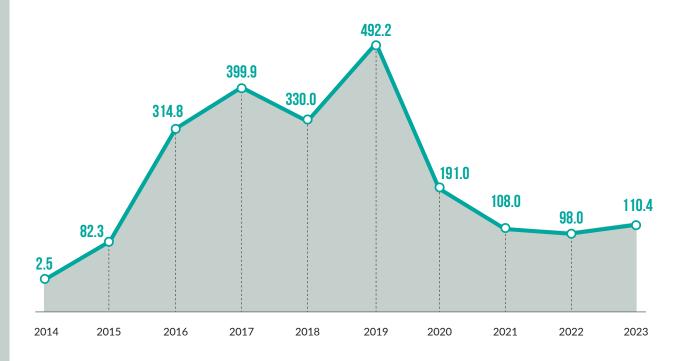
#### **VOLUMES**

The trading volume of property rights for energy efficiency in 2023 reached 110,390 toe, an increase of 12.7% on the previous year.

#### **PRICES**

In contrast, the volume-weighted average price of the PMEF\_F instrument reached 2,121.48 PLN/toe during the 2023 sessions, which is 162.75 PLN/toe less than in 2022.

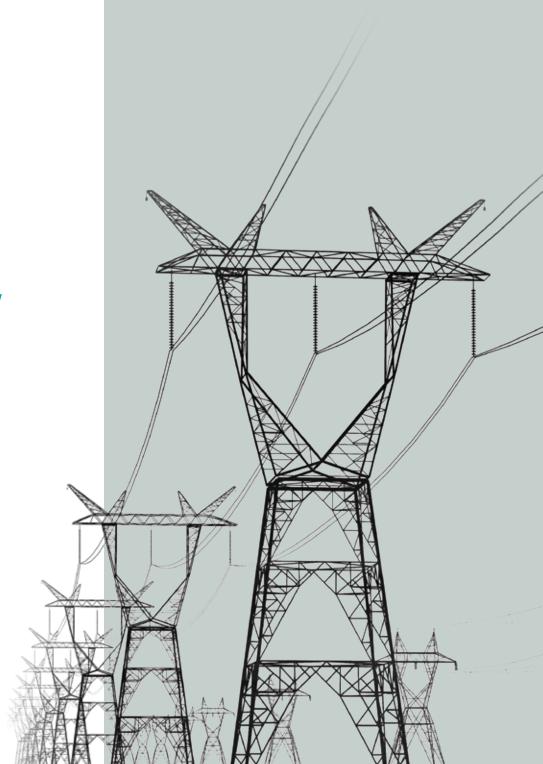
## HISTORICAL TRADING VOLUMES OF PROPERTY RIGHTS RESULTING FROM ENERGY EFFICIENCY CERTIFICATES (ktoe)



## GUARANTEES OF ORIGIN

THE GROWING AWARENESS AMONG TRADERS AND CONSUMERS OF THE IMPORTANCE FOR EACH MARKET PARTICIPANT TO BE ABLE TO DEMONSTRATE THAT THEY SUPPORT THE ENERGY TRANSITION AND CARE FOR THE ENVIRONMENT IN THEIR DAY-TO-DAY BUSINESS ACTIVITIES IS INFLUENCING THE GROWING ROLE OF GUARANTEES OF ORIGIN.

In 2023, the Renewable Energy Sources Act amendment was passed, according to which – starting from 1 January 2024 – guarantees of origin are issued not only for the production of energy in RES installations, but also for biomethane, heat, cold, renewable hydrogen, biogas or agricultural biogas. The above revision also paves the way for the internationalisation of trade in guarantees of origin through solutions that will enable the ERO President to join the AIB (Association of Issuing Bodies).



# TRADING VOLUMES AND PRICES OF GUARANTEES OF ORIGIN IN 2023

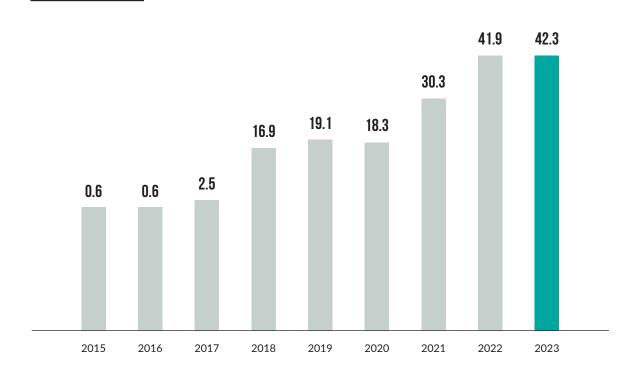
#### **VOLUMES**

Trading in guarantees of origin for electricity generated from RES reached a volume of 42.3 TWh in 2023, a record result in the history of the Guarantees of Origin Register and at the same time an increase of 1.1% compared to 2022.

#### **PRICES**

The weighted average price of guarantees of origin for RES in 2023 was 15.25 PLN/MWh, an increase of 10.20 PLN/MWh compared to the previous year.

### GROWTH RATE OF TURNOVER IN GUARANTEES OF ORIGIN LISTED IN THE GUARANTEES OF ORIGIN REGISTER (TWh)



## INFORMATION AND REPORTING SERVICES

AND FINANCIAL MARKETS WITH A COMPLETE RANGE OF INFORMATION AND REPORTING SERVICES. THE SOLUTIONS ARE DIVERSE IN NATURE, AS WELL AS IN THE EXTENT OF ACCESS TO DATA, ALLOWING STAKEHOLDERS TO OPTIMISE THEIR INSTRUMENT PORTFOLIO FOR THEIR INDIVIDUALISED NEEDS.

TGF PROVIDES PARTICIPANTS OF THE COMMODITY

#### MARKET DATA PUBLICLY AVAILABLE

#### **Exchange Information Platform (GPI)**

By providing a transparent and structured presentation of data, the GPI (pl. *Giełdowa Platforma Informacyjna*) is a rich source of information on the energy system in Poland. The platform also allows for the fulfilment of the obligations to publish so-called 'inside information', pursuant to Article 4 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 (the REMIT Regulation), through the provision of Important Transaction Information (ITI).

The Exchange Information Platform consists of four groups of data:

- Important Transaction Information;
- Electricity system data;
- Power losses;
- GPI messages.

#### **REAL-TIME DATA**

The TGE real-time market data is made available through the Warsaw Stock Exchange and includes information on all markets operated by TGE. An example of the adaptability of the real-time data offering to the individual needs of trading participants is the twofold way in which it is presented:

- in the mode of data visualisation on receiving devices (display): via electronic distributors (news agencies, brokerage houses, web portals and software companies), who in turn transmit the information to sub-distributors and their subscribers in the form of their own services; this form of data transmission is primarily for investment decision-making;
- **non-display:** used in automated or other trading applications for risk management, quantitative analysis, fund, portfolio management or generating investment signals to support non-automated order entry and to systematically internalise trades and run a trading platform.

#### PROCESSED DATA

#### **AIR Platform (Analysis, Information, Reports)**

Through the AIR Platform, TGE offers a unique opportunity to fulfil the entire spectrum of business needs through simplified data management, which easily translates into cost reductions. Again, a twofold way of using the offer can be distinguished:

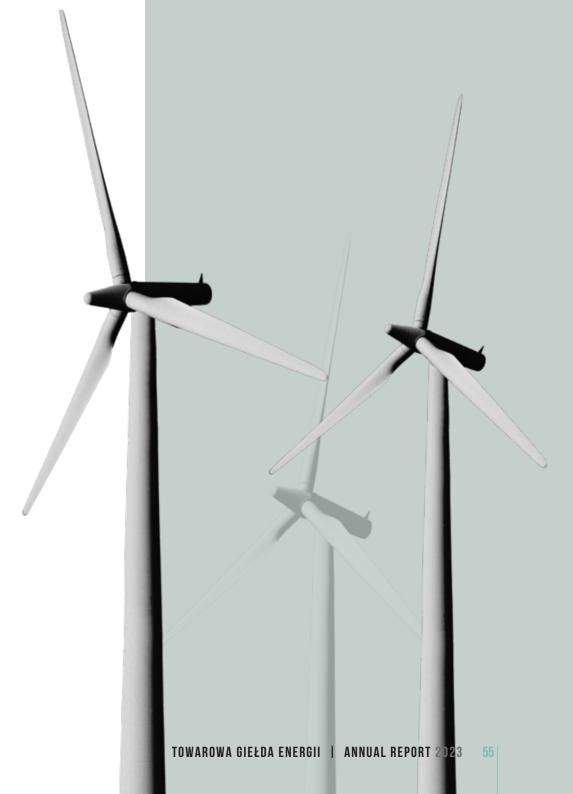
- standard products: access to a wide range of data from the markets listed on the TGE trading floor, including daily reports automatically sent to users as XLSX files;
- **customised products:** solutions aimed at participants seeking customised solutions in line with requests made through 'report requests'.

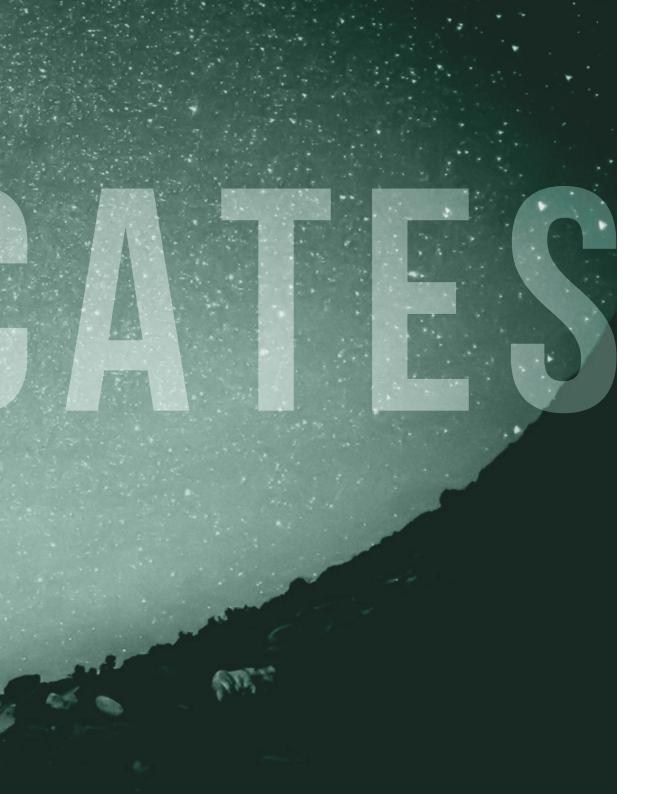
#### REPORTING SERVICES

#### TGE RRM

As part of its comprehensive approach to offering market participants the opportunity to fulfil their regulatory obligations, the TGE has developed a service related to the reporting to the Agency for the Cooperation of Regulatory Authorities (ACER) of data on orders and transactions concluded on wholesale energy markets. With the status of the RRM (*Registered Reporting Mechanism*) granted by ACER, the Exchange offers a number of functionalities to fulfil its obligations under the REMIT Regulation:

- reporting on orders and transactions concluded through organised trading facilities;
- reporting of OTC transactions;
- reporting of transmission and basic data.





One of the cornerstones of TGE's business activity is the expanding knowledge concerning the functioning of the commodity market. On the one hand, the company promotes transparent mechanisms and solutions; on the other, it points out the benefits resulting from trading on the exchange not only for its participants, but also for the economy as a whole.





/TGE EDUCATES/

## EDUCATIONAL INITIATIVES

#### TRAINING AND CERTIFICATION OF BROKERS

Last year, the Exchange organised 6 training courses, both in Polish and English, addressed to candidates for TGE brokers. They were successful, as evidenced by the impressive number of 92 participants. The training courses – conducted remotely – culminated in exams, on the basis of which TGE issued 80 broker certificates. These documents entitle to represent an Exchange member or an OTF member in transactions on the Exchange Commodity Market, the Organised Trading Facility and the Financial Instruments Market.

#### DISSEMINATION OF KNOWLEDGE

As in previous years, TGE was involved in projects aimed at spreading knowledge on regulated commodity trading in the school and academic environment. These activities resulted in participation in:

- XV National Energy Competition, organised by the Climate Aware Foundation;
- Academy of Energy, organised by the Leslaw A. Paga Foundation;
- Go4Poland programme and the 'Student sessions on the trading floor' project implemented by the WSE Foundation.

Another group of activities to promote awareness of regulated trading, this time among market participants, was the organisation of three seminars in the series: "Promoting a consistent approach in the process of supervising wholesale trading in energy products and developing uniform supervisory standards to prevent abuses in the exchange market".

### "PLATINUM MEGAWATTS" MEDIA COMPETITION AND MEDIA COOPERATION

The "Platinum Megawatts" media competition, by virtue of its long tradition, has become a permanent fixture on the calendar of the most important events of the year, not only for TGE members, but also for all energy market stakeholders. The assumption behind this event, which is being organised for the ninth time now, is to popularise high quality journalism based on the principles of ethics and objectivity, while at the same time presenting issues related to the functioning of the energy sector in a way that is usually not easy and, at first glance, complicated. The honorary patronage of the 2022 edition was assumed by the Minister of State Assets, the Minister of Climate and Environment and the President of the Energy Regulatory Authority. Among partners were: TAURON Polska Energia S.A. (Strategic Partner), Fortum Power and Heat Polska Sp. z o.o., Gaz-System S.A., Izba Rozliczeniowa Giełd Towarowych S.A., PGE Polska Grupa Energetyczna S.A., PGE Energetyka Kolejowa S.A., Polskie Sieci Elektroenergetyczne S.A., Respect Energy S.A. and Veolia Energy Contracting Poland Sp. z o.o. The award ceremony took place on 24 May 2023, while on 15 November 2023, in cooperation with TAURON Polska Energia S.A., a workshop for journalists was organised on energy transition and the challenges facing market participants.







#### /TGE EDUCATES/

# DIALOGUE WITH MARKET PARTICIPANTS AT NATIONAL AND INTERNATIONAL LEVEL

## NATIONAL COOPERATION

TGE MAKES DEVELOPMENT DECISIONS BASED ON CONSULTATION AND COOPERATION WITH MARKET PARTICIPANTS, BOTH AT NATIONAL AND REGIONAL LEVEL. IT USES A VARIETY OF CHANNELS, TOOLS, ESTABLISHED ADVISORY BODIES AND ENGAGES IN WORKING GROUPS FOR THIS PURPOSE.

#### MARKET COUNCIL

The Market Council is an advisory body to the management of TGE with regard to the development of the product offering and the optimisation of solutions for entities operating on the exchange market. It comprises representatives of key energy market stakeholders, such as Gas Transmission Operator Gaz-System S.A., the Polish Chamber of Broker Houses, the Polish Chamber of Industrial Power Generators and Energy Consumers, the Chamber of Natural Gas Industry, the Polish Association of Commercial Heat and Power Plants, the Association of Energy Trading, the Polish Power Plants Association, the Renewable Energy Association, the Polish Wind Energy Association, the Union of Private Employers in the Energy Sector (Lewiatan), EFET, as well as representatives of TGE and the IRGiT.

#### AGRICULTURAL MARKET COUNCIL

Apart from the Market Council, the Agricultural Market Council also performs consultative and advisory functions for the TGE's Management Board on matters relating to the development of the Exchange Agricultural Market, including the Authorised Warehouse System.

It comprises representatives of the agri-food industry, in particular the most important organisations related to the agricultural sector, scientific institutes, public administration bodies and the also delegates of WSE CG.

#### **WORKING GROUPS**

In 2023 TGE continued activities resulting from the sectoral agreements signed a year earlier, aimed at launching the biomethane and hydrogen market in Poland. In implementing the assumptions arising from these agreements, representatives of the Exchange actively participated in working groups under the patronage of Ministry of Climate and Environment:

- Coordinating Council for the Hydrogen Economy;
- Coordinating Council for Biogas and Biomethane Development;
- Group 7 on Avoided Emissions (the so-called biomethane team).



#### TGE COMMUNICATION INITIATIVES

#### TGE Update

Two meetings were held in 2023 in an online format as a part of this recurring initiative aimed towards TGE members, which provides an opportunity to learn about relevant issues related to the stock market.

#### **Trading Forum**

On 26-28 June 2023, TGE organised the XV Trading Forum in Ostróda. The substantive part of the event consisted of two panels:

- The energy market in the new regulatory environment;
- The gas market opportunities and challenges in the area of infrastructure and regulation.

Participants also had the chance to attend three thematic workshops on new developments being introduced at TGE:

- New product development;
- New animation model;
- New billing system.



## INTERNATIONAL COOPERATION

For years, TGE has been committed to active participation in various international initiatives, thus supporting the continuous development of exchange trading in Poland, which is a manifestation not only of following global trends, but also of creating them.

Guided by this motivation, representatives of the TGE actively worked within the framework:

- **forum of the SEEGAS initiative**, set up by the Energy Community Secretariat to coordinate activities and harmonise visions and practices with regard to the development of a common and integrated gas market in the South-Eastern Europe region;
- international working groups, to develop optimal tools for the integration of the European energy market, operating within the NEMO Committee and the Market Coupling Steering Committee;
- Europex working groups.

In pursuing its vision of promoting exchange trading, in 2023 TGE also carried out activities related to supporting initiatives in this area in non-EU countries:

- in April, the TGE signed a Memorandum of Understanding with the Moldovan state-owned company Energocom, to exchange experience, in particular to familiarise the Moldovan partner with the principles of operation of the commodity exchange markets for electricity and natural gas;
- in September, TGE, IRGiT and the Ukrainian Energy Exchange (UEEX) signed a Memorandum of Understanding, to strengthen cooperation with the Ukrainian side, using the knowledge and experience of TGE CG in running the exchange market.







#### /TGE EDUCATES/

# ESG ON TGE

AS AN MANIFESTATION OF TGE'S EFFORTS TO CREATE BEST PRACTICES IN BUSINESS ETHICS, THE COMPANY DEVELOPS AND IMPLEMENTS SOLUTIONS THAT FOSTER RESPONSIBLE FUNCTIONING IN THE BUSINESS ENVIRONMENT. THIS RESPONSIBILITY MEANS CARRYING OUT STRICTLY ECONOMIC FUNCTIONS RELATED TO WORK TO INCREASE THE VALUE OF THE COMPANY ITSELF, BUT IT ALSO INCLUDES LESS TANGIBLE ASPECTS, SUCH AS CARING FOR THE SOCIAL OR ENVIRONMENTAL DIMENSION OF ITS OPERATIONS. AN ILLUSTRATION OF SUCH A HOLISTIC APPROACH IS ADHERENCE TO ESG (ENVIRONMENT, SOCIAL, GOVERNANCE) PRINCIPLES, AS REFLECTED IN "WSE GROUP ESG STRATEGY 2025".



In recognition of the direction taken by TGE and the entire WSE Group in terms of creating models for responsible business, the London-based magazine Capital Finance International (CFI.co) honoured TGE for the fourth time, this time awarding the Exchange the title Best Commodities Exchange ESG Strategy Europe 2023.











#### TOWAROWA GIEŁDA ENERGII S.A.

4 Książęca Street, 00-498 Warsaw phone +48 22 341 99 12 press@tge.pl

tge.pl | air.tge.pl | gpi.tge.pl

