



# 2019 ANNUAL REPORT

[...] We have created a transparent and reliable trading platform. We have built one of the largest exchanges in Central and Eastern Europe, which can confidently compete with other exchanges in the region in terms of liquidity and commercial offer.

AT THE HEART OF CENTRAL EUROPEAN POWER AND GAS TRADING

# AR2019

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#### Dear All,

It is a great pleasure to summarize the operations of the Polish Power Exchange as part of our cyclical publication, annual report, for the third time as the President of the Management Board. Two decades of functioning of the exchange is a time of intensive development, continuous raising of standards and dialogue with market participants. Over the past 20 years, we have created a transparent and reliable trading platform. We have built one of the largest exchanges in Central and Eastern Europe, which can confidently compete with other exchanges in the region in terms of liquidity and commercial offer.

This is confirmed by the events that took place on TGE last year. 2019 brought an increase in the trading volume on the electricity and natural gas markets. In the case of electricity, trading increased by 1.3%, while natural gas by 2.0%. At the same time, electricity trading on TGE accounted for 151% of the energy consumed in the country. The proportion for natural gas was 67%.

In 2019 we also focused on acting as an integrator and creator of the internal electricity market in cooperation with transmission system operators. At the beginning of last year, we introduced a multi-element program to improve liquidity on the electricity market, the effects of which we analysed, and then adapted the mechanism to market expectations.

TGE is taking measures to increase liquidity as well as to create new markets. In March 2020, we launched a pilot program for trading agri-food products. We also analyse the launch of the secondary capacity market and the potential broadening of our offering for RES.

The Exchange actively participates in the project regarding the creation of a regional gas hub in Poland.

Activities integrating European energy markets remain a priority for TGE. Today, the gas hub is still a plan, but it is very realistic due to Poland's location and diversified supply sources accompanying the organized exchange market. In 2019, we launched the Intraday Market in the XBID model. TGE has also participated in international forums for exchanging experience on commodity exchange markets for many years. We are a member of the Association of European Energy Exchanges Europex, the global Association of Power Exchanges APEx and AFM (Association of Futures Markets). As a Nominated Electricity Market Operator (NEMO), we are involved in the efforts of the Committee working out the principles of international cooperation on the European electricity market.

One of the pillars of TGE's activity on the Polish market is ensuring its transparency. In 2019, we continued our multi-dimensional information and education policy. Energy market participants had free access to current data, analyses and information about the markets run by TGE in dedicated news portals, RSS channels, bulletins and in electronic correspondence. TGE was also a partner in conferences and initiatives aimed at increasing awareness of energy markets among market participants and talented young people.

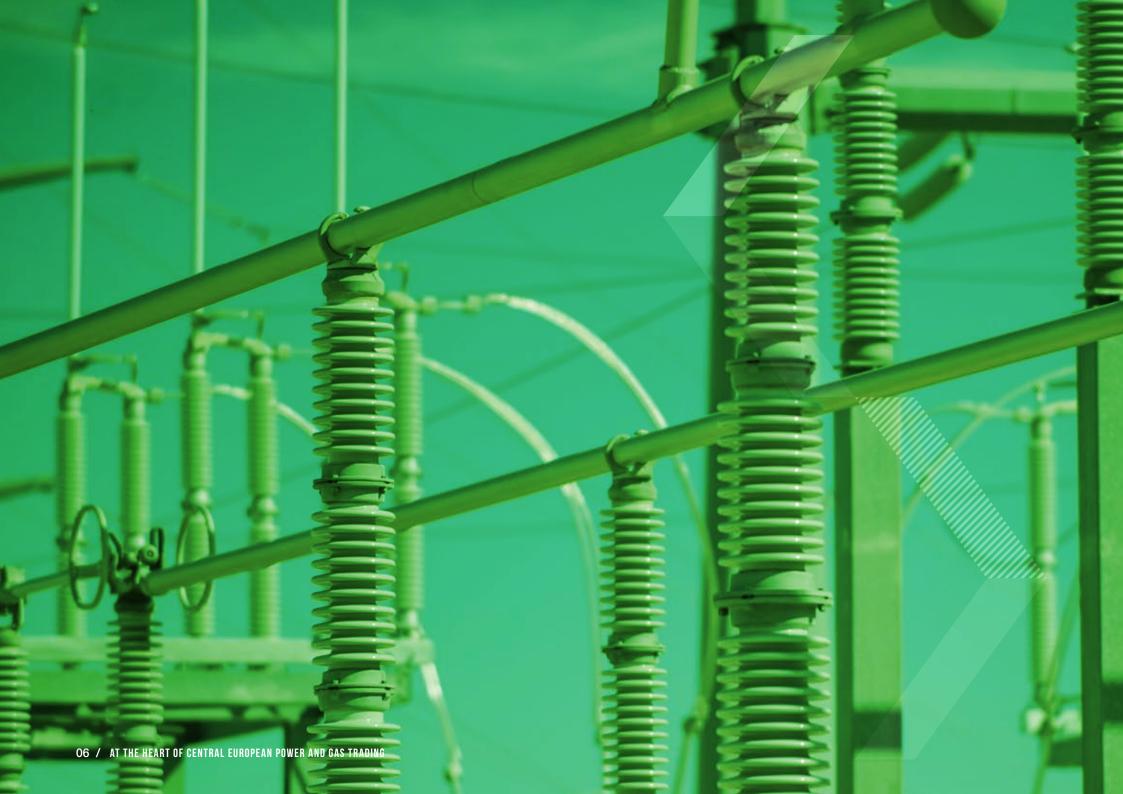
After twenty years of operation, there is no doubt that the Polish Power Exchange is one of the pillars of the Polish energy market. This is a source of pride for me, my predecessors and the entire TGE team, which for years has worked on the development of the Exchange. It is also a prognosis for the future and an unspoken ambition to strive to be better. 2020 and the following years are challenges related

to the integration of markets, expanding the product offer, entering the Polish market into new European regulations and continuous improvement of our services in line with the expectations of Members. After twenty years, I am sure that our team will not only cope with these challenges, but will also introduce even higher standards that we will be able to share on the Polish and international market.

I kindly invite you to read the report.

To the forestar

Piotr Zawistowski President of the Board of Towarowa Giełda Energii S.A.



GE VISION AND MISSION STATEMENT

KEY EVENTS IN 2019

HISTORY OF THE POLISH POWER EXCHANGE – 20 YEARS OF ACTION TOWARDS A COMPREHENSIVE OFFER AND INTEGRATION

AREAS OF OPERATION OF THE POLISH POWER EXCHANGE IN 2019

「GE CAPITAL GROUP – A COMPREHENSIVE OFFER FOR PARTICIPANTS

TGE MANAGEMENT

TRANSPARENT ENERGY MARKETS

INTEGRATION OF MARKETS – TGE ON THE EUROPEAN ENERGY MARKET

INTEGRATION OF MARKETS - COOPERATION WITH INTERNATIONAL ORGANIZATIONS



# ROLE OF TGE

# TGE VISION AND MISSION

# **STATEMENT**

# Mission



Supporting the country's energy security policy by providing access to energy and natural gas markets at acceptable reference fuel prices in cooperation with transmission system operators who ensure their uninterrupted supplies.



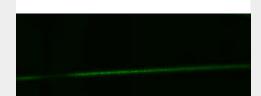
Ensuring the operation of commodity and financial markets under transparent pricing rules and transaction procedures.



Enabling access to transparent markets and ensuring the security of trading through its supervision according to EU standards and requirements, and by providing market information and clearing services.

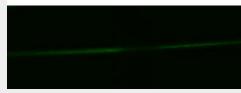


Maintaining the position of the first choice platform for transactions concluded on the gas and electricity market in Poland.









# Vision



Maintaining the position of the leading exchange in terms of liquidity and commercial offer in the region of Central and Eastern Europe, thanks to the knowledge and competencies of employees, technology and top quality of the services provided.



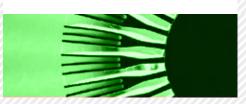
Acting as an integrator and creator of the internal electricity, gas and liquid fuel market in cooperation with transmission system operators.

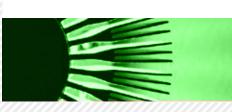


Supporting the development of the Polish economy by offering various products for commodity and financial markets related to its key sectors.



Active participation in building the internal European electricity and gas market.







# **KEY EVENTS IN 2019**

# - 2019 WAS THE 20<sup>™</sup> YEAR OF TGE'S ACTIVITY

In addition to our team's daily activities for co-creating the Polish energy market, we have taken measures to further increase the liquidity and internationalisation of electricity trading.

The Liquidity Improvement Program launched at the beginning of the year proved to be effective. In April, the new market making model was joined by PGE GiEK S.A. – the largest energy producer in the country. In July 2019, the Management Board of the Exchange decided to extend the pilot Maker-Taker program until the end of the year, under changed conditions for most listed instruments of the Electricity Derivatives Market.

In November 2019, TGE launched the cross-border Single Intraday Coupling market in the XBID model. The launch was preceded by the signing of an agreement with a foreign partner in March to implement an application enabling transactions in this market.

The SIDC in the XBID model connects domestic Intraday Electricity Markets within the European Union and enables continuous cross-border trading between entities from most European countries. Poland is one of the seven countries that joined the SIDC in the second implementation wave.

In the fourth quarter of last year, TGE submitted applications to the Polish Financial Supervision Authority for running an organized trading facility (OTF) and for re-authorization with regard to operating the auction platform for CO2 emission allowances. Listing of this instrument began in July on the Market in Financial Instruments.

In November 2019, TGE celebrated the 5th anniversary of the Register of Guarantees of Origin, which currently deals not only with guarantees of origin of energy produced in renewable energy sources, but also since last year with guarantees of origin of electricity produced in high-efficiency cogeneration.



#### **JULY**

Publication of the analysis of the effectiveness of the "Maker-Taker" Program, decision to extend the program until the end of this year.

Launch of trading in CO<sub>2</sub> emission allowances on the Financial Instrument Market.

### **NOVEMBER**

5th anniversary of the Guarantee of Origin Register. Currently, it is not only trading in guarantees of the origin of electricity generated in renewable energy sources, but also guarantees of the energy generated in the process of high-efficiency co-generation.

Application to the Polish Financial Supervision Authority for re-authorization in the field of running a  $CO_2$  auction platform.

Launch of the cross-border SIDC market in the XBID model, which connects national Electricity Intraday Markets within the European Union and enables continuous cross-border trading.

# JANUARY, FEBRUARY

Launch of a comprehensive Liquidity Improvement Program (Maker-Taker, Fast Market, New Making Model).

#### **APRIL**

PGE GiEK S.A. became the first maker in the new making model.

# MARCH

Signing of the contract with Deutsche Boerse AG for the development of the M7 application that allows for conclusion of transactions on the intraday electricity market in the XBID model.

### JUNE

Launch of the new TGE website: www.tge.pl

### OCTOBER

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Introduction to trading, as part of the Guarantee of Origin Register, of guarantees of origin for electricity generated in high-efficiency co-generation.

Application to the Polish Financial Supervision Authority to run an organized OTF trading platform.

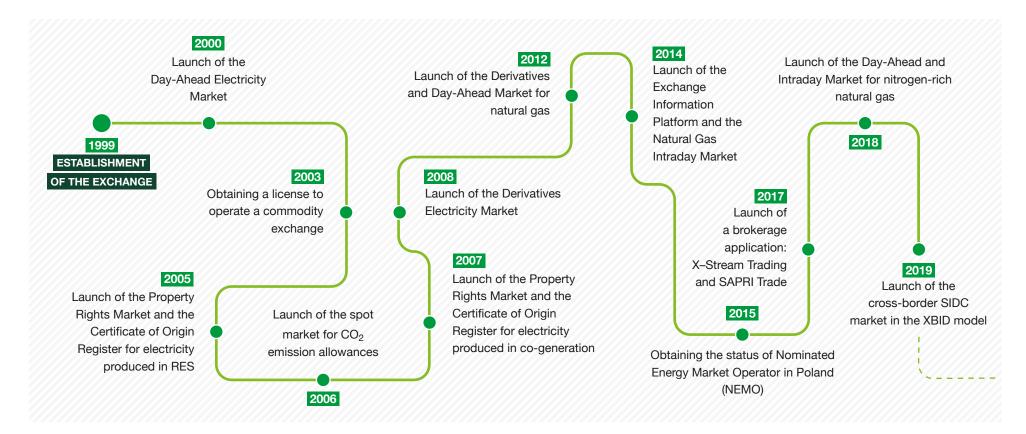
# HISTORY OF THE POLISH POWER EXCHANGE

## - 20 YEARS OF ACTION TOWARDS A COMPREHENSIVE OFFER AND INTEGRATION

#### The Polish Power Exchange was established in 1999.

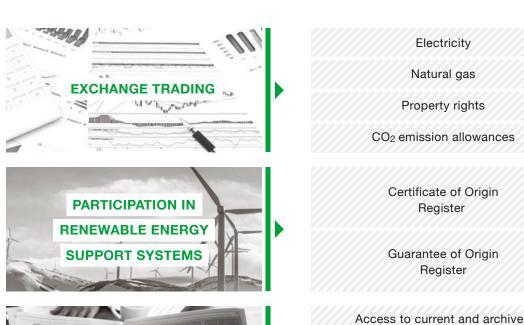
Over the past 20 years, the activities undertaken by the Company have aimed at creating a liquid market of energy products and property rights as well as strengthening the position of a reliable partner for Exchange Members and other market entities, including those using the exchange market with

the participation of intermediaries. TGE pursued its mission and vision by constantly expanding its offer, actively participating in the integration of European energy markets as well as information and education activities. Below, there is a list of the key events, however, it is the daily effort of the TGE Team and projects that quite often go by unrecorded on the list below that build the trust placed in the Exchange by the legislator and everyday market participants.



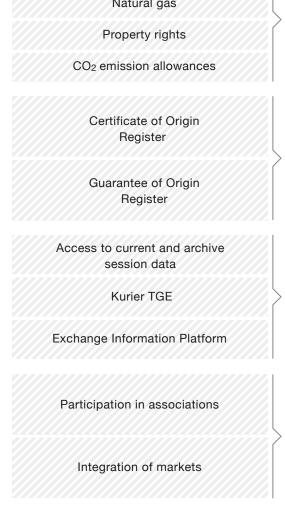
# AREAS OF OPERATION OF THE POLISH POWER EXCHANGE

- IN 2019











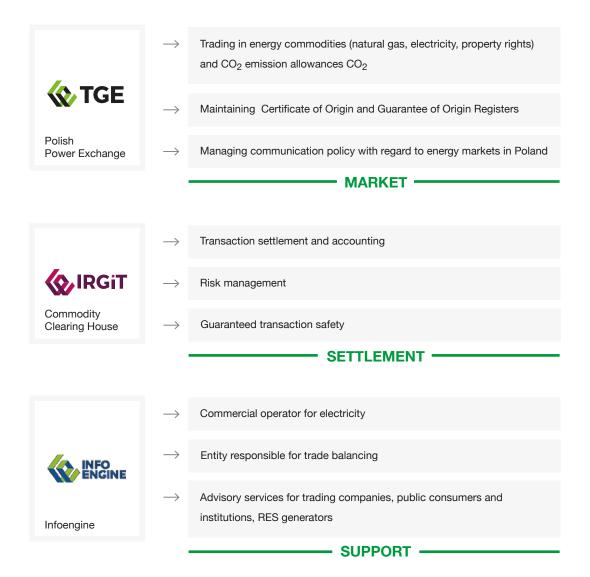
# TGE CAPITAL GROUP

# - A COMPREHENSIVE OFFER FOR PARTICIPANTS

Since 2012, the Polish Power Exchange has been part of the Warsaw Stock Exchange Capital Group - the sole owner of GK TGE.

Presently, the TGE Capital Group comprises three entities that jointly complement each other to create a friendly business environment for Members on the Polish energy markets. The share of revenues from commodity markets operated by TGE in the Warsaw Stock Exchange Capital Group reached a level of as much as 44.6% in 2019, which was an increase of 0.3 percentage point compared to 2018.





# TGE MANAGEMENT

# - PRESIDENT

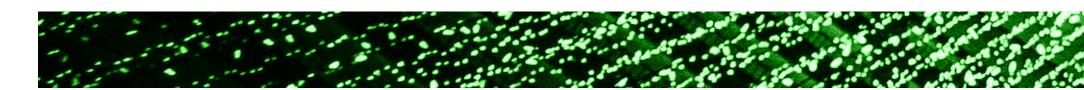
# President of the Management Board

Piotr Zawistowski has 20 years of experience in the energy sector. In the years 2008-2017 he was connected with the TAURON Group, in which from May 2014 to December 2015 he was the President of the Management Board of TAURON Customer Service Sp. z o.o., and from December 2015 to March 2017, the Vice President of the Management Board for Customer and Trade TAURON Polska Energia S.A. Here among other activities, he was responsible for the development of the TAURON Group offer in the area of electricity and gas. He took the position of the President of the Management Board of the Polish Power Exchange in October 2017.

In the years 2016-2017 he was the President of the Management Board of the Energy Trading Association, member of the Management Board of the Polish Electricity Committee and sat on the Supervisory Board of TGE. He is the Chairman of the Supervisory Board of the Commodity Clearing House, and since January 2020 he has sat on the Management Board of the Association of European Energy Exchanges Europex.

Piotr Zawistowski is a graduate of the Wrocław University of Economics, where in 2002 he completed a Master in Business Management studies.

In 2007 he completed postgraduate studies in Sales Management at the WSB University in Wrocław.



# TGE MANAGEMENT

- VICE PRESIDENTS

# DR PAWEŁ OSTROWSKI

Vice President of the Management Board

Paweł Ostrowski has over 15 years of professional work experience in the capital market. He has worked for such institutions as PKO Bank Polski S.A., Societe Generale, Deutsche Bank Polska S.A. and BNP Paribas Polska S.A. Since 2007, he has held the position of the Sales Director in the Treasury Department of PKO BP Bank Polski S.A. He specialises in sales of treasury products and instruments securing commodity and interest rate risks. He has participated in projects related to implementing the MiFID I package and the merger with Nordea Bank Polska S.A. He has been a member of the Management Board of TGE since November 2016.

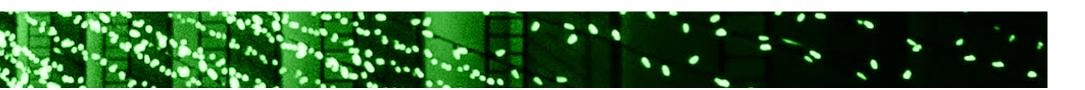
Paweł Ostrowski graduated from the SGH Warsaw School of Economics where he obtained a Ph.D. Degree on the basis of his dissertation entitled: "The use of derivatives in the management of exchange rate risk in an enterprise". He also graduated from the MBA Programme of the University of Illinois at Urbana-Champaign and the Faculty of Management at the University of Warsaw, and post-graduate studies in capital markets at the Faculty of Law and Administration of the University of Warsaw.

# PIOTR LISTWOŃ

Vice President of the Management Board for Operational Activities Piotr Listwoń has many years of experience in trading and settling commodity derivatives markets, market in financial instrument and international transactions carried out under the mechanism of connecting European electricity markets. He has been associated with the TGE Capital Group since 2008, where initially he was involved in works on launching the operational activity of Izba Rozliczeniowa Giełd Towarowych S.A. (IRGiT - Exchange Clearing House) and was in charge of the implementation of an advanced payment system in IRGiT. From 2013 to 2018, he held the position of the Director of the Settlement and Clearing Department and International Cooperation Development in IRGiT. At that time he also represented the Company in the General Meetings of EACH (European Association of CCP Clearing Houses) bringing together CCP clearing houses in Europe.

Since April 2018, he has been the Vice President of the Management Board of the Polish Power Exchange, where he is responsible for the operational activity of the Exchange and the development of the product offer. He supervised, together with others, the launch of the European Intraday Market (XBID) on a 24/7/365 basis and launch of commodity derivatives on the organized trading facility (OTF). Since April 2018, he has been a member of the Supervisory Board of the Warsaw Stock Exchange Foundation.

Piotr Listwoń is a graduate of the Faculty of Strategic Management at the College of Management (POU/Oxford Brookes University), where he also obtained an MBA diploma.



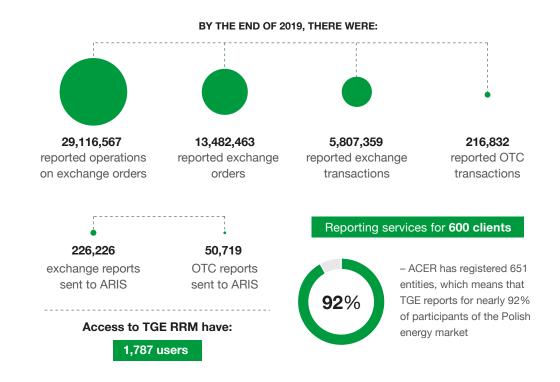
# TRANSPARENT ENERGY MARKETS

# The transparency of energy markets has always been a part of the mission of the Polish Power Exchange.

On one hand, it concerns the principles of market operation and transaction procedures. On the other hand, it is important to ensure their transparency for market players, including the publication of reliable and current market information. In 2019, TGE presented a new version of the corporate website along with a full range of data and information to analyse markets for both professionals and people not involved in the energy sector. The TGE's understanding of energy markets transparency takes into account several aspects including the scope and detail of provided information, its timeliness and access to multiple channels. TGE has also been running a dedicated information service - the Exchange Information Platform (GPI) for several years. Site visitors are able to familiarise themselves with data relating to the Polish electricity market and REMIT data. The users of both the GPI platform and the TGE website can not only get acquainted with data visualization, but they also have the option of downloading data for analysis, which allows them to use the data quickly.

#### **RRM TGE** (Registered Reporting Mechanism)

Since October 2015, TGE has been providing transaction data reporting service in accordance with REMIT requirements and implementation acts for energy and gas market participants. Initially, the reporting service related to orders and transactions made via organized trading facilities while, in April 2016, OTC transaction reporting was launched. All the required information for the electricity and gas markets is reported in accordance with the REMIT Regulation and Regulation 1348/2014 of the European Parliament.















**ENERGY MARKET** 

**NATURAL GAS MARKET** 

PROPERTY RIGHTS **MARKET** 

STEAM COAL **MARKET** 

**REMIT** DATA

**POWER SYSTEM** DATA



Current data

Archive data

Periodic reports

Summar

Analyses

Website

Newsletter

Data

RSS





# INTEGRATION OF MARKETS

- TGF ON THE FUROPEAN ENERGY MARKET

The European energy market is constantly in the integration phase. In 2019, TGE actively participated in the following projects leading to the creation of a common energy area:

- → SDAC Single Day-Ahead Coupling
- → SIDC Single Intraday Coupling

Tasks were undertaken as part of the projects:

**INTERIM COUPLING** 

CORE FLOW BASED MARKET COUPLING

**MULTI-NEMO ARRANGEMENTS** 

**NEMO COMMITTEE** 



#### **INTERIM COUPLING**



The project aims to connect the boundaries of the 4M MC area (Czech Republic, Romania, Slovakia, Hungary) with the pan-European MRC initiative by introducing a default capacity allocation based on the determination of net transmission capacity (NTC) at six borders (PL-DE, PL-CZ, PL -SK, CZ-DE, CZ-AT, HU-AT). As a result, a connection will be created between the 4C MC countries with MRC, enabling the functioning of a single mechanism for connecting day-ahead markets in all 23 European countries.

#### **CORE FLOW BASED MARKET COUPLING**



CORE FB MC is a day-ahead market project that covers the markets of Central European countries and should ensure the integration of the regional market of Central and Central and Eastern Europe – CORE with the MRC market by 2021. In parallel to the CORE, in December 2018, the regional regulators accepted implementation of the Interim Coupling project ensuring an earlier launch of the cross-border Day Ahead Market within the borders of: Germany, Poland, the Czech Republic, Slovakia, Hungary and Romania, using a simplified NTC/ATC methodology.

#### **MULTI-NEMO ARRANGEMENTS**



MNA is a project based on the activities of stakeholders of the Polish price zone, i.e. TGE, EMCO, EPEX SPOT under the direction of PSE, under the provisions of the MNA document, approved by the President of the Regulatory Energy Office. The process is expected to be completed by implementing the Multi-NEMO model in Q1 2020.

#### **NEMO COMMITTEE**



The Committee associating all European NEMOs, which conducts coordination activities of joint projects implemented by NEMO on the intraday and day-ahead electricity markets, based on the NEMO operator cooperation agreement signed in March 2019, All NEMO Cooperation Agreement – ANCA.

# INTEGRATION OF MARKETS

COOPERATION WITH INTERNATIONAL ORGANIZATIONS

TGE's integration activities boiled down not only to participation in projects, but also to constant and well-established cooperation with international organizations, both bilateral and regional, and those with global reach.

TGE is a member of the associations of exchanges and institutions at European level in Europex and at global level in APEx and AFM. Moreover, it is an active participant in the Polish-Lithuanian Chamber of Commerce. Participation in international organizations is a platform for exchanging experiences, promoting competitive markets and developing universal solutions. As an entity with 20 years' market experience, TGE contributes to international initiatives with its expertise and at the same time draws on the experience of other participants of the European energy market.

#### **EUROPEX**

# **Europex**

**EUROPEX** (Association of European Energy Exchanges) is an organization of European commodity and financial energy exchanges, which represents the derivatives markets for electricity and gas. TGE has been a member of EUROPEX since 2005. TGE actively participates in the following working groups: Power Markets, Gas Markets, Environmental Markets, Financial Markets, Integrity & Transparency. The main task of EUROPEX is to increase competition on the European market by ensuring the transparency of pricing procedures and implementing a single European electricity and gas market, which will ensure price equalization and bring measurable benefits to consumers.

#### **APE**x



APEx (Association of Power Exchanges) is an international organization associating global commodity and financial energy exchanges. Its structure includes over 40 organizations from all over the world. The association was established to support the development of energy markets, and the main intention of APEx is to build a platform for the exchange of information and experience between members. TGE has been a member of APEx since 2000.

#### **ASSOCIATION OF FUTURES MARKETS**



AFM (Association of Futures Markets) is an organization that brings together commodity and financial markets. Its structure includes over 23 members from all over the world. The main goal of AFM is to promote and encourage the creation of new derivatives markets, supporting their development and competitiveness. TGE has been a member of AFM since 2014.

#### POLISH AND LITHUANIAN CHAMBER OF COMMERCE



TGE has been a member of the Polish-Lithuanian Chamber of Commerce since 2015. The Chamber is committed to creating a positive climate for Polish-Lithuanian economic ventures, dynamic trade exchange between the two countries, the inflow of investments and the removal of barriers to cooperation between companies in Poland and Lithuania. The Chamber organizes regular club meetings for members, with the aim of networking and knowledge sharing. In 2019, TGE representatives participated in the Baltic Energy Forum and the Polish-Lithuanian Forum as speakers.



POLISH LEGISLATION

EU LEGISLATION



In 2019, legal regulations took on a new shape conditioning both TGE's operations and affecting the business environment of the Exchange Members. Our goal remains the same, which means we prepare a friendly environment for activities on the TGE for market participants and minimize their involvement in the bureaucratic aspects of regulatory changes. Last year, changes in Polish law were primarily amendments to laws. At European level, we were observing the European Green Deal approved in December.

# REGULATORY ENVIRONMENT

# POLISH LEGISLATION

# The Energy Law Act of 10 April 1997

The Energy Law Act is the regulatory backbone of the Polish energy market. At the end of 2018, a decision was made to change it and extend the obligation to sell electricity on the regulated market (including through commodity exchanges) from 30% in force in 2018 to 100% in 2019. The changes introduced in 2019 had and in the future will have an impact on the level of activity of some TGE participants. This may result in changes in the electricity trading liquidity, attractiveness of the commodity market to other participants and, as a result, affect the trading volume.

The amendments to the Energy Law also apply to the expiry as of 1 July 2019 of the support system for certificates of origin for energy generated in the cogeneration process.

On 19 July 2019, under the Act amending the Act on renewable energy sources and amending some other acts – the provisions of the Energy Law have changed (entry into force on 14 August 2019). The term "cancellation of guarantees of origin" has been replaced with the term "redemption". Informing the final recipient about the origin of electricity for which a guarantee of origin has been issued is possible only after it has been redeemed and obtained by the entity maintaining the register of guarantees of origin. This entity confirms its redemption to the holder of such a guarantee within 10 working days from the date of receipt of

the application. Under Article 18 of the above Act, guarantees of origin issued until the entry into force of this Act remain valid for the period for which they were issued.

# The Act on Renewable Energy Sources of 20 February 2015

In 2017, an amendment to the Act entered into force. The subject of the amendment was a change in the rules for calculating the so-called unit substitution fee – departure from the fixed rate of 300.03 PLN/MWh in favour of the amount based on the index calculated on the basis of session transactions carried out in the previous calendar year. The said amendment had an impact on the price of OTC transactions indexed to the level of unit substitution fee also in 2019. In August 2019, the Act was amended again, although this time the changes did not directly concern TGE or the activities of market participants on the exchange but rather the introduction of the prosumer package, expanding its definition and granting it specific rights, as well as specifying the principles of arranging and conducting auctions.

# The Energy Efficiency Act of 20 May 2016

On 29 June 2019, the amendment to the Act entered into force, pursuant to which the validity of white certificates issued by the President of the Energy Regulatory Office was extended by two years (until 30 June 2021). This means that obliged entities will be able to fulfil the "efficiency" obligation with the PMEF instrument for the next two years, 2019 and 2020. The regulation has a positive effect on the trading and redemption of white certificates.

# The Act of 12 June 2015 on the greenhouse gas emission allowance trading system

The act entered into force in 2015 and gave TGE an opportunity to develop a new area of activity. On 20 December 2016, TGE obtained a conditional consent of the Polish Financial Supervision Authority to run an auction platform for  $\mathrm{CO}_2$  emission allowances. On 18 July 2019, the Polish Power Exchange, in cooperation with the Commodity Clearing House, launched trading in  $\mathrm{CO}_2$  emission allowances on the Market in Financial Instruments, thereby enabling Members to conclude transactions for EUA (European Union Allowances) with physical delivery on the spot market.

On 20 February 2020, TGE issued a decision renewing the license of TGE to operate an auction platform on which two-day spot will be auctioned within the meaning of the Act on Trading in Financial Instruments. The next stage will be the participation of TGE in the tender of the Ministry of Climate for running an auction platform for Polish emission allowances. The necessary and final stage is obtaining the inclusion of the national auction platform in the list of auction platforms in Annex III of Regulation (EC) No. 1031/2010. Running the auction platform will have an impact on the development of the emission allowance market operated by TGE and will increase its liquidity.

# Act of 29 July 2005 on Trading in Financial Instruments

Although the Act had been on the Polish market for a long time, it was its provisions that largely influenced the actions taken by TGE last year. Following the consent of the Minister of Finance to operating the exchange within the meaning of the Act and approval of the rules of trading in the Market Financial Instruments in 2014, new trading opportunities opened up for TGE. In 2019, the Management Board of Towarowa Giełda Energii S.A. approved the current consolidated text of the Financial Instrument Regulations. CO<sub>2</sub> emission allowances may be traded on the Markets in Financial Instruments.

Based on the provisions of the Act on Trading in Financial Instruments, on 20 December 2018, TGE submitted an application to the Polish Financial Supervision Authority for permission to operate an OTF, within the meaning of the above-mentioned Act. OTF regulations submitted by TGE provide for trading in instruments on the following markets: The Commodity Market for Electricity Supply Products, The Commodity Market for Gas Supply Products, The Commodity Market for Property Rights. The term instrument is understood as a forward contract concluded on an OTF, as a result of which rights or obligations arise, being or not being a financial instrument, provided that an instrument that is not a financial instrument is physically settled (within the meaning of Directive 2014/65 / EU Section C point 6).

By decision of 16 April 2020, the Polish Financial Supervision Authority (KNF) granted TGE permission to operate an OTF. TGE set the date of trading on the OTF as of 1 May 2020.



# **EU LEGISLATION**

European regulations have to a large extent shaped and will continue to shape not only international energy markets, but also domestic trading in energy products.

2019 was another year in which the impact of the Third Energy Package regulations of 2009 and the so-called The Clean Energy Package proposed by the European Commission in 2016 and adopted in its final form in 2019 was observed. The implementation of support programs for renewable energy sources in EU countries has contributed to their rapid development in recent years. Along with the drop in renewable energy prices, the effects of changes are visible on domestic energy markets. The observed changes include in particular:

- A gradual displacement of traditional technologies from the market by renewable technologies
- A downward trend in energy prices on domestic markets with a high share of renewable sources
- In the case of countries with a relatively small share of cheap renewable sources, such as Poland, an increase in imports of cheaper energy from countries with a high share of renewable sources
- Increased energy price fluctuation due to the unpredictability of renewable sources with their growing market share
- Increased problems with the effective contracting of energy produced by renewable sources and with its balancing

The increase in the share of renewable sources on domestic markets within the FU and the increasing technical constraints with their contracting and balancing resulted in taking remedial actions in the organization of electricity spot markets (SDAC, SIDC), increasing the flexibility of these markets. Increased flexibility will consist in the mandatory introduction of new 30-minute and 15-minute market products across the EU, the introduction of additional auctions on intraday markets as a supplement to continuous trading, harmonising rules and making balancing markets operated by national TSOs more flexible.

The downward trend in energy prices, in turn, forced the introduction of additional financing for traditional energy generation technologies in the form of the so-called "capacity markets", ensuring the stabilisation of the operation of power systems and reserving partly unpredictable renewable sources.

# **CACM Regulation**

The third energy package also regulates the integration of national energy markets. In 2011, the governments of EU Member States made commitments to develop jointly the electricity spot market. In the CACM Regulation published in July 2015, the obligations of exchanges and operators as well as regulators' activities were further clarified. For TGE, the nomination for the position of Nominated Electricity Market Operator (NEMO). obtained on 2 December 2015, was an impulse for intensive activities in international projects of the intraday market and the day-ahead market.

On 2 December 2019, the President of the Energy Regulatory Office again awarded TGE the NEMO status for conducting a single mechanism for connecting European day-ahead and intraday energy markets for the Polish price area.

The adopted formula of publication of the CACM Regulation means that TGE has been subject to specific obligations to implement new market solutions, along with their detailed implementation schedule. With regard to the NEMO operator's obligations on the electricity spot market, as an entity holding a commodity exchange license, TGE is subject to supervision by the Polish Financial Supervision Authority. However, as NEMO, along with IRGiT, it is supervised by the Energy Regulatory Office.

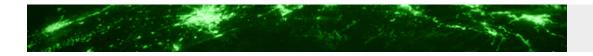
In 2017, the Market Coupling Operations Plan (MCO) was approved by the Regulators' Forum, including the Energy Regulatory Office. It describes the principles of operation of single energy markets: the day-ahead market – SDAC (Single Day Ahead Coupling) in the PCR model, and intra-day market – SIDC (Single Intraday Coupling) in the XBID model. Day-ahead and intraday market documents, including specifications and requirements for algorithms, minimum and maximum prices, commercial products and operational procedures, were also prepared. After preparing the Polish version, TGE submitted these documents to the Energy Regulatory Office for approval. Although the European deadline for the full launch of the spot

market expired in June 2018, i.e. within 12 months after the regulators approved the MCO document, it is realistically assumed that the work will be continued jointly by the exchanges within the NEMO Committee for at least the years 2019-2021.

# Commission Regulation (EU) No 1031/2010 of 12 November 2010

Regulation on the timing, administration and other aspects of auctioning of greenhouse gas emission allowances pursuant to Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowances trading within the Community (as amended) – regulates, among other items, terms and conditions of conducting an auction on the  $\rm CO_2$  auction platform, reflected in the exchange regulations of TGE regarding the operation of the auction platform.

In addition to the regulations mentioned above, special attention should be paid to the regulation presented at the end of 2019 – The European Green Deal, aimed at shaping sectors, including energy, which enables more efficient use of resources through the transition to a clean economy. The Action Plan deals with halting climate change, reducing pollution as well as the necessary investments. Climate neutrality goal applies to all sectors of economy. In the coming months, we can expect proposals for legal acts implementing the European Green Deal. The Polish Power Exchange will closely monitor the proposed and implemented changes, and inform the market about new ventures.





TGE OFFER

– the full spectrum of the Polish market on one platform

ELECTRICITY ON TGE

- A LIQUID ELECTRICITY MARKET IN THE LARGEST COUNTRY IN THE REGION

NATURAL GAS ON TGE - 2019 WITH THE HIGHEST TRADING VOLUME IN HISTORY

RES – INCREASING RENEWABI E ENFRGY GENERATION ON THE POLISH MARKET.

INDICES IN THE COAL MARKET

CORPORATE SOCIAL RESPONSIBILITY – EDUCATION AND MARKET CONSULTATIONS

PLANS FOR 2020





# TGE OFFER

# - THE FULL SPECTRUM OF THE POLISH MARKET ON ONE PLATFORM

For 20 years, the Polish Power Exchange has been taking measures to create a single energy trading platform on the Polish market, on which participants will receive a comprehensive offer.

We enable our members to trade short- and long-term products. The consolidation movements observed in recent years on European exchanges tend to provide Members with trading services in one place. In the case of TGE, a comprehensive offer under one roof results directly from the mission of the Exchange, which aims to maintain the position of the first choice market for transactions concluded on the markets for gas and electricity, property rights and guarantees of origin in Poland.

The development of TGE's offer is part of European trends, in particular the integration trend to create a common electricity and natural gas market. Launched in November 2019, the intraday market in the XBID model is one of the steps in this direction, while for a long time the object of trading on the trading floor has been electricity from international exchange. In accordance with the mission of TGE. it will continue to develop its offer under one roof.

# The offering of selected energy exchanges in Europe

Product	Product SPOT MARKET			COMMODITY MARKET			INSTRUMENTS		
Exchange	B	(A)		V	(A)		$\overline{\mathcal{G}}$	Ŕ	
TGE	Х	Х	х	Х	Х	Х			Х
Nord Pool	X								
Nasdaq Commodities							X	Х	
EEX (group)	Х	Х		Х	Х		Х		
PXE	Х	Х			Х		х		
OTE	Х	Х							
HUPX (group)	Х	Х		Х	Х		Х		
ICE Endex	Х	Х		Х	Х		Х	Х	





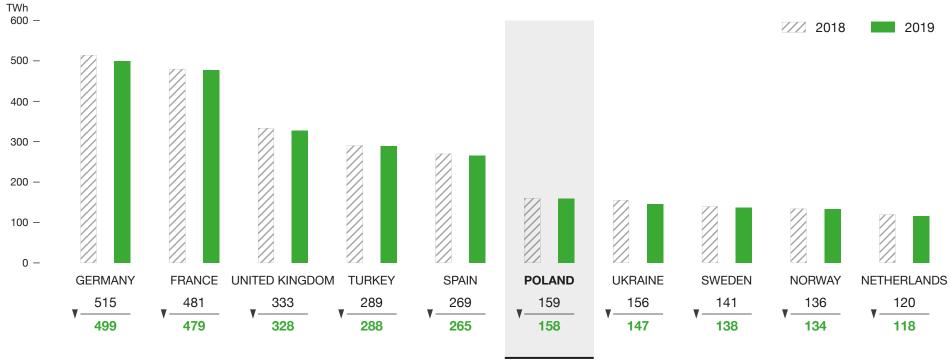
# **ELECTRICITY ON TGE**

# - A LIQUID ELECTRICITY MARKET IN THE LARGEST COUNTRY IN THE REGION

Poland is the largest consumer of electricity in the region of Central and Eastern Europe. It is also one of the two countries, along with Estonia, which recorded the largest increase in consumption.\*

TGE ended the year 2019 on a market connected with German, Scandinavian, Lithuanian, Czech, Slovak and Ukrainian systems. Today it is the fifth largest energy market in the European Union. The UK's exit from EU structures strengthens Poland's position on the EU energy market, and the role of TGE as a leading player has been strengthened at the beginning of the 21st year of its operation.

# Energy consumption on the 10 largest energy markets in 2018 and 2019



<sup>\* 2018</sup> vs 2019 comparison according to the latest available comparable Eurostat data Source: Eurostat, own analysis

# LIQUIDITY IMPROVEMENT PROGRAM

# - OF THE POLISH POWER EXCHANGE

Since its inception, the Polish Power Exchange has taken actions aimed at raising trading safety standards, and, thanks to consultations with its Members, the Exchange offers solutions improving its functioning.

At the beginning of 2019, the Liquidity Improvement Program was introduced. It consists of many elements such as the "New Making Model" containing the "Fast Market" mechanism and the "Best Maker" program, or a pilot program called "Maker-Taker", which became TGE's response to the need to increase the liquidity of instruments offered by the Exchange on the derivatives market. Particular elements of the Liquidity Improvement Program were the subject of months of discussion with market participants and entities supervising TGE's operations. The new market making model resulted in the acquisition of a new maker on the commodity derivatives market on 1 April 2019, which positively affected the liquidity and security of trading.

The Management Board of TGE decided to continue the pilot "Maker-Taker" Program from 1 August to 31 December 2019 in a changed formula as a mechanism supporting the making of less liquid instruments. Additionally, in order to get market participants interested in increasing liquidity for the instruments covered by the program, transaction fees were reduced from 50 to 25 percent of basic fees for entities initiating the transaction, as part of their own-account operations. Initiators could count on discounts, amounting to the same percentage, in fees for registering positions in the Commodity Clearing House (IRGiT).





#### "MAKER - TAKER" **PROGRAM**



#### Until 30 June 2019

50% reduction of transaction fees for initiators of transactions on own account for all electricity RTT (Commodity Derivatives Market) instruments.

#### As of 1 August 2019

75% reduction of transaction fees for initiators of transactions on own account for all electricity RTT (Commodity Derivatives Market) instruments.

#### **NEW MARKET MAKING CONTRACT MODEL**



Making the TGE market making offer public.

Harmonising conditions for makers.

50%, 75% and 97.5% discounts.

Securing the market maker's role under high volatility ("Fast Market" mechanism).

#### "THE BEST MARKET MAKER" **PROGRAM**



A system that motivates increased activity in the field of market making.

Monthly rankings of market makers.

Promoting the best results by educing fees of up to PLN 20,000 per month.

# TRADING IN ELECTRICITY ON TGE

# - IN THE YEARS 2012-2019

In Poland, trading in electricity with physical delivery on TGE accounted for 151% of domestic consumption\*, making the domestic market one of the most liquid in the region and in the European Union. The structure of trading on TGE is dominated by the derivatives market, whose share in 2019 amounted to 85.2% of the total volume.

Spot markets were characterized by the largest increase, which was 22.1% on the Day-Ahead Market and over 125% on the Intraday Market. It is worth noting that since the launch of the

Intraday Market in the XBID model, i.e. in the last guarter of 2019, the trading volume on this market has increased more than 10-fold compared to the fourth quarter of 2018. The volume of trading on spot markets on TGE in 2019 positions the Polish spot market as one of the largest in the European Union. The increase of 22% recorded in 2019 was the highest among the observed markets. In Poland, the spot market share is traditionally low, while activities integrating markets undertaken in European countries and conducted in Poland by TGE have caused the interest in short-term products.

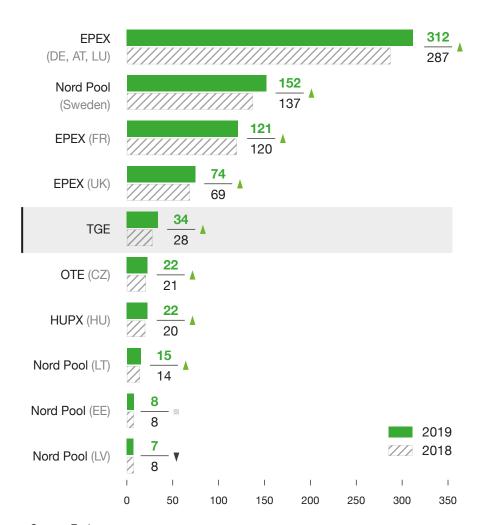
Also on the derivatives market, the volume of electricity trading places Poland in the European top position. In 2019, we observed a further increase in trading volume despite the disruption in 2016-2017 related to the lower effectiveness of the so-called public trading obligation.

# Trading in electricity on TGE in the years 2012-2019

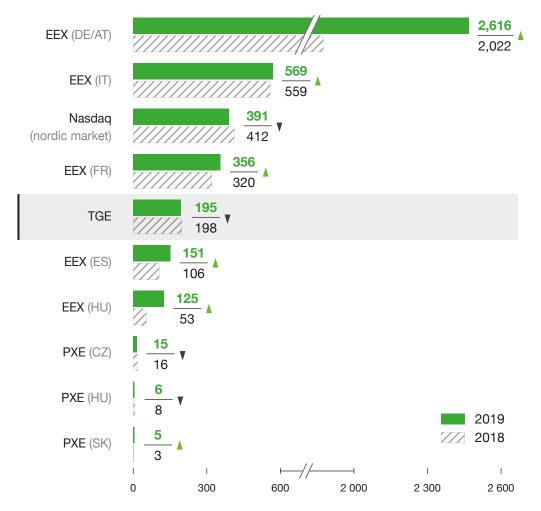


\* With respect to consumption in 2018

# Electric energy trading volume on selected spot markets in Europe



# Electric energy trading volume on selected derivatives markets in Europe



Source: Exchanges

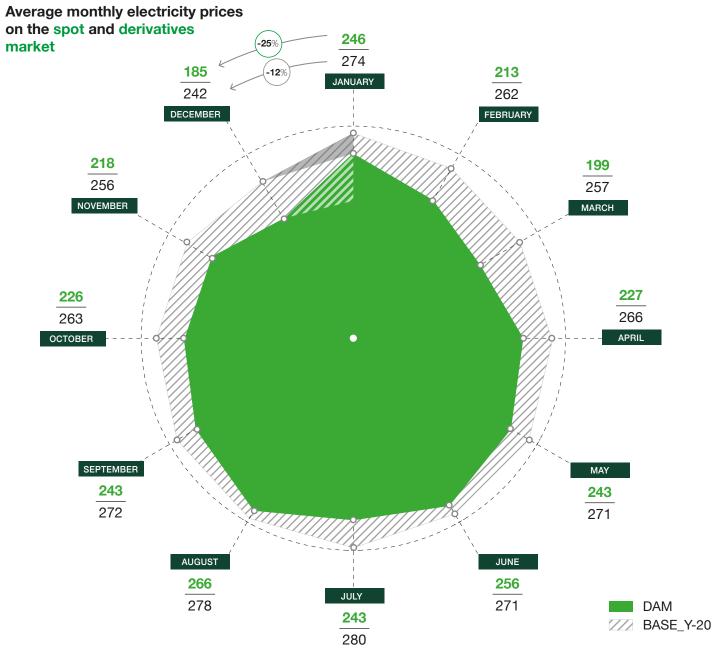
### MARKET PRICES

In 2019, electricity prices fluctuated in electricity markets and while the price of electricity increased in the subsequent quarters a year earlier, in 2019 the prices of the base contract for the coming year remained relatively stable until the end of the third quarter and fell in subsequent months of the last quarter.

The Polish Power Exchange makes every effort to ensure that the product portfolio matches the needs of the Exchange Members. Today it enables securing the portfolio in the long term and balancing and item adjustment in the short term. Day-Ahead Market Instruments, both hourly and block instruments, allow for initial balancing, reliable valuation of electricity on the SPOT market and taken as a basis for investment signals. Traditionally, the derivatives market products allow for item collateralizing, and on the retail market a possibility to offer customers constant prices during the contract period. For 20 years of market activity, we have been a partner for our Members on the electricity market. Our activities focus on cooperation with market entities, on the active shaping and co-creation of international exchange products and on providing a liquid trading environment, among other things, by introducing market-making programs.

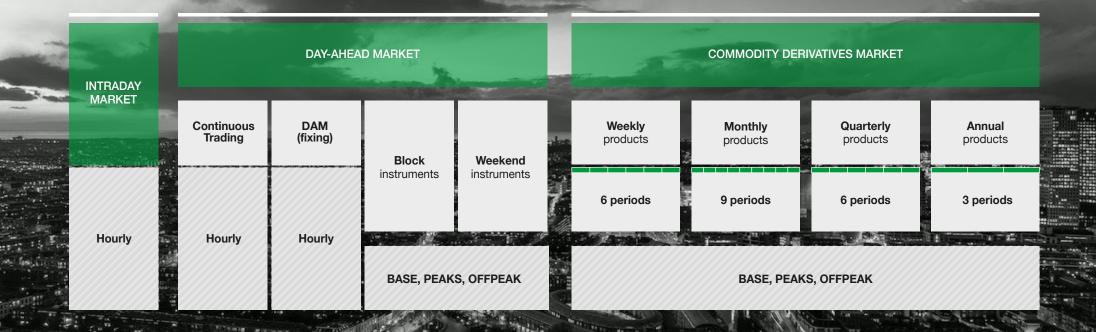
### **Prices on the Day-Ahead Market were also the lowest** in the last quarter.

The price peak was in the second and third quarters. In December, the price of the base contract for 2020 was 242 PLN/MWh and was 12% lower than in January, while the Day-Ahead Market index reached 185 PLN/MWh and was 25% lower than at the beginning of the year.



AT THE HEART OF CENTRAL EUROPEAN POWER AND GAS TRADING

# TGE'S OFFER ON THE ELECTRICITY MARKET



## NATURAL GAS ON TGE

#### 2019 WITH THE HIGHEST TRADING VOLUME IN HISTORY

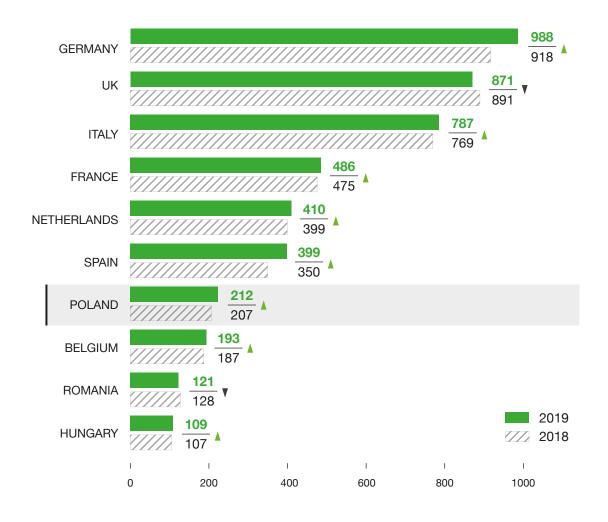
The Polish natural gas market has been one of the fastest growing in the European Union in recent years.

The growth of 2.91% in 2018 was among the 10 biggest consumers of natural gas in the EU. Gas-powered units allow us to believe that the upward trend in Poland continued in 2019 and will also be observed in the coming years.

The Polish natural gas market is different from most EU markets. It is characterized by a relatively large share of domestic production (about 21%) and diversification of sources of supply from abroad. International exchange is possible thanks to the gas pipeline network with the Czech Republic, Germany, Belarus and Ukraine, as well as thanks to the LNG Terminal named after Lech Kaczyński in Świnoujście.

The volume of natural gas trading on TGE in 2019 was 146 TWh and was 2% higher than a year ago. At the same time, it was the highest recorded trading volume on the natural gas market in Poland in history. We have also seen a steady volume growth on the natural gas market.

#### Natural gas consumption on the 10 largest energy markets in 2018 and 2019



Source: BP Statistical Review, Energy Regulatory Office

### TRADING IN NATURAL GAS ON TGE

#### - IN THE YEARS 2012-2019

67% of natural gas consumed in Poland is traded on TGE, which is one of the highest results in the **European Union in countries that are not natural gas** exporters.

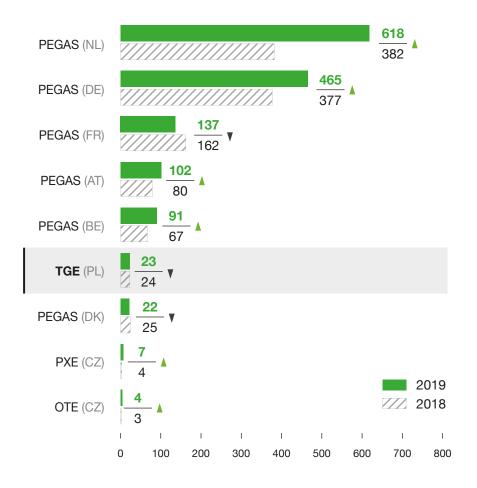
The structure of natural gas trading in Poland resembles the structure of trade on the electricity market - in 2019, 84.5% of the volume is trading in derivatives products. Trading volume on the derivatives market increased by 3.2% compared to 2018, while the spot market recorded a 4.4% decrease.

The year 2019 saw a slight yet steady increase driven by the existing public trading obligation and market structure. The volume of gas trading depends on the level of demand for gas in Poland. On selected gas markets of the European Union there was no homogeneous trend on spot markets. The was a growth in the Dutch, German, Austrian, Belgian and Czech markets, while in France, Poland and Denmark there were declines. The derivatives market in Poland recorded the largest trading volume in the region.

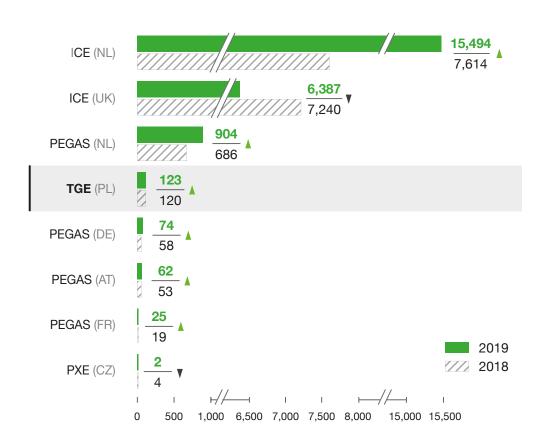
#### Trading in natural gas on TGE in the years 2012-2019



# Natural gas trading volume on selected spot markets in Europe



# Natural gas trading volume on selected derivatives markets in Europe



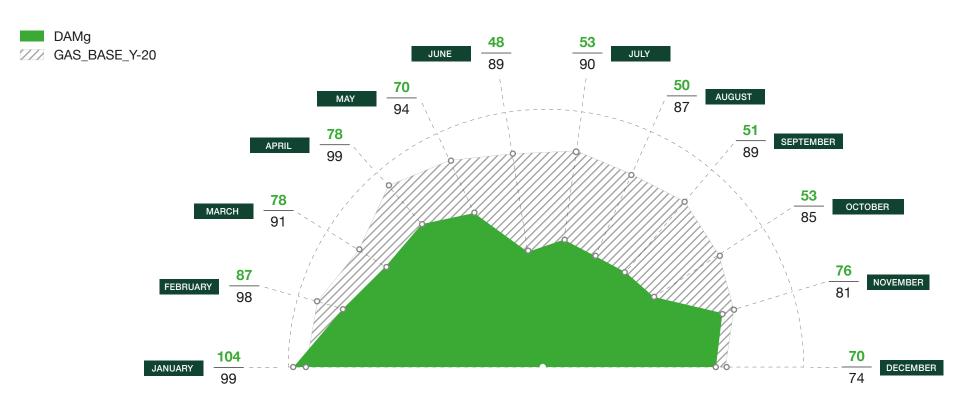
Source: Exchanges

### MARKET PRICES

Natural gas prices in 2019 were the highest at the beginning of the year. The price on the Day-Ahead Market in December was 32% lower than in January, and reached the lowest values in the period of June-September.

The price of the base contract for 2020 was 74 PLN/MWh in December and was 25% lower than in January. For comparison, the natural gas price index on the spot market in December 2018 was PLN 111.65/MWh, while the price of the base contract for 2019 in December 2018 was PLN 106.37/MWh.

Average monthly natural gas prices on the spot and derivatives market



Source: TGE

# TGE OFFER ON THE NATURAL GAS MARKET

TGE's offer on the gas market was enriched in 2018 with market instruments relating to nitrogen-rich natural gas to reflect the structure of the Polish market for this fuel in TGE products.

In 2019, exchange members could make transactions on the Intraday Market in hourly contracts, on the Day-Ahead Market in base, weekend and contracts related to the Transit Gas Pipeline System. The natural gas derivatives market offered weekly, monthly, quarterly, seasonal and annual base products.





High-methane natural gas and nitrogen-rich natural gas



High-methane natural gas

Day-Ahead Market for natural gas Market for natural gas BASE SGT BASE WEEKEND Hourly (high-methane) (high-methane)

Commodity Derivatives Market for natural gas Weekly Monthly Quarterly Seasonal Annual products products products products products 4 periods 3 periods 4 periods 3 periods 2 periods BASE

### RES

#### - INCREASING RENEWABLE ENERGY GENERATION ON THE POLISH MARKET

The property rights market was, along with the electricity and natural gas markets, the third commodity market managed by TGE. Property rights are an instrument to support electricity from renewable sources and energy efficiency.

The RES Property Market has been operating since December 28, 2005. It allows producers to sell their property rights advantageously and energy companies to fulfil their purchase obligations.

The total volume of trading in property rights for electricity last year was 43,896,220 MWh, of which 25,923,678 MWh was for RES energy (in the middle of the year trading in energy from co-generation was completed). For energy generated in renewable energy sources it means a drop by 15.8% compared to 2018. The volume of trading in green certificates (PMOZE and PMOZE A instruments on the Property Rights Market) amounted to 25,309,502 MWh in 2019 (a decrease of 15.8% year-to-year).

In 2019, the weighted average price at PRM sessions for the PMOZE A instrument was 132.19 PLN/MWh, i.e. 28.37 PLN/MWh more than in 2018.

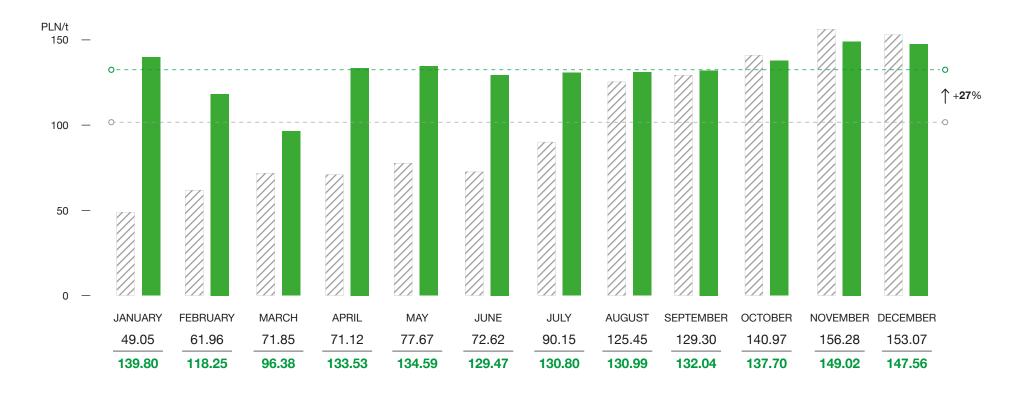
The volume of trading in property rights for energy efficiency in 2019 was 492,163 toe. which means a rise by 49.1% year-to-year and the highest value in the history of trading.

Trading in Guarantees of Origin for electricity generated in renewable energy increased by 13.5 percent in 2019 year-to-year, to the volume of 19,124,096 MWh. In December 2019, this trading volume amounted to 1,996,929 MWh (decrease by 52.3% year-to-year), for which the weighted average price was 0.97 PLN/MWh (decrease by 0.08 PLN / MWh compared to November 2019). In December, the first transactions in the Guarantees of Origin were concluded for electricity generated in co-generation, the volume of which amounted to 14.335 MWh.



In 2019, an increase in electricity generation from renewable sources was recorded on the Polish market. After a decrease observed in 2018, production last year returned to the level of 2017 and amounted to 16.8 TWh, which is the highest result in history. An increase in renewable energy production by 19% was accompanied by a relatively limited increase in installed capacity by 6% year-to-year to the level of 9.1 GW.

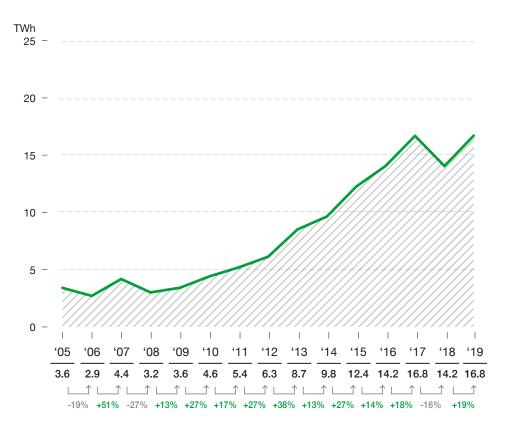
#### Average prices of the PMOZE\_A instrument in 2018 and 2019



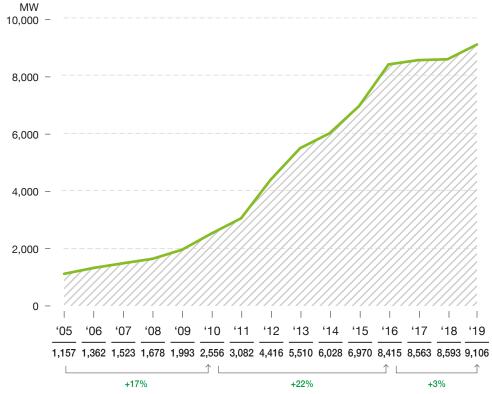
2019 --- average
2018 --- average

Source: TGE

#### **Electricity produced** in renewable energy sources in Poland



#### **Installed capacity** in renewable energy sources in Poland



# **OFFER**

The property rights market deals with trading in property rights arising from certificates of origin relating to:





**RENEWABLE ENERGY SOURCES** 



**AGRICULTURAL BIOGAS** 



**ENERGY EFFICIENCY** 



Green certificates Generation of electricity from renewable energy sources (PMOZE, PMOZE\_A)

Blue certificates Generation of electricity in agricultural biogas plants (PMOZE\_BIO)

Brown certificates Generation of agricultural biogas and introducing it to the distribution network (PMBG)

White certificates Obtained by entities conducting investments aimed at reducing the amount of energy consumed (PMEF, PMEF-XXXX, PMEF\_F

### **OFFER**

#### - CERTIFICATE OF ORIGIN REGISTER

The Certificate of Origin Register aims to centralise information on energy generated from renewable energy sources. It ensures market transparency and reliability.

entities had the status of a Member in the Certificate of Origin Register at the end of 2019

#### THE TASKS OF THE REGISTER INCLUDE IN PARTICULAR:











Identification of entities entitled to property rights resulting from certificates of origin.

Identification of applicable property rights resulting from certificates of origin and the amount of electric energy corresponding to those rights.

Registration of certificates of origin and property rights resulting therefrom.

Registering transactions concluded in property rights trading and the ownership status for property rights resulting from certificates of origin.

Issuing documents confirming the ownership status for property rights in the register, which are later used by the Energy Regulatory Office to redeem certificates of origin.

# **OFFER**

#### - GUARANTEE OF ORIGIN REGISTER

Parallel to the Certificate of Origin Register, the Polish **Power Exchange maintains the Guarantee of Origin** Register with a view to disclosing generation sources for electric energy and fuels.

The Guarantee of Origin Register is directed at entities generating energy from renewable sources, trading companies, brokers and other interested parties which need a confirmation that the given electric energy is generated from renewable sources. In 2019, guarantees of origin for electricity generated in high-efficiency co-generation were introduced to trading on TGE.

entities had the status of a Member in the Guarantee of Origin Register at the end of 2019



## INDICES IN THE COAL MARKET

TGE, in cooperation with the Industrial Development Agency, publishes price indices of steam coal on the **Exchange Information Platform. These prices** demonstrate the reference prices of this fuel in Poland.

Coal price information is published within two indices:

#### **PSCMI 1 index**

(PSCMI 1/T in PLN/tonne and PSCMI 1/Q in PLN/GJ). Index for fine coal, class 20-23/1, for the commercial and industrial power sectors. It is calculated as a weighted average from monthly deliveries meeting the following quality criterion for the index (working state parameters): calorific value: 20≤Qri<24 [MJ/kg], total sulphur content below 1%. The monthly product price is set as a weighted average from transactions realised on the Polish steam coal market, invoiced in a given calendar month. The base price is the ex-mine price, i.e. the net price excluding excise tax and VAT, in line with CFA conditions ("in wagon"), on the loading site, without costs of insurance or delivery costs within the basic transport route.

#### **PSCMI 2 index**

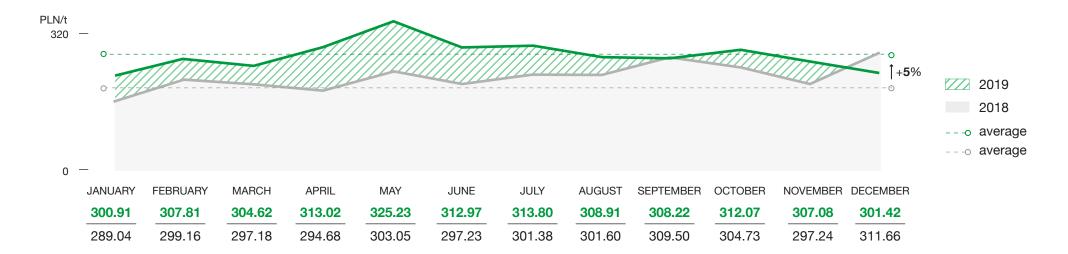
(PSCMI 2/T in PLN/tonne and PSCMI 2/Q in PLN/GJ). Index for fine coal, class 23-26/08, for industrial and communal heating stations, other industrial consumers and the remaining domestic consumers. It is calculated as a weighted average from monthly deliveries meeting the following quality criterion for the index (working state parameters): calorific value: 23≤Qri<27 [MJ/kg], total sulphur content below 0.8%. The monthly product price is set as a weighted average from transactions realised on the Polish steam coal market, invoiced in a given calendar month. The base price is the ex-mine price, i.e. the net price excluding excise tax and VAT, in line with CFA conditions ("in wagon"), on the loading site, without costs of insurance or delivery costs within the basic transport route.

In 2019, the coal prices on the Polish market increased by 9% on average (coal for commercial and industrial power sectors) and by 5% on average (for industrial and communal heating stations, other industrial consumers and the remaining domestic consumers). The highest PSCMI 1 index value in 2019 was reported in November: and amounted to 266.35 PLN/t. The highest PSCMI 2 index value was in 2019 was reported in May ad amounted to: 325.23 PLN/t.

#### **Monthly PSCMI 1 indices**



### **Monthly PSCMI 2 indices**



Source: GPI TGE

### CORPORATE SOCIAL RESPONSIBILITY

### - EDUCATION AND MARKET CONSULTATIONS

#### **CSR STRATEGY**

The Polish Power Exchange adopted a Corporate Social Responsibility strategy (CSR) on 16 November 2015, within the GPW Capital Group. Its implementation confirms that TGE achieves its business objectives in line with the Group's objectives, in a most transparent manner.

The main objective of the CSR strategy is continuous raising of the level of broadly-understood quality of the domestic commodities market, by means of such activities as: educational programmes, promotion of the highest corporate and communication governance standards, cooperation and active dialogue with market participants, as well as initiating cooperation and contacts among stakeholders.

The CSR strategy of the Polish Power Exchange is based on four key elements:



**ACTIVITY FOR THE BENEFIT** OF THE MARKET



**EDUCATIONAL ACTIVITY** 



**RELATIONSHIPS** WITH PERSONNEL



**ACTIVITY FOR THE BENEFIT** OF THE ENVIRONMENT

## CORPORATE SOCIAL RESPONSIBILITY

#### - EDUCATION AND MARKET CONSULTATIONS

### **EDUCATIONAL ACTIVITIES ON THE COMMODITY MARKET**

In 2019, the Polish Power Exchange carried out educational activities addressed to market participants.

The aim of the undertakings was the development and promotion of transparent trading in products on the exchange, as well as increasing awareness of the benefits of trading on the energy exchange. The activities were addressed to TGE Members, the media as well as to all market participants.

In connection with the launch of the European Intraday Market in November 2019 in the XBID model, TGE organized a dedicated training for the Exchange Members in September. In November, the following media workshop was held: "A common electricity market in Europe. The place of Poland and the role of the Polish Power Exchange."

TGE continued cooperation with universities. At the Warsaw School of Economics, we were a partner of the "Energy Week" project organized by the Students' Scientific Association of Energy, substantively joining the expert debate "Rapid increase in electricity prices - causes and effects".

In addition, TGE was a partner of the "Energy Academy" – an educational project run by the L.A. Paga Foundation, aimed at people who see their professional future in the energy industry. TGE also supported the "Go4Poland" program implemented by the Warsaw Stock Exchange Foundation and targeted at Poles studying abroad.

In June 2019, in cooperation with the Commodity Clearing House (IRGiT), TGE organized the 12th edition of the Trading Forum conference, which is a platform for exchanging opinions and creating new solutions in cooperation with market participants managed by TGE. As part of the three-day meeting, two discussion panels were held: "The role of market participants in creating liquidity on the exchange" and "Financial instruments vs physical delivery", as well as numerous presentations of meeting participants.



### DIALOGUE WITH THE MARKET

In 2019, two consultation meetings were held as part of joint Committees, each gathering about 100 participants.

The main topics discussed during these meetings include issues related to the implementation of the OTF, changes in IRGiT's insolvency handling rules or organized secondary capacity market.

At the same time, at the end of 2019, works on the appointment of the Market Council at TGE started to expand the operating model of the existing Committees. Its main goal is to improve cooperation between TGE and industry associations as well as energy and gas transmission operators. The competences of the Council include, among others, developing recommendations regarding the development of the commodity market, the needs of initiating specific projects, and issuing opinions on changes. In addition, it is worth emphasizing that the participation in the Council of only delegated representatives of industry associations is aimed at increasing the effectiveness of developing opinions and recommendations. The above mode of operation was implemented as part of the IRGiT Risk Committee, which in practice confirmed the working effectiveness of an advisory body organized in such a manner.

#### 2 Committees

within the framework of the joint Electricity Market and Gas Market in 2019:

#### THE GAS MARKET COMMITTEE

Since 2014, it has had an advisory role in developing solutions for creating a friendly environment for the development of exchange trading in natural gas.

#### THE ENERGY MARKET COMMITTEE

A committee established in 2015, composed of Exchange Members as well as representatives of TGE and IRGiT. The tasks of the Committee include expressing opinions and submitting conclusions regarding the assumptions for the development of exchange commodities traded on TGE.

## PLANS FOR 2020

In 2019, the Polish Power Exchange planned a number of activities, most of which have been completed or are currently being finalized. These included actions taken to launch the OTF or strengthen the position in the GPW Group.

It was also planned to implement the Liquidity Improvement Program, and at global level to continue the policy of active participation in the integration of energy markets while ensuring full transparency. The plans for 2020 include initiatives aimed at the development of TGE's product offering and further increase of the transparency level. In the following year, in addition to the currently operated energy markets, TGE intends to take another step and launch an agri-food market pilot project. In a country that is one of the largest producers of this sector in the European Union, market consolidation on an organized exchange market platform is an act aimed at increasing market transparency.

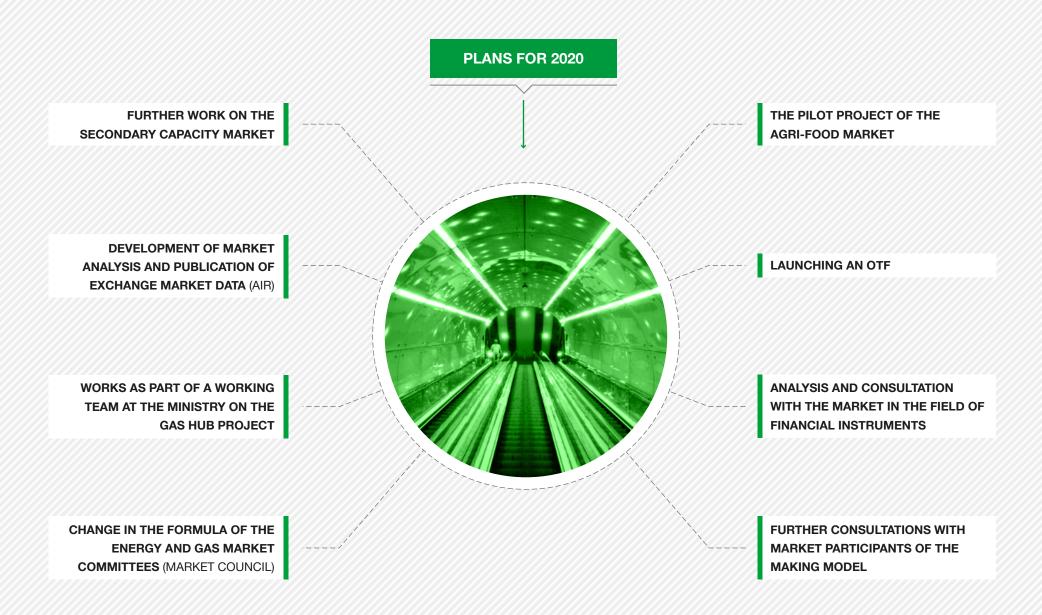
TGE will also take actions to launch a new market for the energy sector – the secondary capacity market and in 2019 it therefore set up a dedicated working team, with whose cooperation appropriate recommendations were prepared to launch such a market on the exchange. The capacity market was introduced at the beginning of 2020 and it constitutes a support for conventional energy in times of development of renewable energy sources. It is assumed to be a stimulus for new investments in the sector. In order for TGE to support this market, new regulations are required for the secondary capacity market.

The Polish Power Exchange intends to actively participate in the creation of a regional gas hub in Poland. Talks on this topic will continue at ministerial level with the participation of the Exchange. The level of diversification of natural gas sources in Poland, including domestic production and international connections, as well as the size of the domestic market predispose Poland to create a regional natural gas trading centre – a gas hub. The creation of a hub in the Baltic Region with TGE's participation would contribute to increased market transparency and have a positive impact on the development a competitive natural gas market in Poland.

One of the main assumptions when creating a new offer on TGE is its consultation with the market. In 2020, the Exchange will start discussions regarding the legitimacy of introducing financial markets for electricity and natural gas with market participants, as well as the formula and shape of the making model. In the area of market transparency, TGE intends to focus on the development of market analysis and the publication of exchange data.

In 2020, TGE expects to launch the OTF, on which it has been working for several months, and regulations require the participation of energy market and financial market regulators.

All planned activities are to serve both the development of competitive markets and market participants. 20 years of activity on the Polish energy market have shown that TGE is a reliable partner and a secure transaction platform. The expansion of operations with new commodities will boost an interest in trading on the regulated market.





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