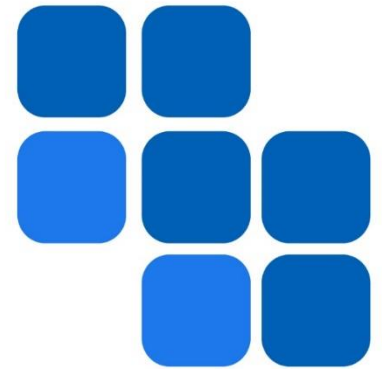




NATIONAL REPORT



of the President
of Energy Regulatory Office

2022



July 2022

Table of contents

Abbreviations used in the report	5
1. Foreword	8
2. Legal and regulatory changes in the electricity and gas markets	9
3. Electricity market	12
3.1. Network regulation and technical functioning	12
3.1.1. Unbundling	12
3.1.2. Network extension and optimization	13
3.1.3. Network tariffs	16
3.1.4. Security and reliability regulation	16
3.1.5. Monitoring the balance of supply and demand	22
3.1.6. Cross-border issues	29
3.1.7. Implementation of guidelines and network codes	35
3.1.8. Electromobility	40
3.2. Competition and market operation	41
3.2.1. Wholesale market	41
3.2.1.1. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition	46
3.2.2. Retail market	53
3.2.2.1. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition	54
3.2.2.2. Consumer protection and dispute settlement	57
4. Natural gas market	62
4.1. Network regulation	62
4.1.1. Network and LNG tariffs for connection and access	62
4.1.2. Balancing the system	70
4.1.3. Cross-border issues	71
4.1.4. Implementation of guidelines and network codes	81
4.2. Competition and market operation	85
4.2.1. Wholesale market	85
4.2.2. Retail market	88
4.2.2.1. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition	90
4.2.2.2. Consumer protection and dispute settlement	94
4.3. Security of supply	94
5. Antimonopoly proceedings in cases of competition restricting practices and other measures undertaken by the President of UOKiK in relation to companies in the energy sector	103
5.1. Concentrations of energy companies and the impact of these changes on the development of competition on the market	103
5.2. Administrative proceedings conducted by the President of UOKiK regarding competition restricting practices	105
5.3. Other conduct of energy companies that may violate competition rules, observed by the President of UOKiK	105
5.4. Measures implemented to promote market transparency, that is measures aimed at providing customers with relevant market information	106
5.5. Key actions taken by the President of UOKiK in the area of competition protection on the retail and wholesale market	107
5.6. Measures taken to deconcentrate the market	107

ABBREVIATIONS USED IN THE REPORT

ACER	Agency for the Cooperation of Energy Regulators
Directive 2009/73/EC	Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (EU OJ L 211/94, as amended)
Directive 2019/944	Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (EU OJ L 158/125)
ENTSO-E	The European Network of Transmission System Operators for electricity
ENTSO-G	The European Network of Transmission System Operators for gas
GK PGNiG	Polskie Górnictwo Naftowe i Gazownictwo S.A. group
DNC	Distribution Network Code
TNC	Transmission Network Code
NES	National Electricity System
OGP Gaz-System S.A.	Operator Gazociągów Przesyłowych Gaz-System S.A.
DSO	Distribution System Operator
SSO	Storage System Operator
TSO	Transmission System Operator
RES	Renewable Energy Sources
PGNiG S.A.	Polskie Górnictwo Naftowe i Gazownictwo S.A.
President of URE	President of the Energy Regulatory Office
President of UOKiK	President of the Office of Competition and Consumer Protection
PSE S.A.	Polskie Sieci Elektroenergetyczne S.A.
PSG Sp. z o.o.	Polska Spółka Gazownictwa Sp. z o.o.
Regulation No 714/2009	Regulation (EU) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 (EU OJ L 211/15 as amended) – repealed on 31 December 2019
Regulation No 715/2009	Regulation (EU) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (EU OJ L 211/36 as amended)
Regulation 2015/1222	Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (EU OJ L 197/24, as amended)
Regulation 2016/631	Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (EU OJ L 112/1, as amended)

Regulation 2016/1388	Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (EU OJ L 223/10)
Regulation 2016/1447	Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (EU OJ L 241/1)
Regulation 2016/1719	Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (EU OJ L 259/42)
Regulation 2017/1485	Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (EU OJ L 220/1, as amended)
Regulation 2017/2195	Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EU OJ L 312/6, as amended)
Regulation 2017/2196	Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (EU OJ L 312/54 as amended)
Regulation 2019/943	Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (EU OJ L 158/54, as amended)
REMIT Regulation	Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (EU OJ L 326/1)
BAL NC	Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks (EU OJ L 91/15)
CAM NC	Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (EU OJ L 72/1)
INT NC	Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules (EU OJ L 113/13)
TAR NC	Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (EU OJ L 72/29, as amended)
electricity tariff ordinance	Ordinance of the Minister of Energy of 6 March 2019 on the detailed rules for the development and calculation of tariffs and settlements in electricity trade (JoL of 2019, item 503, as amended)
gas tariff ordinance	Ordinance of the Minister of Energy of 15 March 2018 on the detailed rules for development and calculation of tariffs and settlements in trade in gaseous fuels (JoL of 2021, item 280)
SGT EuRoPol GAZ S.A.	System Gazociągów Tranzytowych EuRoPol GAZ S.A.
TGE S.A.	Towarowa Giełda Energii S.A.
TPA	Third Party Access
EU	European Union
URE	Energy Regulatory Office
Energy Law Act	Energy Law Act of 10 April 1997 (JoL of 2022 item 1385, as amended)
Electromobility and Alternative Fuels Act, Electromobility Act	Act of 11 January 2018 on electromobility and alternative fuels (JoL of 2022 item 1083)

RES Act, Act on renewable energy sources	Act of 20 February 2015 on renewable energy sources (JoL of 2022 item 1378, as amended)
Capacity Market Act	Act of 8 December 2017 on the Capacity Market (Journal of Laws of 2021, item 1854)
Act on Stocks	Act of 16 February 2007 on stocks of crude oil, petroleum products and natural gas, the principles of proceeding in circumstances of a threat to the fuel security of the State and disruption on the petroleum market (JoL of 2021 item 2249)

Legal status as at 15 July 2022

1. FOREWORD

This National Report of the President of URE provides an in-depth insight into the situation on the Polish electricity and gas market in 2021. The report also presents actions taken by the Polish regulator to develop competition, balance the interests of energy companies and customers and integrate the Polish gas and electricity markets.

The year 2021 was particularly unpredictable and brought many new challenges for all participants in the gas and energy market in Poland. It was another year of the regulator's operation in difficult conditions resulting from the COVID-19 outbreak and a record-high inflation rate. It was also a period of rising costs of purchasing electricity on the wholesale market and of purchasing CO2 emission rights, which were the main reasons for the increase in electricity bills. Also, the dynamic and hitherto unprecedented situation on the European gas market resulted in high prices, as well as rising costs of obtaining this fuel.

The processes on the domestic energy market have also been influenced by changes in national legislation and new EU regulations.

The key change for energy customers, introduced in July last year, was the statutory ban on concluding energy and gas sales contracts with customers in households outside business premises. This solution was advocated, among others, by the President of URE, in connection with numerous cases of fraud and misleading customers during direct sales in the so-called door-to-door formula.

In 2021, an amendment to the Energy Law Act also came into force, whose aim was to mitigate the increase in the price of gaseous fuel for household customers. A specific solution, prompted by the need to respond to the situation on the domestic and European gas market, was a newly introduced mechanism to the tariff system.

A detailed description of the condition of the electricity and gas market in Poland and actions taken by the Polish Regulator in 2021 have been presented in this National Report of the President of URE, submitted to the European Commission and ACER. In doing so, the President of URE fulfils its reporting obligation under Polish and European law.



2. LEGAL AND REGULATORY CHANGES IN THE ELECTRICITY AND GAS MARKETS

The year 2021 was the twenty-fourth year of the enactment of the Energy Law Act and at the same time the twenty-third year of operation of the regulatory authority.

During the reporting year, there were significant amendments to this Act, nevertheless the wording of Article 23 para. 2 defining the rights and obligations of the President of URE remained unchanged.

Noteworthy is the amendment to the Energy Law Act of 20 May 2021, which introduced significant changes to the rights and obligations of participants in regulated markets. The amendment to the Act introduced new key solutions from the point of view of the competence of the President of URE and the functioning of the electricity and gas markets, including further supervision of the transmission infrastructure, in particular gas transmission infrastructure. A critically important change is the definition of the rules for the operation of the metering system. Among the most important regulations related to the establishment of the Central Energy Market Information System (CSIRE) is the appointment of the Energy Market Information Operator (OIRE), as the entity responsible for managing and administering CSIRE and processing the information collected in this system for the purposes of market processes. It should be noted here that the entry into force of the described regulations was spread over time. In the reporting year, the regulations allowing for the construction of the structure of the information system came into force, while the remaining regulations will come into force at a later date.

Other key changes include:

- 1) a change in the approach to the application of the TPA principle in the gas market, consisting in a different ranking of the sequence of events entitling energy companies to refuse to fulfil their network access obligations (Article 4h),
- 2) increased protection for household customers by prohibiting the conclusion of contracts for the sale of gaseous fuels or electricity off-premises (Article 5 para. 4c),
- 3) regulating the operation of closed distribution systems, including declaring by means of a decision that a specific distribution system is a closed system, defining the rules for exemptions from operator obligations (that is, submitting tariffs for approval, drawing up development plans and introducing control of the application of prices and tariff rates – Article 9da et seq.),
- 4) changes to the range of entities obliged to develop Network Codes (a Transmission Network Code – TNC and a Distribution Network Code DNC) and to the procedure for approving such Network Codes (Article 9g),
- 5) significant changes in the area of licensing, covering in particular new types of licences (storage of electricity and gaseous fuels, liquefaction and regasification of natural gas), new exemptions from the obligation to obtain a licence (Article 32 et seq.),
- 6) specification of the provisions relating to the establishment of a financial collateral by the entity applying for a licence (Article 38),
- 7) extension of the catalogue of cases enabling the President of URE to withdraw a licence or modify its scope (Article 41 para. 4),
- 8) changes to the tariff approval procedure, including the specification of the time limit for submitting a tariff or tariff modification for approval, the regulation of the rules for settlements between an energy company and customers in the period between the licence obtaining and the approval of the tariff, modification of the rules of application of the existing tariff (Article 47),
- 9) extension of the catalogue of fines as a consequence of the introduction of new obligations, setting minimum thresholds for fines (Article 56).

In 2021, there were also other amendments to the Energy Law Act made by separate acts, including the following:

- 1) On 1 September 2021, changes resulting from the Act of 23 July 2021 amending the Capacity Market Act came into force. The amendment consisted in the introduction of Article 8e1, which clarified the conditions to be considered when drawing up an expert report on the impact of equipment, installations or networks on the electricity system.
- 2) Further amendments, which came into force on 8 September 2021 and 22 September 2021, result from the Act of 11 August 2021 amending the Act on the Fuel Quality Monitoring and Control System and certain other acts. Among other things, this Act added Article 62da, which broadens and clarifies the reporting obligation of companies operating in the liquid fuels market.
- 3) In turn, on 10 December 2021, changes resulting from the Act of 2 December 2021 amending the Energy Law Act came into force. With this Act, a one-off regulation was introduced to protect customers from unprecedented increases in the price of gaseous fuels. The added Article 62f provides specific rules for tariffs, including the possibility of spreading over time the justified costs incurred by energy companies.
- 4) On 24 December 2021, amendments resulting from the Act of 2 December 2021 amending the Act on Electromobility and Alternative Fuels and certain other acts entered into force. The changes made by the aforementioned Act consisted in adjusting the Energy Law Act regulations to the amended provisions of the Act on Electromobility and Alternative Fuels. In particular, road charging infrastructure was included in the regulations on connection to the electricity grid and the remit of competence of the President of URE was extended in the case of refusal to connect road charging infrastructure of public transport to the grid in the first place (Article 8 para. 1). The regulator was also empowered to approve, by way of a decision, the general conditions of the tender for the sale of a public charging station, conducted at the request of a DSO.

The year 2021 was also the first year of the Offshore Wind Farms Act¹⁾, which came into force on 18 February 2021. This Act regulates the principles and conditions for granting support for electricity generated in offshore wind farms, the principles and conditions for the preparation and implementation of investments in the field of construction, operation and decommissioning of offshore wind farms. The regulations contained in this Act provide for a number of new competencies for the President of URE, related to the implementation of the support system for electricity generation in offshore wind farms.

On 1 September 2021, the Act of 23 July 2021 amending the Capacity Market Act entered into force. The amendments made by the aforementioned Act resulted from the need to harmonize the provisions of the Capacity Market Act with Regulation 2019/943. The provisions of this Regulation entered into force on 4 July 2019 and the first capacity auction in 2020 was held directly pursuant to these provisions. The Regulation established rules to ensure the functioning of the internal energy market and environmental policy requirements, including CO₂ emission limits for capacity covered by capacity mechanisms. The Regulation also introduced changes to the rules for the participation of generating units in capacity mechanisms operating in Member States. The primary issue regulated by the aforementioned amendment was therefore to define the rules for the participation in the capacity market, from 1 July 2025, of units emitting more than 550 g of fossil-fuel CO₂ per kWh of electricity generated ("emission limit"). With regard to the powers of the regulator, new information competences of the President of URE related to the organization of capacity auctions should be highlighted.

Implementing the "Clean Energy for All Europeans" Package (CEE)

On 4 July 2019, Regulation 2019/943, which replaced Regulation 714/2009, entered into force. However, this does not affect the validity of the network codes and guidelines adopted so far, and work on their implementation continues, both on the TSO and NEMO side and on the side of the regulators and ACER. It should be noted that Regulation 2019/943 has imposed a number of new regulatory obligations on regulators and ACER. Article 16(8) of Regulation 2019/943 imposed an obligation on the TSO to make cross-zonal capacity available to market participants at a level of not less than 70%

¹⁾ Act of 17 December 2020 on promoting electricity generation in offshore wind farms (Jol. of 2021 item 234, as amended).

of the capacity at a given border or critical network element, determined respecting operational security limits of the system. As the aforementioned conditions could not be fulfilled by the Polish TSO at the moment of entry into force of the aforementioned regulation, an action plan was developed by the competent ministry, in cooperation with the President of URE and the Polish TSO, pursuant to Article 15 of the aforementioned Regulation, adopted on 17 December 2019, which defines the level of minimum cross-zonal trading capacities to be made available to market participants by the Polish TSO from the beginning of 2020 until the end of 2025. This plan shall also include a timetable for the adoption of measures to achieve the target level of minimum capacity of 70% of the transmission capacity in accordance with Article 16(8) of Regulation 2019/943.

Regulation 2019/943, in Article 16(9), provides for the possibility of granting a derogation from the obligation to make cross-zonal capacity available in accordance with paragraph 8 of that Article where this is necessary to maintain operational security. In 2021, the decision of the President of URE of 31 December 2020 was in force granting PSE S.A. such a derogation²⁾, while on 29 November 2021 the decision of the President of URE was issued for the year 2022³⁾. The President of URE was also involved in cases processed by ACER under Regulation 2019/943, among others on the methodology and assumptions that are to be adopted in the bidding zone review process and the alternative bidding zone configurations considered.

²⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9204,Decyzja-dotyczaca-przyznania-PSE-SA-odstepstwa-od-obowiazku-wdrozenia-minimalneg.html>

³⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9934,Decyzja-Prezesa-URE-dotyczaca-udzielenia-PSE-SA-odstepstwa-od-obowiazku-udostepn.html>

3. ELECTRICITY MARKET

3.1. Network regulation and technical functioning

3.1.1. Unbundling

In the light of the current regulations of the Energy Law Act, operators for electricity and gas system (hereinafter referred to as "system operators") are designated by decision of the President of URE:

- at the request of the owner of the network or installation referred to in Article 9h para. 1 of the Act,
- ex officio in cases specified in Article 9h para. 9 of the Act.

The Energy Law Act specifies the conditions of operation and tasks of system operators. The electricity DSOs operating in a vertically integrated undertaking serving more than 100,000 customers connected to their network are obliged to become legally and organizationally unbundled and independent in terms of their decisions (Article 9d of the Energy Law Act). There is one electricity TSO in Poland – PSE S.A.

On 4 June 2014 the President of URE granted PSE S.A. a certificate of complying with independence criteria determined in Article 9d para. 1a of the Energy Law Act for the period until 31 December 2030.

Compliance with independence criteria and conditions of conducting licensed activity and exercising the TSO function is monitored and periodically examined. In 2021 no irregularities in the functioning of the TSO were revealed.

In 2021, as in previous years, there were five large DSOs on the electricity market, whose networks are directly connected to the transmission network (DSOp). They are legally obliged to separate the distribution activities carried out by the system operator from other activities not related to electricity distribution (unbundling). In addition, at the end of 2021, there were 180 companies designated as DSOs (DSOn) operating within vertically integrated undertakings, not subject to unbundling.

Compliance Programmes

Operator independence, which ensures equal access to the network for all market participants, is crucial for the performance of DSO functions. Operators are required to develop programmes which set out the measures taken to ensure non-discriminatory treatment of system users (Compliance Programmes). Compliance Programmes of five DSOs connected directly to the transmission network are approved by the President of URE that monitors proper implementation of provisions of these programmes. Operators are required to send, each year by 31 March, reports containing a description of actions taken in the previous year to implement the Compliance Programmes. Based on an analysis of the content of reports, letters received by the office, changing regulations and factual changes within the energy market, the President of URE developed and published in 2019 new Guidelines for the content of Compliance Programmes developed by distribution system operators and storage system operator.

In 2021, administrative proceedings for the approval of amendments to the Compliance Programme of PGE Dystrybucja S.A. – the last of the five programmes to be adjusted to the published Guidelines – were continued. For the other four DSOs, 2021 was the first full year of application of these programmes as adapted to the content of the Guidelines. As a result of the introduced changes, the thematic scope of the Compliance Programmes was extended by, for instance, network infrastructure management and development, communication within the group and in relations with the external environment, marketing activities, centralization or outsourcing of services and procurement. Some provisions (e.g. the obligation to use distinctive information channels with regard to the intranet or regulations relating to marketing activities and sponsorship) required adaptation and organizational work for some operators, and came into force during 2021. Some of the new provisions, with regard to the adaptation of the system in place to support the customer service and distribution service settlement processes for comprehensive contracts as well as electricity sales contracts, were extended until the Central Energy Market Information System (CSIRE) becomes operational in 2024.

DSOs fulfilled their obligation to publish Compliance Programmes on their websites.

The Compliance Programme reports for 2021 were submitted by the statutory deadline of the end of March 2022 and were published on the URE website. In their reports, the operators indicated that the adjustment of the Compliance Programmes to the Guidelines of the President of URE had resulted

in an increase in the importance of issues aimed at non-discriminatory treatment of system users among the members of the management boards and among the employees of the operators' companies. The work of the Compliance Officer, that is the person appointed in the companies to perform the tasks related to the monitoring of the Compliance Programmes, was strengthened by the work of local compliance coordinators, reporting on the subject matter to the Compliance Officer, while one of the companies has a team for monitoring the implementation of the Compliance Programme, chaired by the Compliance Officer.

The Compliance Officers issued opinions on documents prior to their approval, periodically reviewed the applicable internal regulations and document templates for compliance with the requirements specified in the Compliance Programme, analyzed the data submitted in connection with corporate governance on an ongoing basis. The Compliance Officers also interpreted the provisions of the Compliance Programme at the request of the management or employees of the operator company. In 2021, training was provided to newly hired employees in all operator companies, and in companies where the Compliance Programme was adjusted to the Guidelines of the President of URE, all employees were trained on the purpose and scope of the Programme, the rules for its implementation, the obligations of the DSOs and employees, and the sanctions arising from breaches of obligations by DSO employees. In one case, the Compliance Officer also played an important role by intervening ex-post on a notification indicating events and circumstances bearing the hallmarks of a breach of the Compliance Programme. An analysis of the course of events showed that the source of the problems was not a deliberate breach of the Compliance Programme, but technical errors. These errors did not cause damage, but served to modify the rules and terms of reference of individual employees in such a way as to reduce the risk of such incidents in the future.

In 2021, the complaints received by the President of URE included allegations that, in specific circumstances, the Compliance Programme may have been breached by, among others, delaying the date of commencement of energy supply when the supplier came from outside the group in which the operator functioned and, in another case, by promoting the selected energy supplier (from the same group) during the process of connecting a new facility to the grid. The President of URE summoned the relevant operator to submit explanations, and as a result of their analysis – waived the initiation of proceedings for violation of the Compliance Programme, acknowledging that the allegations submitted in the complaints were not justified.

In addition, during 2021 the President of URE presented, at the request of one of the operators, an opinion on the prohibition of the simultaneous employment of a DSO employee in an electricity generation or trading company, in particular as part of unpaid leave with a second employer, and on the separate DSO marketing strategy, communications, sponsorship, charity and CSR. The opinion of the President of URE was acknowledged by the Operator, and the recommendations contained therein were implemented.

Ultimately, therefore, an assessment can be made that in 2021 there were no cases of discrimination against system users, no violations or threats to the implementation of the provisions of the Compliance Programmes were identified, either.

3.1.2. Network extension and optimization

Monitoring investment plans of transmission system operators

The power company PSE S.A. performing business activity in the field of electricity transmission – being the only electricity TSO operating on the territory of Poland, designated by the President of URE – performs investment tasks in accordance with the development plan agreed with the President of URE with respect to meeting the current and future demand for electricity. The draft development plan of this operator – under the provision arising from Article 16 para. 13 of the Energy Law Act – is subject to agreement with the President of URE. When agreeing on the TSO development plan, the regulator verifies first of all the compliance of its content with the Act and its implementing regulations and with the assumptions of the state's energy policy, cooperating with the locally competent voivodship boards, and additionally agrees on investment outlays in such an amount that the costs resulting from them may constitute the basis for tariff calculation, in compliance with the requirement referred to in Article 16 para. 10 of the Energy Law Act (according to which the plan should ensure long-term maximization of the efficiency of outlays and costs incurred by energy companies so that outlays and costs do not

cause an excessive increase in electricity prices and fee rates in particular years, while ensuring continuity, reliability and quality of supplies).

In 2020 the President of URE agreed on the *Draft development plan with respect to meeting current and future electricity demand for the years 2021-2030* submitted by the TSO. The plan assumed that the TSO would incur investment outlays of PLN 14,158 million in the aforementioned period 2021-2030.

As part of the implemented tasks regarding the monitoring of investment plans, analyses of the performance of the volumes planned for a given year are conducted annually, the results of which are used in the process of agreeing subsequent editions of development plans or their updates. As it follows from the report on the implementation of the development plan for 2021 (which enterprises are obliged to submit, pursuant to Article 16 para. 18 of the Energy Law Act), the TSO notified about the execution of planned investment outlays of PLN 969.7 million (that is 66.6%, with the plan assumed for that year of PLN 1,456.6 million).

Assessment of consistency of TSOs' investment plans with the EU-wide network development plan

When agreeing on the development plan, the President of URE shall also verify its consistency with the ten-year EU-wide network development plan ("TYNDP"), developed by ENTSO-E in accordance with the legislative principles initiated by the European Parliament and the Council (these principles determine, among others, conditions of access of parties to the transmission networks). The consistency of both plans shall be checked at each update of any of the above mentioned documents.

The investment projects implemented in 2021 to develop interconnections and increase technical transmission capacities in interconnection, included in the ten-year EU plan TYNDP 2018, which the TSO incorporated into the previous edition of the development plan for 2018-2027 (including 2021) agreed with the President of URE, are specified below:

- Construction of 400 kV Ostrołęka-Stanisławów line and development of 400 kV Stanisławów substation and 400/220/110 kV Ostrołęka substation with the introduction to 400(220)/110 kV Wyszaków substation (TYNDP 123.373),
- Construction of 400 kV Mikułowa-Świebodzice line and development of 400/220/110 kV Świebodzice substation and 400/220/110 kV Mikułowa substation (TYNDP 230.355),
- Construction of 400 kV Baczyna-Krajnik line (TYNDP 230.353),
- Construction of 400/110 kV Baczyna substation with the introduction of 400 kV Krajnik-Plewiska line (TYNDP 230.1035),
- Construction of 400 kV Baczyna-Plewiska line (TYNDP 230.1232),
- Construction of 400 kV Dunowo-Żydowo Kierzkowo-Piła Krzewina line (TYNDP 170.1661, 170.1662),
- Modernization of 400 kV Krajnik-Morzyczyn line (TYNDP 170.1663),
- Modernization of 400 kV Morzyczyn-Dunowo line (TYNDP 170.1664),
- Modernization of 400 kV Dunowo-Słupsk line (TYNDP 170.1664),
- Modernization of 400 kV Słupsk-Żarnowiec line (TYNDP 170.1664),
- Modernization of 400 kV Żarnowiec-Gdańsk I/Gdańsk Przyjaźń line (TYNDP 170.1665),
- Modernization of 400 kV Gdańsk Błonia-Gdańsk I/Gdańsk Przyjaźń line (TYNDP 170.1665).

In addition, the TSO has been carrying out the construction of the cable connection HVDC Poland-Lithuania (TYNDP 170.1034, this task exceeds the scope of investments submitted by the TSO for implementation under the development plan for 2018-2027).

On the basis of the assessment of the consistency of the previous versions of the TSO's investment plans with respect to compliance with the EU-wide network development plan, it can be concluded that there may be slight planning inconsistencies, resulting from, among others, the following factors: various deadlines for updating the documents covered by the TYNDP and the TSO development plan (subsequent updates will usually indicate the most recent data on the current status of the project or its completion date), a distant date of investment start-up (in the national plan, projects with a distant project start-up date are usually included in the group "investment preparation", where general information, usually only descriptive, is provided), which cannot be eliminated in advance. The identified inconsistencies are explained with the TSO, if such a need arises.

Smart electricity grids

As in the preceding year, issues related to the development and implementation of strategies aimed at the implementation of smart electricity grids were not included in the scope of statutory tasks of the President of URE, this body only took part in giving opinions on draft solutions for these networks. The preparation and implementation of the legislative process itself is the responsibility of the minister responsible for energy issues, while the President of URE actively participates in consultations, presenting its position on the issue. The minister responsible for energy remains obliged to develop and implement strategies aimed at the implementation of smart grids, including conducting appropriate legal analyses and regulatory impact assessment, and consequently the impact of the implementation of the strategy on the level of electricity prices and tariffs for both industry and households.

On 3 July 2021, a major amendment to the Energy Law Act came into force. Among the numerous changes, systemic solutions for smart metering were introduced – consisting in an obligation for DSOs to install by 31 December 2028 remote reading meters connected to a remote reading system at energy consumption points constituting at least 80% of the total number of energy consumption points of final customers, including those representing at least 80% of the total number of energy consumption points of final customers in households, with metering and billing systems without current or voltage transformers, connected to a network with a rated voltage of no more than 1 kV. The fulfilment of this statutory obligation is taken into account by the DSOs in their development plans. In turn, the requirements for remote reading meters are specified in supplementary provisions to this Act, contained in the Ordinance of the Minister of Climate and Environment of 22 March 2022 on the metering system. This Ordinance also specifies the requirements for: metering data and other information recorded by the remote reading meters, data sent and instructions received by the remote reading meters, standards for communication of the remote reading meters with the DSO's remote reading system, and the requirements for the remote reading meters to communicate with household electricity customer devices.

The modernization processes carried out by the DSOs, in accordance with the development plans agreed with the President of URE, led to noticeable effects in the decrease of SAIDI and SAIFI indices in 2016-2020 for distribution companies. A significant contribution to this goal was made by the qualitative regulation implemented in 2015, which assumed a significant decrease in these indices over a period of several years.

The value of energy not supplied increased in 2021 compared to the previous year. The results obtained for the SAIDI, SAIFI and not supplied energy indicators are due to the occurrence of extremely adverse weather conditions. The measures implemented to reduce the time and frequency of power outages resulted in a decrease in the SAIDI and SAIFI indicators for planned outages. The achieved values of the indicators were also influenced by the restrictions introduced in connection with the pandemic.

Due to the DSOs' implementation of only pilot projects, the regulator did not create tools exclusively dedicated to the evaluation of these investments (the total amount of outlays made in relation to the plan was evaluated, within a given group of energy assets). Nevertheless, such projects were monitored annually through individual DSO reports or on the occasion of the execution of an investment plan.

In the light of the above, in their reports on the implementation of the development plan for 2021, the five largest electricity distributors notified of:

- development of the scope of investments to be implemented in 2021 in terms of achieving the planned levels of quality indicators, assuming the strategic goal consisting in lowering the values of SAIDI and SAIFI indices, the interruption duration (ID) index, the interruption frequency index (IF) and shortening the time of connecting customers (plans in most distribution companies were adjusted by changing the priorities of activities due to the COVID-19 epidemic state introduced in the country and the resulting delays in implementing investments),
- the predominant share of outlays (in total outlays) for investments related to network investments, that is, those serving directly to fulfil the statutory obligations of the DSO and to fulfil the obligations under its licence for distribution services, including investments related to the connection of electricity customers and producers and the modernization and restoration of existing assets, related to the improvement of service quality and/or the increase in demand for capacity. These investments were aimed at both the construction of new elements of the power grid and the modernization of existing elements. At the same time, it should be noted that the modernization tasks were in most cases related to increasing the performance parameters of the grid, enhancing its functionality and applying solutions facilitating changes in the management of the power grid operation,

- lower than planned execution of expenditures, resulting primarily from the COVID-19 pandemic prevailing in the country (funds were directed to areas where it was possible to carry out investments in a safe manner, which affected the differences in the development of network infrastructure in some areas), and difficulties of a formal and legal nature having a direct impact on delays in the development of construction and implementation projects,
 - continuation and at the same time intensification of activities related to the deployment in the network of devices performing switching functions and devices monitoring the state of electrical parameters of the network, in order to achieve the smart grid standard. In order to fully exploit the network automation functionalities and achieve optimum benefits resulting from the automation, actions related to the change of the current network topology were carried out in parallel, with the aim of adapting the network in the long run to the possibility of bilateral supply of MV/nn substations.
- In practice, the greatest impact on the improvement and maintenance of a high level of operational reliability of the network was exerted by the investment activities aimed at the implementation of innovations and construction of SMART GRID networks in the following areas:
- automation of the MV network, involving the retrofitting of MV/IV substations with remote controlled switchgears deep inside the network, which enables faster network reconfiguration and significantly reduces failure recovery time,
 - equipping 15/0.4 kV substations with short-circuit detectors with communication to SCADA (dispatcher system) – detection and localization of short circuits.

3.1.3. Network tariffs

In 2021 the President of URE conducted proceedings regarding approval of electricity tariff for:

- 1) transmission system operator (TSO) – for entities using the transmission service under a transmission contract,
- 2) distribution system operators (DSOs), which on 1 July 2007 unbundled their operations – for customers connected to distribution networks at all voltage levels, that is for industrial, medium and small business customers and households,
- 3) electricity trading companies – in relation to the customers of tariff groups G, connected to the network of a given distribution system operator, for which the trading company provides a comprehensive service,
- 4) other energy companies, the so-called industrial energy companies, in the field of trade in electricity (group G) and in the field of distribution of electricity to customers connected to their networks.

At the beginning of 2021, administrative proceedings for the approval of tariffs for 2021 initiated in 2020 for the five largest DSOs, namely: PGE Dystrybucja S.A., TAURON Dystrybucja S.A., ENEA Operator Sp. z o.o., ENERGA-OPERATOR S.A. and Stoen Operator Sp. z o.o., continued. Decisions approving tariffs for the five largest DSOs for the period until the end of 2021 were issued on 5-14 January 2021.

The tariff of the TSO and the tariffs of the five largest DSOs for the period until 31 December 2022, were approved on 17 December 2021.

On 17 December 2021, for the period from 1 January to 31 December 2022, the tariffs of electricity trading companies were also approved – for customers in tariff group G, connected to the network of the distribution system operator concerned, for which the trading company provides a comprehensive service.

3.1.4. Security and reliability regulation

Rules of network security and reliability

Pursuant to the Energy Law Act, energy enterprises engaged in the transmission and distribution of electricity to customers are obliged to:

- maintain the capacity of equipment, installations and networks to supply fuel or energy in a continuous and reliable manner, while meeting applicable quality requirements, and
- provide all entities, on the basis of equal treatment, with transmission services consisting in the transmission of fuel or energy from a supplier of gaseous fuels, electricity or heat selected by these entities, under the terms and to the extent specified in the Act.

The provision of transmission services shall not compromise the reliability of electricity supply and the quality of such electricity below the level specified in separate regulations and shall not result in an adverse change in prices and the scope of supply of fuel or energy to other entities connected to the network. The above issues regulating the standards of energy supply to customers arise from supplementary provisions to the Act, contained in the Ordinance of the Minister of Economy of 4 May 2007 on Detailed Conditions for the Operation of the Power System (hereinafter referred to as the "System Ordinance"), which in turn have been reflected in the transmission or distribution network codes of individual network operators. Pursuant to Article 9g of the Act, the transmission system operator and the distribution system operator are obliged to develop a transmission network code (TNC) or a distribution network code (DNC), respectively. Subsequently, the aforementioned codes are approved by the President of URE, and the methods, conditions, requirements and rules contained in the codes are binding for the network operators and the users connected to the network of these operators, and constitute a part of the contract for the provision of electricity transmission or distribution services.

The reliability of network operation (understood as the ability of the transmission or distribution network to deliver or receive capacity and electricity under specified conditions, place and time) is a derivative of power security, which is mainly determined by: the amount of capacity reserve in the power system and the competences and rights of system operators. System operators, each within their own area of operation, are responsible for power security on the electricity markets:

- on the system market – TSO,
- on local markets – DSOs.

Pursuant to Article 9g para. 4 of the Energy Law Act, Network Codes prepared for the power networks specify detailed conditions for the use of these networks by system users and the conditions and manner of operation, exploitation and development planning of these networks. They concern, among other things, the requirements regarding the security of operation of the power grid and the conditions that must be met for its maintenance, as well as the indicators characterizing the quality and reliability of electricity supply and the security of operation of the power grid. The quality parameters of electricity are specified in the TNC.

The most important amendments to the TNC approved in 2021 by the President of URE concerned cross-zonal exchange at the interconnections of Poland's power system with the systems of foreign transmission system operators, the rules for generators to notify and agree with the TSO the maintenance plans of centrally dispatched generating units (CDGUs) and centrally coordinated generating units (CCGUs) and changes aimed at identifying and updating network congestion in relation to planned network operation conditions, implementation of a dedicated solution for the active participation of electricity storage and pumped storage facilities in the balancing market.

In 2021 the President of URE approved amendments to the DNC for the operators: TAURON Dystrybucja S.A. (amended three times), ENEA Operator Sp. z o.o. (amended twice), innogy Stoen Operator Sp. z o.o. – currently Stoen Operator Sp. z o.o. (amended twice), ENERGA-OPERATOR S.A. (amended three times) and PGE Dystrybucja S.A. (amended once).

The most important modifications made to the DNCs include:

- for all five DSOs – changes resulting from the Ordinance of the Minister of Climate and Environment of 21 December 2020 amending the Ordinance on the Charging of a Capacity Fee and Determining the Hours of Day Falling on Peak Demand for Capacity in the System,
- for TAURON Dystrybucja S.A. – additionally, changes enabling the use of semi-direct or direct metering for new customers classified in connection group III applying for a small connection capacity. The changes were also intended to enable customers classified in connection group III to retain their current direct or semi-direct metering in the event of a supplier switch or change of connection capacity. In addition, it should be pointed out that similar provisions are already contained in the DNC of other large DSOs,
- for ENERGA-OPERATOR S.A. – in addition, changes regarding the technical requirements for metering equipment.

In addition, the DSOs, with the exception of PGE Dystrybucja S.A., updated the standard consumption profiles used in the commercial balancing of electricity supply sites for customers with a contracted capacity of 40 kW or less.

Congestion management

Approval of rules for access to the cross-border infrastructure, including the rules for the allocation of capacity and congestion management

In 2021, transmission capacities were allocated and offered separately for: the synchronous profile (covering interconnections with Germany, the Czech Republic and Slovakia), the DC interconnection with Sweden, the DC interconnection with Lithuania and the interconnection with Ukraine (Zamosc-Dobrotwór radial interconnection). On each of these connections, an allocation methodology based on net transfer capacity was used, that is, on the principle of estimating and defining ex-ante the maximum exchange of energy between bordering bidding zones (hereinafter: "NTC methodology"), taking into account the balancing conditions.

During the reporting period, long-term interconnection capacities on the interconnections on the synchronous profile (Poland-Czech Republic, Slovakia, Germany) were made available on the basis of the Harmonized allocation rules for long-term transmission rights, (in accordance with Article 51 of Regulation 2016/1719), approved by the ACER decision of 2 October 2017, as amended by the decision of the President of URE of 23 December 2021. Transmission capacities were determined for annual and monthly auctions. Exchanges in the intraday horizon took place under the Single Intra-Day Coupling (SIDC) mechanism implemented using the XBID platform.

As part of the early implementation of the day-ahead market coupling with a methodology in which energy exchanges between bidding zones are limited by electricity spreading factors and available margins on critical network elements (hereinafter: "FBA methodology"), the Interim Coupling Project (hereinafter: "ICP") was implemented, that is, the start of capacity allocation in the day-ahead market coupling through implicit auctions based on the NTC methodology, at the borders: Hungary-Austria, Austria-Czech Republic, Czech Republic-Germany, Germany-Poland, Czech Republic-Poland and Poland-Slovakia, agreed between the TSOs and the NEMOs, which will remain in place until the implementation of FBA-based market coupling in the Core region. Until 17 June 2021 (last day of delivery), the allocation of interconnection capacity on the synchronous cross-section in the day-ahead horizon took place on the basis of the *Rules for Daily explicit Capacity Allocation on Bidding Zone borders Austria-Czech Republic, Austria-Hungary, Croatia-Hungary, Czech Republic-Germany, Czech Republic-Poland, Poland-Slovakia and Poland-Germany*, developed under the regional initiative.

In 2021, on the Poland-Sweden 4 (SwePol Link) and Poland-Lithuania (LitPol Link) interconnectors, the capacity allocation methodologies approved by the President of URE in 2015 continued to apply – capacity allocation through the day-ahead market coupling mechanism. In the intraday horizon, transmission capacities were allocated under SIDC. In view of the fact that the decisions of the President of URE of 17 May 2017 issued for the bidding zone borders Poland-Sweden 4 and Poland-Lithuania remained in force in 2021, no long-term transmission rights were issued.

Transmission capacity on the Poland-Ukraine interconnection was made available through explicit auctions organized on a monthly basis.

Implementing the provisions of Regulation 2015/1222, *Conditions for the allocation of cross-zonal transmission capacity and other necessary mechanisms to enable the operation of more than one NEMO in Poland* (MNA) were adopted in 2019. The MNA regulates the cooperation between nominated electricity market operators (NEMOs) and PSE S.A. in connection with the implementation of the SIDC and SDAC processes. Also in 2021 the EPEX SPOT SE started operating in SIDC. In 2020, preparations were underway for the launch of the second component of the MNA, the implementation of SDAC in a multi-NEMO format, which was launched on 9 February 2021. Previously, in the Polish bidding zone SDAC was only realized by TGE S.A.

Revenues from transmission capacity allocation on interconnections with the EU member states and their utilization in 2021

The final amount of revenues from the allocation of transmission capacity for the cross-border exchange on interconnections with EU member states in the period from 1 January to 31 December 2021 amounted to PLN 564,476,100. This sum is reduced by the amounts returned by the TSO to the participants of the system exchange due to the fact that these participants returned part of the annual and monthly transmission rights they had acquired to be allocated during the daily auctions and due to the fact that these participants did not exercise their transmission rights in the daily auctions.

Table 1. Revenues from making transmission capacity available in 2021, broken down by border

Specification	Value [PLN thousand]
Poland – Czech Republic	44,411.4
Poland – Germany	195,093.8
Poland – Slovakia	143,830.0
Poland – Lithuania	63,818.8
Poland – Sweden	138,867.3
Total	586,021.2
Costs of capacity reductions and returns and remuneration of long-term transmission rights ⁴⁾	-21,545.1
Total	564,476.1

Source: Data of PSE S.A., according to the accounting as at 21 February 2022.

The amount of revenues from making interconnection transmission capacities available obtained in the period from 1 January 2021 to 31 December 2021, will be used for the purposes referred to in Article 19(2) of Regulation 2019/943⁵⁾, while the remaining part of revenues not used in the previous year, after deduction of due income tax, will be credited to the Special Purpose Fund. The Special Purpose Fund is recorded on a separate accounting account and may be used only for one or more of the following purposes: financing the guarantee of actual availability of allocated transmission capacity and financing network investments made in order to maintain or increase interconnection capacity. These objectives shall include the priority objectives set out in Article 19(2) of Regulation 2019/943.

Table 2. Use of interconnection capacity revenues obtained during the reporting period

Specification	Value [PLN thousand]
Revenues from the making available of capacity used for the purposes referred to in Article 19(2) of Regulation 2019/943	110,622.6
revenues from the making available of capacity not used in the previous year and placed in a separate internal account (net of income tax payable)	367,621.4

Source: Data of PSE S.A.

The investment projects related to maintenance and increase of transmission capacity on interconnectors of the NES with transmission systems of EU member states have been specified in the Development Plan agreed by the President of URE.

Balancing services

The rules for the operation of the electricity system balancing mechanism (the so-called balancing market – BM) have been defined by the electricity transmission system operator in the TNC and, as of April 2020, in the balancing conditions (BC), developed on the basis of Article 18 of Regulation 2017/2195. The above document has largely replaced the regulations previously contained in the TNC – System balancing and system congestion management.

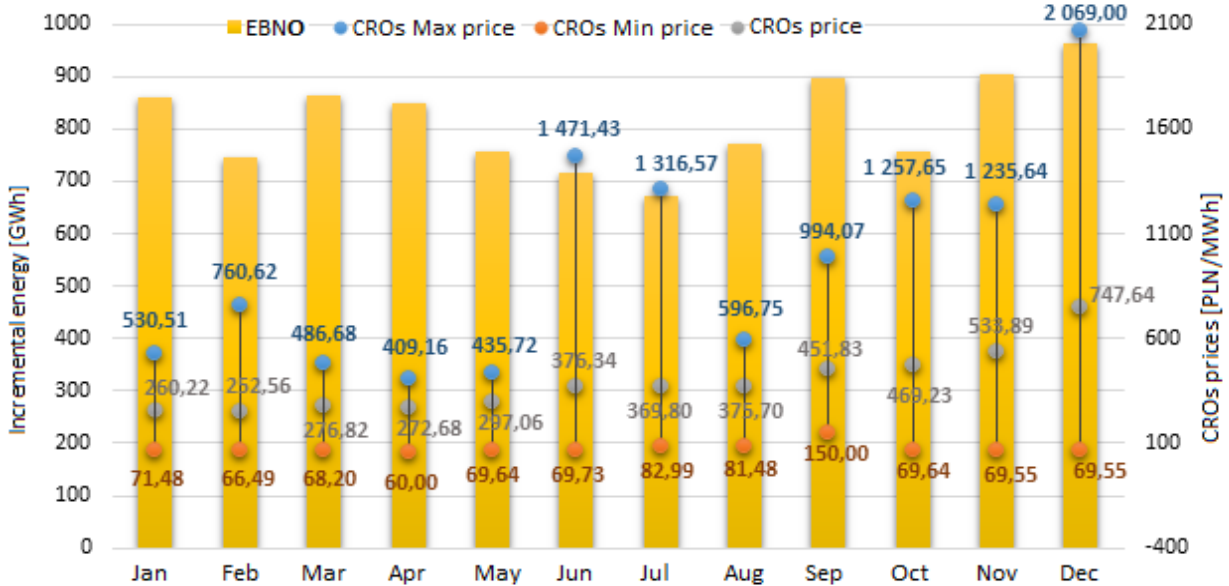
At the end of 2021, 126 entities participated in the balancing market processes, including 25 generators, 10 final customers, 11 network customers, 71 trading enterprises, 3 energy exchanges, 5 DSOs and PSE S.A. as TSO. Technical and commercial data were submitted by 49 market operators and concerned 332 schedule units.

The figure below presents information on the volume of unscheduled balancing energy (UBE) received from the balancing market (purchase from the BM) and the settlement prices of imbalance in this market in individual months of 2021.

⁴⁾ Deduction from revenue corresponding to the costs accruing to PSE S.A. in accordance with the agreements in force, incurred for the benefit of interconnection participants for the remuneration of annual and monthly transmission rights.

⁵⁾ In accordance with the Article indicated, priority shall be given to the allocation of any revenues resulting from the allocation of cross-zonal capacity for the following purposes: guaranteeing the actual availability of the allocated capacity, including compensation for guarantees, or maintaining or increasing cross-zonal capacity by optimizing the use of existing interconnectors through coordinated remedial action, where appropriate, or covering costs relating to network investments which are relevant to reducing congestion on an interconnector.

Figure 1. Energy received (UBE) and prices of balancing energy on the balancing market (SPDs) in 2021

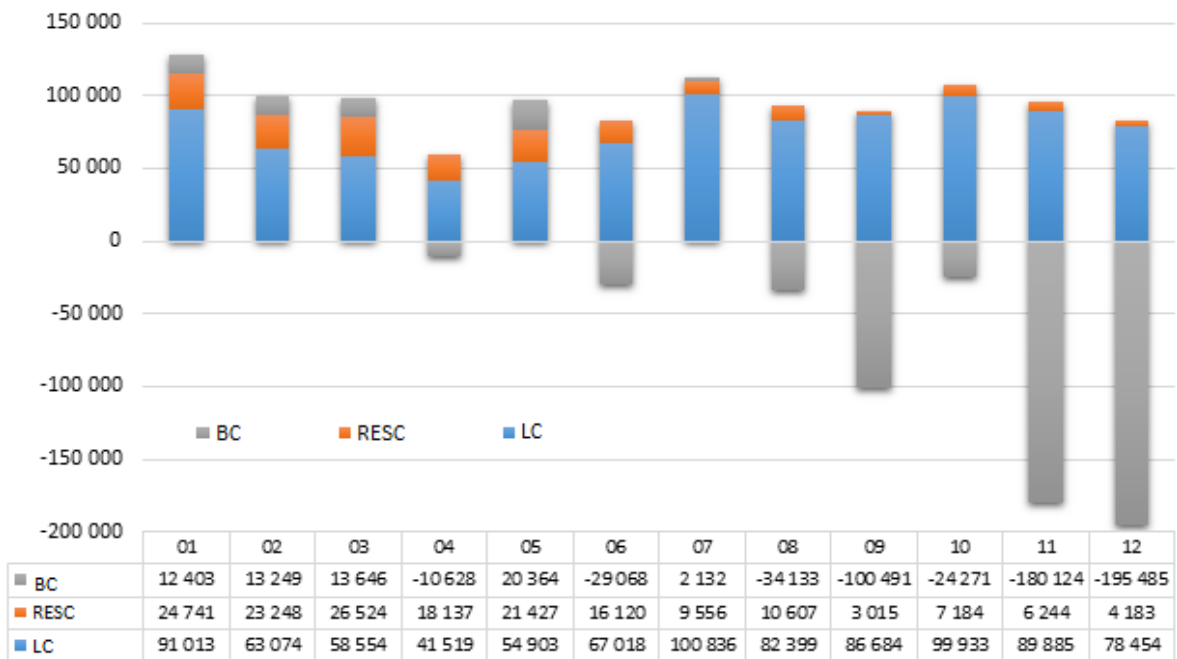


Source: URE, on the basis of data acquired from PSE S.A.

The maximum settlement price of deviation (SPD) in the balancing market varied between 409.16 PLN/MWh and 2,069.00 PLN/MWh and the minimum settlement price from 60.00 PLN/MWh to 150.00 PLN/MWh, whereas weighted average monthly prices of SPD oscillated between 252.56 PLN/MWh and 747.64 PLN/MWh. The situations described above depended on various conditions, with the key ones including atmospheric conditions, demand for capacity in the NES, capacity reserves in this system and atmospheric conditions.

In 2021, the costs of removing limitations amounted to PLN 914.272 million, costs resulting from the reallocation of Energy Sales Contracts (ESC) amounted to PLN 170.986 million, and the costs of balancing customer demand (BC) totalled PLN -512.405 million. The development of these costs in the individual months of 2021 is shown in the figure below.

Figure 2. Costs of balancing customers' demand (BC), costs of removing limitations (LC) and costs arising from ESC reallocation (RESC) in 2021 [PLN thousand]



Source: URE on the basis of data of PSE S.A.

In particular months of 2021, the costs of balancing customers' demand (BC) varied from PLN – 195,485 thousand to PLN 20,364 thousand, while the costs of removing limitations (LC) and costs arising from ESC reallocation varied from PLN 41,519 thousand to PLN 100,836 thousand and PLN 3,015 thousand to PLN 26,524 thousand, respectively.

In relation to the role of the DSOs in the system balancing, it should be underlined that their tasks include mainly management of metering data. To this extent, DSOs co-manage the Balancing Market. These rules are specified in the distribution network codes and have impact mainly on the TPA rule implementation. In addition, DSOs are obliged to undertake measures ordered by the TSO, and these rules have been described by the TSO in the TNC and in the balancing conditions (BC) – introduced pursuant to Regulation 2017/2195 – including mechanisms regulated so far in the TNC-Balancing.

In 2021, system balancing was affected by amendments to the TNC, BC and DNCs.

The amendment to the TNC approved in 2021 by the President of URE concerned cross-zonal exchanges on the interconnections of Poland's electricity system with the systems of foreign transmission system operators carried out both to implement the ICP project and to take into account the ICP project in terms of expanding the operational performance of multi-NEMO in the Polish bidding zone by commercial profiles of Poland and the Czech Republic, Slovakia and Germany.

In 2021, an amendment to the BC approved by a decision of the President of URE on 1 December 2020 became effective, assuming the following:

- allowing for the active participation in the Balancing Market (BM) of resources other than Centrally Dispatched Generating Units (CDGU), including the demand side (DSR), by, among others, extending the possibility of the active participation in the BM of resources other than Active Generating Scheduling Units (GSUa) and Controlled Energy Consumers represented in Active Off-take Scheduling Units (OSUa), provided that they meet the requirements for active participation in the BM. In particular, this concerned the requirements for: IT systems for the exchange of information with the TSO, the ability to execute TSO operational orders, the availability of metering data, the required generating capacity (at least 1 MW gross) and, in the case of aggregated resources, also the condition for the location of individual resources forming a group of resources represented in one Scheduling Unit,
- implementation of a dedicated solution for the active participation of electricity storage and pumped storage plants in the BM. For this purpose, an active Storage Scheduling Unit (SSUa) and a clearing Storage Scheduling Unit (SSUc) were introduced in the revised BC, taking into account the possibility of charging and generation of electricity storage and pumped storage plant to the extent that charging and generation are possible due to the state of charge of the storage,
- introduction of the possibility to update the Balancing Bids within the Balancing Market for GSUa, SSUa, Active Wind Farm Scheduling Units (WFSUa), Active Photovoltaic Scheduling Units (PVSUa), accepted for execution via the data reporting gateway in the Day-Ahead Balancing Market (DABM). The update option applies to the trading part of the Balancing Bid and can be executed within the Intraday Balancing Market (IBM),
- clarification of the rules on: the obligation to designate a Market Operator for Scheduling Units, the notification of Emergency Sale Contracts on the Intra-Day Balancing Market and the notification of the Single Day-Ahead Market Coupling Schedules,
- a change in the catalogue of system services procured by the TSO, which includes the withdrawal of some system services such as the Cold Contingency Reserve, the Operational Capacity Reserve, the Guaranteed Programme for Emergency DSR at the command of the TSO (E-DSR Guaranteed Programme) and the Interventional Operation; the expansion of the resources that can provide certain services and the replacement of the TSO command demand reduction service (E-DSR Current Programme and E-DSR Simplified Programme) by the service of Interventional Demand Reduction by Consumers,
- adjustment of invoicing and financial settlement procedures for the event of negative settlement prices on the BM,
- introduction of solutions limiting arbitrage between the day-ahead market and the BM,
- a change in the principle of valuation and settlement of forced generation and reduction on the BM,
- a change of character convention in BM,
- adaptation of the scope of the information published by TSO.

In addition, it should be mentioned that the following modifications to the BC were approved by the President of URE in 2021:

- changes to the BM operating rules allowing the implementation of the SDAC to the extent resulting from the implementation of the ICP project. Furthermore, they take into account the implementation of the ICP project in the operation of multiple NEMOs in the Polish bidding zone,
- inserting provisions in the BC concerning the possibility for the TSO to resell, on commodity exchanges, a regulated market, an organized trading facility or within the framework of the Single Day-Ahead Coupling or the Single Intraday Coupling, operated by designated electricity market operators, surplus electricity purchased in order to cover losses arising in the transmission network during electricity transmission through this network, resulting from a change in demand for this energy. In addition, the provisions of the BC concerning the purchase through the Balancing Scheduling Unit, by the TSO and the DSOs as participants of the balancing market, of electricity to cover the TSO's and the DSOs' own needs, related to the business activity of electricity transmission or distribution, respectively, were clarified.

The most important changes made to the DSOs' DNCs approved in 2021 by the President of URE, which are related to the Balancing Market, include the following:

- changes resulting from the Ordinance of the Minister for Climate and the Environment of 21 December 2020 amending the Ordinance on the Collection of the Capacity Fee and the Designation of Hours of the Day Falling within the Peak Demand for Capacity in the System⁶⁾,
- changes resulting from amendment of the provisions of the Ordinance of the Minister of Economy of 4 May 2007 on Detailed Conditions for the Operation of the Power System, introduced by the Ordinance of the Minister of Climate and Environment of 11 November 2020 amending the Ordinance on Detailed Conditions for the Operation of the Power System⁷⁾ and adjustment to the requirements of the BC approved by the decisions of the President of URE of 5 March 2020 and 1 December 2020.

In addition, the DSOs, with the exception of PGE Dystrybucja S.A., updated the standard consumption profiles used in the commercial balancing of electricity supply sites for customers with a contracted capacity of 40 kW or less.

3.1.5. Monitoring the balance of supply and demand

Monitoring investment plans of energy companies in new generation capacity

Performing the tasks arising from the Energy Law Act with respect to monitoring the security of electricity supply, the President of URE examines every two years investment plans of electricity generators fulfilling the obligation to prepare 15-year forecasts, pursuant to Article 16 para. 20 and 21 of the Energy Law Act. The next reporting obligation falls in 2022. According to these provisions, an energy company generating electricity from sources with a total installed capacity of not less than 50 MW prepares and submits to the President of URE forecasts for a period of 15 years, covering in particular: the amount of electricity generated, undertakings for modernization, expansion of existing sources or construction of new ones, as well as technical and economic data concerning the type and size of these sources, their location and the type of fuel used to generate electricity. For the examination, questionnaires developed by URE will be used, which will be sent to energy companies and groups, as well as data from PSE S.A.

Activities related to the capacity market

After more than three years in force, the Capacity Market Act saw significant amendments.

In May and July 2021, amendments came into force, which introduced a wide range of modifications resulting from Regulation 2019/943. In addition, a new model for the calculation of rates and collection of the capacity fee was implemented, as well as regulations resulting from the experience gained during the previous operation of the capacity market. New obligations were also imposed on the President of URE.

⁶⁾ JoL of 2020 item 2370.

⁷⁾ JoL of 2020 item 2026.

Alignment with the market regulation:

- a) exclusion of generation units that do not meet the CO₂ emission limit of 550 g/kWh of electricity produced from participation in capacity market auctions,
- b) introduction of the determination of forecast maximum volumes of capacity obligations for foreign suppliers on the basis of a European Resource Adequacy Assessment (ERAA),
- c) granting the competence to the President of URE to propose one of the capacity auction parameters, that is, the volume of capacity demand,
- d) an obligation for the minister responsible for energy to publish, by way of an ordinance, a standard for security of electricity supply defined on the basis of VOLL and CONE calculated by the President of URE.

New model for calculation of rates and collection of the capacity fee

The amendments introduced a charging system in which, from 1 January 2028, their amount for all customers will depend on the individual consumption curve. At the same time, due to the need to equip all metering points with hourly remote reading meters, a transitional period was established with a schedule for the implementation of the target model.

Regulations based on experience to date and market developments

In consideration of the changes taking place in the power sector and the experience from the previous operation of the capacity market in Poland, the following modifications were introduced:

- a) more favourable rules, from the perspective of potential investors, for the monitoring of the implementation of investments for units with long-term contracts in the capacity market,
- b) a possibility to change the technology to a low-emission one for new units with a long-term contract that do not meet the emission limit,
- c) introduction of the possibility of secondary trading in the capacity obligation,
- d) comprehensive regulation of the operation of energy storage facilities.

New obligations of the President of URE:

- a) submission of the capacity demand proposal for the main auction and the additional auctions,
- b) determination of the value of lost load (VOLL),
- c) determination of the unit cost of new entry (CONE),
- d) calculation of the unit rate of penalty for failure to meet the capacity obligation for a given supply year.

In fulfilment of its obligations under the Capacity Market Act, in 2021 the President of URE:

- announced the final results of the main auction for the supply year 2025⁸⁾,
- announced the final results of the additional auctions for each quarter of the supply year 2022⁹⁾,
- submitted a request to the Minister of Climate and Environment regarding the volume of capacity demand in the main auction for the supply year 2026 and in the additional auctions for the supply year 2023,
- gave its opinion to the Minister for Climate and Environment on the parameters of the main auction for the supply year 2026 and on the parameters of the additional auction for the supply year 2023,
- indicated selected hours of the day falling within the hours of peak demand for capacity in the system determined separately for the quarters of the supply year 2022¹⁰⁾,

⁸⁾ Information no 2/2021, <https://www.ure.gov.pl/pl/energia-elektryczna/rynek-mocy/informacje/9238,Informacja-nr-22021.html>

⁹⁾ Information no 23/2021, <https://www.ure.gov.pl/pl/energia-elektryczna/rynek-mocy/informacje/9387,Informacja-nr-232021.html>

¹⁰⁾ Information no 55/2021, <https://www.ure.gov.pl/pl/energia-elektryczna/rynek-mocy/informacje/9801,Informacja-nr-552021.html>

- calculated the capacity fee rates for 2022¹¹⁾,
- calculated the unit rate of penalty for non-compliance with the capacity obligation applicable in 2022¹²⁾.

In addition, the President of URE provided answers to a number of questions of the capacity market participants, which arose in connection with the Act in force, in particular with regard to the obligations to submit to general certification, certification for auction or the data for calculation and publication of the capacity fee rates and the determination of selected hours of the day falling on the peak demand for capacity in the system for the supply year 2022, as well as the new model of capacity fee calculation and collection.

Pursuant to the requirements of the Capacity Market Act, the President of URE received information from the operator which, pursuant to Article 2 para. 1 item 27 of the Capacity Market Act, is PSE S.A., regarding:

- the course of general certification in 2021, certification for the auction for supply year 2026, the course for additional auctions for supply year 2022 and the course of the main auction for supply year 2026,
- parameters for the main auction for supply year 2026 and for additional auctions for supply year 2023.

By decision of 10 November 2021, the President of URE approved amendments to the Capacity Market Rules. They clarified the principles for the determination of the adjusted capacity obligation by indicating that the capacity demand in the power system includes capacity to meet the demand for electricity and capacity reserves. In addition, they adjusted the Capacity Market Rules to the amended provisions of the Capacity Market Act and the Energy Law Act and eliminated interpretation doubts related to the clearing process, handling of metering and settlement data, demand reduction test, performance of the capacity obligation, including showing demonstrations, as well as notification of transactions on the secondary market.

General certification in 2021

According to the provisions of the Act, owners of physical units with a capacity of at least 2 MW are required to undergo general certification every year. In 2021, 1,254 applications were submitted under this obligation, that is by 3.6% more than in 2020. 1,223 units were registered in the capacity market register, that is by 3% more than in the preceding year. The net generating capacity of the physical units entered in the register amounts to 51.9 GW (a decrease by 5.5% compared to the previous year).

As a result of the certification verification works, 65 existing physical generating units were identified that did not submit to the general certification obligation in 2021. The President of URE conducted explanatory proceedings in this case.

Additional auctions for Q1, Q2, Q3 and Q4 of supply year 2022

On 16 March 2021, additional auctions were held for all quarters of supply year 2021. Participation in the additional auctions was conditional on prior general certification, and then certification for additional auctions.

Table 3. Data on additional auctions for Q1, Q2, Q3, Q4 of supply year 2022

Quarter of supply year 2022	Number of bids that won the main auction	Total volume of capacity obligations arising from concluded capacity contracts for a given supply year [MW]
I	40	1 021
II	23	380
III	22	361
IV	40	888

Source: URE.

¹¹⁾ Information no 56/2021, <https://www.ure.gov.pl/pl/energia-elektryczna/rynek-mocy/informacje/9802,Informacja-nr-562021.html>

¹²⁾ Unit rate of penalty for failure to comply with the capacity obligation, <https://bip.ure.gov.pl/bip/rynek-mocy/4179,-Jednostkowa-stawka-kary-za-niewykonanie-obowiazku-mocowego.html>

Additional auction for:

- Q1 ended in round 5. with the closing price of 186.70 PLN/kW/year,
- Q2 ended in round 1. with the closing price of 320.00 PLN/kW/year,
- Q3 ended in round 1. with the closing price of 320.00 PLN/kW/year,
- Q4 ended in round 3. with the closing price of 240.02 PLN/kW/year.

Main auction for supply year 2026

On 16 December 2021, the main auction for supply year 2026 was held. Participation in the main auction was conditional on prior general certification and subsequent certification for the auction. Number of bids that won the main auction for the supply year 2026 was 128.

Table 4. Data on the main auction for supply year 2026

	Number of bids that won the main auction	Total volume of capacity obligations arising from concluded capacity contracts for a given supply year [MW]
Polish units	89	6 839
Foreign units	39	350

Source: URE.

The main auction for the supply year 2026 ended in round 1 with the closing price of 400.39 PLN/kW/year for capacity market units comprising Polish physical units.

The price of capacity obligations for capacity market units comprising foreign physical units located in the zone referred to in Article 6 para. 6 item 3 of the Capacity Market Act covering the transmission system of the Kingdom of Sweden, in accordance with Article 36 para. 7 of the Act, is 399.00 PLN/kW/year.

A total of 17,969 MW has been contracted for the supply year 2026, including 7,189 MW in the main auction for the supply year 2026 and 10,780 MW as a result of long-term contracts in the auctions for 2021-2025.

The total volume of capacity obligations resulting from the conclusion of capacity contracts for more than one supply year in the main auction held for the supply year 2026 is 2,677.562 MW.

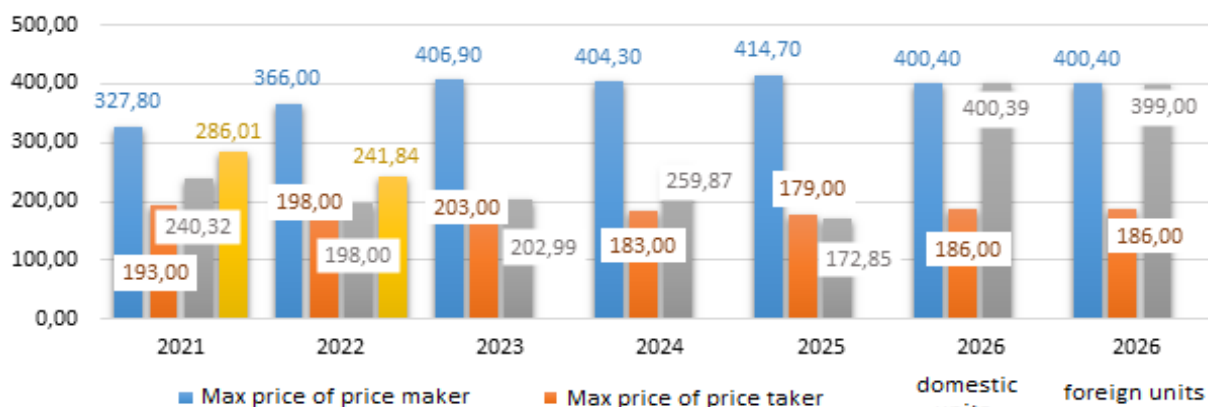
The main auction for 2026 was the first to close in Round 1, resulting in the highest ever closing prices. The price is 54% higher than the second highest closing price, which was in the auction for 2024, and 132% higher than the closing price from the auction for 2025. Such a large increase in the price is due to the lower supply of capacity obligations than the demand for capacity, which is most likely caused by preventing units that do not meet the emission limit, which are the dominant sources of electricity generation in Poland, from benefiting from support in the capacity market¹³⁾.

Of note is also the 55% increase in the capacity contracted by unconfirmed demand reduction capacity market units compared to the main auction for 2025. This indicates a growing interest among customers in the provision of this type of service.

The results of the actions that have taken place so far are illustrated below.

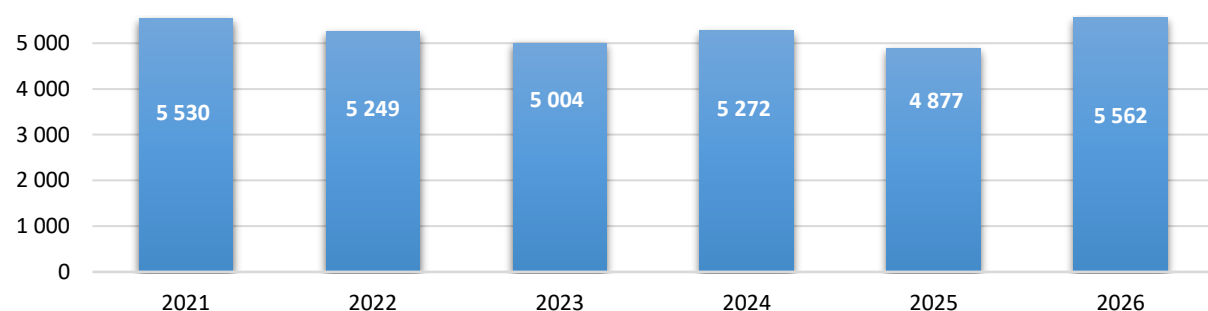
¹³⁾ Chapter II, item 6 of the Report on the activities of the President of URE in 2020, <https://bip.ure.gov.pl/bip/-rynek-mocy/4179,Jednostkowa-stawka-kary-za-niewykonanie-obowiazku-mocowego.html>

Figure 3. Changes in prices from auction to auction and comparison of annual costs of the capacity market as actually formed as a result of the conducted auctions – for 2021-2026



Source: URE on the basis of information provided by PSE S.A. on the website: <https://www.pse.pl/-aktualnosci-rynku-mocy>

Figure 4. Annual costs on the capacity market for 2021-2026 [PLN million]



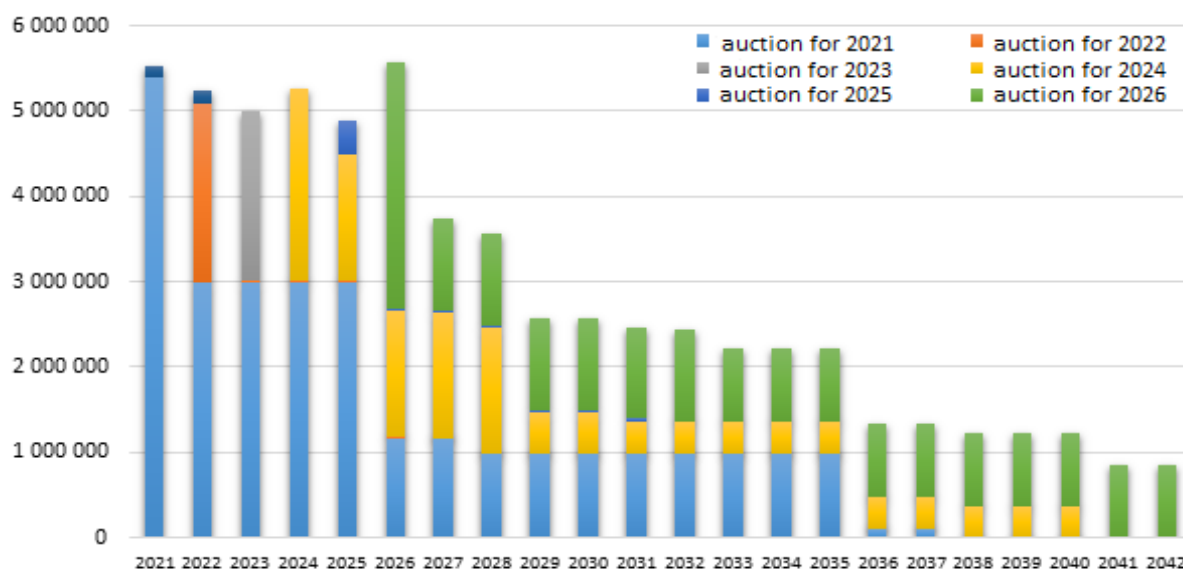
NB: Annual capacity market costs along with additional auctions for 2021 and 2022, costs for additional auctions for 2023 amount to PLN 263 million.

Source: URE on the basis of information provided by PSE S.A. on the website: <https://www.pse.pl/-aktualnosci-rynku-mocy>

It should be noted that the full costs of the capacity market for 2024-2026 will be known after the additional auctions have been conducted¹⁴⁾.

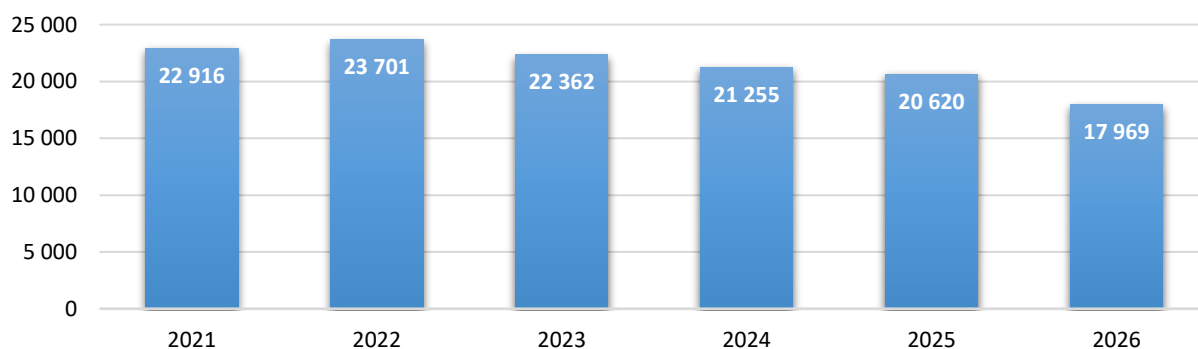
¹⁴⁾ Pursuant to Article 29 para. 4 of the Capacity Market Act, additional auctions are carried out in the year preceding the year in which the supply periods of each of these auctions fall, with additional auctions for all supply periods taking place at the same time.

Figure 5. Annual costs of capacity contracts for 2021-2042 concluded as a result of capacity auctions that took place in the years 2018-2022 [PLN thousand]



Source: URE on the basis of information provided by PSE S.A. on the website: <https://www.pse.pl/-aktualnosci-rynku-mocy>

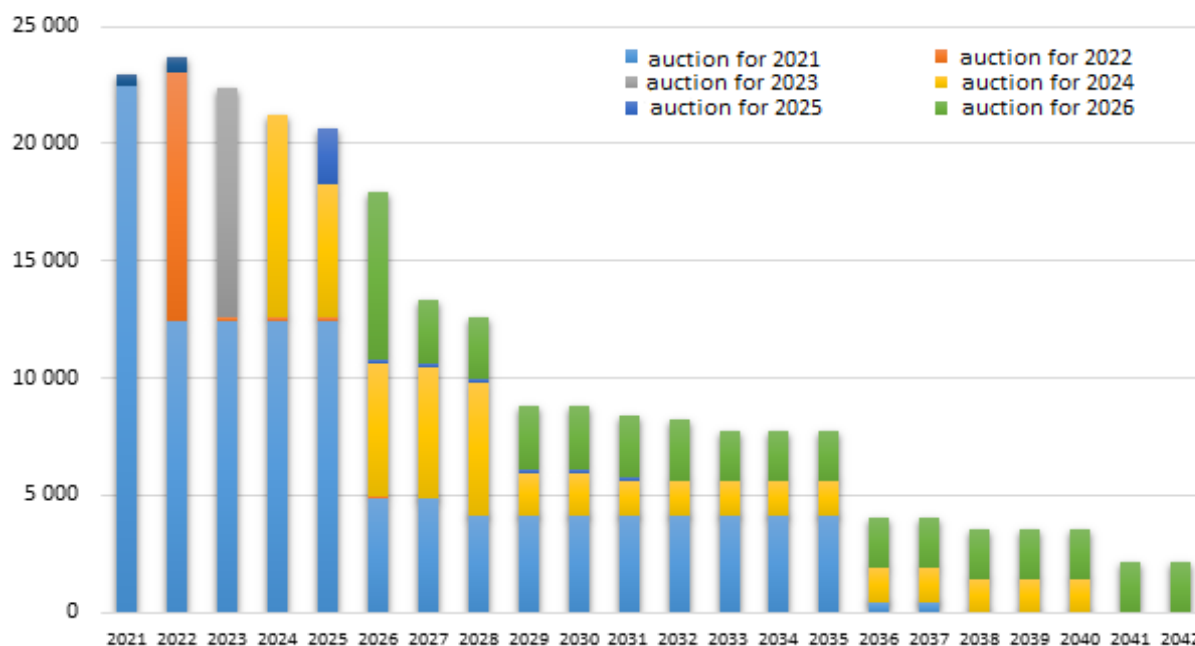
Figure 6. Capacity contracted for years 2021-2026 [MW]



NB: Only the additional auctions for 2021-2022 are included in the figure above, the additional auctions for the 2023 supply year resulted in an additional 851 MW contracted on an annual average basis.

Source: URE on the basis of information provided by PSE S.A. on the website: <https://www.pse.pl/-aktualnosci-rynku-mocy>

Figure 7. Capacity contracted for 2021-2042, as a result of auctions which took place in the years 2018-2022 [MW]



Source: URE on the basis of information provided by PSE S.A. on the website: <https://www.pse.pl/-aktualnosci-rynku-mocy>

Implementation of the capacity market processes in 2021 was timely and without disruption.

The introduction of regulations preventing generating units which do not meet the 550 g/kWh CO₂ limit from generating revenues from the capacity market, compared to previous years, has dramatically changed the structure of units that concluded contracts in the main auction for 2026, not only in terms of fuel. In the main auctions for 2021-2025, the capacity contracted by new generating units accounted for around 12% of the total contracted capacity, while in the auction for 2026, it is around 30%.

DSR units in the main auctions for 2021-2025 contracted 8% of the total capacity, while in the auction for 2026 it is already 20%.

The increase in the share of new generating units and DSR in capacity contracts translated into a decrease in the share of modernized and existing generating units from 22% and 59%, respectively, in the 2021-2025 contracts, to 7% and 37% for the year 2026.

Gas has become the dominant fuel for heat plants participating in capacity market auctions.

The changes introduced by Regulation 2019/943 have led to increased investor interest in building new gas-fired capacity and increased demand side interest in participating in the capacity market auction. In the following years, the trend of increasing DSR participation and the emergence of new electrochemical energy storage is expected to continue, while the question of investment in new gas sources will depend on the stabilization of the gas market.

Other activities in the capacity market

Work related to the calculation of the value of lost load (VOLL) and the cost of new entry (CONE)

Poland, as a country where the capacity market has been implemented, is obliged to define the required level of security of electricity supply expressed through a reliability standard, for the calculation of which it is necessary to determine the value of lost load and the cost of new entry.

According to the definition found in Article 2(9) of Regulation 2019/943, VOLL means an estimation in euro/MWh, of the maximum electricity price that customers are willing to pay to avoid an outage.

In consideration of the above definition, ACER, in its Decision No 23/2020 of 2 October 2020 on the methodology for calculating the value of lost load, the cost of new entry and the reliability standard (hereinafter: "Decision No 23/2020"), indicated the method of surveying selected groups of customers comprising a nationally representative sample, with the use of the willingness to pay (WTP) method as the primary means of collecting the data necessary for the VOLL calculation.

In conjunction with Article 11(1) and in accordance with Article 23(6) of Regulation 2019/943, the President of URE undertook measures aimed to estimate the VOLL value for the territory of the Republic of Poland.

In order to calculate the CONE, the President of URE requested the necessary information and data from entities potentially interested in investments in the areas of electricity generation and storage and provision of DSR services.

The above information was mainly based on data from 2020, which differed significantly from previous years due to the COVID-19 outbreak, and 2021 was characterized by a very high growth dynamics of electricity, gas and CO₂ emission allowance prices. Considering the above, the President of URE decided to analyze the potential impact of these factors on the VOLL indicator value, which illustrates the willingness of customers to incur additional costs to ensure greater reliability of electricity supply. Based on the results of this analysis, a decision will be made on whether to repeat the survey of electricity customers.

European Resources Adequacy Assessment 2021 – ERAA 2021

ACER by Decision No 24/2020 of 2 October 2020 approved the methodology for the European resource adequacy assessment (Decision No 24/2020 of the European Union Agency for the Cooperation of Energy Regulators of 2 October 2020 on the methodology for the European resource adequacy assessment, hereinafter: "ERAA methodology").

The ERAA methodology is intended to provide a consistent and comparable basis allowing to identify capacity availability problems in the electricity systems of European transmission operators. This assessment is performed for parallel scenarios (with and without capacity markets) and covers a horizon of 10 consecutive years. It allows to identify long-term, structural problems in ensuring electricity demand coverage and will additionally provide information on the need to operate capacity markets within the EU. An assessment of resource adequacy at European level is conducted annually by ENTSO-E.

In 2021 ENTSO-E prepared the first ERAA. Due to the fact that it was being prepared in a transitional period before the full implementation of the methodology approved by Decision No 24/2020, ACER, in cooperation with the regulators, prepared the minimum requirements it should meet. These related to its methodology, consultation and the transparency of the whole process.

ENTSO-E submitted the ERAA 2021 to ACER on 16 November 2021. Having analyzed the document, ACER concluded that it contains too many simplifications that materially affect the assessment of the risk related to resource adequacy and therefore cannot be an objective basis for assessing threats in this area.

3.1.6. Cross-border issues

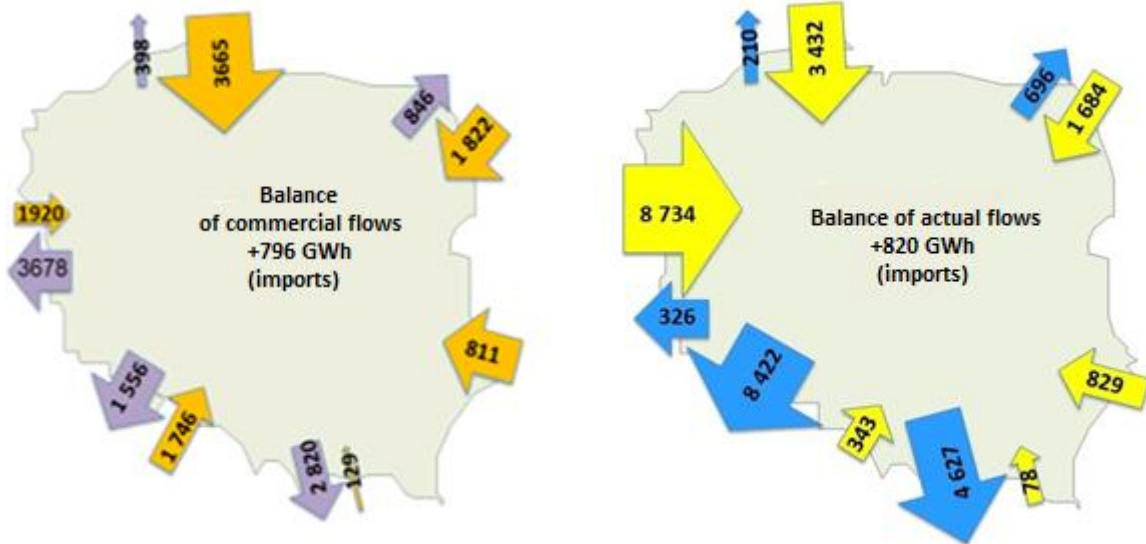
Monitoring technical cooperation between the EU and third country operators

Currently, the national electricity system is connected only with the Ukrainian electricity system – out of third countries which are not members of the EU. The transmission capacities at the Poland-Ukraine interconnection were made available through explicit auctions organized on a monthly basis. The transmission capacities were made available only for import to Poland in the maximum volume of 210 MW. In 2021 there were no emergency disconnections on the Polish side resulting in a reduction of planned supplies. The only failures to comply with the exchange plans were caused by emergency disconnection of the Dobrotwór power plant unit.

Monitoring of coordinated interconnection exchange

The commercial balance of electricity interconnection exchange and actual energy flows from individual countries to Poland and from Poland to other countries in 2021 are shown in Figure 8 below.

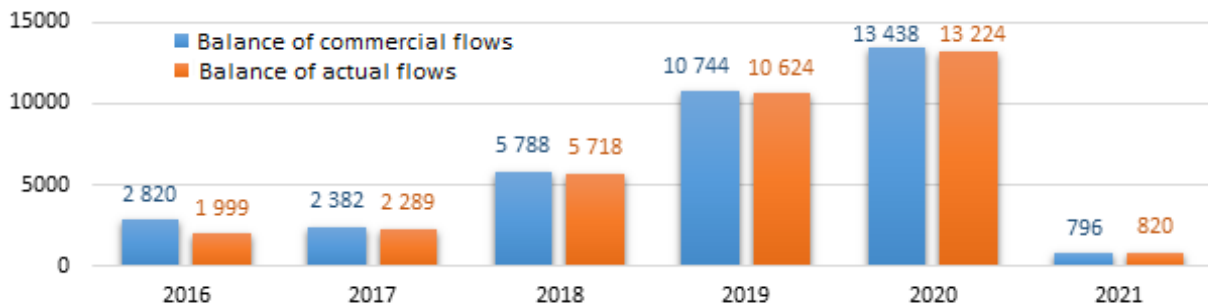
Figure 8. Balance of commercial and actual electricity flows on interconnections with other countries in 2021 [GWh]



Source: URE on the basis of data provided by PSE S.A.

Figure 9 below compares the overall balance of commercial flows and the overall balance of actual electricity flows from 2016 to 2021.

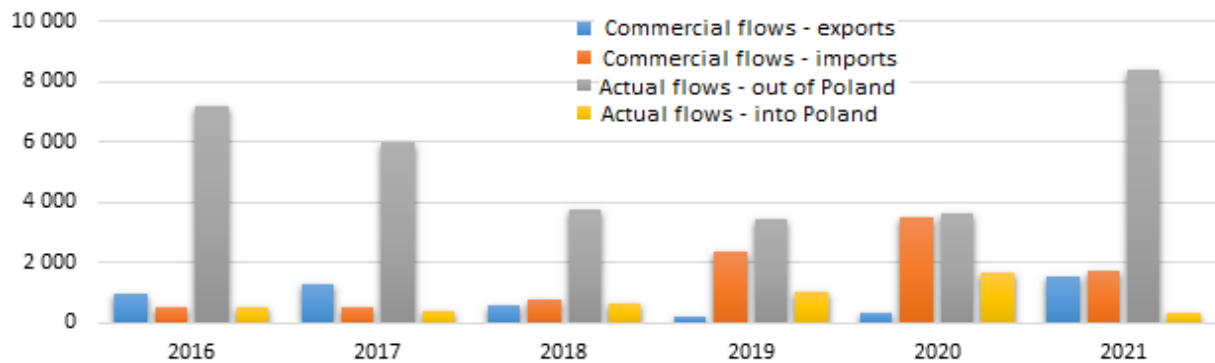
Figure 9. Comparison of commercial flow balances and actual electricity flow balances on interconnections with other countries (in total) in particular years 2016-2021 [GWh]



Source: URE on the basis of data provided by PSE S.A.

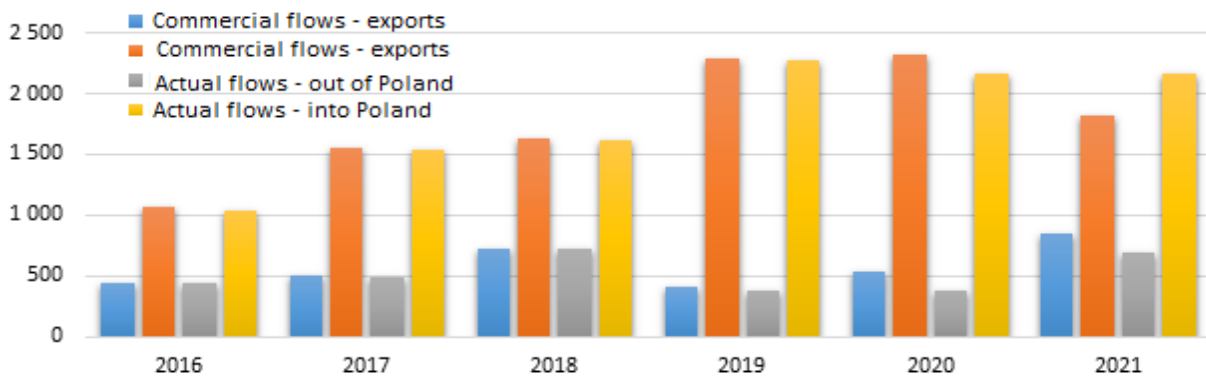
The figures below present a comparison of data on commercial flows (separately for imports and exports) and actual flows (separately for electricity flowing out of Poland and electricity flowing into Poland) broken down by individual interconnections with the neighbouring countries, that is on the interconnections of Poland with the Czech Republic, Lithuania, Germany, Slovakia, Sweden and Ukraine.

Figure 10. Comparison of commercial and actual electricity flows on the Poland-Czech Republic interconnection in the years 2016-2021 [GWh]



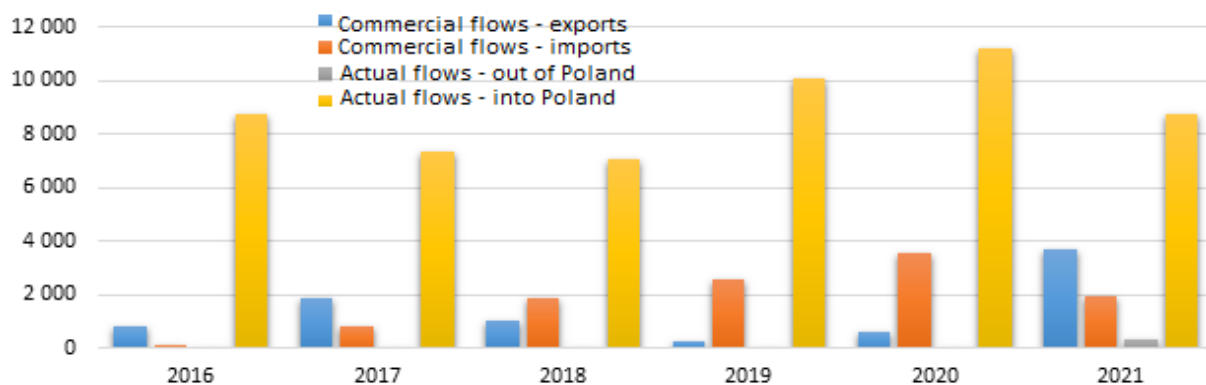
Source: URE on the basis of data provided by PSE S.A.

Figure 11. Comparison of commercial and actual electricity flows on the Poland-Lithuania interconnection in the years 2016-2021 [GWh]



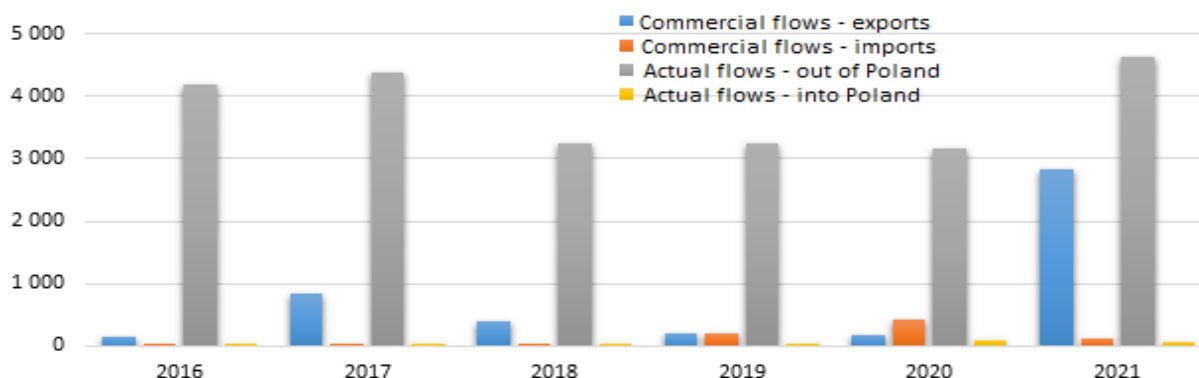
Source: URE on the basis of data provided by PSE S.A.

Figure 12. Comparison of commercial and actual electricity flows on the Poland-Germany interconnection in the years 2016-2021 [GWh]



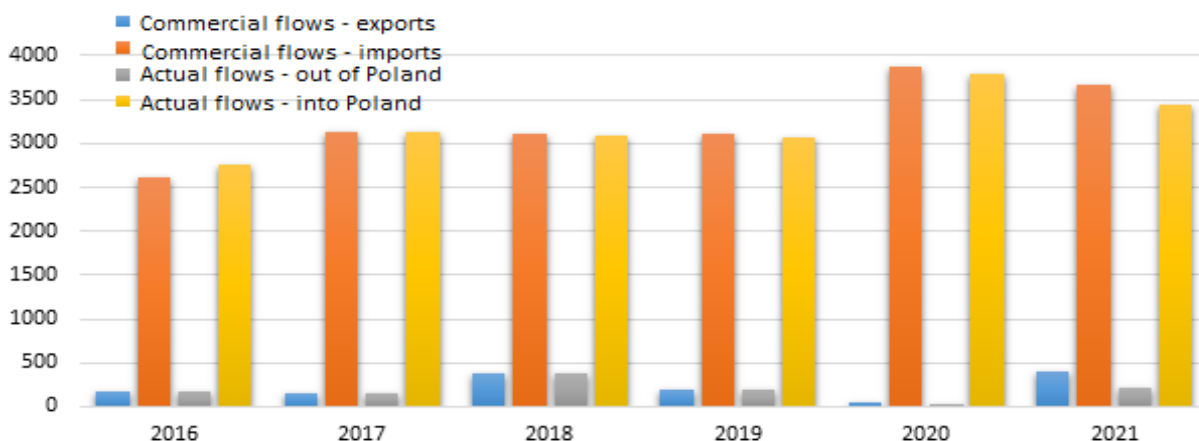
Source: URE on the basis of data provided by PSE S.A.

Figure 13. Comparison of commercial and actual electricity flows on the Poland-Slovakia interconnection in the years 2016-2021 [GWh]



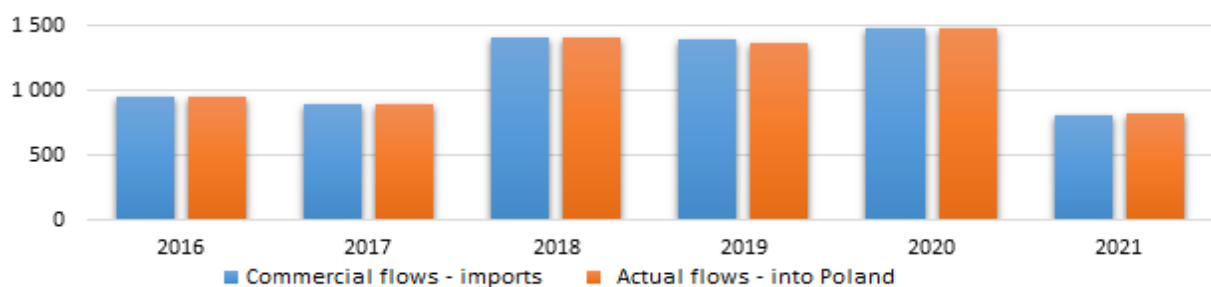
Source: URE on the basis of data provided by PSE S.A.

Figure 14. Comparison of commercial and actual electricity flows on the Poland-Sweden interconnection in the years 2016-2021 [GWh]



Source: URE on the basis of data provided by PSE S.A.

Figure 15. Comparison of commercial and actual electricity flows on the Poland-Ukraine interconnection (only for imports and energy flows out of Poland) in the years 2016-2021 [GWh]



Source: URE on the basis of data provided by PSE S.A.

Commercial Balance – the balance on the Polish borders in 2021 – amounted to +796.2 GWh (imports). Exports of electricity amounted in total to 9,298.7 GWh and increased almost fivefold (543%) as compared to the previous year. Imports also decreased in 2021 and amounted to a total of 10,094.9 GWh against 15,149.2 GWh in 2020 (decrease by ca. 66% as compared to the previous year).

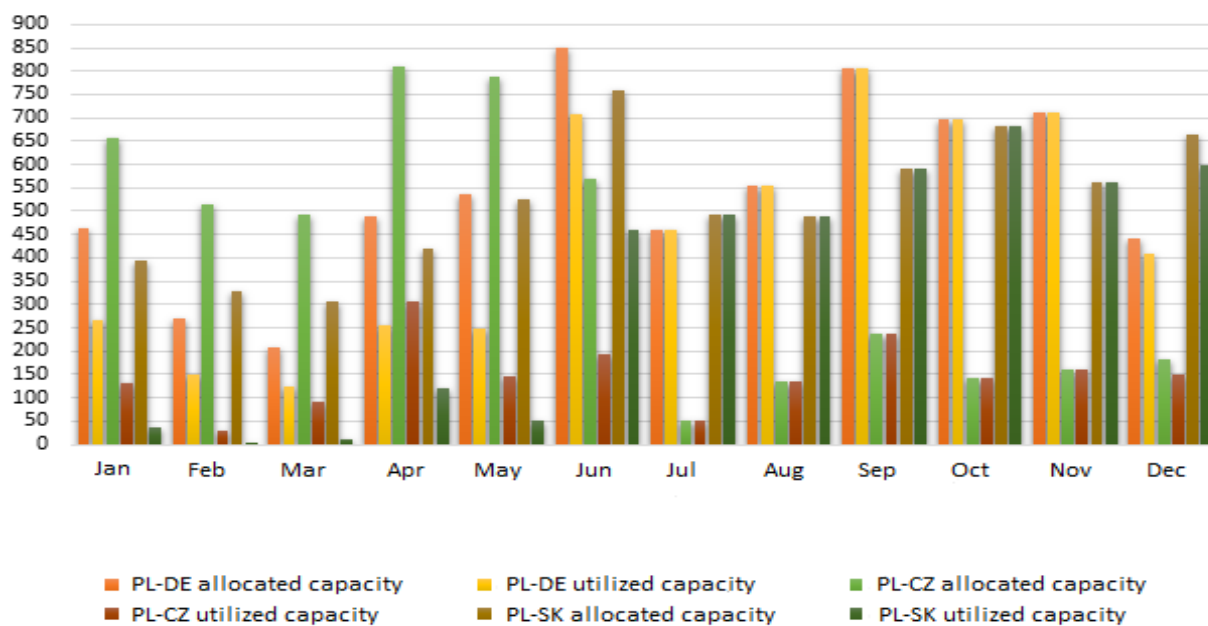
Such a high increase in exports was mainly dictated by a much higher increase in electricity prices in western countries than in Poland. Increases in electricity prices, on the other hand, were caused,

among other things, by rising gas prices on European markets, where the share of gas in electricity generation is much higher than in Poland.

At the same time, attention should be drawn to the significant difference between commercial and actual electricity flows at synchronous borders (Germany, Czech Republic, Slovakia), which is due to unplanned electricity flows that contribute to a significant reduction in the transmission capacity offered to participants at these borders.

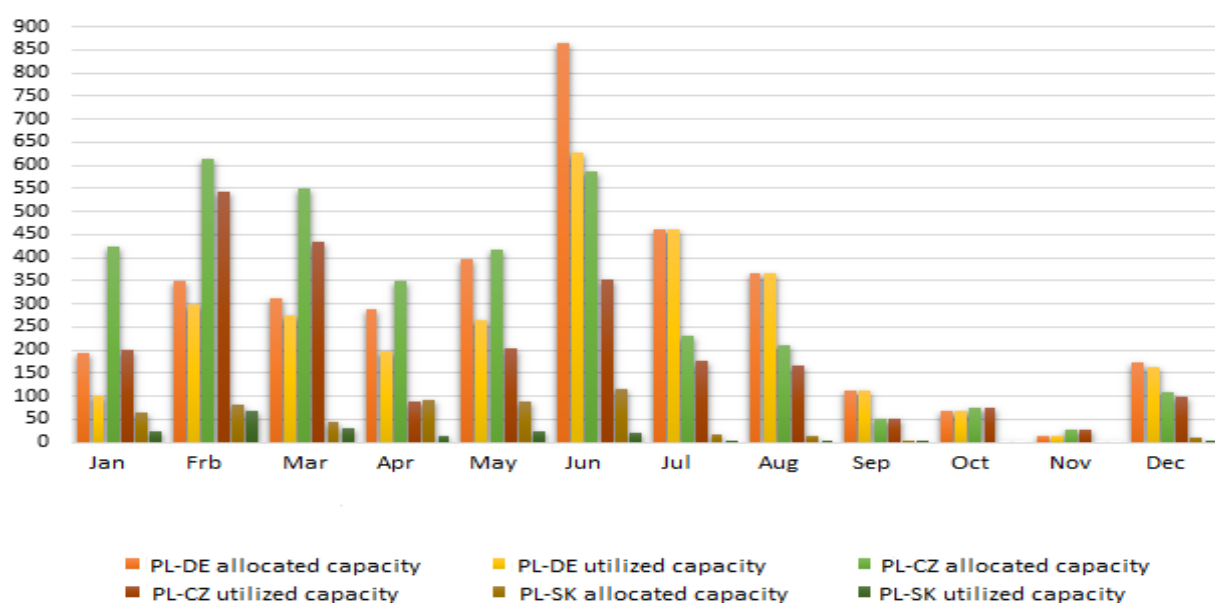
The figures below show monthly average volumes of allocated and utilized transmission capacities in export and import directions, respectively, on the synchronous interconnections in 2021.

Figure 16. Comparison of average monthly transmission capacity, allocated and utilized in export direction on synchronous interconnections in 2021 [MW]



Source: URE, on the basis of data provided by PSE S.A.

Figure 17. Comparison of average monthly transmission capacity, allocated and utilized in import direction on synchronous interconnections in 2021 [MW]



Source: URE, on the basis of data provided by PSE S.A.

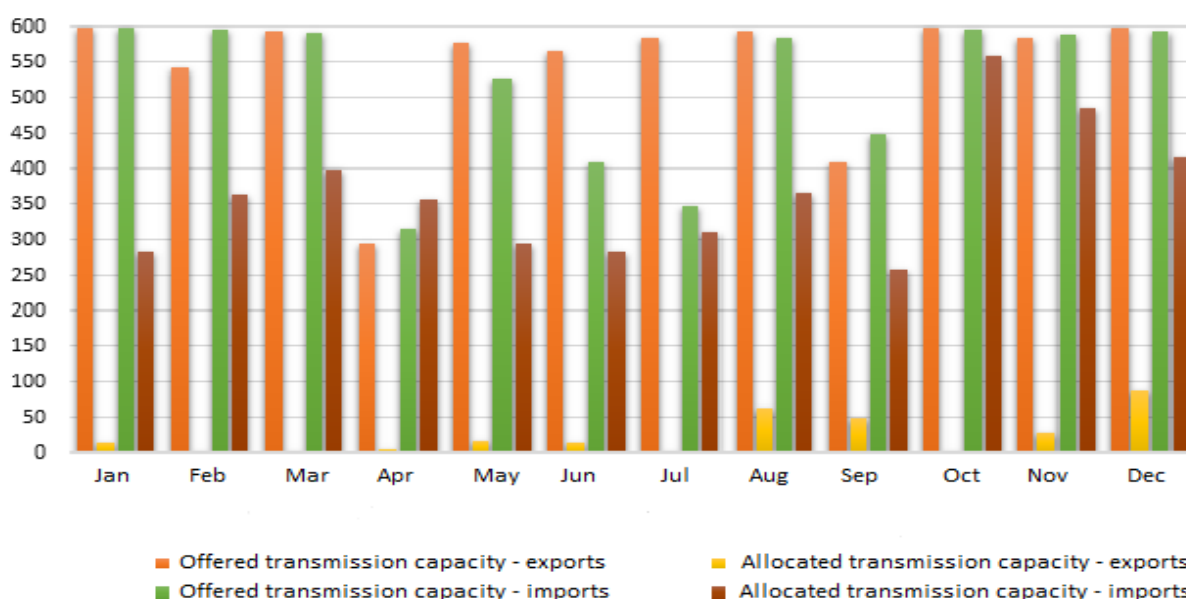
Total transmission capacities offered on a technical profile (jointly: Germany, Czech Republic, Slovakia) among commercial profiles (separately: Germany, Czech Republic, Slovakia) is allocated according to a price ranking of bids submitted by these participants. For the synchronous profile, NTC values for imports and exports were determined for the annual auction, monthly auctions, daily auctions and intraday procedures.

The data presented above show that for exports, market participants used most of the allocated capacity throughout 2021, especially starting from the middle of the year. For electricity imports in 2021, there was a similar trend, particularly in the directions from Germany and the Czech Republic.

In 2021, as in previous years, inter-operator remedial actions were taken, that is measures of an ad hoc nature to ensure the safe operation of interconnected systems. In 2020, these actions included only bilateral redispatching (no multilateral redispatching – MRA – was required), while the scale of bilateral redispatching with 50 Hertz, a German TSO, was considerably lower than the volume in 2020.

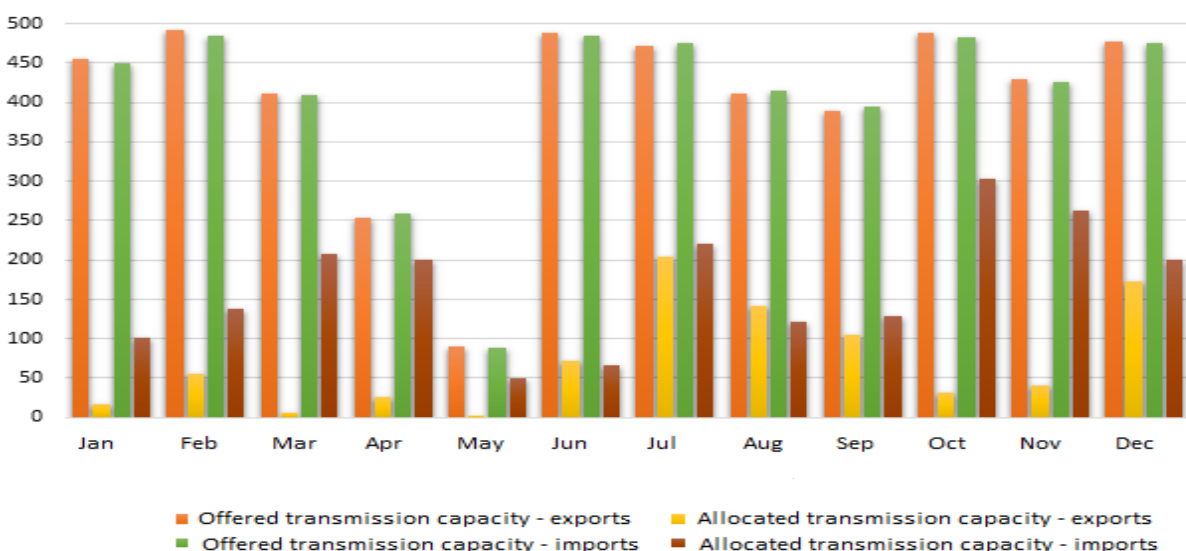
Monthly averages of offered and allocated capacity in 2021 are shown below.

Figure 18. Comparison of monthly average transmission capacities offered and allocated on the Poland-Sweden interconnector in 2021 [MW]



Source: URE, on the basis of data provided by PSE S.A.

Figure 19. Comparison of monthly average transmission capacities offered and allocated on the Poland-Lithuania interconnector in 2021 [MW]

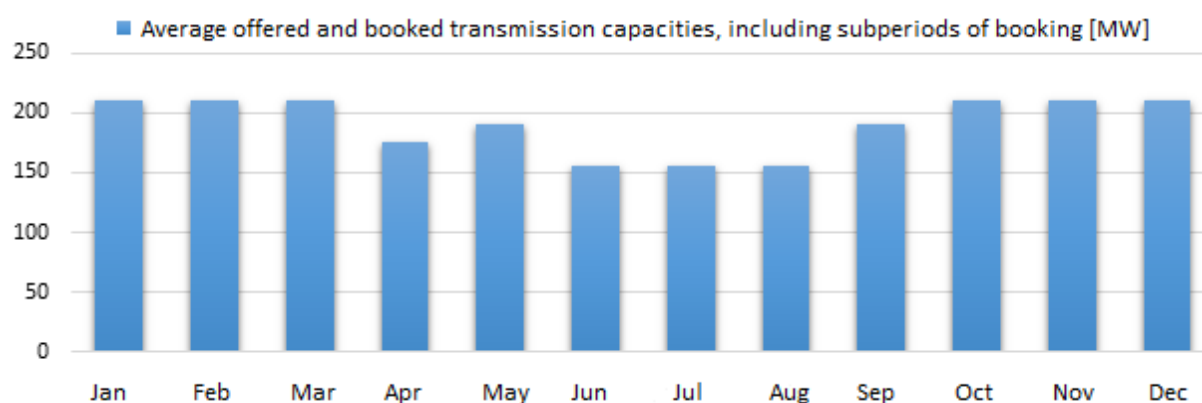


Source: URE, on the basis of data provided by PSE S.A.

For connections with Sweden and Lithuania, NTC values for exports and imports were determined for daily auctions and under the intraday procedure. Maximum volumes of offered transmission capacities on this border amounted to 600 MW in import direction and also 600 MW in export direction. A similar situation occurred on the Poland-Lithuania interconnector. The direction of commercial exchange on this interconnection was largely due to availability of the interconnector Lithuania-Sweden. Maximum volumes of offered transmission capacities on the Poland-Lithuania interconnection amounted to 492 MW in export direction to Lithuania, and 485 MW in import direction to Poland. The figures do not take into account allocated capacity for Sweden-Lithuania- and Lithuania-Sweden-transits due to the fact that from 10 February 2021, auctions under the single day-ahead coupling involving multiple NEMOs in Poland have been launched, making it impossible to use the existing settlement of these transits as separate from import/export flows.

Transmission capacities on the Poland-Ukraine interconnection were made available on the basis of explicit monthly auctions. Transmission capacity was made available only in import direction to Poland of up to 210 MW. Figure 20 shows the average monthly values of offered transmission capacity on the Poland-Ukraine interconnector, in the import direction in 2021.

Figure 20. Specification of monthly average offered transmission capacities on the Poland-Ukraine interconnector (imports) in 2021



Source: URE, on the basis of data provided by PSE S.A.

Monitoring the limitations of transmission services in cross-border exchange due to lack of capacity or grid failures in 2021

In the case of cross-system exchange on synchronous interconnections, there was a reduction in the allocated transmission capacity for a commercial day on 29 December 2021, when there was a reduction in the capacity allocated in the monthly auction on the profiles of PSE-50Hertz, PSE-CEPS, PSE-SEPS in the export direction from 600 MW to 0 MW. The reason for the reduction was the insufficient level of capacity reserves in the national electricity system due to the unavailability of generating units. In the case of interconnection exchanges with Sweden and Lithuania, there were no restrictions on allocated capacity (reductions) in 2021. On the Poland-Ukraine interconnection, there were no emergency shutdowns on the Polish side resulting in a reduction of planned deliveries. The only failure to meet the exchange plans was caused by an emergency shutdown of a unit at the Dobrotwór Power Plant.

3.1.7. Implementation of guidelines and network codes

Since 4 July 2019, Regulation 2019/943 replacing Regulation 714/2009 has been in force. Regulation 714/2009 still grants the European Commission competence to adopt network codes and guidelines detailing their provisions. Network codes and guidelines are adopted in the form of regulations. They cover cross-border network issues and market integration issues and their purpose is to create tools to implement cross-border solutions in a structured manner. These regulations are in force in the Member

States and are directly applicable without the need for implementation into national law. The regulations contain directly applicable legal standards, but also specify the methods, conditions, requirements and rules to be developed by the individual entities (TSOs and NEMOs), and are then subject to approval by all European regulators, all regional regulators or individually by each regulatory authority (or other competent authority of the Member State concerned).

Regulation 2015/1222

The President of URE, as part of its obligations under Regulation 2015/1222, took part in the consultation, cooperation and joint coordination of regulatory authorities. Most of the conditions or methodologies submitted by TSOs or NEMOs under that Regulation have been approved. Due to intensive work related to implementation of single day-ahead and intraday coupling, some of the conditions or methodologies already approved needed to be amended. The President of URE was involved in all cases processed by ACER under that Regulation.

Table 5. Status of methodologies or conditions resulting from Regulation 2015/1222 under consideration by ACER in 2021, (status given as at the end of 2021)

Conditions or methodologies	Applicants	Status
Amendment of capacity calculation regions	TSOs	ACER Decision No 04/2021 ¹⁵⁾ of 7 May 2021
Amendment of the congestion income distribution methodology	TSOs	ACER Decision No 16/2021 ¹⁶⁾ of 17 December 2021

Source: URE's own materials.

Regulation 2016/1719

As part of its obligations under the Regulation, the President of URE took part in the consultation, cooperation and joint coordination of regulatory authorities. Many of the conditions or methodologies submitted by the TSOs have already been approved and work on others is in progress. In view of the entry into force of Regulation 2019/943, applications for changes to methodologies originally subject to approval by all regulators have been directly addressed by the requesting entities to ACER.

Table 6. Status of work on the methodologies or conditions arising from Regulation 2016/1719, processed by ACER in 2021 (status as at the end of 2021)

Conditions or methodologies	Applicants	Status
Methodology for sharing costs incurred to ensure firmness and remuneration of long-term transmission rights	TSOs	ACER Decision No 12/2021 ¹⁷⁾ of 4 October 2021
Amendment of the harmonized allocation rules for long-term transmission rights	TSOs	ACER Decision No 15/2021 ¹⁸⁾ of 29 November 2021

Source: URE's own materials.

¹⁵⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision-%2004-2021%20on%20the%20CCR.pdf;

https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2004-2021_Annexes/ACER%20Decision%2004-2021%20on%20the%20CCR%20-%20Annex%20I.pdf

¹⁶⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision-%2016-2021%20on%20the%20Congestion%20Income%20Distribution%20Methodology.pdf;

https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2016-2021_Annexes/ACER%20Decision%2016-2021%20on%20CIDM%20-%20Annex%20I.pdf

¹⁷⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision-%2012-2021%20on%20the%20FCA-FRC%20Methodology.pdf

¹⁸⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision-%2015-2021%20on%20the%20Harmonised%20Allocation%20Rules%20for%20Long-term%20Transmission%20Rights.pdf;

https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2015-2021_Annexes/ACER%20Decision%2015-2021%20on%20the%20Harmonised%20Allocation%20Rules%20for%20Long-term%20Transmission%20Rights%20-%20Annex%20I.pdf

Regulation 2017/1485

At the end of December 2021 the TSO applied to the President of URE for approval of the documents: *FRR dimensioning rules* and *Measures to reduce FRCE and coordination actions to reduce FRCE*, which are the methods and conditions included in the LFC block operating contracts referred to in Article 119. Pursuant to Article 5(1) and (2) of Regulation 2017/1485, the TSOs shall develop the conditions and methodologies required by this Regulation and submit them for approval to the competent regulatory authorities in accordance with Article 6(2) and (3) or for approval to the entity designated by the Member State in accordance with Article 6(4), within the respective deadlines set out in this Regulation. Proceedings not concluded in 2021.

Table 7. Status of work on the methodologies or conditions arising from Regulation 2017/1485 processed by the President of URE in 2021

Conditions or methodologies	Applicants	Status
FRR dimensioning rules and Measures to reduce FRCE and coordination actions to reduce FRCE	TSOs	Pending

Source: URE's own materials.

Regulation 2017/2195

As part of its obligations under Regulation 2017/2195 at the European level, the President of URE participated in ACER's work on the operation of the European platform for the imbalance netting process and the implementation of European platforms for exchange of balancing energy exchange for frequency restoration reserves with manual activation and for the exchange of balancing energy from frequency restoration reserves with automatic activation. Once implemented, these platforms will allow the exchange of balancing energy between all EU TSOs connected to them, thus contributing to the optimization of sourcing costs of balancing services within the EU, enhancing balancing market liquidity and integration, and strengthening effective competition, non-discrimination and transparency.

Table 8. Status of work on the methodologies or conditions arising from Regulation 2017/2195, processed by ACER (status as at the end of 2021)

Conditions or methodologies	Applicants	Status
Amendment to the methodology for pricing balancing energy and cross-zonal capacity used for the exchange of balancing energy or operating the imbalance netting process	TSOs	Processed by ACER

Source: URE's own materials.

Implementation of guidelines and network codes at the regional and national level

ACER's decision to determine the capacity calculation regions (CCR)¹⁹⁾ under Regulation 2015/1222 made it necessary for TSOs and national regulators to cooperate and coordinate jointly within the regions. The borders of the Polish bidding zone are assigned to three independent CCRs (Hansa – Polish-Swedish border, Core – Polish-German, Polish-Czech and Polish-Slovakian border, Baltic – Lithuanian-Polish border). In addition, Regulation 2017/2195 indicates as a region the relevant geographical area and the synchronous area in addition to the CCR. Regulation 2017/1485 additionally distinguishes the load- frequency control

¹⁹⁾ The capacity calculation regions were established by ACER Decision No 06/2016 of 17 November 2016 (published on ACER's website: http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual-%20decisions/ACER%20Decision%2006-2016%20on%20CCR.pdf), amended by Decision of the President of URE of 6 November 2017, ref. no: DRR.WRE.7128.46.2017.PSt, ACER Decisions No 04/2019 of 1 April 2019 and 7 May 2021.

block (LFC block), which means a part of the synchronous area or the entire synchronous area, physically separated by measurement points in interconnections with other LFC blocks, covering at least one LFC area, operated by at least one TSO fulfilling the obligations of load and frequency control.

The President of URE actively participated in cooperation at a regional level. The key work in the Core region in 2021 concerned the Core Flow-Based Market Coupling project (hereafter: "Core FB MC Project"), that is, the transition from a methodology based on the principle of estimating and defining ex-ante the maximum energy exchanges between bordering bidding zones (NTC methodology) to a methodology in which the energy exchanges between bidding zones are limited by electricity spread factors and available margins on critical network elements (FBA methodology). The early implementation of day-ahead market coupling saw the implementation of the Interim Coupling Project (ICP), that is, the start of capacity allocation in the day-ahead market coupling through implicit auctions based on the NTC methodology at the borders: Hungary-Austria, Austria-Czech Republic, Czech Republic-Germany, Germany-Poland, Czech Republic-Poland and Poland-Slovakia, agreed between the TSO and NEMO, which will operate from 17 June 2021 until the implementation of the Core FB MC.

In 2021 the President of URE continued its activities related to the Grid Connection Codes (Regulations: 2016/631, 2016/1388 and 2016/1447).

In April 2021 the DSO applied to the President of URE for a decision pursuant to Article 4(1)(a) of Regulation 2016/631 on the need to amend the existing connection agreement or to conclude a new connection agreement and to cover the scope of modification in question with the requirements of the Regulation listed in the application. In accordance with the procedure set out in Article 4(1)(a) of Regulation 2016/631, power-generating facility owners who intend to undertake the modernization of a plant or replacement of equipment impacting the technical capabilities of the power-generating module shall notify their plans to the relevant system operator in advance. If the relevant system operator considers that the extent of the modernization or replacement of equipment is such that a new connection agreement is required, the system operator shall notify the President of URE, which shall decide in the course of the proceedings whether an amendment to the existing connection agreement is necessary or whether a new connection agreement is needed, and which requirements set out in this regulation apply. In the course of the proceedings, the DSO considered that there was no prerequisite for the application of the legal basis of Article 4(1)(a) of Regulation 2016/631 in this case, as a result of which the proceedings ended with the DSO's application being left unaddressed.

The following tables show the status of methodologies or conditions resulting from network guidelines and codes that are subject to approval by the regulatory authorities of the region, which are under procedure by the President of URE in 2021.

Table 9. Status of work on the methodologies or conditions arising from Regulation 2015/1222, which are subject to approval by regulatory authorities of a given region (status is given as at the end of 2021), processed by the President of URE in 2021

Conditions or methodologies	CCR	Applicants	Status
Amendment of the fallback procedures	Core	TSOs	ACER Decision No 02/2021 ²⁰⁾ of 30 March 2021
Amendment to day-ahead capacity calculation methodology	Core	TSOs	Decision of the President of URE ²¹⁾ of 8 June 2021
Common methodology for coordinated calculation of day-ahead and intraday capacity	Hansa	TSOs	Decision of the President of URE ²²⁾ of 19 May 2021
Common methodology for redispatching and countertrading cost sharing	Hansa	TSOs	Decision of the President of URE ²³⁾ of 15 March 2021

²⁰⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision-%20202-2021%20on%20Core%20Fallback%20Procedures.pdf

²¹⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9547,Decyzja-Prezesa-URE-w-sprawie-zmiany-metody-wyznaczania-zdolnosci-przesylowych-d.html>

²²⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9566,Decyzja-Prezesa-URE-w-sprawie-zmiany-metody-wyznaczania-zdolnosci-przesylowych.html>

²³⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9565,Decyzja-Prezesa-URE-w-sprawie-zatwierdzenia-dokumentu-pt-Wspolna-metoda-podzialu.html>

Conditions or methodologies	CCR	Applicants	Status
Amendment to the common methodology for coordinated redispatching and countertrading	Hansa	TSOs	Decision of the President of URE ²⁴⁾ of 19 May 2021
Amendment to the methodology for intraday capacity calculation	Core	TSOs	Cooperation and joint coordination of regulators to reach an agreement

Source: URE's own materials.

Of great importance for the Polish market was also the launch on 9 February 2021 of the so-called Multi-NEMO mechanism, that is, the conditions for the allocation of cross-border transmission capacities and other necessary mechanisms allowing the operation of more than one NEMO, enabling the operational participation in the day-ahead market of all NEMOs with the right to offer electricity trading services in the Polish bidding zone.

Table 10. Status of work on the methodologies or conditions arising from Regulation 2016/1719, which are subject to approval by all regulatory authorities of a given region (status as at the end of 2021), processed by the President of URE in 2021

Conditions or methodologies	CCR	Applicants	Status
Long-term capacity calculation methodology	Core	TSOs	ACER Decision No 14/2021 ²⁵⁾ of 3 November 2021
Amendment to regional requirements of the harmonized allocation rules	Core	TSOs	Decision of the President of URE ²⁶⁾ of 23 December 2021
Amendment to a common methodology for the coordinated long-term transmission capacity calculation	Hansa	TSOs	Decision of the President of URE ²⁷⁾ of 12 October 2021

Source: URE's own materials.

In 2021, the subject of co-operation and joint co-ordination between regulators was also the revision of the rules for the nomination of physical transmission rights for bidding zones borders between Austria, Croatia, the Czech Republic, Germany, Hungary, Poland, Slovakia and Slovenia.

Table 11. Status of work on the methodologies or conditions arising from Regulation 2017/2195, which are subject to approval by all regulatory authorities from the region concerned (status as at the end of 2021), processed by the President of URE in 2021

Conditions or methodologies	CCR or other region	Applicants	Status
Methodology for market-based allocation process for cross-zonal capacity for the exchange of balancing capacity or sharing reserves	Baltic	TSOs	ACER Decision No 10/21 ²⁸⁾ of 13 August 2021

²⁴⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9567,Decyzja-Prezesa-URE-w-sprawie-zmiany-metody-skoordynowanego-redysponowania-i-zak.html>

²⁵⁾ https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2014-2021%20on%20the%20long-term%20capacity%20calculation%20methodology%20of%20the%20Core%20capacity-%20calculation%20region.pdf;

https://documents.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2014-2021_Annexes/ACER%20Decision%2014-2021%20on%20the%20Core%20LT%20CCM%20-%20Annex%20I.pdf

²⁶⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9991,Decyzja-Prezesa-URE-dotyczaca-zmian-wymagan-regionalnych-dla-regionu-wyznaczenia.html>

²⁷⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9827,Decyzja-Prezesa-URE-zatwierdzajaca-zmiane-metody-wyznaczenia-zdolnosci-przesylow.html>

²⁸⁾ https://extranet.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2010-2021%20on%20the%20Baltic%20CCR%20methodology%20for%20market-based%20allocation.pdf;

https://extranet.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2010-2021_Annexes/ACER%20Decision%2010-2021%20on%20the%20Baltic%20CCR%20methodology%20for%20market-based%20allocation%20-%20Annex%20I.pdf

Conditions or methodologies	CCR or other region	Applicants	Status
Methodology for market-based allocation process for cross-zonal capacity for the exchange of balancing capacity or sharing reserves	Core	TSOs	ACER Decision No 11/2021 ²⁹⁾ of 13 August 2021
Amended implementation framework European platform for the exchange of balancing energy from replacement reserves	Geographical area covering the TSOs performing the replacement reserve process	TSOs	Decision of the President of URE ³⁰⁾ of 15 October 2021

Source: URE's own materials.

In 2021 the President of URE, on the basis of Regulation 2017/2195, conducted proceedings on conditions or methodologies that are subject to approval by each regulatory authority of each of the Member States concerned, that is, proceedings on the approval of changes to balancing conditions, concluded by decisions of the President of URE of 17 May 2021³¹⁾ and of 2 November 2021³²⁾.

Table 12. Status of work on the methodologies or conditions arising from Regulation 2017/1485, which are subject to approval by all regulatory authorities from the relevant region (status as at the end of 2021), processed by the President of URE in 2021

Conditions or methodologies	CCR or other region	Applicants	Status
Common provisions for regional operational security coordination	Hansa	TSOs	Decision of the President of URE ³³⁾ of 4 January 2021

Source: URE's own materials.

3.1.8. Electromobility

Under the competences arising from the Act on Electromobility and Alternative Fuels, the President of URE continued to designate energy enterprises to act as operators of public-access charging stations and suppliers of charging services at public-access charging stations to be built by the DSO responsible for the location of the charging station indicated in the plan for the construction of public-access charging stations adopted by the municipality council. To perform these functions, the President of URE designates the energy company performing business activity in the field of electricity trading, which sells electricity to the largest number of final customers connected to the power distribution network on the territory of the municipality in which it is to perform the function of the operator of a public charging station and the charging service provider (proceedings in this case are conducted at the request of the executive body of the relevant municipality).

In 2021 the President of URE conducted 23 administrative proceedings for the designation of an energy company to act as an operator of publicly available charging stations and charging service provider on the territory of a given municipality. The result of these proceedings, together with the seven proceedings concluded in the previous year, was the designation of energy companies to act as an operator of a publicly accessible charging station and a charging service provider in the territory

²⁹⁾ https://extranet.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2011-2021%20on%20the%20Core%20CCR%20methodology%20for%20market-based%20allocation.pdf;

https://extranet.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions%20Annexes/ACER%20Decision%20No%2011-2021_Annexes/ACER%20Decision%2011-2021%20on%20the%20Core%20CCR%20methodology%20for%20market-based%20allocation%20-%20Annex%20I.pdf

³⁰⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9835,Decyzja-zatwierdzajaca-ramy-dla-ustanowienia-europejskiej-platformy-wymiany-ener.html>

³¹⁾ <https://bip.ure.gov.pl/download/3/13444/PSEZmianaBilansowania.pdf>

³²⁾ <https://bip.ure.gov.pl/download/3/14122/BilansowaniePolskichSieciElektroenergetycznych.pdf>

³³⁾ <https://www.ure.gov.pl/pl/energia-elektryczna/europejskiree/decyzje/9242,Decyzja-w-sprawie-wspolnych-przepisow-dla-regionu-wyznaczenia-zdolnosci-przeslyo.html>

of 30 municipalities. A list of these municipalities was made available on the website of URE³⁴). In one case, at the request of the executive body of the municipality, the issued decision of the President of URE was amended by replacing part of the public charging stations with reserve stations included in the plan for the construction of public charging stations, adopted by the municipal council. At the end of 2021, two proceedings were initiated, at the request submitted by the executive bodies of two municipalities: (i) to amend the decision of the President of URE and (ii) to appoint an energy company to act as the operator of the public-access charging stations and provider of charging services in the municipal area. These proceedings were not concluded in 2021.

In October-November 2021, the President of URE conducted a study to assess the implementation by DSOs of their obligation to build generally available charging stations pursuant to Article 64 of the Act on Electromobility and Alternative Fuels. The study analyzed the number of accessible charging stations built by the DSOs in relation to the number provided for in the plan for the construction of accessible charging stations adopted by the municipal council – and the timeliness of their construction. For publicly accessible charging stations under construction, information was obtained on the progress and the reasons for delay. The results of this survey will be used in the current work of URE.

On 24 December 2021, an amendment to the Electromobility Act³⁵) entered into force, which repealed the existing provisions on the intervention mechanism – regarding the construction of publicly available charging stations by DSOs in connection with the implementation of Directive 2019/944 into national law and imposed additional obligations on the President of URE. The most important obligations, foreseen for 2022, include the development of guidelines by the President of URE to ensure that DSOs conduct a tender for the sale of a publicly accessible charging station in a transparent and non-discriminatory manner. The President of URE's guidelines are subject to publication in the URE's Public Information Bulletin. The legislator has set a deadline for the development of these guidelines, which, pursuant to Article 24 para. 2 of the amendment to the Electromobility Act, is 5 months from the date of entry into force of the Act, that is, until 24 May 2022. On the other hand, the DSO referred to in Article 3a para. 7 of the Electromobility Act shall submit to the President of URE for approval, by way of a decision, the general conditions for holding the tender together with information on the method of determining the sale price of a given public charging station, having regard to Article 3a para. 3 of that Act. Pursuant to Article 24 para. 1 of the amendment to the Electromobility Act, the DSO shall for the first time announce the tender referred to in Article 3a para. 2 item 1 of the Electromobility Act within 6 months of the entry into force of the amendment to the Electromobility Act, that is, by 24 June 2022. Pursuant to Article 3a para. 4 of the Electromobility Act, the DSO shall inform the President of URE of the course and results of the tender and of any other disposal of a public charging station. Work on the development of the aforementioned guidelines started back at the end of 2021, and on 23 May 2022 they were published in the Public Information Bulletin of URE.

3.2. Competition and market operation

3.2.1. Wholesale market

The volume of gross domestic electricity production in 2021 was higher than that of the preceding year and amounted to 173,583 GWh (increase by 14% in comparison to 2020). In the reported period, gross domestic electricity consumption amounted to 174,402 GWh and increased by 5.4% as compared to 2020.

The increase in domestic electricity consumption was slightly smaller than the increase in GDP in 2021, which according to the Central Statistical Office's (GUS) preliminary estimate was 5.7%.

In 2021, in the national balance of physical flows of electricity, the share of imports accounted for 8.0% of total inflows, while the share of exports amounted to 7.6% of electricity outflows. In comparison to 2020, the share of imports decreased by 3.8 percentage points, while the share of exports increased by 3.4 percentage points.

The structure of electricity generation in 2021 changed only slightly compared to 2020. The vast majority of generation is still based on conventional fuels, that is hard coal and lignite.

³⁴) <https://www.ure.gov.pl/pl/energia-elektryczna/operatorzy-ogolnodostep/9283,Wykaz-przedsiębiorstw-energetycznych-wyznaczonych-do-pelnienia-funkcji-operatora.html>

³⁵) Act of 2 December 2021 on amending the Act on Electromobility and Alternative Fuels and certain other acts (Journal of Laws of 2021, item 2269), hereinafter: "amendment to the Electromobility Act".

In 2021, the installed capacity of the national electricity system was 53,656 MW and the generating capacity was 54,382 MW, an increase of 9.0% and 10.8%, respectively, compared to 2020³⁶.

The average annual capacity demand was 23,673.00 MW, with a maximum demand of 27,617.20 MW, an increase of 5.6% and 3.1% respectively, compared to the previous year.

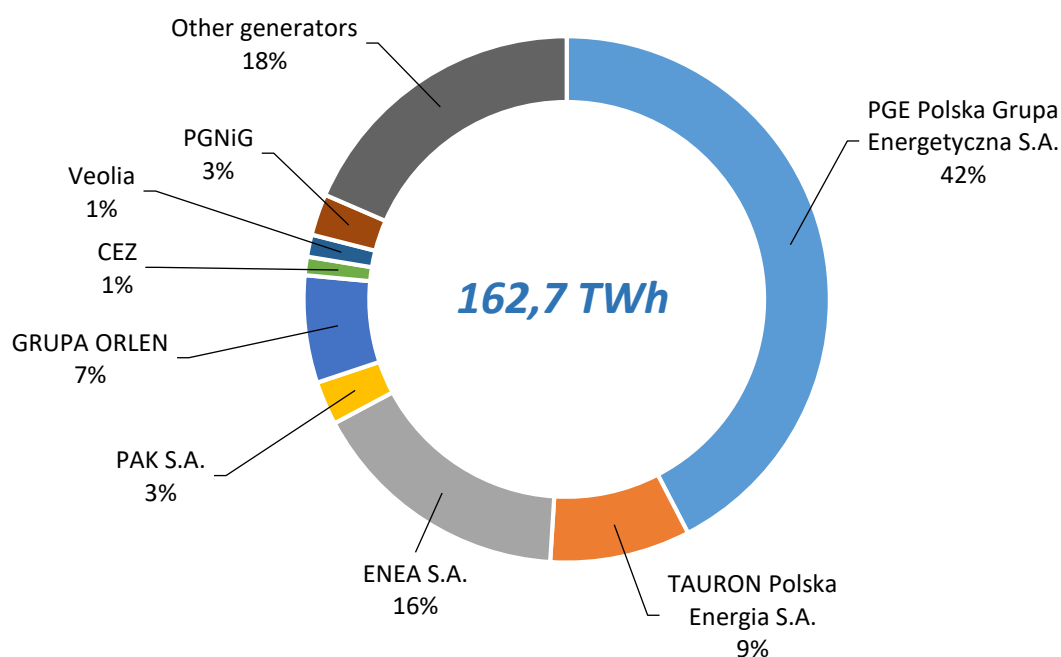
The ratio of dispatchable capacity to generating capacity in 2021 was 57.6% (decrease by 4.1 percentage points compared to 2020)³⁷.

Entity structure of the energy wholesale market

In 2021, similarly to previous years, the largest market share in the electricity generation subsector was held by the PGE Polska Grupa Energetyczna S.A. group. It amounted to 42.4%, while in 2020 it was 40.6%³⁸. During the period in question, the Group also maintained its leading position on the market for sales to final customers.

Share of particular groups in the volume of electricity fed into the grid is shown in the figure below.

Figure 21. Share of particular groups in the volume of electricity fed into the grid in 2021 (considering the entity structure as at 31 December 2021)



NB: The group "Other generators" includes both generators which are part of groups (for example Azoty, E.ON, Polenergia, FORTUM) and generators operating individually on the electricity generation market – outside groups.

Source: Data of the Ministry of Climate and Environment and URE.

The market share of three largest entities measured according to the volume of electricity fed into the grid (taking into account the volume of electricity supplied by generators directly to final customers), in 2021³⁹ – after two years of decrease – increased considerably and amounted to 67.1% (increase by

³⁶) As at 31 December 2020 and 31 December 2021, data provided by PSE S.A.

³⁷) Data based on annual average values from the evening peak of business days, data provided by PSE S.A.

³⁸) Share calculated by volume of electricity fed into the grid. The calculation of this indicator takes into account the structure of entities as at 31 December 2021.

³⁹) When calculating the market share ratios of the three largest entities, both according to the energy fed into the grid and the installed capacity, the entity structure as at 31 December 2021 was taken into account.

3.3 percentage points as compared to 2020). A clear downward trend was noted in the share of the three largest generators in installed capacity, down 3.8 percentage points. Three largest generators (members of groups: PGE Polska Grupa Energetyczna S.A., ENEA S.A., TAURON Polska Energia S.A.) held in total more than half of installed capacities and were responsible for over 2/3 of domestic electricity production. The above mentioned indices are presented in Table 13.

It is worth noting that in 2021 the number of entities holding at least a 5% share in installed capacities changed in comparison to the preceding year. The group was joined by another generator, that is PKN Orlen S.A. Following the acquisition of the generators in the ENERGA S.A. group in 2020, it also became a significant player in the energy generation market.

Table 13. Market shares and concentration of the generation subsector*

Year	Number of companies holding at least a 5% share in installed capacity	Number of companies holding at least a 5% share in electricity fed into the grid	Share of three largest entities in installed capacity [%]	Share of three largest entities in electricity fed into the grid [%]	HHI ⁴⁰⁾	
					Installed capacity	Electricity fed into the grid
2020	3	4	58.3	63.8	1,562.2	2,019.9
2021	4	4	54.5	67.1	1,370.6	2,198.9

* For all entities operating in the generation sector, which are subject to an obligation of reporting statistics, including installed capacity and energy fed into the grid from wind and hydro sources. When calculating the market share ratios of the three largest entities and HHI ratios, both according to the energy fed into the grid and the installed capacity, the structure of the entities as at 31 December 2021 was taken into account.

Source: Data of the Ministry of Climate and Environment and URE.

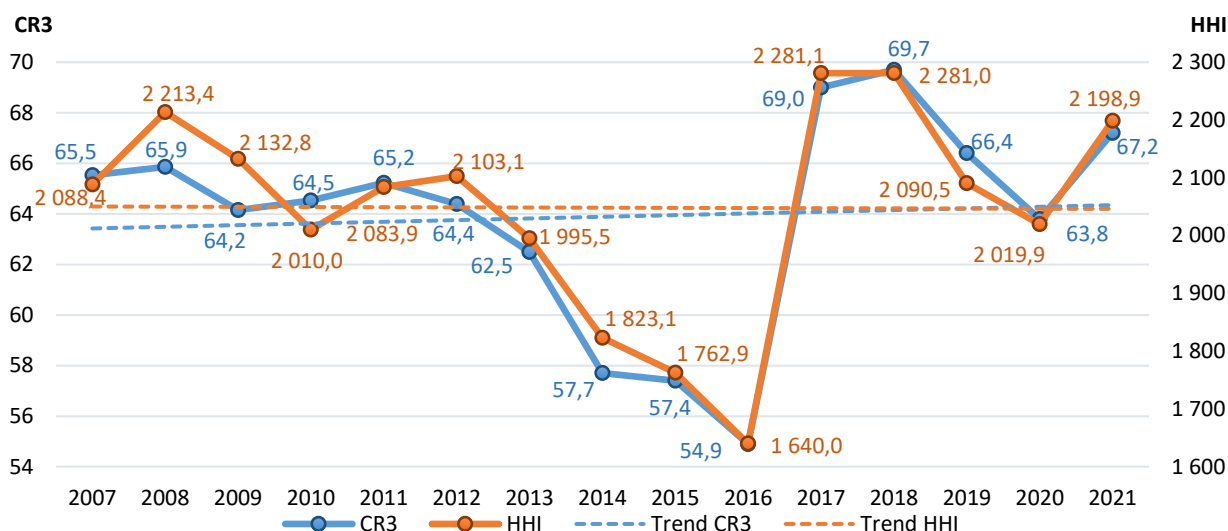
A many-year downward trend concerning in particular HHI measured according to installed capacity and according to volume of electricity fed into the grid (including volume of electricity supplied by generators directly to final customers) changed considerably in 2017 and the intensity of this change was also observed in 2021. The concentration ratio for installed capacity maintained its downward trend for another year (a decrease by over 16%) and for electricity fed into the grid – it changed a several-year downward trend and increased by almost 9% in comparison to 2020.

It is worth emphasizing that this index calculated for generation in 2021 maintained a value indicating a still high market concentration. The concentration index calculated for installed capacity still remains at a level indicating medium concentration in the generation market.

The changes of concentration index and index of market shares of three largest entities in the generation subsector in the years 2007-2021 are presented in the figure below.

⁴⁰⁾ The Herfindahl-Hirschman index (HHI) is defined as the sum of squares of individual market shares of all companies forming a given branch: HHI > 5,000 – very high concentration, HHI from 1,800 to 5,000 – high concentration, HHI from 750 to 1,800 – medium concentration, below 750 – low concentration (according to the "Report on progress in creating the internal electricity and gas market", Brussels 2005 and J. Kaminski: *Methods for estimating market power in the energy sector*, Polityka Energetyczna, Volume 12, Paper 2/2, 2009).

Figure 22. Concentration level in generation subsector and market shares of largest entities by volume of electricity fed into the grid, in 2007-2021



Source: Data of the Ministry of Climate and Environment and URE.

With regard to the concentration figures presented above, it should be noted that they reflect the dynamics of electricity production in 2021 versus 2020. After declines in production during the COVID-19 outbreak, there was a substantial increase last year (around 14%). This increase was mainly observed in generation sources operating on solid fuels – hard coal and lignite. Generators clustered in the largest groups in terms of share in national electricity generation significantly increased their electricity production in 2021, which translated into the indicators presented above.

Sales of electricity in respective market segments

The structure and mechanisms of market operation do not differ from the corresponding structures and mechanisms, which formed in a majority of other European member states deemed competitive markets. Market participants have, on a non-discriminatory basis, wide access to various forms of electricity purchase and sales and access to information on volumes and prices at which electricity is contracted and sold on a wholesale market.

The tables below present the forms of electricity purchase and sales in segments of generation and trading in the years 2020-2021.

Table 14. Forms of electricity sales by generators in 2020-2021 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	Final customers	Other sales*
2020**	30.9	105.5	10.8	0.1	1.8	2.6
2021	32.2	108.3	13.7	0.1	1.7	1.5

* Other sales include volumes of electricity sold to TSO and DSOs as well as sales to small local distributors.

** The data were changed compared to the data in the National Report of the President of URE for 2020 due to the correction of the data by the surveyed entities.

Source: Data of the Ministry of Climate and Environment and URE.

Table 15. Forms of electricity sales by trading companies in 2020-2021 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	Final customers	Other sales*
2020 **	110.4	96.5	7.4	1.5	127.0	28.1
2021	111.0	118.9	7.3	1.4	133.1	23.8

* Other sales include volumes of electricity sold to TSO and DSOs as well as sales to small local distributors, generation companies and other customers.

** The data were changed compared to the data in the National Report of the President of URE for 2020 due to the correction of the data by the surveyed entities.

Source: Data of the Ministry of Climate and Environment and URE.

Trade in electricity on the domestic wholesale market is carried out under bilateral contracts (OTC market), on the organized market run by TGE S.A. (energy exchange) and through brokerage platforms.

As of 1 January 2019⁴¹⁾ the obligation to sell electricity through public trading referred to in Article 49a para. 1 of the Energy Law Act was increased to 100%. In 2020 and 2021 the increased obligation was still applicable, which resulted in a significant increase in the volume of sales of generators through the energy exchange.

In 2021, both generators and trading companies sold part of their electricity to trading companies of their own group.

Purchase of electricity in respective market segments

The tables below present forms of electricity purchase in segments of generation and trading in the years 2020-2021.

Table 16. Forms of electricity purchase by generators in 2020-2021 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Imports	Other purchase directions
2020*	8.7	21.4	11.0	0.7	0.2
2021	8.9	6.9	9.8	0.2	0.2

* The data were changed compared to the data in the National Report of the President of URE for 2020 due to the correction of the data by the surveyed entities.

Source: Data of the Ministry of Climate and Environment and URE.

Table 17. Forms of electricity purchase by trading companies in 2020-2021 [TWh]

Year	Professional power plants	RES installations directly	Trading companies	Regulated markets, including power exchange	Balancing market	Imports	Other purchase directions	Obliged supplier*
2020*	43.7	11.2	111.5	193.3	4.7	4.9	1.3	0.3
2021	51.3	12.4	107.2	213.0	5.5	2.8	2.1	0.2

* The data were changed compared to the data in the National Report of the President of URE for 2020 due to the correction of the data by the surveyed entities.

** Obligated supplier – includes the purchase of electricity from a micro-installation other than a prosumer and from an installation other than micro-installation.

Source: Data of the Ministry of Climate and Environment and URE.

⁴¹⁾ This obligation was introduced by the Act of 9 November 2018 amending the Energy Law Act and certain other acts (JoL of 2018, item 2348, as amended, hereinafter the Act of 9 November 2018) and is effective as of 1 January 2019.

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

The prices of electricity delivered in 2021 are illustrated by three price indices published by the President of URE, that is the annual and quarterly average selling price of electricity on the competitive market and the quarterly average price of electricity sold on terms other than those provided for in Article 49a para. 1 and 2 of the Energy Law Act.

On the basis of surveys submitted by electricity producers and trading companies, as well as from reports of public statistics and data from power exchange, information on, among others, the average annual prices of electricity sales on the competitive market, and average quarterly prices of electricity sales on the competitive market, as well as average quarterly prices of electricity sold under other rules than sale on power exchange are calculated and published.

Average annual price of electricity sales on the competitive market and the method for its calculation

In 2021, the average annual price of sales of electricity on the competitive market was 278.08 PLN/MWh. This price is:

- 17.8% higher than the weighted average price of the annual contract with baseload delivery of electricity in 2021 (BASE_Y-21) quoted on the TGE S.A. Commodity Forward Instruments Market (CFIM)/Electricity Forwards Market (EFM OTF), which amounted to 236.11 PLN/MWh,
- 27.6% lower than the weighted average price of the annual contract with baseload delivery in 2022 (BASE_Y-22) listed on TGE S.A on the EFM OTF, which was at 384.16 PLN/MWh in contracts concluded in 2021.

The algorithm for calculating the average annual selling price of electricity on the competitive market is the following:

$$C = \frac{\sum_{i=1}^n P o_i + \sum_{j=1}^m P g_j}{\sum_{i=1}^n E o_i + \sum_{j=1}^m E g_j} \times 1000$$

where:

- C – average sales price of electricity on the competitive market [PLN/MWh],
- Po – revenues from electricity sales: generators⁴²⁾ to trading companies outside the group and trading companies⁴³⁾ to trading companies outside the group in direct contracts [in PLN thousand],
- Eo – volume of electricity sold: generators⁴²⁾ to trading companies outside the group and trading companies⁴³⁾ to trading companies outside the group in direct contracts [MWh],
- n – number of audited companies submitting report G-10.1 k and G-10.4(Ob)k,
- Pg – revenues from the sale of electricity (supplied in 2021) realized by the participants of TGE S.A. [PLN thousand],
- Eg – volume of electricity sold (supplied in 2021) by participants of TGE S.A. [MWh],
- m – number of companies selling on TGE S.A.

Average quarterly price of electricity sales on the competitive market and the method for its calculation

The algorithm for calculating the average quarterly selling price of electricity on the competitive market is the same as in the case of the average annual selling price of electricity on the competitive market.

The Table below shows average quarterly prices of electricity sales on the competitive market in 2021.

⁴²⁾ Heat power plants and combined heat and power plants were examined, that is technically and territorially separate facilities that are independent enterprises or part of power plant or combined heat and power plant complexes, classified, according to PKD 2007, in groups 35.1 and 35.3, submitting report G-10.1 k *Report on the activity of a professional heat power plant*

⁴³⁾ Electricity trading companies submitting report G-10.4(Ob)k *Electricity trading company report* were examined.

Table 18. Average quarterly prices of electricity sales on the competitive market in 2021

Quarter	Average quarterly price of electricity sales on the competitive market [PLN/MWh]	Volume of electricity sold on the competitive market [TWh]
I	243.71	64.09
II	255.99	58.72
III	282.97	62.82
IV	325.26	67.68

Source: Data of TGE S.A., Ministry of Climate and Environment and URE.

The components of the average quarterly electricity sales prices on the competitive market in 2021 are the volumes and values of electricity sold at TGE S.A. and sold on the OTC market, and they do not include intra-group contracts.

Both components for the quarters of 2021 are presented in the tables below.

Table 19. Average quarterly prices of electricity sales on TGE in 2021

Quarter	Average quarterly price of electricity sales on TGE [PLN/MWh]	Volume of electricity sold on TGE [TWh]
I	243.90	60.69
II	255.59	55.80
III	282.32	60.01
IV	321.46	63.92

Source: Data of TGE S.A.

Table 20. Average quarterly prices of electricity sales on OTC market in 2021

Quarter	Average quarterly price of electricity sales on OTC market [PLN/MWh]	Volume of electricity sold on OTC market [TWh]
I	240.28	3.40
II	263.70	2.92
III	296.93	2.82
IV	389.83	3.76

Source: Data of the Ministry of Climate and Environment and URE.

Relating the average quarterly price of electricity sales on the competitive market in 2021 to the power exchange operated by TGE S.A., it should be stated that this price is similar to the quarterly prices on the power exchange. The algorithm adopted at URE for price calculation to a great extent takes into account volumes of electricity sold on the power exchange, which allows electricity wholesale market participants to estimate its level in close approximation even before official publication of this price by the President of URE.

In addition, it should be noted that the OTC market contracts at prices similar to those achieved on TGE S.A.

Average quarterly price of electricity which is not subject to the public sale obligation

The volumes and average quarterly price of electricity sold under rules other than those determined in Article 49a para. 1 of the Energy Law Act⁴⁴⁾, in respective quarters of 2021, are presented in the Table below.

⁴⁴⁾ Article 49a para. 1 of the Energy Law Act specifies the obligation for electricity generators with respect to sale of electricity in the manner ensuring public access to it (power exchange obligation).

Table 21. Volumes and average quarterly prices of electricity sold under the rules other than those stipulated in Article 49a para. 1 of the Energy Law Act in 2021

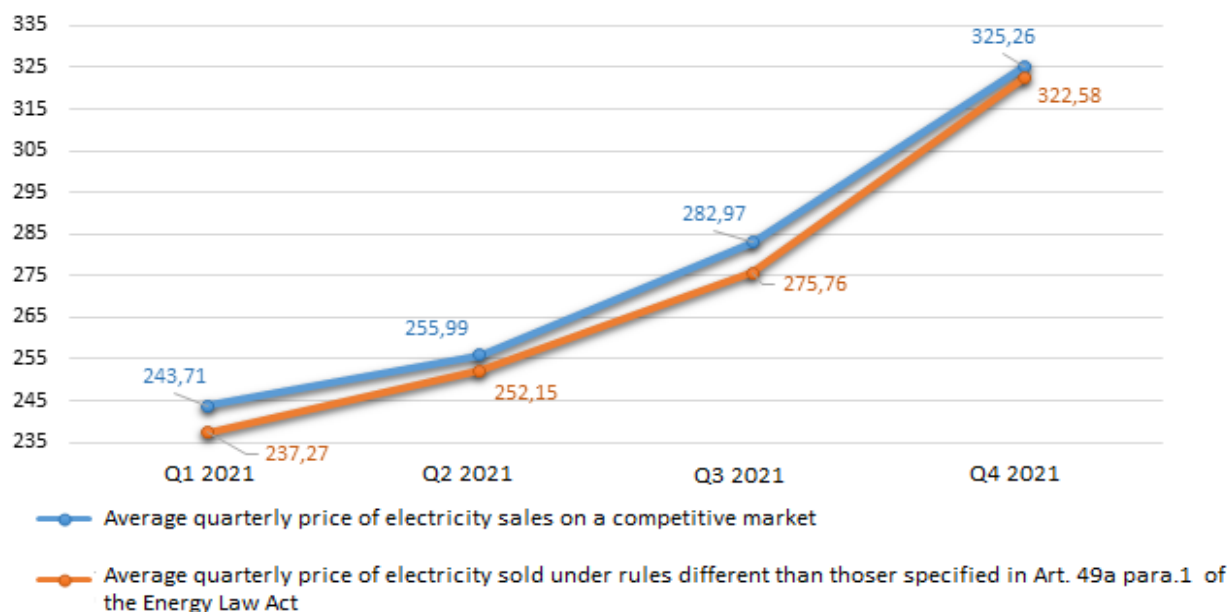
Quarter	Average quarterly price of electricity sold under rules other than those determined in Article 49a para. 1 of the Energy Law Act*[PLN/MWh]	Volume of electricity sold under rules other than those determined in Article 49a para. 1 of the Energy Law Act [TWh]
I	237.27	7.73
II	252.15	5.09
III	275.76	4.87
IV	322.58	8.18

* The price does not include taxes (VAT, excise tax), charges not related to the volume of sold electricity or obligations related to certificates of origin.

Source: URE, on the basis of data provided by electricity generators for particular quarters of 2021.

The quarterly prices⁴⁵⁾ referred to above were set on the basis of data⁴⁶⁾ concerning performance of contracts on electricity sales to trading companies, concluded by energy companies generating electricity, obliged to sell part of generated electricity in the manner specified in Article 49a para. 1 of the Energy Law Act.

The figure below shows a comparison of average quarterly price of electricity sold under rules different than those specified in Article 49a para. 1 of the Energy Law Act with an average quarterly price of electricity sales on a competitive market in particular quarters of 2021.

Figure 23. Average quarterly prices of electricity sold under rules different than those specified in Article 49a para. 1 of the Energy Law Act and average quarterly prices of electricity sales on a competitive market in 2021 [PLN/MWh]

Source: URE's own analysis.

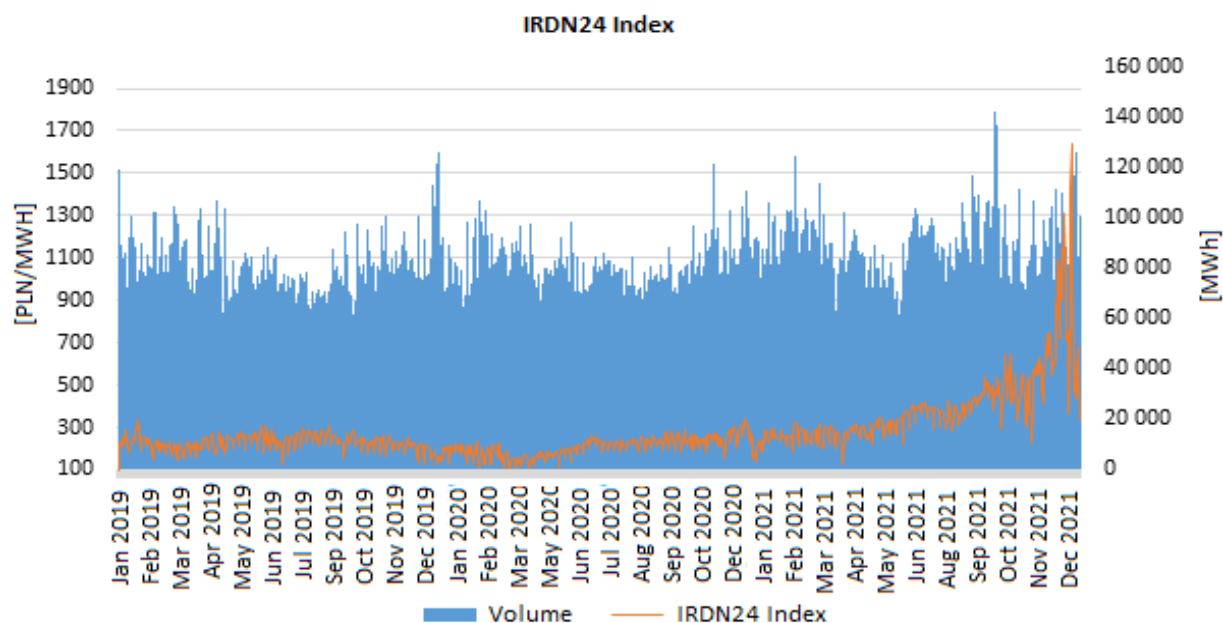
⁴⁵⁾ Information on annual and quarterly prices may be found on the URE's website at: <https://www.ure.gov.pl/pl/energia-elektryczna/ceny-wskazniki/7851,Srednia-kwartalna-cena-energii-elektrycznej-sprzedanej-na-zasadach-innych-niz-wy.html>

⁴⁶⁾ Data provided by generators in accordance with the call published on the URE's website at: <https://www.ure.gov.pl/pl/biznes/obowiazki-sprawozdawcze/energia-elektryczna/8241,Prezes-URE-wzywa-wytworcow-energii-elektrycznej-do-cyklicznego-skladania-informa.html>

Prices on SPOT market of TGE S.A.

The below figure presents development of electricity prices on the day-ahead market – DAM, managed by TGE S.A., measured with the IRDN24 index. This index shows arithmetic average price of all transactions, except for block contracts, of DAM trading session, calculated after the delivery date for the entire 24 hours.

Figure 24. Average daily electricity price in SPOT transactions, measured by IRDN24 [PLN/MWh], and daily volume of electricity traded on DAM market (without block contracts) [MWh] in particular months of the years 2019-2021



Source: URE, on the basis of data provided by TGE S.A.

Volume-weighted average price of electricity on DAM in 2021 amounted to 401.17 PLN/MWh and was higher by 190.06 PLN/MWh in comparison to 2020 when this price was 210.11 PLN/MWh.

Prices on CFIM/EFM OTF market of TGE S.A.

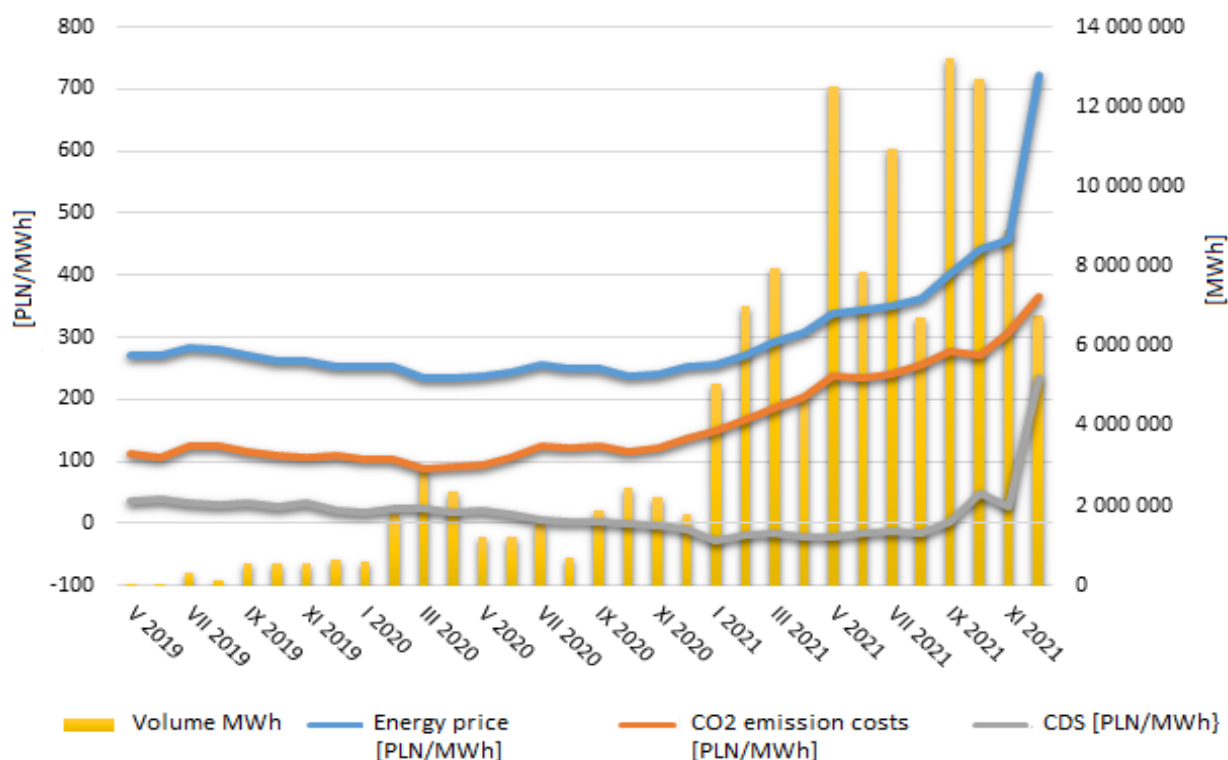
In 2021 an increase in electricity prices on the forward market run by TGE S.A. was observed, which was reflected by the y/y increase of prices in BASE_Y forward contracts (yearly contract with baseload delivery for another year). The volume-weighted average transaction price of BASE_Y-22 contract in the entire year 2021 was at the level of 384.16 PLN/MWh, in comparison to 2020, when the volume weighted average transaction price of the corresponding BASE_Y-21 forward contracts amounted to 231.87 PLN/MWh.

At the same time, average monthly price of BASE_Y-22 contracts concluded in December 2021 was equal to 721.84 PLN/MWh, whereas the monthly average price of corresponding contracts (BASE_Y-21) concluded in December 2020 amounted to 235.3 PLN/MWh, which indicates an increase of the price of these contracts by around 206.8%.

The figure below shows the average monthly CDS (Clean Dark Spread) against the average monthly electricity price – the instrument BASE_Y-22⁴⁷⁾, its volume and CO₂ emission costs and the volume quoted on TGE S.A.

⁴⁷⁾ Annual forward contract for the delivery of electricity due in 2022.

Figure 25. Average monthly CDS against average monthly electricity prices – BASE_Y-22 instrument, its volume and CO2 emission costs and volume quoted on TGE S.A.



Source: Own analysis on the basis of data of TGE S.A., ICE, ARP.

Transparency of the wholesale energy market – fulfilment of obligations under the REMIT Regulation

Participants of the wholesale energy market, pursuant to the provisions of the REMIT regulation, are subject to the prohibition of manipulation or attempts to manipulate the market, as well as conducting trade based on inside information.

Registration in the national registry for market participants

As part of its REMIT obligations, URE registers Polish energy market participants through the Centralized European Register of Energy Market Participants (CEREMP⁴⁸⁾), prepared by ACER.

At the end of 2021, 747 market participants from Poland were registered in the CEREMP system (approximately 4.9% of all registered entities). The increase in registered market participants from Poland in 2021 compared to 2020 was 8.4%.

Reporting data to ACER

Reporting of data to ACER is preceded by the obligation to register market participants in the national register of these participants. Wholesale energy market participants report information on concluded transactions and orders⁴⁹⁾ to trade through entities that have been granted the status of the so-called

⁴⁸⁾ https://www.acer-remit.eu/ceremp/home?nraShortName=20&lang=pl_PL

⁴⁹⁾ The data to be transmitted are collected by ACER using the ARIS system (ACER REMIT Information System) set up for this purpose.

Registered Reporting Mechanism (RRM)⁵⁰) by ACER. At the end of 2021 three entities in Poland held the status of RRM, that is: TGE S.A., OGP Gaz-System S.A. and PSE S.A.

Publication of inside information

Effective compliance with the obligation of market participants to publish inside information, as from 1 January 2021, can only take place through ACER-registered Inside Information Platforms (IIPs) and (under certain conditions) through the relevant Transparency Platforms.

In an open letter dated 14 December 2021⁵¹), ACER decided to extend until the end of 2022, in emergency situations (unavailability of the IIP and unavailability of contingency solutions implemented by the IIP), the possibility for wholesale market participants to publish inside information on their corporate websites, as a back-up (fallback) solution.

Wholesale energy market participants are required to indicate in the national register of market participants the selected IIPs where they publish the required inside information and the website where the inside information will be published in emergency situations.

In 2021, the ACER list published on the REMIT PORTAL website⁵²), among the entities applying for the status of platforms operated by these entities as Inside Information Platforms and entities whose platforms passed at least the first stage of the ACER assessment, included TGE S.A. operating the Exchange Information Platform (GPI)⁵³) for the wholesale electricity market and OGP Gaz-System S.A. operating a platform for the wholesale gas market – the Gas Inside Information Platform (GIIP).

Obligations of persons professionally arranging transactions

A special role in monitoring irregularities arising from the REMIT regulation rests with persons professionally arranging transactions (PPATs) on the energy wholesale market that are required to create and maintain effective mechanisms and procedures to identify cases of violation of the prohibition of market manipulation, attempted market manipulation or illegal use of inside information.

In 2021 in Poland, transactions on the energy wholesale market were actively arranged by three entities: TGE S.A., PSE S.A. and OGP Gaz-System S.A.

Under the REMIT Regulation, these entities are obliged to notify the President of URE if they have reasonable grounds to suspect that a given transaction on the wholesale energy market may constitute a breach of the prohibitions of manipulation or illegal use of inside information. In addition, the above mentioned entities conduct periodic training for market participants in order to update the implemented principles of monitoring the wholesale energy market aimed at detecting and preventing abuses defined in the REMIT Regulation.

In 2021, one Polish PPAT reported two cases of suspected market manipulation or attempted market manipulation by wholesale energy market participants to the President of URE. These cases are currently the subject of a detailed analysis by the President of URE.

⁵⁰) Registered Reporting Mechanisms (RRMs) – reporting parties are market participants, or entities providing information on their behalf, that comply with technical and organizational requirements to ensure the efficient, effective and secure exchange of information and processing of information for the handling of information in accordance with Article 8 of the REMIT Regulation and Implementing Regulation (EU) No 1348/2014.

⁵¹) Updated Open Letter on the extension of the possibility for market participants to publish inside information on their own corporate website as a backup solution – documents (acer-remit.eu).

⁵²) <https://www.acer-remit.eu/portal/list-inside-platforms>

⁵³) The Exchange Information Platform (GPI) has been in place since 27 February 2014 and was established with the cooperation of representatives from the entire electricity sector under the patronage of the President of URE.

Table 22. Categories of entities resulting from the REMIT Regulation

item	Status as at the end of 2020	European Union	Poland
1	Market participants registered with CEREMP	15,186	747
2	RRMs	104	3
3	Entities applying to ACER for IIP status and entities having passed at least the first stage of ACER* evaluation as IIP	20	2
4	PPATs	No current data	3

* Except for Central Transparency Platforms.

Source: ACER website – REMIT PORTAL.

Cooperation of the President of URE with other regulatory authorities and ACER with regard to the implementation of obligations under the REMIT Regulation

In 2021, representatives of the President of URE participated in ACER working groups where the issues of the manner of conducting supervision of the wholesale energy market were discussed, including, among others, the fees paid to the Agency for the collection, processing and analysis by ACER of information reported by wholesale market players, the obligation to effectively and timely disclose inside information to the public, the entry into force of new rules for the validation of data reported by market participants, the proposal to amend the ACER guidelines to clarify the definitions contained in the REMIT Regulation.

Due to the COVID-19 pandemic, work was carried out in an online meeting format and through electronic information exchange.

Communication with wholesale energy market participants

The most important information related to the REMIT Regulation has been published on the URE's website⁵⁴). Market players may also send their questions about performance of obligations arising from the above mentioned Regulation and from secondary legislation on registration of market participants in the national register of market participants, to the URE's dedicated e-mail address⁵⁵). ACER runs a REMIT Portal⁵⁶) dedicated to any issues included in the REMIT Regulation on its website.

Explanatory proceedings

In 2021 URE employees authorized by the President of URE conducted three explanatory proceedings in cases of suspected market manipulation or attempted market manipulation ordered pursuant to Article 23p para. 1 of the Energy Law Act. Two of the aforementioned proceedings were concluded with the filing by the President of URE a notice of suspicion of an offence in 2021. One was closed because no grounds were found to conduct a REMIT inspection referred to in Article 23c item 1 of the Energy Law Act, or to file a notice of suspicion of an offence.

Pursuant to Article 23p para. 6 and 8 of the Energy Law Act, upon completion of the explanatory proceedings, the President of URE shall submit a notice of suspicion of an offence, initiate a REMIT inspection or order closure of the proceedings. Closing the proceedings does not prevent from conducting it again for the same act, unless the statute of limitations for punishability of the offence has expired.

By a decision of the Prosecutor's Office of 30 December 2020, the investigation was discontinued with regard to market manipulation in the period from 3 September 2018 to 31 December 2018 through transactions of sale and purchase of the energy product called BASE_Y-19, initiated by a decision of the Prosecutor of 12 August 2019, as a result of the submission of a notice of suspicion of a criminal

⁵⁴) <https://www.ure.gov.pl/pl/urząd/prawo/prawo-wspolnotowe/remit/aktualnosci-remit>

⁵⁵) REMIT.rejestracja@ure.gov.pl

⁵⁶) <https://www.acer-remit.eu/portal/home>

offence by the President of URE on 29 May 2019. By letter of 13 January 2021 the President of URE filed a complaint against the above decision. By a ruling of 11 March 2021, the District Court for Warsaw-Śródmieście in Warsaw – II Criminal Division upheld the appealed Prosecutor's decision.

In addition, in 2021 the President of URE analysed a case concerning suspected market manipulation and publication of inside information ineffectively by a Polish entity, reported by foreign entities via ACER's online platform dedicated to reporting violations of the REMIT Regulation (Notification Platform). After a detailed analysis, the President of URE concluded that in the above-mentioned case there are no grounds to initiate a REMIT inspection (Article 23c para. 1 of the Energy Law Act) or to order an investigation (Article 23p para. 1 of the Energy Law Act).

Notwithstanding the above, in 2021 the President of URE analyzed four more cases of suspected market manipulation or unlawful inside information use reported directly to the President of URE by Polish energy market participants (3 cases) and TGE S.A. (1 case).

For the above-mentioned cases, no grounds were found either for ordering, pursuant to Article 23p para. 1 of the Energy Law Act, explanatory proceedings on market manipulation or attempted market manipulation, as defined in Article 2 of the REMIT Regulation, or for conducting a REMIT inspection, as referred to in Article 23c para. 1 of the Energy Law Act.

The President of URE, using limited resources, also performs periodical monitoring of the wholesale electricity market, including monitoring of components which affect the level of electricity prices, such as prices of CO₂ emission allowances and coal prices. In particular, the President of URE examines the level of the Clean Dark Spread (CDS)⁵⁷.

In 2021, in one case administrative proceedings were continued in respect of the imposition of a fine under Article 56 para. 1 of the Energy Law Act or selling energy products on the wholesale energy market without the required registration in the national register of market participants (item 42). The proceedings ended with the imposition of a fine of PLN 10,000.

3.2.2. Retail market

In 2021, out of over 17 million consumers in the retail market (18.5 million if calculated according to energy consumption points), around 90.3% were consumers who purchase energy for household consumption (data based on a survey conducted by the President of URE among 47 DSOs). The remaining group of final customers were consumers belonging to tariff groups A, B and C. Groups A and B consist of consumers supplied from the high and medium voltage grid and are the so-called industrial customers from groups A and B, while group C includes customers connected to the low voltage grid, who use electricity for business purposes, the so-called business (commercial) customers. Electricity customers have the right to receive electricity in an uninterrupted and reliable manner from the electricity supplier of their choice.

In the retail electricity market, there were five large DSOs, subject to the obligation of legal unbundling, whose networks are directly connected to the transmission network (so-called DSOp), and 182 undertakings designated as DSOs whose networks have no direct connections with the transmission network (so-called DSO_n). In the case of DSO_n operating within the structures of vertically integrated enterprises, accounting and bookkeeping separation is required by law, as well as the obligation to separate the distribution activity conducted by the system operator from other activities not related to electricity distribution – organizational unbundling.

The supply side of the retail energy market consists of electricity suppliers offering the commodity to final customers. This group includes 6 suppliers operating within groups, jointly with distribution system operators, but as separate legal entities. The second group consists of suppliers in entities that are also distribution system operators (in 2021, there were 182 of them), and the third is independent electricity suppliers – entities not related to distribution activity in Poland.

With regard to institutional customers, suppliers are not obliged to submit electricity tariffs to the President of URE for approval, while tariffs for households are approved only at the request of the default supplier and with regard to those consumers who has not decided to switch their supplier (sales under public obligation). However, default suppliers may – in addition to selling energy using the prices and rates specified in the tariff – present a market offer with a freely shaped price to all

⁵⁷ $CDS = C_{EE} - (CP + C_{CO_2})$, where: CDS – Clean Dark Spread index; C_{EE} – net electricity price in PLN/MWh; CP – coal price converted to production cost of 1 MWh of net electricity from hard coal in PLN/MWh; C_{CO_2} – CO₂ emission allowance price converted to CO₂ emission cost at net production of 1 MWh of electricity in PLN/MWh.

consumers, including all consumers in households. In the case of household customers connected to the network of the operator on whose territory the supplier perform the tasks of a default supplier, the choice of tariff or market offer depends on the consumer.

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

All electricity suppliers selling electricity to final customers are legally obliged to publish on their websites and make information on electricity sales and terms and conditions of their application publicly available in their premises. In case of large industrial/commercial customers, offers are presented individually by trading companies. Prices and other terms and conditions of the agreement are each time negotiated with the contractor and are different, depending on delivery time, volume and firmness of off-take.

Average electricity sale prices broken down by electricity consumption are presented in the Table below.

Table 23. Number of customers, volume, value and average prices of electricity applied to final customers, broken down by consumption

Consumption	Number of customers [items]	Volume [MWh]	Value [PLN thousand]	Average price [PLN/MWh]
< 50 MWh	17,840,450	47,188,873	16,117,039	341.54
50-2,000 MWh	38,508	30,832,743	9,685,824	314.14
> 2,000 MWh	1,159	31,617,255	9,372,561	296.44
Total	17,880,117	109,638,871	35,175,424	320.83

Source: On the basis of quarterly surveys from 6 largest sellers: PGE Obrót S.A., Energa Obrót S.A., ENEA S.A., E.ON Polska S.A., Tauron Sprzedaż Sp. z o.o. and TAURON Sprzedaż GZE Sp. z o.o.

The table below presents data on electricity prices and distribution fees in Q4 2020 and 2021, for customers with comprehensive contracts.

Table 24. Electricity prices and distribution fees applicable to customers with comprehensive contracts

Specification	Q4 2020			Q4 2021		
	Average sales price	including:		Average sales price	including	
		Fee for electricity	Distribution fee		Fee for electricity	Distribution fee
[PLN/MWh]						
Customers in total	540.70	332.10	208.60	596.80	354.10	242.70
including: customers on HV (group A)	338.20	278.60	59.68	465.80	402.80	63.00
customers on MV (group B)	444.50	328.70	115.79	482.70	329.30	153.40
customers on LV (group C)	697.40	416.10	281.20	786.40	466.50	319.90
Customers of group G	547.10	310.70	236.40	594.80	325.40	269.30
including: households	546.20	310.70	235.50	603.80	330.80	273.00

Source: URE on the basis of data of the Ministry of Climate and Environment.

The average electricity price for the fourth quarter of 2021, compared with the price in the same period of the preceding year, shows an increase of 6.62%, and distribution fees increased by an average of 16.35%. The electricity price increases affected customers in tariff group A the most (44.58%). Only in the group of customers connected to the low-voltage network was the increase hardly noticeable (0.18%). For consumers in households, the price increase amounted to 6.47% on average, but it should be remembered that more than 60% of these consumers use prices set in tariffs approved by the President of URE. Ultimately, from the consumer's point of view, what is important is the level of the average price at which they purchase electricity at the point of consumption (that is, the price of energy including the distribution service). In 2021, the cost of electricity supply increased by 10.38% on average, as the dynamics of the increase in distribution fees were also above average (in the household group, the increase was 15.92%, and the highest – 32.48% – was in tariff group B). Overall, in the reporting

year, the energy price, distribution fees and the total cost of electricity supply increased in all customer groups, and their value (nominally) was at previously unobserved levels.

For suppliers offering electricity to household consumers, the regulator continued in 2021 to publish a summary of offers, including prices, fee rates and information on the area of validity of such offer. In this compilation, at the end of 2021, offers for households were presented by 35 electricity suppliers active in this segment. In 2021, work was continued on the concept of a new tool to meet the challenges posed by Directive 2019/944 on requirements for comparison tools in EU member states – however, there are no options to finance this tool.

In addition, a great convenience for a consumer selecting a supplier is the possibility to use the list of sellers operating on the territory of the DSO to whose network the customer is connected, which is available on the website.

Supplier switching

The total volume of electricity supplied in 2021 to final customers under market conditions, that is after the use of the TPA rule, amounted to 79,849,386 MWh, that is 53.68% of the total energy supplied to final customers. Compared to 2020, the volume of energy supplied to customers exercising the right to switch supplier increased by 8,189,237 MWh, and the share of this energy in the total energy supplied to consumers increased by 2.39 percentage points in this period (in 2020 it was 51.29%). The data obtained show that in 2021 the number of consumers exercising the right to choose a supplier increased by 2.87% compared to 2020, while in the group of institutional customers (tariff groups A, B and C) this change amounted to 4.82%, and in tariff group G (including households) it was an increase by 2.25%.

The data obtained from the monitoring of the President of URE show that as at 31 December 2021, 61% of electricity consumers in households bought energy under contracts with approved tariffs, while the remaining (39%) bought energy with prices resulting from market offers.

In 2021, an option to purchase energy with a dynamic price was not widely offered in Poland, but legislative and organizational work was in progress to prepare for the implementation of contracts with the so-called dynamic price.

Interventions

In 2021, the President of URE was asked to intervene in cases concerning unfair practices of trading companies. As in previous years, it was suppliers' repeated practice not to inform consumers about all elements of the offer, for instance about additional fees (trade fee) or to mislead them, which resulted in consumers concluding contracts unfavourable to them. The President of URE, not being an authority relevant for such cases, nevertheless informs customers about their rights. Some actions taken by suppliers bore the hallmarks of practices that infringe the collective interests of consumers by violating the obligation to provide consumers with reliable, truthful and complete information and by using unfair market practices or acts of unfair competition. In 2021, as in previous years, the President of URE, in accordance with its competence, forwarded to the President of the Office of Competition and Consumer Protection (UOKiK) letters from customers which may indicate illegal activities of suppliers' representatives. It is worth noting – as of July 2021, the Energy Law Act provides for the invalidity of a contract for the sale of gaseous fuels or electricity or a comprehensive contract for the supply of these fuels or electricity if it is concluded with a customer of gaseous fuels or electricity in a household off-premises (advocated by the President of URE for years), which means a de facto prohibition of direct sales in the so-called door-to-door formula.

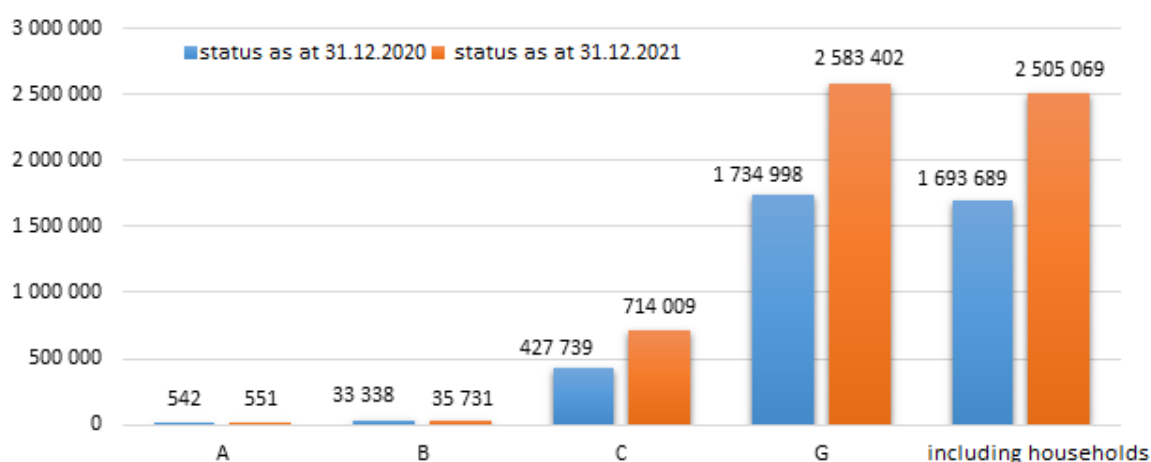
In connection with the problems reported by market participants to URE concerning the launch and servicing of backup sales to final customers, in 2021 the President of URE continued the cyclical monitoring of the retail market in this respect. The scope of the examination included information on suppliers which offered last resort supply to final customers connected to the network of DSOs and final customers for which the operator launched backup sales and/or a designated supplier provided backup sales. The results of this survey and the surveys conducted in preceding years will be used in the current work of URE, for instance to develop a new model of last resort supply. A summary of the survey was also submitted to the President of UOKiK for possible use.

Due to signals received from the market indicating that final customers whose fixed-term electricity sales contracts or comprehensive contracts ended on 31 December 2021 have difficulties in finding offers from 1 January 2022, the President of URE conducted a survey in December 2021 among five DSOs on the estimated number of consumers for whom, for the aforementioned reason, the need to launch backup supply on 1 January 2022 on the basis of Article 5aa of the Energy Law Act or to conclude a contract with a supplier of last resort on the basis of Article 5ab of the Act became probable. The results of the survey were communicated to the Ministry of Climate and Environment.

Smart metering

In 2021 DSOs continued their efforts towards full implementation of smart metering among final customers and the use of smart metering in Poland is steadily increasing. The number of smart metering systems (understood as metering systems enabling automatic collection, storage and transfer of detailed data on electricity consumption) in individual tariff groups was as follows:

Figure 26. Number of smart meters (by tariff group) – comparison



Source: URE on the basis of a survey.

In total, in all customer groups, the percentage of smart metering systems in relation to the total number of these devices was 18% at the end of 2021. Further intensive development of smart metering systems, aiming at the implementation of these solutions for 80% of customers by 2028, is provided for in the government's strategic document on Poland's energy policy and in the Energy Law Act.

Suspension of energy supplies

According to the data obtained from the monitoring carried out by the President of URE among the five largest DSOs in Poland, supplies were suspended to 191,876 electricity customers in 2021 (which is 1.1% of the total number of customers), including 148,897 household customers. The most common reason for the suspension of supplies was delay in payment for services provided, for at least 30 days after the payment deadline (and after a written notification to the electricity consumer of the intention to suspend the supply of electricity and setting an additional 14-day deadline for payment of overdue and current receivables). Payment arrears were the reason for 98.3% of the cases of suspension of supplies to consumers in the group of households and 99.3% of these cases in the group of institutional customers.

It should be added that the procedure of suspending electricity supply to household consumers with arrears in payment for the electricity consumed and services provided, counted in business days from the moment when the supplier provided the customer with information on arrears until the moment of withholding the supply by the DSO, was on average about 25 days in 2021.

Prepayment meters

The electricity company may, in accordance with the applicable law, install a so-called prepayment meter at a final customer having difficulties with timely payment of bills. In 2021, in the Polish power system 179,812 customers in households and 1,845 customers in tariff group C used prepayment meters.

Ensuring access to data on energy consumption by customers

Pursuant to the provisions of the Energy Law Act, electricity suppliers are obliged to inform their customers about the amount of electricity consumed by these customers in the previous year and about the place where information about the average consumption of electricity for a given tariff group which these customers used is available, as well as about energy efficiency improvement measures and energy-efficient technical equipment.

In addition, an energy company providing an energy distribution service or an electricity supplier which provides a comprehensive service, when issuing an invoice to the customer, should provide information on, among others, the following, in a billing attached to the invoice:

- the amount of electricity consumption in the settlement period on the basis of which the amount due was calculated,
- the manner in which the metering and settlement system was read, whether it was a physical or remote reading performed by an authorized representative of the electricity company or a reading performed and reported by a customer,
- the manner of determining the amount of electricity consumption in a situation when the settlement period is longer than one month and when the first or last day of the settlement period does not coincide with the dates of readings of the metering and billing system, or when during the settlement period there has been a change in prices or fee rates, or about the place where this information is available,
- the time allowed for interruptions in the supply of electricity.

Vulnerable consumer protection

In Poland, the vulnerable consumer protection system is most closely linked to the social welfare system. The financial support system provides for payment of energy allowances by municipalities to vulnerable consumers who were granted housing allowance (electricity consumers) or a lump sum for the purchase of fuel (gas consumers) and who are, respectively, a party to a comprehensive contract or contract on supply of electricity or gaseous fuels, and reside in the place of supplying this energy or fuels. According to the estimates of the Ministry of Climate and Environment, energy allowance was paid out to no more than 71,900 eligible customers in 2021.

In the course of 2021, the scope of protection for vulnerable consumers was extended, with the right to file a request to the electricity supplier for the application of the support programme against overdue and current debts for electricity or gaseous fuels or services provide. Measures undertaken by suppliers aimed at preventing suspension of supplies to such customers (for instance through deferral of debt repayment, write-off of part of debt) are only conducted as part of CSR activities.

3.2.2.2. Consumer protection and dispute settlement

Dispute settlement

Pursuant to Article 8 of the Energy Law Act, the President of URE, upon a request of a party to the dispute, resolves disputes concerning refusal to conclude a grid connection contract, including those related to increasing connection capacity, sale contract, contract to provide transmission or distribution services for fuels or energy, contract to provide natural gas transport services, contract to provide storage services for gas fuels, contract referred to in Article 4c para. 3, contract to provide services for liquefaction of natural gas and a comprehensive contract, as well as in the event of an unjustified

suspension of gaseous fuels or energy supply, refusal to connect a renewable energy installation in the first place or public transport road charging infrastructure, or a publicly accessible charging station referred to in Article 7 para. 1a, refusal to connect a microinstallation, failure to connect a microinstallation despite the expiry of the deadline referred to in Article 7 para. 8d⁷ item 2, unjustified limitation of operation, disconnection of a microinstallation from the network or a refusal to include an amendment referred to in Article 7 para. 2a in the contract with respect to the date of the first electricity supply to the grid. This is one of the exceptions giving the President of URE a prerogative to interfere with civil law relations of entities.

Since May 2017 the Coordinator for Negotiations has been operating with the President of URE. The Coordinator's tasks include conducting proceedings on out of court resolution of disputes between consumers of gas fuels, electricity or heat in households and energy undertakings, or between renewable energy prosumers, virtual prosumers of renewable energy or collective prosumers of renewable energy that are consumers, and energy undertakings, arisen under a contract:

- 1) on connection to the electricity, gas or heat grid, including connection of a microinstallation,
- 2) on provision of services of transmission or distribution of electricity or natural gas,
- 3) on provision of services of transmission and distribution of heat,
- 4) on sales,
- 5) comprehensive contract.

In addition, there are Municipal and District Consumer Ombudsmen in Poland, to whom consumers can complain in individual cases, including the energy-related cases. The competences of Customer Ombudsmen comprise, among others, providing free of charge consumer advice and legal advice on the protection of consumer interests, bringing proceedings for the consumers and joining the ongoing proceedings on the protection of consumer interests upon the consumer consent.

Consumer complaints

Complaints against energy companies reported to URE by household consumers are processed by individual organizational units of URE. The range of issues raised by customers in 2021 was very wide and the complaints were often multithreaded. In 2021 the President of URE registered a total of 5,633 complaints from household consumers, of which 4,660 complaints were filed by electricity consumers and 973 complaints by gas consumers. In 2021 the President of URE undertook actions aimed at clarifying the issues covered by the submitted complaints, which concerned such areas as:

- **connection to the grid:** complaints in this category mainly concerned the term for the performance of the grid connection contract,
- **metering:** consumers reported problems with the operation of measuring systems, which directly affected the settlements,
- **quality of supply:** customers complained about the failure to meet energy quality parameter; many of these complaints were filed by prosumers who complained about problems with the operation of photovoltaics,
- **unfair market practices:** consumers reported on the activities of electricity sellers; these complaints mainly concerned misleading contracting. At the same time, a decrease in complaints received in 2021 in this area was observed, influenced by the statutory ban on the conclusion of contracts for the sale of electricity and gas with household consumers outside the business premises, which was introduced in July 2021. The door-to-door ban means that energy companies can no longer conclude contracts, e.g. when a representative visits the consumer's home,
- **contracts and sales:** complaints reported by consumers in this category mainly concerned the performance of contracts, problems with contract termination and penalty charges. Consumers also reported irregularities related to the contracting process, in particular the problem of customer service agents (salespeople) failing to provide the consumer with full information on the costs involved and additional services included in a contract when making an offer,
- **starting supply or resumption of supply after interruption:** the complaints filed by consumers in this category mainly concerned resumption of supply after interruption and the fee for resumption of supply,
- **suspension of supplies due to non- or late payment:** in this category, consumers complained about the companies' failure to comply with the procedure of suspension of supply, in particular the failure to inform the household consumer of their intention to suspend supply,

- **invoice/bills issued and debt recovery**: consumers reported problems related to the correctness of settlement and basis for invoice adjustment,
- **price/tariff**: consumers complained about wrong tariff group qualification and complained about utility prices and rates,
- **compensation**: consumers asked for help in getting compensation from energy companies,
- **supplier switching**: consumers complained about problems with the entry into force of the new contract after the change of supplier and timeliness of settlements with the old supplier,
- **customer service**: in this category, complaints most often concerned the timeliness of response to complaints or problems with establishing telephone contact with the energy company (complaints made by phone),
- **microgeneration/prosumption**: the notifications from prosumers mainly concerned problems related to grid connection, contract conclusion and settlement. Consumers holding microinstallations also reported problems with electricity parameters.

Protection of justified customers' interests

The year 2021, due to the continuing COVID-19 pandemic and the restrictions put in place as a result, was a period in which many energy companies made changes to their customer service. In many cases, face-to-face contact with customers was reduced, with consumers being encouraged to contact them using ICT tools. Also, the introduction of the ban on concluding contracts for the sale of gaseous fuels and electricity and comprehensive contracts with households off-premises, within the meaning of the Act of 30 May 2014 on consumer rights, directly translated into a much lower – compared to previous years – number of complaints sent by consumers to URE regarding unfair practices of sales representatives. On the other hand, there were complaints from consumers regarding irregularities in the contract conclusion process, in particular the failure of energy companies to provide full cost information when making a pre-contract offer to the consumer. Consumers also raised issues relating to the conclusion of contracts over the internet and the related presentation of offers on suppliers' websites.

In order to minimize the practices signalled by consumers in the abovementioned complaints and in consideration of the provisions of Article 23 para. 2 item 14 of the Energy Law Act, the President of URE continuously cooperates with the President of UOKiK by forwarding customers' letters concerning, among others, the abovementioned issues.

Moreover, the President of URE also undertakes remedial actions aimed at preventing similar problems from occurring in the future by, among other things, raising consumers' awareness – in this respect, the main role is played by the Information Point for Energy and Gas Fuel Customers operating within URE, whose competences include supporting consumers, mainly by providing telephone and written information on their rights, but also obligations in relations between consumers and energy companies.

In 2021 the President of URE also undertook informative activities aimed at household consumers. As part of these activities, the President of URE published information on the URE website on significant problems leading to disputes between energy companies and household consumers of gas fuels and electricity, as well as on energy companies against which justified complaints had been filed by these consumers. These included, in particular, information on pending administrative proceedings concerning the revocation of electricity trading licences.

In order to determine the scale and areas of problems reported by consumers to URE, as well as with reference to the monitoring of the activities of electricity and gas suppliers conducted in 2016 and 2018, the President of URE analyzed consumer complaints/notifications against the activities of energy companies reported to URE in the period from January 2020 to 15 May 2021. As a result of the quantitative and qualitative analysis of complaints/notifications, URE organized online meetings with representatives of energy companies (11 trading companies, 6 DSOs) with the aim of jointly analyzing the problematic areas and reflecting on measures that can be taken to eliminate undesirable occurrences. Some of the meetings were also attended by representatives of UOKiK.

With a view to protecting the interests of household consumers, as well as the information obligations imposed by Article 5aa para. 4, Article 9c para. 1b, item 5 section f and Article 9c para. 3 item 9a section f of the Energy Law Act concerning the publication by operators of electricity and gas distribution systems on their websites of:

- an up-to-date list of electricity/gas suppliers offering backup supplies to final customers connected to the network of a given DSO, together with information on the addresses of their websites where backup supplies offers have been published, and information on the area in which they offer last resort supply,
 - an up-to-date list of suppliers of electricity/gas fuels with whom a given DSO has concluded distribution service agreements,
 - information on sellers of last resort of electricity/gas fuels operating in the area of a given DSO,
 - model contracts concluded with system users, in particular model contracts concluded with final consumers and suppliers of electricity/gas fuels,
- in the period November 2021 – January 2022, the President of URE monitored the websites of electricity DSOs and undertakings with the status of gas DSOs. As part of the conducted activities, the President of URE called upon the undertakings in respect of which the results of the monitoring revealed irregularities to fulfil the information obligations referred to in the aforementioned regulations.

Obstacles and constraints to developing the consumption of self-generated electricity and civic energy communities

The most significant area of the energy market where self-consumption of electricity generated from renewable energy sources occurs is prosumer energy⁵⁸⁾. Over the period 2018-2021, an increase in the total installed electrical capacity of prosumer installations was recorded from 0.35 GW to more than 6 GW, while the number of prosumers increased from 51,000 to more than 847,000 over the period⁵⁹⁾. In 2022, there was a significant change in the way electricity generated by prosumers is billed. Previously, the electricity produced from a photovoltaic installation was billed through its balancing with the electricity consumed during the settlement period (so-called net-metering) and the surplus energy produced could be billed within 12 months. In the net-metering system, the electricity grid acted as a kind of energy storage. Prosumers who reported connecting their micro-installation after 31 March 2022 were still billed under the old rules for a transitional period of three months. As of 1 July 2022, these prosumers will be subject to a new system, the so-called net-billing, which consists in settling the surplus energy fed into the grid according to the average market price of energy from the previous calendar month and, as of 1 July 2024, using dynamic tariffs, that is, hourly prices. An important feature of the new billing system applied to prosumer energy is the increased role of self-consumption of generated electricity.

As a result of the rapid development of prosumer energy in recent years, a number of phenomena have occurred due to difficulties in the area of micro-installation capacity integration in the national electricity system. The current situation is caused by insufficient symmetry in the assessment of the development potential of prosumer installations in relation to the solutions introduced into the national legal order, which has consequently given rise to the need to amend the prosumer energy regulations, significantly modifying the nature of this instrument. The underlying issue is the possibility of increasing the flexibility of the electricity system and improving functionality in terms of control, network management, as well as the automation of processes related to the operation of electricity networks.

Another organizational form allowing the use of generated electricity for own consumption, as provided for in the Renewable Energy Sources Act, is the energy cooperative. Although the definition of an energy cooperative was introduced in the RES Act already in 2016, and the provisions currently regulating energy cooperatives were introduced in 2019, only two cooperatives have been registered so far. From their experience, the main challenge is the creation of the cooperative itself and the associated responsibilities, such as:

- determination of the initial composition and generating capacity of the cooperative so as to meet the statutory requirements for registration and to balance energy production and consumption,
- development and adoption of rules for energy trading within the cooperative (bylaws),
- establishment of a development plan, including policy and rules for the admission of new members,
- negotiation of a contract between the cooperative and the DSO,
- development and implementation of an investment plan,
- management of the cooperative.

⁵⁸⁾ Prosumer – a final customer producing electricity exclusively from renewable energy sources for his/her own use in a micro-installation (a RES installation with a total installed capacity of no more than 50 kW), provided that, in the case of a final customer who is not a household consumer of electricity, this does not constitute the object of his/her main economic activity.

⁵⁹⁾ As of the date of this Report, the number of prosumers is estimated to be over 1 million.

The provisions of the Renewable Energy Sources Act also include a definition of an energy cluster, understood as a civil law agreement involving entities with different legal and organizational statuses, such as: natural persons, legal persons, universities, scientific and research institutes, local government units, concerning the production and balancing of demand, distribution or trade in energy from renewable energy sources or from other sources or fuels, in a limited area of operation. This type of interaction in the area of distributed energy is finding increasing recognition, contributing to its development at the local level.

Work is currently underway to introduce into the national legal system the institution of a citizen energy community and an active consumer.

The development of distributed energy, including prosumer energy, is completely changing the nature of the distribution sector. So far, the activities of DSOs have been focused mainly on ensuring the reliability of energy supply, that is, primarily on technical aspects. EU law, however, creates a new regulatory environment that positions DSOs in the role of market facilitator and their efficiency will largely determine the continued functioning of the market. This also applies to new initiatives such as citizen energy communities or aggregators offering services to reduce electricity consumption by consumers. Distribution companies should support the development of all forms of communities, societies and clusters, as only a well-managed citizen energy industry will be able to support the national electricity system.

This is undoubtedly a major challenge for the sector – both technically, in terms of investment and organization. It is therefore necessary to create system solutions that ensure that the connection of sources to the grid and the feed-in of energy is not limited by technical or commercial barriers. Market integration should include renewable energy generators, new energy service providers, energy storage and flexible off-take. Flexibility services will also play an increasingly important role, which, if designed in the right way, will allow both consumers and new market actors, including flexumers (generators providing flexibility services to the distribution grid through e.g. energy storage) to participate in the energy transformation.

In conclusion, it should be highlighted that the identification and analysis of barriers to the development of distributed energy, including both the prosumer sector and clusters and energy cooperatives, makes it possible to distinguish four main areas where these barriers are located, that is, the following:

- 1) **economic and financial**, where the following barriers can be identified:
 - monopolistic position of power grid owners and lack of regulations requiring DSOs to cooperate in the creation of energy communities;
 - high cost of stabilizing the power system containing RES installations, caused by the lack of regulations supporting local balancing solutions,
- 2) **legislative-regulatory**, where the following barriers can be identified:
 - not fully implemented legal regulations on distributed energy, and existing legal regulations not fully responding to the needs of stakeholders or raising interpretation doubts;
 - complicated and lengthy procedures related to the preparation and implementation of the investment process in the RES sector;
 - long-lasting lack of implementing regulations governing the functioning and settlement rules of energy cooperatives;
 - lack of regulations sufficiently motivating the energy transformation based on a broadly understood citizen energy and the introduction of such regulations that do not translate into actual business models;
 - uncertainty for investors due to regulatory instability,
- 3) **socio-cultural**, where the following barriers can be identified:
 - lack of widespread knowledge and education on energy management and modern technical solutions;
 - limited local organizational capital (e.g. insufficient specialized know-how on distributed energy at the level of local self-government units, personnel shortages);
 - unawareness of the technical and economic benefits of RES installations or collective actions in energy management,
- 4) **technical-technological**, where the following barriers can be identified:
 - unsatisfactory technical condition of the energy infrastructure (in particular the distribution networks), requiring significant investment in modernization;
 - insufficient level of monitoring of the condition and operation of electricity networks, lack of real-time energy balancing, too long data aggregation interval;

- insufficient level of network controllability, low level of solutions increasing network flexibility (e.g. smart grid solutions), including systems increasing the possibility of connecting new sources and improving the quality of energy supply.

These barriers should first be addressed in the process of creating legal regulations aimed at promoting the use of electricity generated by its consumers.

4. THE NATURAL GAS MARKET

4.1. Network regulation

4.1.1. Network and LNG tariffs for connection and access

Gas enterprises with licences for the transmission, distribution, storage of gaseous fuels, natural gas liquefaction or regasification of liquefied natural gas conduct the above-mentioned activities based on tariffs approved by the President of URE.

A prerequisite for the approval of the tariff is its compliance with the provisions of the Energy Law Act and the executive acts to this Act, including in particular Ordinance on the Detailed Principles for Shaping and Calculating Tariffs and Settlements in the Gas Fuels Trade.

In the tariff approval administrative proceedings, the President of URE thoroughly analyzes the costs which form the basis for calculating the rates of fees, ensuring that there is no cross-subsidies between the licensed and non-licensed activities and between the various types of licensed activities. The basis for the assessment of costs accepted for the calculation of tariffs are the data included in the financial statements. Due to the structure of the Polish gas sector, comparative analyses are used to a limited extent.

Tariffs approved by the President of URE are published in the URE Bulletin within 14 days of the date of approval. Gas companies introduce tariffs for application not earlier than after 14 days and no later than 45 days of the date of their publication, while energy companies engaged in the transmission of gas fuels – due to the TAR NC regulations – introduce the tariff for application within the deadline set by the President of URE in the decision to approve the tariff, not earlier than 14 days after its publication in the URE Bulletin.

The decision of the President of URE approving or refusing to approve the company's tariff may be appealed from to the District Court in Warsaw – the Competition and Consumer Protection Court, via the President of URE, within two weeks of the date of its delivery.

Undertakings dealing with the transmission or distribution of gaseous fuels are required to conclude an agreement for connection to their network with entities applying for connection on a non-discrimination basis, if there are technical and economic conditions for connection and delivery of these fuels, and the contracting party meets the conditions of connection to network and of collection. For connection to the gas transmission network a fee is charged in the amount corresponding to the actual expenses incurred for the implementation of the connection.

Entities whose devices, installations and networks are connected to low, medium and higher pressure networks, pay a fee determined on the basis of rates calculated by the distribution network operators and contained in their tariffs approved by the President of URE.

The key infrastructure companies in the gas sector include:

- OGP Gaz-System S.A. – transmission system operator and LNG regasification system operator,
- EuRoPol Gaz S.A. – transit gas pipeline owner,
- PSG Sp. z o.o. – distribution system operator,
- Gas Storage Poland Sp. z o.o. – storage system operator.

Tariff of OGP Gaz-System S.A.

In 2021, in settlements for gaseous fuel transmission services provided by OGP Gaz-System S.A., Tariff No 14 was applied, approved by the decision of the President of URE of 5 June 2020 for the period from 1 January 2021 to 31 December 2021.⁶⁰⁾

The tariff was approved within the time limit arising from the provisions of Article 29 and Article 32(a) of the TAR NC Regulation. According to these provisions, the publication of, among others, the transmission tariffs for the upcoming gas year (2020/21) should take place no later than 30 days before the annual yearly capacity auction. On the other hand, according to Article 11(4) of the CAM NC Regulation, the annual yearly capacity auction shall commence on the first Monday of July of each year.

The tariff calculation has taken into account the provisions of the decision of the President of URE dated 29 March 2019, approving the *Method of determining reference prices No 1/OGP with respect to the own transmission network of the Gas Transmission Operator Gaz-System S.A. for the period: from 1 January 2020 to 31 December 2022*, constituting an annex to this decision (URE Industry Bulletin – Gaseous Fuels No 32 (1226) of 29 March 2019)⁶¹⁾ and *Announcement No 14/2020 on the level of multipliers, seasonal factors and discounts referred to in Article 28(1)(a)-(c) of the Tariff Code, taken into account in the calculation of tariffs for gaseous fuel transmission services for the period from 1 January 2021 to 31 December 2021*⁶²⁾, issued on the basis of the TAR NC Regulation.

At the same time, during the administrative proceedings, on the basis of the provisions of Chapter IV of the TAR NC Regulation, the regulatory account balance as at 31 December 2019 was reconciled in the amount of PLN 120,301 thousand. This value results from the difference between the planned value of revenue allowed for 2019, which is the basis for the calculation of the tariff for that year, and the actually achieved revenue from regulated activities, resulting from the Company's financial statements for 2019. A positive value of this difference implies an over-recovery of transmission services revenue by the Company. However, bearing in mind the principles of considering the balance of the regulatory account in the calculation of transmission tariffs indicated in Article 17(1) of the TAR NC Regulation and the significant scope of investments implemented by the Company in 2021-2023 – of a strategic nature, with a direct impact on Poland's energy security – it was assumed that the balance of the regulatory account would be used in the calculation of tariffs for subsequent years. The rationale behind this approach was to limit excessive increases in tariff rates in subsequent years, which will be associated with the commissioning of transmission system expansion investments.

By decision of 2 June 2021 the President of URE approved the *Tariff for Gaseous Fuel Transmission Services No 15* for the period from 1 January 2022 to 31 December 2022.⁶³⁾ At the same time, this decision reconciled the balance of the regulatory account as at 31 December 2020 by setting the level of over-recovered revenues at PLN 184,945 thousand.

The tariff established by OGP Gaz-System S.A. ensures that the planned costs are covered, together with a reasonable return on the capital employed. This tariff was calculated in accordance with the requirements of the TAR NC Regulation and the Gas Tariff Ordinance.

In addition, the tariff calculation has taken into account the provisions of the above referenced *Method of determining reference prices No 1/OGP with respect to the own transmission network of the Gas Transmission Operator Gaz-System S.A. for the period: from 1 January 2020 to 31 December 2022*, and *Information No 11/2021 on the level of multipliers, seasonal factors and discounts referred to in Article 28(1)(a)-(c) of the Tariff Code, taken into account in the calculation of tariffs for gaseous fuel transmission services for the period from 1 January 2022 to 31 December 2022*⁶⁴⁾.

This tariff comprises transmission fee rates for annual firm transmission services of gaseous fuels provided at the entry and exit points to/from the transmission system (for high-methane natural gas – group E and nitrogenous natural gas – group L, subgroup Lw), including for high-methane natural gas also at entry points and exits from/to underground gas storage facilities.

⁶⁰⁾ Biuletyn branżowy URE – Paliwa gazowe nr 49/2020 r. (URE Industry Bulletin – Gaseous Fuels no 49/2020), <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe/3908,Taryfy-opublikowane-w-2020-r.html>

⁶¹⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/wyznaczenie-cen-referen/8186,Kodeks-sieci-dotyczacy-zharmonizowanych-struktur-taryf-przesylowych-dla-gazu.html>

⁶²⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozники-wspolczynniki-1/8439,Mnozники-wspolczynniki-sezonowe-i-rabaty-na-2021-r-art-28-NC-TAR.html>

⁶³⁾ Biuletyn branżowy URE – Paliwa gazowe nr 39/2021 r. (URE Industry Bulletin – Gaseous Fuels no 39/2021), <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe/4007,Taryfy-opublikowane-w-2021-r.html>

⁶⁴⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozники-wspolczynniki-2/9090,Rynek-gazu-Konsultacje-Prezesa-URE-dotyczace-wskaznikow-do-przesylowych-taryf-ga.html>

On the other hand, the reserve prices for standard capacity products for interruptible capacity⁶⁵⁾, in accordance with the provisions of the above referenced Information no 11/2021, will be calculated by multiplying the reserve prices for standard products capacity for firm capacity by the difference between 100% and the ex-ante discount level:

- 6% for annual, quarterly, monthly, daily and intraday capacity products for E gas offered at interconnection points with EU member states and with third countries,
- 2% for annual, quarterly, monthly, daily and intraday capacity products for E and L gas offered at internal entry/exit points.

In this method, the reserve price for the interruptible capacity product (including the above discount) is used in settlements with the transmission system user regardless of the actual occurrence of capacity limitation at the point in question. In the event of an interruption, the user does not receive an additional discount/bonus.

The ex-ante discount will not be applied to virtual reverse flow services, to which a factor of 0.2 (discount of 80%) is applied pursuant to §14 of the Gas Tariff Ordinance. However, in connection with Article 16 of the TAR NC, this factor (and thus the 80% discount) may only be applied to interruptible capacity products.

In the case of provision of both firm and interruptible gas transmission services in periods shorter than one year, correction factors determined in the tariff, appropriate for the given product for the scope of transmission capacity (quarterly, monthly, daily and intraday) are applied in settlements.

In the tariff for 2022, the share of revenue obtained from fixed charges, for both high-methane and nitrogenous gas, was 100%. The distribution of revenue between entry and exit points adopted in the tariff calculation corresponds to a proportion of 45/55. Rates at entry and exit points to/from storage facilities have been applied with an 80% discount, that is they amount to 20% of the transmission rates at entry and exit points to/from the high-methane natural gas transmission network other than storage facilities. At the entry point to the transmission system from the LNG terminal, a discount of 100% has been applied, resulting in no fees for gas introduction into the transmission system at this point.

Tariff of PSG Sp. z o.o.

Two tariffs were applied in 2021:

- from 1 to 31 January 2021 *Tariff No 8 for gaseous fuel distribution services*, approved by the President of URE on 15 May 2020 and published in the URE Industry Bulletin – Gaseous Fuels No 44 (1338)/2020⁶⁶⁾ and
- as of 1 February 2021 *Tariff No 9 for gaseous fuel distribution services*, approved by the President of URE on 13 January 2021 and published in the URE Industry Bulletin – Gaseous Fuels No 3 (1394)⁶⁷⁾.

As a result of the approval of Tariff No 9, there was a 3.6% increase in the average charge rates for high-methane (Group E) and nitrogenous natural gas (Group L, subgroups Lw and Ls) and for coke-oven gas by 45%.

By decision of 17 December 2021 the President of URE approved *Tariff No 10 for gaseous fuel distribution services*. Tariff No 10 was published in the URE Industry Bulletin – Gaseous Fuels No 111 (2512)/2021 of 17 December 2021 and is effective from 1 January 2022.

As a result of the approval of Tariff No 10, from 1 January 2022, there was a 3.6% increase in the average charge rates for high-methane natural gas (group E) and nitrogenous natural gas (group L, subgroups Lw and Ls) and a 12.6% decrease in the average charge rates for coke-oven gas.

Tariff of Gas Storage Poland Sp. z o.o.

In 2021, the following tariffs applied to settlements with contracting entities for gaseous fuel storage services:

⁶⁵⁾ In accordance with the definition in Article 2(1)(3) of Regulation 715/2009, capacity means the maximum flow, expressed in normal cubic meters per time unit or in energy unit per time unit to which the network user is entitled in accordance with the provisions of the transport contract.

⁶⁶⁾ <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe/3908,Taryfy-opublikowane-w-2020-r.html>

⁶⁷⁾ <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe/4007,Taryfy-opublikowane-w-2021-r.html>

- *Amendment to the Tariff for gaseous fuel storage services No 1/2020* approved by the decision of the President of URE of 17 December 2020, published in the URE Industry Bulletin – Gaseous Fuels No 96 (2020),
- *Tariff for gaseous fuel storage services No 1/2021* approved by decision of the President of URE dated 1 June 2021, published in URE Industry Bulletin – Gaseous Fuels No 38 (2021),
- *Amendment to the Tariff for gaseous fuel storage services No 1/2021* approved by the decision of the President of URE of 17 August 2021, published in the URE Industry Bulletin – Gaseous Fuels No 63 (2021),
- *Amendment No 2 to the Tariff for gas fuel storage services No 1/2021* approved by the decision of the President of URE of 30 September 2021, published in URE Industry Bulletin – Gaseous Fuels No 78 (2021).

The introduction of the *Tariff for Gaseous Fuel Storage Services No 1/2021* resulted in a decrease in the average fee rate for services offered on a firm basis by 3.2% and an increase in the average fee rate for services offered on an interruptible basis by 1.2%.

By a decision of the President of URE of 17 December 2021, *Amendment No 3 of the Tariff for gaseous fuel storage services No 3/2021* was approved. The tariff amendment came into effect from 1 January 2022. The change in average storage service fee rates in Amendment No 3 relative to Tariff No 1/2021 was 4.2%.

The changes in Tariff No 1/2021 were due to an increase in the cost of purchasing gaseous fuel required to operate the storage facilities.

Storage capacity on offer remained unchanged compared to 2020. The size of an unit remained unchanged – 200 MWh of working volume. The structure and scope of the storage services provided also remained unchanged. Thus, in 2021 Gas Storage Poland Sp. z o.o. provided services on a firm and interruptible basis, as long-term and short-term products, in the form of bundled units, flexible units and as unbundled storage services (unbundled SS), as well as in the form of bundled units, flexible units and as USS, and also in the form of 90/40 storage service and the Reverse Storage Service.

Tariff of POLSKIE LNG S.A.

From 1 January 2021, *Tariff No 6 for LNG regasification services*, approved by decision of the President of URE of 17 December 2020 for a period from 1 January 2021 to 31 December 2021 was applied in settlements for the LNG regasification services and additional services provided by Polskie LNG S.A., and subsequently OGP Gaz-System S.A. (in 2021 a merger of companies under the name of OGP Gaz-System S.A. took place) – operator of the Lech Kaczyński LNG Terminal in Świnoujście⁶⁸).

The approval of Tariff No 6 resulted in a decrease in the average rate for regasification services by 9.3% compared to the average rate calculated on the basis of Tariff No 5, effective in 2020.

In Tariff No 7, similarly as in the previous tariff, fee rates (fixed and variable) were determined for bundled regasification services of liquefied natural gas covering: unloading LNG from a carrier, in-process storage in tanks, regasification and delivery of gaseous fuel to the transmission system as well as fee rates for LNG reloading services on tank trucks. LNG regasification services may be provided as long-term services – for a period longer than one year and short-term services – for a period of at least one gas day. In addition, the tariff includes fee rates for unbundled services, that is: unbundled in-process LNG storage and unbundled regasification contractual capacity, which will be provided in addition to bundled services.

By decision of 17 December 2021 the President of URE approved Tariff No 7 for LNG regasification services for the period from 1 January 2022 to 31 December 2022, published in URE Industry Bulletin – Gaseous Fuels No 110/2021. The average rate for regasification services calculated according to Tariff No 7 (6.24 PLN/MWh) decreased by 11.9% compared to the average rate calculated according to Tariff No 6 (7.08 PLN/MWh).

Comparison of basic fee rates from Tariff No 6 and Tariff No 7:

- fixed fee – decrease by 19.6%,
- variable fee – an increase by 89.4%,
- tank reloading fee – decrease by 4.3%.

⁶⁸) Biuletyn branżowy URE – Paliwa gazowe nr 95/2020 r. (URE Industry Bulletin – Gaseous Fuels no 95/2020), <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe/3908,Taryfy-opublikowane-w-2020-r.html>

Tariff of EuRoPol GAZ S.A.

On 28 December 2020 the Court of Appeal in Warsaw dismissed the Company's appeal against the decision of the President of URE of 30 May 2019 approving the tariff of SGT EuRoPol GAZ S.A. for the period from 1 January 2020 to 31 December 2020 – thus, on that day, the appealed decision became legally valid and the tariff entered into application. The President of URE notified of this fact in the Announcement of 28 December 2020, published in the URE Industry Bulletin – Gaseous Fuels No 97 (1391). In connection with the application of the tariff for 2020, the average increase in fees for transmission services via the Yamal pipeline amounted to approximately 38%.

The tariff approved by the decision of 5 June 2020 for the period from 1 January 2021 to 31 December 2021, as in the case of the tariffs of SGT EuRoPol GAZ S.A. for 2018, 2019 and 2020, was not implemented as a result of the company's appeal against the decision approving this tariff, of which the President of URE notified on 18 June 2020 by publishing a relevant announcement in the URE Industry Bulletin – Gaseous Fuels No 55 (1349).

The aforementioned decision approving the tariff became effective on 23 April 2021 and therefore, pursuant to Article 47 para. 5 of the Energy Law Act, SGT EuRoPol GAZ S.A.'s tariff for 2021 became applicable on that date. A notice to this effect was issued by the President of URE on 26 April 2021⁶⁹⁾. It resulted from the decision of the Court of Appeal in Warsaw of 23 April 2021, case file No VII AGz 110/21 on the dismissal of the complaint against the decision of the Regional Court in Warsaw – Court of Competition and Consumer Protection of 4 January 2021, case file No XVII AmE 159/20 on the discontinuance of the appeal proceedings against the decision of the President of URE of 5 June 2020 as a result of the withdrawal by SGT EuRoPol GAZ S.A. of the appeal with waiver of the claim.

By decision of 2 June 2021⁷⁰⁾ the tariff for high-methane natural gas transmission services set by SGT EuRoPol GAZ S.A. for the period from 1 January to 31 December 2022 was approved. The tariff was approved within the deadline arising from the provisions of Article 29 and Article 32(a) of the TAR NC. Pursuant to these provisions, the publication of, among others, the transmission fee rates for the upcoming gas year (2021/22) should take place no later than 30 days before the annual yearly capacity auction. According to Article 11(4) of the CAM NC Regulation, the annual yearly capacity auction shall commence on the first Monday of July of each year. The tariff became applicable on 1 January 2022.

The tariff calculation takes into account the provisions of the decision of the President of URE of 29 March 2019 approving the *Reference Price Determination Methodology No 1/SGT for the transmission network owned by the energy company System Gazociągów Tranzytowych EuRoPol GAZ S.A. with its registered office in Warsaw for the period: from 1 January 2020 to 31 December 2022*, constituting an annex to that decision (URE Industry Bulletin – Gaseous Fuels No 32 (1226) of 29 March 2019)⁷¹⁾ and *Information No 11/2021 on the level of multipliers, seasonal coefficients and discounts referred to in Article 28 para. 1 sections a) to (c) of the Tariff Network Code, taken into account in the calculation of tariffs for gaseous fuel transmission services for the period from 1 January 2022 to 31 December 2022*⁷²⁾.

Monitoring access to storage, storage capacity of gas pipelines and other ancillary services

In Poland, the activity in the field of gas storage is conducted by one entity, that is Gas Storage Poland Sp. z o.o. with its registered office in Dębogórz. This company is a natural gas storage system operator (SSO) and provides storage capacities in the following installations and installation groups:

- Group of Storage Facilities Kawerna (GSF Kawerna), including cUGS Mogilno and cUGS Kosakowo, (cUGS- cavern underground gas storage),
- Group of Storage Facilities Sanok (GSF Sanok), including UGS Husów, UGS Strachocina, UGS Swarzędów and UGS Brzeźnica,
- UGS Wierzchowice Storage Facility.

⁶⁹⁾ Biuletyn branżowy URE – Paliwa gazowe nr 28/2021 r. (URE Industry Bulletin – Gaseous Fuels no 28/2021), <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe-/4007,Taryfy-opublikowane-w-2021-r.html>

⁷⁰⁾ Biuletyn branżowy URE – Paliwa gazowe nr 39/2021 r. (URE Industry Bulletin – Gaseous Fuels no 39/2021), <https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/paliwa-gazowe-/4007,Taryfy-opublikowane-w-2021-r.html>

⁷¹⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/wyznaczenie-cen-referen/8186,Kodeks-sieci-dotyczacy-zharmonizowanych-struktur-taryf-przesylowych-dla-gazu.html>

⁷²⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozники-wspolczynniki-2/9090,Rynek-gazu-Konsultacje-Prezesa-URE-dotyczace-wskaznikow-do-przesylowych-taryf-ga.html>

In 2021 Gas Storage Poland Sp. z o.o. offered storage capacity by way of application:

I. under firm conditions in:

- the UGS Wierchowice Storage Facility up to 14,311 bundled units, or flexible units or Unbundled SS and covering up to 2,862,200 MWh of working volume, up to 1,187,813 MWh/h of injection capacity and up to 3,778,104 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- the PMG Wierchowice Storage Facility up to 25 bundled units, or flexible units or unbundled SS and covering up to 5,000 MWh of working volume, up to 2,075 MWh/h of injection capacity and up to 6,600 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Sanok up to 12,895 bundled units, or flexible or Unbundled SS and covering up to 2,579,000 MWh of working volume, up to 1,121,865 MWh/h of injection capacity and up to 3,197,960 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Kawerna up to 26,290 bundled units, or flexible units or Unbundled SS and covering up to 5,258,000 MWh of working volume, up to 3,917,210 MWh/h of injection capacity and up to 9,017,470 MWh/h of withdrawal capacity or 90/40 storage services up to 25,941 bundled units for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Kawerna up to 270 bundled units, or flexible units or Unbundled SS and covering up to 54,000 MWh of working volume, up to 40,230 MWh/h of injection capacity and up to 92,610 MWh/h of withdrawal capacity or 90/40 storage services up to 266 units for the period from 6.00 a.m. on 1 August 2021 to 6.00 a.m. on 1 August 2025,

II. under interruptible conditions in:

- UGS Wierchowice Storage Facility up to 43,225 bundled units, or flexible units or Unbundled SS and covering up to 8,645,000 MWh of working volume, up to 3,717,350 MWh/h of Injection Capacity and up to 5,619,250 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Sanok up to 44,705 bundled units, or flexible units or Unbundled SS and covering up to 8,941,000 MWh of working capacity, up to 3,576,400 MWh/h of injection capacity and up to 5,230,485 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Kawerna up to 6,596 bundled units, or flexible units or Unbundled SS and covering up to 1,319,200 MWh of working capacity, up to 982,804 MWh/h of injection capacity and up to 2,262,428 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- UGS Wierchowice Storage Facility up to 1,400 bundled units, or flexible units or Unbundled SS and covering up to 280,000 MWh of working volume, up to 120,400 MWh/h of injection capacity and up to 182,000 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2021/2022 commencing at 6.00 a.m. on 15 April 2021 until the end of the storage year 2024/2025 ending at 6.00 a.m. on 15 April 2025,
- GSF Sanok up to 1,400 bundled units, or flexible or Unbundled SS and covering up to 280,000 MWh of working capacity, up to 112,000 MWh/h of injection capacity and up to 163,800 MWh/h of withdrawal capacity for the period from the beginning of the storage year 2022/2023 commencing at 6.00 a.m. on 15 April 2022 until the end of the storage year 2022/2023 ending at 6.00 a.m. on 15 April 2023,
- GSF Kawerna, in the form of bundled units, flexible units or Unbundled SS, under Short-Term SS, in the amount of:
 - a) up to 131,600 MWh of working volume, up to 150,602 MWh/h of injection capacity and up to 344,762 MWh/h of withdrawal capacity for the period from 6.00 a.m. on 1 January 2021 to 6.00 a.m. on 1 April 2021;

- b) up to 186 400 MWh of working volume, up to 138,868 MWh/h of injection capacity and up to 319,676 MWh/h of withdrawal capacity for the period from 6.00 a.m. on 1 July 2021 to 6.00 a.m. on 1 April 2022;
- c) up to 11,000 MWh of working capacity, up to 8,195 MWh/h of Injection capacity and up to 18,865 MWh/h of withdrawal capacity for the period from 6.00 a.m. on 1 November 2021 to 6.00 a.m. on 1 April 2022.

In the case of GSF Sanok and UGS Wierzchowice Storage Facility, released storage capacities resulting from the expiry of the concluded contracts on 15 April 2021 at 6:00 a.m. and storage capacities on interruptible terms for the storage year 2022/2023 were offered under contractual congestion management procedures at the request of the customer. In addition, as part of contractual congestion management procedures at the UGS Wierzchowice Storage Facility at the request of the customer, storage capacities were offered on firm terms for the storage years 2021/22 to 2023/24.

In the case of GSF Kawerna, released storage capacities were offered as a result of expiry of the concluded contracts, as well as short-term storage capacities on interruptible terms obtained periodically thanks to processes taking place in the caverns of the Mogilno and Kosakowo Storage Facilities.

In 2021 Gas Storage Poland Sp. z o.o. did not offer storage capacity by auction. In addition, Gas Storage Poland Sp. z o.o. did not carry out a storage demand assessment, as such a study was carried out in 2020 and covered the following 10 years.

Gas Storage Poland Sp. z o.o. publishes a range of information on its website:

- Detailed information on storage facility capacity allocation mechanisms, including the services it offers and the terms and conditions applied, together with the technical information necessary for storage facility users to gain effective access to the storage facility (information on services offered, calculator allowing a detailed insight into the services offered, description of storage facilities, planned and unplanned outages, rules for establishing and maintaining mandatory natural gas stocks, available unused storage capacities of the storage facility under the intra-day service – published within minutes of occurrence of unused nominal injection capacities and nominal withdrawal capacities and information concerning the secondary market).
- Figures for contracted and available storage capacity.
- Information on the amount of gas in each storage facility, or group of storage facilities where such access is offered to users, inflows and outflows, and available storage capacity, including for those facilities exempted from third party access⁷³).

Gas Storage Poland Sp. z o.o. presents information in a standardized way through a unified site map in the form of a Transparency Template, which was developed within the framework of the GIE (GSE) and consulted with ACER.

The implementation of the obligation under Article 22 of Regulation 715/2009 is defined by the provisions of the Storage Services Rules, allowing secondary trading of storage capacity. In 2021, Gas Storage Poland Sp. z o.o. did not receive any information on the disposal on the secondary market of the storage capacities ordered by the customer of the storage service.

Finally, it is worth mentioning that the expansion of the facilities and other planned activities that may result in an increase in the volume of storage capacity offered are being conducted by PGNiG S.A., which owns the storage facilities. It is planned to increase the working volume at UGS Husów, UGS Strachocina and UGS Swarzędów. In addition, from the 2022/2023 season, the working volume of the UGS Kosakowo will be increased.

Monitoring of the fulfilment of tasks by the liquefaction system operator

In 2021, the operator of the natural gas liquefaction system, namely the LNG terminal in Świnoujście, Polskie LNG S.A. merged with the transmission system operator OGP Gaz-System S.A. The merger took place on 31 March 2021 and OGP Gaz-System S.A. became the legal successor of Polskie LNG. At present, the operator for the LNG terminal in Świnoujście is an entity that is also the operator of the natural gas transmission system. The working capacity of this terminal is 2,058 GWh (2,058,000 MWh), the maximum

⁷³) Information in Polish and English is available on the website of Gas Storage Poland Sp. z o.o.: <https://ipi.gasstorage-poland.pl/pl/strona-glowna/>

off-take capacity is 82,320 MWh/h, the capacity of the LNG tanks is 320,000 m³ and the maximum technical capacity is 656 Nm³/h. The capacity of the LNG terminal in Świnoujście – the facility for unloading, process, storage and regasification of LNG for commercial purposes in 2020, was 6.37089 GWh/h (6,370.89 MWh/h, 570,000 Nm³/h), while the facility for loading LNG onto tanker trucks was 400 MWh/h. The reserved capacity for commercial purposes was 570,000 Nm³. The volume of imported LNG via the LNG terminal in Świnoujście in 2020 was equal to 43.21 TWh, representing an increase over the previous year. In 2021, 1,610.770 GWh (1,610,770 MWh) of tanker loading capacity was offered. All of this capacity was reserved.

In 2021, the LNG terminal operator provided gaseous fuel regasification services (long-term and short-term, so-called spot) and additional services. Services of a long-term character are provided throughout the entire regasification year (except for the period of conducting agreed works, breakdowns and introduction of limitations). Services of a short-term nature are provided for a period of at least one gas day or a multiple of consecutive gas days in a given regasification year. Regasification is a bundled service and as part of it, the operator shall ensure to the user the unloading of LNG from the carrier, in-process storage, regasification of LNG and delivery of gaseous fuel to the exit point from the LNG Terminal. Services of a short-term nature may be provided under a master contract.

As part of additional services, the LNG terminal operator shall render the services of LNG reloading onto tank trucks, unbundled in-process storage and making available unbundled contractual capacity. Additional services may be provided only to entities that have reserved the basic regasification service. Before entering into an agreement to provide a regasification service or an additional service, the entity concerned shall be obliged to submit appropriate financial collateral. Detailed rules for the provision of services are set out in the Terminal Code, the relevant regasification agreement and the tariff.

The expansion project of the LNG terminal in Świnoujście is currently underway and includes, among other things, the construction of a third tank and a quay to enable the expansion of the range of additional services available. According to the schedule, the expansion should be completed in December 2023. In addition to the LNG terminal in Świnoujście, the project to build a Floating Storage Regasification Unit (FSRU) in Zatoka Gdańska is also worth mentioning. In late August/early September 2021, the Open Season procedure documentation (Regulations and other documents) was consulted. This was followed by a non-binding market screening. In contrast, the binding Open Season procedure took place in December 2021. It is assumed that the FSRU Terminal will carry out regasification at a level equivalent to approximately 6.1 billion m³ of gaseous fuel per year. The start-up of the terminal will most likely take place in the gas year 2027/2028.

In fulfilment of its information obligations set out in particular in Article 19 of Regulation 715/2009, the LNG Terminal operator shall make public detailed information on the services it offers and the conditions applied, together with the technical information needed by market participants to gain effective access to the LNG facilities, figures on the contracted and available capacity of the LNG facilities, information on the quantity of gas in each LNG facility, on the quantities of gas injected and offtaken, as well as on the available capacity of the LNG facilities, including for facilities exempted from third-party access. The published data shall be available both as regards current data and archived data. In addition, the LNG terminal operator on the international platform ALSI provides data regarding nominations for the exit point to the transmission network of OGP Gaz-System S.A. LNG after regasification and the state of LNG in the terminal's tanks, and updates these data on a daily basis. The ALSI platform presents data from the LNG Terminal in Świnoujście together with other European LNG terminals at: <https://alsi.gie.eu/#/>. In addition, the liquefaction system operator shall transmit the relevant data to ACER through OGP Gaz-System S.A. as a Registered Reporting Mechanism (RRM) entity.

4.1.2. Balancing the system

Balancing services

In accordance with the provisions of the Energy Law Act, the balancing of the gas system in the national gas system is performed by the TSO as part of the gaseous fuels transmission services provided. The concept of balancing services (balancing service) can have a dual meaning. Under Directive 2009/73/EC, the concept of balancing services should be understood as all activities undertaken by the transmission system operator to balance the entry-exit area. The BAL NC gives a slightly different meaning to balancing services. Pursuant to Article 3(7) of the BAL NC, a "balancing service" means a service provided to a transmission system operator via a contract for gas required to meet short term fluctuations in gas demand or supply, which is not a short-term standardized product. The TSO shall be entitled to procure balancing services in situations where standard short-term products do not or are not likely to keep the transmission system within its operational limits or in case of lack of liquidity on the wholesale gas market for short-term transactions.

The President of URE, as the national regulatory authority, is responsible for monitoring the application of balancing rules. The balancing regulations are included in the Energy Law Act, the Ordinance of the Minister of Economy on the Detailed Rules of Gas System Operation. The detailed rules are specified in the Transmission Network Code of the National Transmission System (TNC NTS), the Transmission Network Code of the Transit Gas Pipeline System (TNC TGPS), and the *Mechanism to ensure cost neutrality of balancing activities of Transmission System Operator Gaz-System S.A. in relation to the entry into force of Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a network code for gas balancing in transmission networks*. The transmission system operator, OGP Gaz-System S.A. is responsible for balancing gas in all three balancing zones. The National Transmission System comprises two zones: (i) balancing zone for high-methane gas (NTSHM) and (ii) balancing zone for nitrogenous gas (NTSN). The Polish part of the Yamal pipeline (the Transit Gas Pipeline System – TGPS) is the third separate balancing zone. The high-methane gas balancing zone in the National Transmission System and the TGPS balancing zone are connected by the relevant point of the transmission system – the so-called Interconnection Point, through which natural gas can be transmitted.

The balancing rules of the transmission system operator have been regulated in the Transmission Network Code (TNC), which is subject to approval by the President of URE. The TNC contains a separate part concerning system balancing and congestion management. The Code specifies the platform on which the TSO is authorized to buy and sell gas. It is a market operated by TGE S.A. The TNC also regulates the method of determining the price for daily imbalance. The system users, including customers whose facilities, installations or networks are connected to the network of the gas TSO or using the services provided by it, are obliged to comply with the terms and requirements and procedures of conduct and exchange of information specified in the TNC. The TNC constitutes a part of a contract for the provision of gaseous fuels transmission services or a comprehensive contract, and so does the Mechanism to ensure cost neutrality of balancing activities.

According to the TNC, physical (operational) balancing is carried out by the TSO in order to ensure operational security and integrity of the transmission system. On the other hand, commercial balancing is the TSO's activity consisting in determining and settling the imbalance resulting from the difference between the quantities of gaseous fuel delivered and received in a given balancing zone by system users. It should also be emphasized that in accordance with the TNC, the daily imbalance limit is 0. If, at the end of the day, a given system user is unbalanced, the TSO imposes on it an imbalance charge referred to in Article 19 of the BAL NC. The rules of the settlement allocation, consisting in assigning to individual shippers the amount of gaseous fuel delivered for transmission at the entry point or received at the exit point, are also important for the TSO's balancing activities. In the case of exit points from the transmission system, the allocation is made by the gaseous fuel customer at that point or, if it is a connection point with the interconnecting system operator (ISO), by this interconnecting system operator. On connections with the distribution system, in accordance with the provisions of the TNC, the allocation is made by the DSO. The allocation is made on the basis of actual or projected gas consumption of individual customers.

In 2021, balancing services within the meaning of Article 3(7) of the BAL NC were applied at the Branice interconnection point at the Polish-Czech border. The rules for the application of balancing services are stipulated in Article 8 of the BAL NC and the contract for the provision of these services, which is concluded by the transmission system operator after a non-discriminatory tender procedure.

The President of URE monitored the fulfilment of disclosure obligations under the BAL NC. The TSO publishes a monthly summary of costs and revenues achieved in balancing activities and annually, after the end of the gas year, information on balancing activities undertaken⁷⁴). In addition, the TSO published information on balancing activities in the adjacent balancing zone (no such activities were undertaken in 2021) and on the application of balancing services within the meaning of Article 8 of the BAL NC.

In addition, the President of URE monitored whether the TSO carried out balancing activities and fulfilled its publication obligations in accordance with the requirements of the BAL NC and the TNC.

Commercial balancing is based on the principle of daily settlement. The TSO undertakes balancing activities through the purchase and sale of standard short-term products on the trading platform approved by the President of URE. This contributes to increasing the liquidity of the short-term products market in Poland. TGE S.A. trades on the following gas markets: Gas Forward Market, Gas Day-Ahead Market and Gas Intraday Market.

Currently, it is possible to trade natural gas in all three balancing zones on both the intraday and day-ahead markets.

The settlement of balancing costs in all three zones is made on the basis of the method for calculating balancing neutrality fees approved by the President of URE in accordance with Article 30(2) of the BAL NC. This method is included in the document "Mechanism for ensuring cost neutrality of balancing activities of Transmission System Operator Gaz-System S.A. in connection with the entry into force of Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a network code for gas balancing in transmission networks". This document regulates the mechanism for ensuring cost neutrality, the rules for adjusting the balancing neutrality fee rate, as well as the rules for credit risk management, among others, the amount and types of financial collateral, the rules for verifying the amount of such collateral and the rules for dealing with the need to supplement the financial collateral.

4.1.3. Cross-border issues

Principles of access to cross-border infrastructure, including allocation of transmission capacity and congestion management

The principles of capacity allocation resulting from the provisions of Regulation 715/2009 and the CAM NC Regulation, which regulates the principles of capacity allocation at interconnection points and the principles of cooperation of transmission system operators in this process, have been regulated in the TNC and TNC TGPS developed by the TSO and subsequently approved by the President of URE. As a capacity allocation mechanism, the CAM NC provides for an auction procedure with the use of an internet platform designed to reserve firm and interruptible capacity at interconnection points. The capacity offered at these points should be bundled. The same auction model is used at all interconnection points and the relevant auction processes start simultaneously for all relevant points. In each auction process for one standard capacity product, capacity shall be allocated independently of any other auction process, except for so-called competing capacity.

The TSO undertakes actions to eliminate the possibility of system congestion, including among others:

- at the stage of consideration of capacity allocation requests or approval of capacity allocation forecasts, the TSO shall analyze the possibility of performance of new contracts so that they do not result in a decrease of the security of supply and the quality of gaseous fuel supplied to the existing system users,
- in case of capacity for transmission services, the TSO offers the available capacity in accordance with the provisions of the TNC,
- if firm transmission services cannot be provided, the TSO shall make interruptible transmission services available, if possible,
- it plans the work on the system so as not to cause congestions, and if congestions are necessary in connection with the work carried out, it endeavours to minimize their effects.

In 2021 the President of URE conducted monitoring activities to confirm the correct implementation of the provisions on congestion management.

⁷⁴) <https://www.gaz-system.pl/strefa-klienta/taryfa/bilansowanie/dzialania-bilansujace-nc-bal/>

The TSO makes maximum capacity at relevant points of the system available to market participants. It offers unused capacity on the primary market on a firm and interruptible basis in the case of contractual congestions, and also enables network users to resell or make available under another legal title unused contracted capacity on the secondary market. In accordance with Article 18 of Regulation 715/2009 and point 3 of Annex I thereto, the TSO shall publish the information necessary for the user to use the services offered by the TSO.

Within the contractual congestion management on cross-border interconnections, the TSO has implemented procedures which are consistent with the Guidelines in Annex I (point 2.2.) to Regulation 715/2009. They are aimed at preventing and alleviating existing contractual congestion at interconnection points with neighbouring EU Member States:

- Oversubscription and buy-back scheme (OS&BB),
- Long-term use-it-or-lose-it mechanism (LT UIOLI),
- Surrender of contracted capacity mechanism,
- Firm day-ahead use-it-or-lose-it mechanism (FDA UIOLI).

Capacity resulting from the oversubscription procedure at specific NTS and TGPS points should be published on an ongoing basis on the TSO's website when contractual congestions exist at these points.

In 2021, there were no circumstances resulting in capacity being made available under the OS&BB. In addition, the TSO did not identify the need to apply a procedure based on LT UIOLI to long-term capacity allocations. Also, no need was identified for a day-ahead continuous capacity release mechanism on FDA UIOLI. According to the TNC and TNC TGPS – the TSO allows capacity to be traded on the secondary market on auction platforms: GSA and RBP. There were 223 active capacity resale bids in 2021. The user has the possibility to surrender allocated capacity on a firm basis at physical entry or exit points on interconnections with the transmission systems of neighbouring countries and at the Point of Interconnection. In 2021, there were no surrenders of contracted capacity.

According to the ACER Report on Contractual Congestions⁷⁵⁾ at natural gas interconnection points in the EU in 2021, for the first time in several years, contractual congestions were identified on the Polish side of the IP points:

- 1) point GCP-GAZ-SYSTEM/ONTRAS – entry to the Polish transmission system at the border with Germany,
- 2) GCP-GAZ-SYSTEM/UA TSO point – entry to the Polish transmission system at the border with Ukraine.

According to the guidelines in the Annex to Regulation 715/2009, following the finding of IP congestions in the ACER Report, the national regulatory authority carries out an analysis of the need to implement the FDA UIOLI mechanism to eliminate contractual congestions and may oblige the TSO to apply this mechanism, unless it is demonstrated that the congestions are unlikely to recur in the next three years. The national regulatory authority shall make the final decision on this matter, taking into account the severity of the congestions and the effectiveness of the application of all CMPs.

Cooperation among national regulatory authorities

On 11 December 2018, the *Agreement between the Republic of Poland and the Kingdom of Denmark on the Baltic Pipe project* was concluded. Pursuant to its provisions, the competent regulatory authorities of the contracting parties were obliged to establish the principles of cooperation concerning the performance of their tasks with respect to part of the infrastructure of the Baltic Pipe project. After negotiations between the President of URE and the Danish regulator (DUR), which had been ongoing since 2020, the parties signed a Memorandum of Understanding (MoU) in 2021. The MoU regulated the principles of cooperation between the regulators of Poland and Denmark with regard to the performance of their tasks in relation to the infrastructure of the Baltic Pipe project after its commissioning. These principles concern, among others, the exchange of information on the operation of BP in the context of the standards established by EU law and the national law of Denmark and Poland.

⁷⁵⁾ <https://www.acer.europa.eu/events-and-engagement/news/acer-finds-contractual-congestion-eu-gas-networks-remains-low-2021>

Monitoring investment plans and assessment of their consistency with the EU-wide development plan

Energy undertakings involved in the transmission or distribution of gaseous fuels, pursuant to Article 16 para. 1 of the Energy Law Act, are obliged to prepare, for the area of their activity, development plans for satisfying current and future demand for those fuels.

Agreeing of the draft development plans is aimed at ensuring compliance of these draft plans with the Act and its implementing provisions and compliance with the state's energy policy. Development plans – due to a multiannual investment cycle and involvement of significant financial resources (high capital-intensity), which cause long-term financial consequences for the company and its customers – have a direct impact on the level of the future tariffs of the company. Therefore, agreeing the draft development plans is directly connected with issuing decisions on tariff approval.

In the process of agreeing the development plans, the consistency of the envisaged measures with the Ten-Year Network Development Plan (TYNDP) is also verified. This document is intended to guide and ensure consistency in the pursuit of energy objectives at the European Union level in terms of security of supply, energy prices as well as sustainability.

Development plans are also a source of information on the investment plans of the company in terms of planned investments aimed to connect new customers and projects necessary to maintain an appropriate level of reliability and quality of provided network services.

In addition, under Article 20 para. 1 of the Act on Electromobility and Alternative Fuels, legally unbundled gas DSOs⁷⁶⁾ are required to develop a programme for the construction of stations⁷⁷⁾ and projects involving modernization, expansion or construction of networks necessary for the connection of such stations. The Act implemented the Government's Plan for the Development of Electromobility in Poland and responds to the proposed legislative measures and infrastructure development objectives contained in the National Policy Framework for the Development of Alternative Fuel Infrastructure, adopted by the Council of Ministers on 29 March 2017.

In 2021, all 23 natural gas stations included in the aforementioned programme were under construction.

Technical acceptance had been completed for 20 stations. The final acceptance and completion of the construction of all stations included in the programme is planned for 2022. The postponement of the natural gas station construction dates in relation to those originally envisaged in the programme is mainly related to the COVID-19 outbreak. In connection with the implementation of the programme, it will be possible to refuel CNG-powered motor vehicles in 36 major cities in the country.

In 2021 the obligation to submit draft development plans for agreement with the President of URE was imposed on 14 operators and one energy company which is not an operator:

- OGP GAZ-SYSTEM S.A,
- SGT EuRoPol GAZ S.A,
- PSG Sp. z o.o., as a company that was subject to the obligation of legal unbundling, and
- 11 distribution system operators not subject to legal unbundling as a result of exceeding the limits referred to in Article 16 para. 13 of the Energy Law Act.

In addition, an application to revise the development plan in 2021 was under consideration due to significant changes in planned investment expenditure.

On 3 July 2021, the Act of 20 May 2021 amending the Energy Law Act and certain other acts (Journal of Laws 2021, item 1093) entered into force. This Act, through Article 1 item 26 section a), gave new wording to the provision of Article 16 para. 3 of the Energy Law Act. This provision as of 3 July 2021 reads as follows: "*The development plan for meeting the current and future demand for gaseous fuels referred to in para. 1, for the transmission system to which the obligations of the gas transmission system operator relate, shall be prepared and updated annually only by the operator of that system.*" This means, in practice, changes with regard to drawing up and updating the development plan in terms

⁷⁶⁾ The gas DSO referred to in Article 9d para. 1d of the Energy Law Act, excluding the undertakings referred to in Article 9d para. 7 items 3 and 4 of that Act.

⁷⁷⁾ Pursuant to the provisions of Article 2 para. 26 of the Act on Electromobility and Alternative Fuels, a "natural gas station" is understood as a set of appliances, including a compressed natural gas (CNG) refuelling point or a liquefied natural gas (LNG) refuelling point, connected to a gas distribution network or a terminal for the importation, offloading and re-gasification of liquefied natural gas (LNG), together with auxiliary installations and storage tanks used in the regasification process.

of satisfying the current and future demand for gaseous fuel for the transmission network owned by SGT EuRoPol GAZ S.A., that is, the 'Yamal' gas pipeline together with the associated infrastructure. In the light of the amended Energy Law Act, as of 3 July 2021, the only entity authorized to prepare and update the said plan is the operator of this system, namely currently OGP Gaz-System S.A., which, based on the decision of the President of URE of 17 November 2010, performs this role in the ISO (Independent System Operator) formula until 6 December 2068.

In addition, the above-mentioned amendment to the Energy Law Act introduced a provision in Article 16, para. 14a, stipulating that the draft update of the development plan with regard to the current and future demand for gaseous fuels shall be submitted for agreement with the President of URE by 31 March in the year which is the second year of the agreed development plan, irrespective of the date of its agreement. This amendment is intended to clarify and facilitate the process of agreeing development plans in functional terms.

In addition, the aforementioned amendment in Article 16 para. 15a transposes into the Act the requirement for Operators to publish development plans agreed with the President of URE on their websites. At the same time, the provision specifies that the obligation to publish excludes detailed information on investment financing as well as other legally protected information.

Transmission system operator (OGP Gaz-System S.A.)

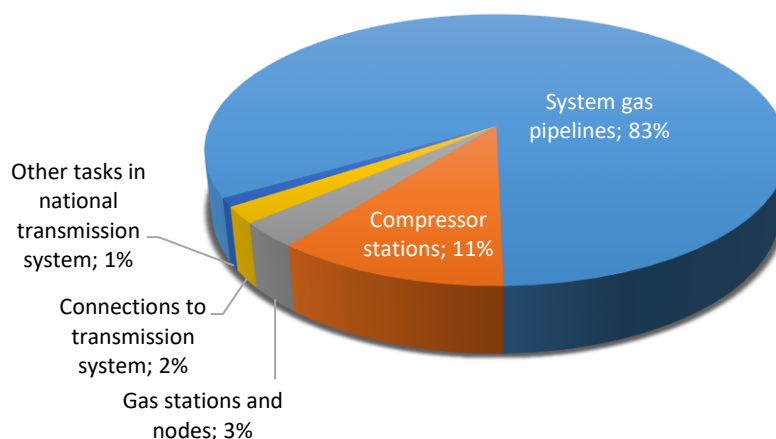
The Development Plan of OGP Gaz-System S.A. consists of two parts:

- Part A, which concerns the development of the transmission infrastructure owned by it, and
- Part B, which concerns the development of the transmission infrastructure owned by SGT EuRoPol GAZ S.A., on which OGP Gaz-System S.A. performs the function of operator in the Independent System Operator (ISO) formula.

Pursuant to Article 16, para. 2 of the Energy Law Act, Part A of this Development Plan is subject to an update every 2 years, whereas Part B of this Plan, pursuant to Article 16, para. 3 of the Energy Law Act, is subject to an annual update.

In 2021, the TSO's development plan entitled *National Ten-Year Transmission System Development Plan. Development Plan for Meeting Current and Future Demand for Gaseous Fuels for 2020-2029* (hereinafter: NTSDP), agreed on 27 August 2019, was in force. This plan was described in detail in the President of URE's Report for 2020. Meanwhile, on 29 October, an update to Part B on the entrusted networks entitled "NATIONAL DEVELOPMENT PLAN; DEVELOPMENT PLAN FOR SATISFYING THE CURRENT AND FUTURE DEMAND FOR GASEOUS FUELS; update of Part B for 2021 – 2030; Warsaw, September 2020" was agreed.

Figure 27. Structure of investment expenditures incurred in 2021



Source: OGP Gaz-System S.A.

- In 2021 OGP Gaz-System S.A. carried out investment tasks in the transmission system in two basic areas:
- development area: construction of new system facilities and modernization of the existing ones, aimed at increasing technical capacities of the transmission system,
 - safety area: modernization and restoration tasks due to technical or operational needs.

The degree of financial implementation of the investment by OGP Gaz-System S.A. amounted to 137% in relation to the level of expenditure agreed for 2021.

In 2021 OGP Gaz-System S.A. completed the construction and commissioned for operation:

- 1) Tworóg-Tworzeń gas pipeline with a length of approx. 55.2 km and a diameter of 1000 mm;
- 2) Pogórska Wola – Tworzeń gas pipeline (section 1 – Pogórska Wola-Pałecznicza) with a length of approx. 56.0 km and a diameter of 1000 mm;
- 3) Pogórska Wola – Tworzeń gas pipeline (section 2 – Pałecznicza-Braciejówka) with a length of approx. 78.06 km and a diameter of 1000 mm;
- 4) Strachocina-Pogórska Wola gas pipeline with a length of approx. 97.36 kilometres and a diameter of 1000 mm;
- 5) Strachocina node.

As part of the implementation of the investment plan in the development area in 2021 OGP Gaz-System S.A. carried out 261 tasks, of which 26 were fully completed. In the reporting year, OGP Gaz-System S.A. carried out 12 investment tasks in new gas pipelines at the design stage and 11 investment tasks in new gas pipelines at the implementation stage.

The investment plan in the safety area included 356 tasks in 2021, out of which 196 were planned to be completed in that year, out of which 180 were implemented (91.8%).

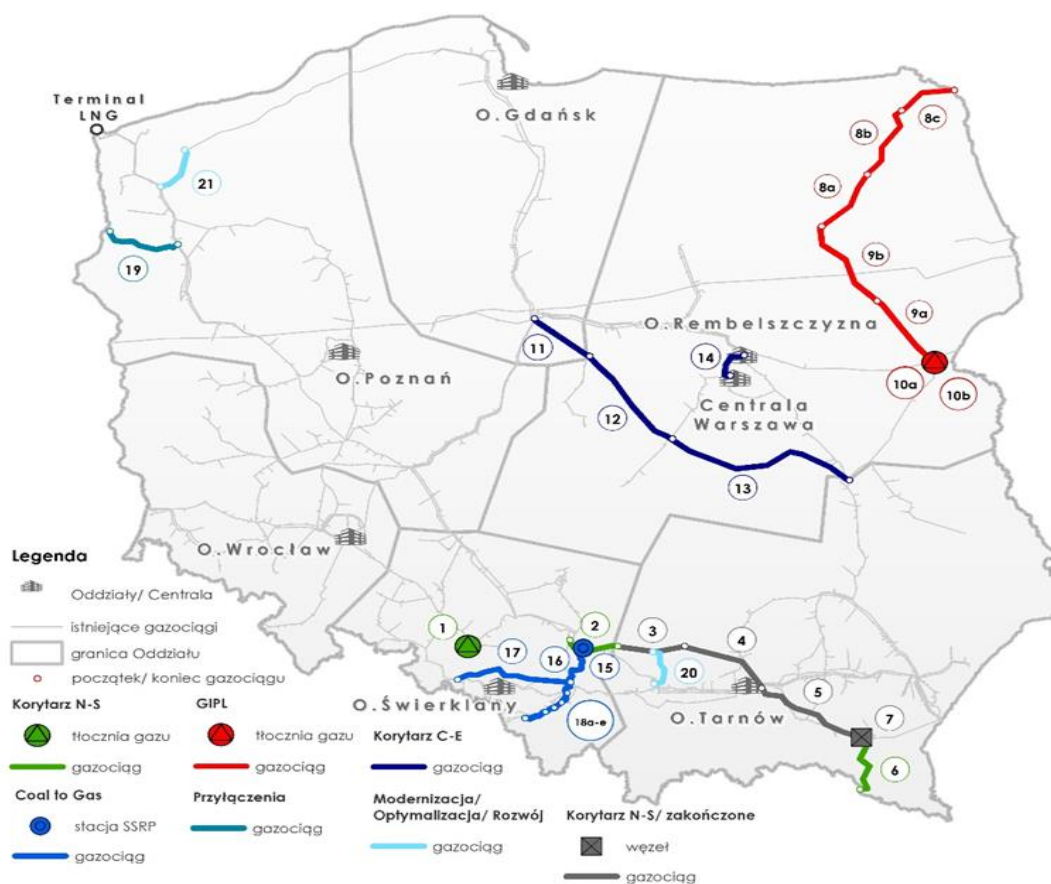
Table 25. List of critical investments in 2021

ITEM		NAME OF KEY INVESTMENT	PHASE
N-S Corridor	1	Construction of Kędzierzyn compressor station	implementation
	2	Pogórska Wola-Tworzeń gas pipeline section Braciejówka Tworzeń; DN=1000, L=34.1 km	implementation
	6	Poland – Slovakia gas pipeline; DN= 1000, L=61.3 km	implementation
GIPL	8a	Poland – Lithuania gas pipeline, northern section Task 1: DN=700, L=60.6 km	implementation
	8b	Poland – Lithuania gas pipeline, northern section Task 2: DN=700, L=76.9 km	implementation
	8c	Poland – Lithuania gas pipeline, northern section Task 3: DN=700, L=47.4 km	implementation
	9a	Poland – Lithuania gas pipeline, southern section Task 1: DN=700; L=72.5 km	implementation
	9b	Poland – Lithuania gas pipeline, southern section Task 2: DN=700, L=84.7 km	implementation
	10a	Adaptation of Hołowczyce II compressor station	implementation
	10b	New compressing unit TGH Hołowczyce	implementation
C-E Corridor	11	Gustorzyn-Wronów gas pipeline; Phase I: Gustorzyn - Leśniewice DN=1000; L=54.1 km	implementation
	12	Gustorzyn-Wronów gas pipeline; Phase II: Leśniewice-Rawa Mazowiecka DN=1000; L=100.0	tender WRB
	13	Gustorzyn-Wrocnów gas pipeline; Phase III: Rawa Mazowiecka - Wronów DN=1000; L=154.0 km	implementation
	14	Rembelszczyzna-Mory gas pipeline; DN=700; L=29.0 km	design
Coal to Gas	15	System Reduction and Measurement Station Tworzeń in the area of Sławków; phase I	tender WRB
	16	Oświęcim - Tworzeń gas pipeline with System Reduction and Measurement Station Oświęcim; phase II: DN=700, L=45.0 km	design
	17	Racibórz-Oświęcim gas pipeline with System Reduction and Measurement Station Suszec and a branch DN 300; DN=700; L=110.0 km	design
	18a	Skoczów-Komorowice-Oświęcim gas pipeline; phase I System Reduction and Measurement Station Oświęcim - node Oświęcim - Zaborze; DN=500, L=0.55 km	design
	18b	Skoczów-Komorowice-Oświęcim gas pipeline; phase II: ZZU Wilanowice-ŚNO Oświęcim (pig launcher/receiver) DN=500, L=19.65 km	design
	18c	Skoczów-Komorowice-Oświęcim gas pipeline; phase III: ZZU Komorowice - ZZU Wilanowice (without block and discharge system); DN=500, L=10.8 km	design
	18d	Skoczów-Komorowice-Oświęcim gas pipeline; phase IV: ZZU Komorowice (without block and discharge system) - ZZU Wapienica (without BDS) DN=500, L=7.5 km	design
	18e	Skoczów-Komorowice-Oświęcim gas pipeline; phase V: ŚNO Pogórze (with a pig) - ZZU Wapienica DN=500, L=14.63 km	design

ITEM		NAME OF KEY INVESTMENT	PHASE
Connection	19	Connection to the transmission network of Elektrownia Dolna Odra power plant; DN=700, L=63.0 km	tender WRB
Modernization-Optimization-Development	20	Węzów-Przewóz gas pipeline with System Reduction and Measurement Station Przewóz; DN=700, L= ca. 45 km	design
	21	Gas pipeline Szczecin-Gdańsk; phase p V: Goleniów - Płoty DN=700, L=41.9	implementation
N-S Corridor	3	Pogórska Wola - Tworzeń gas pipeline section 2 Pałecznicza - Braciejówka; DN=1000, L=56 km	completed
	4	Pogórska Wola-Tworzeń gas pipeline section 1 Pogórska Wola - Pałecznicza; DN=1000, L=78.1 km	completed
	5	Gas pipeline Strachocina-Pogórska Wola; DN=1000, L=97.4 km	completed
	7	Construction of Strachocina compressor station phase I Node	completed

Source: OGP Gaz-System S.A.

Figure 28. Location of key investments as at 31 December 2021



Source: OGP Gaz-System S.A.

By letter dated 31 March 2021 OGP Gaz-System S.A. submitted the draft development plan entitled "NATIONAL TEN-YEAR TRANSMISSION SYSTEM DEVELOPMENT PLAN. DEVELOPMENT PLAN FOR MEETING THE CURRENT AND FUTURE DEMAND FOR GASEOUS FUELS FOR 2022-2031; Warsaw, March 2021". The final material in the case was collected on 4 October. It met the requirements under the provisions of the Energy Law Act and, as a result, by letter of 29 October 2021 the President of URE agreed the development plan of OGP Gaz-System S.A. entitled "National Ten-Year Transmission System Development Plan. Development Plan for Meeting the Current and Future Demand for Gaseous Fuels for 2022-2031. Warsaw, October 2021". This plan, with regard to OGP Gaz System S.A.'s own networks, assumes the completion of the company's ongoing projects aimed at expanding the interconnections mentioned in the earlier Development Plans.

The level of investment expenditure on the transmission network entrusted to OGP Gaz-System S.A. was agreed for the years 2021-2023 only. The investment tasks included in this plan are aimed at maintaining full technical efficiency through replacement investments and necessary modernization works. Planned investments include modernization of equipment, installations and facilities of the compressor station, including control systems, security and data archiving systems, modification and modernization of communication systems, as well as tasks resulting from technical reviews and environmental inspections and tasks improving occupational health and safety conditions.

Works carried out by OGP Gaz-System S.A. in 2021 on the construction of interconnectors

In the last decade, several significant investment projects of fundamental importance for the security of natural gas supply to Poland were implemented, concerning the establishment of new cross-border connections or the expansion of the functionality of existing connections, which opens up additional possibilities for gas supply to Poland from alternative directions. Before 2021 these activities included the expansion of interconnections on the border with Germany (Mallnow, Lasów) and the construction of a connection on the border with the Czech Republic (Cieszyn), in turn, in 2021, the construction of connections also began with Lithuania (Santaka) Slovakia (Veľké Kapušany-Strachocina) and Denmark (Baltic Pipe pipeline). A number of measures are also underway to increase LNG import capacity, such as increasing the regasification capacity of the Świnoujście terminal to 8.3 billion m³/year and a construction of a new FSRU facility in Zatoka Gdańska. In this regard, it is also important to note the merger of OGP Gaz-System S.A. with Polskie LNG S.A. in 2021, pursuant to Article 492 § 1(1) of the Code of Commercial Partnerships and Companies. As a result of the integration process carried out by OGP Gaz-System S.A., as of 31 March 2021, all cross-border gas projects discussed below are implemented by a single entity.

The process of expanding interconnections, despite its undoubted contribution to the situation improvement, has not yet been completed and requires continuation. Cooperation with other countries in this area is largely supported by EU programmes for the so-called Project of Common Interest (PCI). The status of PCI is assigned by means of an agreement between the company planning to undertake the project and the Member State (or companies and Member States), with the participation of the EU institutions (in particular the European Commission). Key cross-border infrastructure projects linking the energy systems of EU Member States that are intended to help the EU achieve its energy policy and climate objectives – affordable, secure and sustainable energy for all citizens and the long-term decarbonization of the economy in accordance with the Paris Agreement – may be recognized as PCIs.

On 19 November 2021 the European Commission published its fifth list of projects of common interest⁷⁸⁾. Among the projects important for the security of supply of our region was the Baltic Pipe gas pipeline, as well as the FSRU terminal in Gdansk for unloading LNG.

The Baltic Pipe project (connection Poland-Denmark, Norwegian corridor)⁷⁹⁾

The parties to the Baltic Pipe project are OGP Gaz-System S.A. and Energinet, the Danish transmission system operator. The Poland-Denmark gas interconnection project involves the construction of a gas pipeline to connect the natural gas transmission systems of Poland and Denmark. The purpose of the Norwegian Corridor (in which, in addition to OGP Gaz-System S.A. and Energinet, also the Norwegian TSO Gassco participates) is to create the technical possibility of transmitting gas from the Norwegian continental shelf via the Danish transmission system and the undersea connection from Denmark to Poland (Baltic Pipe) and, in a longer perspective, to other countries of Central and Eastern Europe and the Baltic Sea region.

The Baltic Pipe PL programme consists of two key areas:

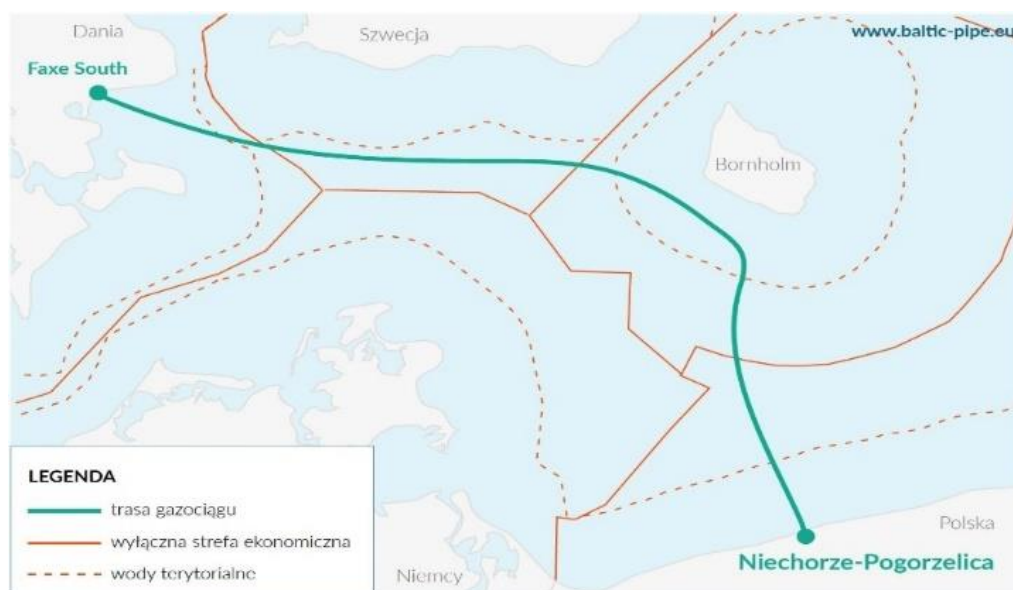
- the offshore part which involves the construction of an offshore gas pipeline connecting the Danish transmission system with the Polish transmission system,

⁷⁸⁾ https://ec.europa.eu/energy/topics/infrastructure/projects-common-interest/key-cross-border-infrastructure-projects_en#the-pci-lists

⁷⁹⁾ <https://www.gaz-system.pl/nasze-inwestycje/integracja-z-europejski-systemem/baltic-pipe/>

- the onshore part involving the construction of a new infrastructure and the expansion of the existing infrastructure in Poland to off-take gas (construction of compressor stations and gas pipelines).

Figure 29. Route outline of the offshore gas pipeline from Denmark to Poland



Source: OGP Gaz-System S.A.

The implementation of the Baltic Pipe project is currently at an advanced stage. In 2021 in the offshore part executed by OGP Gaz-System S.A., the construction of microtunnels in Poland and Denmark was completed. The gas pipeline was pulled into the microtunnels and the operation to connect the two parts of the pipeline (above water tie-in) in Poland and Denmark was performed. In November 2021, the laying of the offshore gas pipeline, with a total length of approximately 275 km, was completed. During the 2021, dredging of the seabed and removal of boulders at the gas pipeline backfill site was also carried out, and rock dumping before and after laying the pipeline was completed. In addition, the Baltic Pipe crossing point with the Nord Stream 1 and Nord Stream 2 gas pipelines was constructed and secured.

In the onshore part of the project, investor deliveries for all component projects were completed in 2021 and construction of the transmission infrastructure (two onshore pipelines and three gas compressor stations) continued. With regard to gas pipelines, work was carried out on the linear part (welding, laying, backfilling of gas pipelines) and on technological facilities. Most of the trenchless crossings were completed and leakage testing of the gas pipelines began. On the other hand, as regards the gas compressor station, all compressor units were placed on foundations and the construction of key buildings was completed. Installation of the remaining equipment also commenced.

OGP Gaz System S.A. plans that the partial commissioning of the interconnector will take place by 1 October 2022 with a capacity equivalent to approximately 2-3 billion m³ of gas/year. It is assumed that the full capacity, that is 10 billion m³ of gas, will be achieved by 1 January 2023.

FSRU Terminal at Zatoka Gdańska⁸⁰⁾

The new LNG Terminal is an installation planned to be located in the Gdańsk region – specifically a floating storage regasification unit (FSRU) – capable of unloading LNG, in-process storage and regasification of LNG and the provision of additional services. As part of this investment project, the expansion of the national transmission system is also planned, which will allow efficient gas distribution from the Gdańsk region to customers both in Poland and in the region. A construction of the terminal capable of regasification at 6.1 bn Nm³ of gas per year, with the possibility to increase

⁸⁰⁾ <https://www.gaz-system.pl/nasze-inwestycje/krajowy-system-przesylowy/program-fsru/>

the regasification capacity depending on market developments and the growing demand for natural gas in the country and the region.

The scope of the Programme includes:

- Bogatka – FSRU gas pipeline DN 1000 with a length of approx. 7 km,
- Kolnik – Bogatka gas pipeline DN 1000 with a length of approx. 35 km
- Kolnik – Gustorzyn gas pipeline DN 1000 with a length of approx. 214 km
- undersea gas pipeline connecting the FSRU with the landing site DN1000.

The design of and obtaining of administrative decisions for three onshore gas pipelines to distribute gas from the Gdańsk region to customers in Poland in the future continued in 2021. As indicated by OGP Gaz-System S.A., further analytical work was carried out related to the need to determine the technical and location parameters of the FSRU. Procurement procedures were initiated to commission Technical Consultancy and design work together with carrying out studies and obtaining permits, including the Construction Permit for the offshore part.

In cooperation with the Maritime Office in Gdynia, a draft of a multi-year financing plan for a shelter breakwater for the FSRU was developed and working teams were established for ongoing cooperation. A preliminary location for the shelter breakwater and the jetty was agreed. Consultation meetings with the companies that participated in the earlier stage of market screening were completed. The consultations concerned the service provision model at the FSRU Terminal.

In November 2021, OGP Gaz-System S.A. started Phase 1 of the binding Open Season FSRU procedure, which aims to verify the interest of market participants in the Terminal's regasification capacity. The procedure consists of two phases. The objective of the currently launched Phase 1 is to obtain binding orders from the participants in order to guarantee the reservation of regasification capacity at an appropriate level in Phase 2, planned for Q2 2023. The submitted orders will allow OGP Gaz-System S.A. to commence the proper design stage of the LNG Terminal.

In addition to the implementation of programmes with the status of projects of common interest, OGP Gaz-System S.A. is carrying out a number of investments aimed at further developing its current capacities. The most important example of such investments is the expansion of the LNG terminal in Świnoujście.

Expansion of the LNG terminal in Świnoujście⁸¹⁾

The objective of the LNG Terminal expansion is to increase the regasification capacity to some 8.3 billion m³ of natural gas annually and to introduce new functionalities of this installation. The terminal expansion includes four tasks: increasing the regasification capacity of the technological installation by additional SCV equipment (methane pumps, regasifiers); additional capacity by constructing a third liquefied natural gas tank; increasing the flexibility of deliveries to the terminal by constructing a second jetty and diversifying land transport by an LNG handling installation with a railway siding.

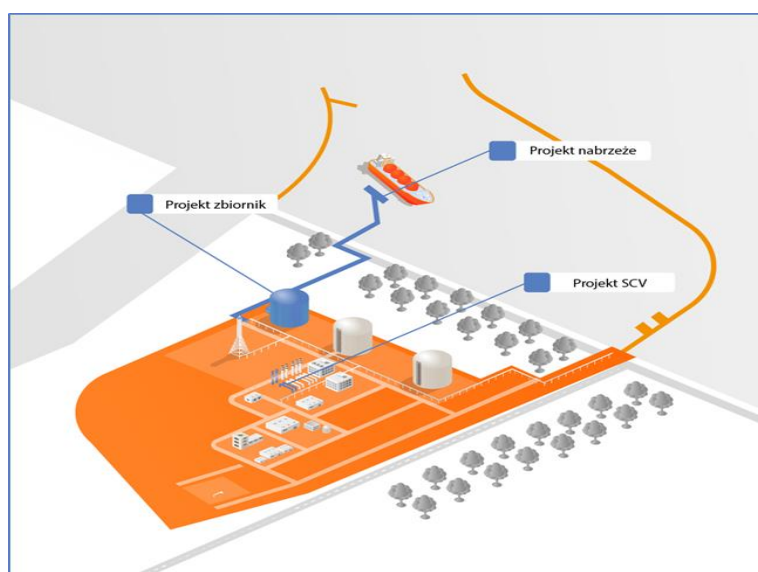
In 2021, as part of the SCV expansion, deliveries of regasifiers and low- and high-pressure pumps were completed. The necessary installations and metering line were assembled, and fireproofing works were completed. On 23 December 2021, as a result of the works implemented, OGP Gaz-System S.A. obtained a decision to grant an occupancy permit for the construction facilities. From 1 January 2022, the company has been providing the regasification service at an increased level, that is 6.2 billion m³ of gas per year.

With regard to the construction of the additional LNG tank, material deliveries, including cryogenic reinforcing steel, were completed in 2021 and the construction of the foundation slab was completed. The erection of the wall using slip-formed formwork technology also commenced following the completion of deliveries. The concreting of the tank wall was completed on 30 September 2021. Prefabrication of the steel roof elements and prestressing ring was underway. Once the relocation of all roof segments to the tank interior was completed, welding of the elements began.

Site preparation works were completed at the Jetty Project. As communicated by the company, the activities related to carrying out kafar works in the offshore and onshore sections were completed in 100%. Orders were placed for the supply of equipment, including, among others, offshore loading arms.

The investment is scheduled for completion in 2023.

⁸¹⁾ <https://www.polskielng.pl/terminal-Ing/program-rozbudowy-terminalu-Ing/>

Figure 30. Scheme of extension of the LNG Terminal in Świnoujście

Source: OGP Gaz-System S.A.

In addition, a number of investments were carried out under the previous lists of PCI⁸²⁾, the benefits of which materialized in the first half of 2022, and which contribute significantly to increasing the integration of the transmission systems of Central and Eastern Europe. These have resulted in interconnections with Lithuania (GIPL pipeline), as well as Slovakia.

Poland-Slovakia interconnection project (part of the North-South corridor)⁸³⁾

The aim of the project is the construction of a new cross-border gas pipeline to connect the natural gas transmission systems of Poland and Slovakia. The parties to the project are OGP Gaz-System S.A. and the Slovak transmission system operator – Eustream a.s. The Poland-Slovakia interconnection is part of the European initiative related to the construction of the North-South corridor. This connection is an important element of the North-South Gas Interconnection in Central Eastern and South Eastern Europe (NSI East Gas) and will contribute to increased regional security of supply and integration of gas markets in the region. As a result of the project, countries in the region will gain direct access to new sources of gas supply from the North – such as fully operational LNG terminals in the Baltic Sea (Świnoujście LNG Terminal, Klaipeda LNG via the Poland-Lithuania Interconnector) and from Norway (from the planned Baltic Pipe), as well as from the South. This will improve the efficiency of gas markets in the CEE region. The project will also have a positive impact on enhancing cooperation between Poland and Slovakia.

The new interconnector will connect the transmission systems of both countries: the Slovak gas compressor station in Veľké Kapušany with the gas interconnection point in Strachocina (Podkarpackie voivodship). The Poland-Slovakia gas interconnection project also includes the necessary expansion of the internal transmission network in south-eastern Poland and the construction of a metering station near the SK-PL border on the Slovak side. The length of the entire connection will be 164 km. This investment will make it possible to import 5.7 billion m³ of gas a year into Poland and 4.7 billion m³ a year into Slovakia.

In 2021 OGP Gaz-System S.A. completed work on the construction of the Polish section of the gas pipeline. On 3 August 2021, OGP Gaz-System S.A. and Eustream a.s. on the Polish-Slovak border performed a symbolic 'golden weld' on the pipeline, which connects the gas systems of both countries. On 13 October 2021, the Permit to Operate for the Polish section was obtained. Although the section of the pipeline being built on the Slovakian side saw a delay, due to problems with the contractor for

⁸²⁾ https://energy.ec.europa.eu/topics/infrastructure/projects-common-interest/key-cross-border-infrastructure-projects_en

⁸³⁾ <https://www.gaz-system.pl/nasze-inwestycje/integracja-z-europejski-systemem/polska-slowacja/>

the southern section, the Operator reported⁸⁴⁾ that construction work has now been completed. The pipeline has been gassed and tests of its functionality are being performed. Final acceptance of the interconnector will take place at the turn of the second and third quarter of 2022.

Gas Interconnector Poland-Lithuania (GIPL) project⁸⁵⁾

The construction of the gas interconnector between Poland and Lithuania aims to connect the natural gas transmission systems of Poland and Lithuania, and consequently also the other Baltic States, to the European gas network. This interconnection is in line with the main objectives of the EU energy policy (a priority infrastructure project under the Baltic Energy Market Interconnection Plan for Gas – BEMIP) and is intended to address security of gas supply issues and end the isolation of the Baltic States from the EU gas market. The parties directly responsible for its implementation are: OGP Gaz-System S.A. and AB Amber Grid (operator of the Lithuanian transmission system). The Poland-Lithuania gas interconnection is to be 343 km long on the territory of Poland and 165 km long in Lithuania.

At the construction site of the Poland-Lithuania interconnector in 2021, the final stage of implementation was completed. On 22 October 2021, a symbolic connection of the two countries' gas systems at the Polish-Lithuanian border was made. In December 2021, the venting and gassing of the section between the station on the Lithuanian side (SRP Santaka) and the first barrier and discharge unit on the Polish side (ZZU Sankury) was performed. Other works related to gasification and commissioning of the gas pipeline and restoration of the investment area to its original state, that is, humidification, cleaning works, transfer of plots to owners, were also conducted. Gas transmission through the interconnector started in 2022.

It should be remembered that an important element of the Poland-Lithuania gas interconnector project is also the gas compressor station in Gustorzyn. This facility is responsible for enabling the distribution of gas from, among others, Norway (Baltic Pipe) towards the compressor station and then directing this stream, among others, towards Lithuania (GIPL). In February 2020, a permit was issued for the construction of a gas compressor station in Gustorzyn and at the end of 2020 OGP Gaz-System S.A. concluded agreements with the contractor for construction works and investor supervision over the construction of the Gustorzyn compressor station. In 2021, construction work continued, including the laying of foundations and installation of three compressor units with chimneys. Earthworks, reinforced concrete, masonry and installation work was carried out on the reduction and metering station building, the power building, as well as on the remaining technological facilities. The commissioning of the compressor station is expected in 2022.

Complaints against a transmission, storage, LNG or distribution system operator concerning their obligations under Directive 2009/73/EC

The President of URE is the body responsible for investigating complaints against energy companies. Any entity may also submit a complaint against the activity of energy companies to the President of URE. In such a situation, the President of URE assesses whether the activity of a given company violated the provisions of the applicable acts of common law, that is EU regulations, acts, national regulations or decisions issued by the President of URE, for example network codes.

In 2021, no complaints were filed against transmission, storage, LNG or distribution system operators regarding their obligations under Directive 2009/73/EC.

4.1.4. Implementation of guidelines and network codes

TAR NC

In 2021, work on fulfilling obligations under the TAR NC continued.

⁸⁴⁾ <https://www.gaz-system.pl/pl/dla-mediow/komunikaty-prasowe/2022/maj/26-05-2022-gaz-system-interkonektor-gazowy-polska-slowacja-jest-juz-nagazowany.html>

⁸⁵⁾ <https://www.gaz-system.pl/pl/system-przesylowy/inwestycje/korytarz-centrum-wschod/polska-litwa.html>

The financial stability of gas TSO is to be strengthened by the regulatory account introduced by the TAR NC. Thanks to its application, it will be possible to settle and include in the calculation of tariffs for subsequent years the difference between revenues planned before the beginning of the tariff year and revenues actually generated by the transmission system operator in that period, as part of the reconciliation of the regulatory account referred to in Article 20 of the TAR NC.

Thanks to this mechanism, the risk of transferring the effects of incorrect forecasts regarding, among others, planned long-term or short-term capacity orders, to the transmission system users will be eliminated. The first tariff period covered by this regulation was the year 2019.

In the calculation of tariffs for gaseous fuels transmission services in 2020 and 2021 performed with the use of the transmission network owned by OGP Gaz-System S.A. and the network owned by SGT EuRoPol Gaz S.A.⁸⁶⁾ the provisions of the *Reference Price Methodology No 1/OGP for the own transmission network of Operator Gazociągów Przesyłowych Gaz-System S.A. for the period: from 1 January 2020 to 31 December 2022*⁸⁷⁾ and the *Reference Price Methodology No 1/SGT for the transmission network owned by the energy company System Gazociągów Tranzytowych EuRoPol GAZ S.A. with its registered office in Warsaw for the period from 1 January 2020 to 31 December 2022*⁸⁸⁾ were applied.

The above reference price methodologies were approved in accordance with the provisions of Article 27(4) of the TAR NC, according to which the President of URE, within 5 months following the end of the final consultations (that is until 31 March 2019), was obliged to take and publish a motivated decision on the reference price methodologies covering the elements specified in Article 26(1) of the TAR NC with respect to the transmission network of OGP Gaz-System S.A. and the network owned by SGT EuRoPol GAZ S.A.

In the period from 14 October to 14 December 2020 the President of URE consulted for the third time on the issues referred to in Article 28 of the TAR NC concerning, among others, multipliers and seasonal factors for short-term gaseous fuel transmission services, levels of discounts at entry points from the LNG terminal and discounts used to calculate base prices for standard interruptible capacity products⁸⁹⁾. The consultations concerned OGP Gaz-System S.A.'s network and the transmission network owned by SGT EuRoPol GAZ S.A. During the consultations, opinions were received from: PGNiG S.A. and Gas Storage Poland Sp. z o.o.

A decision on the aspects referred to in Article 28(1)(a) to (c) of the TAR NC, considering the requirements of Article 41(6)(a) of Directive 2009/73/EC and the positions of the regulatory authorities of the directly connected EU member states was issued on 5 March 2021.⁹⁰⁾ Its provisions were included in the tariff calculation for 2022.

Pursuant to Article 28(2) of the TAR NC, the aforementioned consultation shall take place during each tariff period. As defined in Article 3(23) of the TAR NC, a tariff period means the time period during which a particular level of reference price is applicable, which minimum duration is one year and maximum duration is the duration of the regulatory period. As the tariffs for gas transmission services are approved for a period of 12 months, this consultation is carried out every year. On 6 March 2020 the President of URE issued and published a communication⁹¹⁾ regarding the previous consultations referred to in Article 28(1)(a)-(c) of the TAR NC. This communication was taken into account in the calculation of tariffs for 2021.

In addition, OGP Gaz-System S.A. published on its website the information referred to in Article 30 of the TAR NC⁹²⁾, concerning Tariff No 14 (for 2021) 30 days before the start of the tariff period. OGP Gaz-System S.A. was designated by the decision of the President of URE of 27 October 2017 to perform these publications.

⁸⁶⁾ OGP Gaz-System S.A. performs the function of a gas transmission system operator for the network owned by the energy company SGT EuRoPol GAZ S.A. pursuant to the decision of the President of URE of 17 November 2010, ref. no: DPE-4720-4(8)/2010/6154/BT, while the tariff for gas transmission services is calculated by the owner of the network.

⁸⁷⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/wyznaczenie-cen-referen/8186,Kodeks-sieci-dotyczacy-zharmonizowanych-struktur-taryf-przesylowych-dla-gazu.html>

⁸⁸⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/wyznaczenie-cen-referen/8186,Kodeks-sieci-dotyczacy-zharmonizowanych-struktur-taryf-przesylowych-dla-gazu.html>

⁸⁹⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozники-wspolczynniki-2/9090,Rynek-gazu-Prezes-URE-rozpoczyna-konsultacje-dotyczace-wskaznikow-do-przesylowyc.html>

⁹⁰⁾ Information of the President of URE No 11/2021 on the level of multipliers, seasonal factors and discounts referred to in Article 28(1)(a)-(c) of the Tariff Code, considered in the calculation of tariffs for gas transmission services for the period from 1 January 2022 to 31 December 2022, <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozники-wspolczynniki-2/9090,Rynek-gazu-Konsultacje-Prezesa-URE-dotyczace-wskaznikow-do-przesylowych-taryf-ga.html>

⁹¹⁾ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/-2019/8439,Konsultacje-w-zakresie-rabatow-mnozownikow-i-wspolczynnika-wskaznikow-sezonowych-do-taryf-na.html>

⁹²⁾ <https://www.gaz-system.pl/strefa-klienta/taryfa/publikacja-nc-tar/>

CAM NC

In accordance with the CAM NC, the operator shall make the maximum technical capacity available at interconnection points. The TSO shall regularly perform an analysis of the technical capacity at the above-mentioned points in order to maximize the capacity made available to market participants. In fulfilling the provisions of Article 6, the TSO shall agree the results of the above-mentioned analyses with the system operators cooperating in accordance with the Regulation.

The following table provides an overview of transmission capacities at individual interconnection points, including booked, unbooked, booked and unused capacities, as well as volumes of gas transported.

Table 26. Interconnections with other transmission systems taking into account firm and interruptible capacity (including in the SGT system)

System operator	Operator's country	Interconnection point	Supply chain		Total transmission capacity*		Booked transmission capacity		Unbooked transmission capacity		Unused booked transmission capacity		Transmission completed**
					firm	interruptible	firm	interruptible	firm	interruptible	firm	interruptible	
OSGT GAZ-SYSTEM S.A.	Poland	Interconnection point	Poland	MWh /year	101 315 733	21 939 280	61 950 853	421 744	39 364 880	21 517 536	6 230 778	421 744	55 720 075
				M m ³ /year	9 087	1 968	5 592	38	3 495	1 930	628	38	4 964
ONTRAS	Germany	GCP GAZ-SYSTEM/ONTRAS (en)	Poland	MWh /year	17 776 668	12 697 620	8 720 141	37 200	9 056 527	12 660 420	2 646 246	37 200	6 073 895
				M m ³ /year	1 616	1 154	782	3	834	1 151	242	3	540
ONTRAS	Germany	GCP GAZ-SYSTEM/ONTRAS (ex)	Germany	MWh /year	4 915 446	12 861 222	361	0	4 915 085	12 861 222	0	0	7 056
				M m ³ /year	447	1 169	0	0	447	1 169	0	0	1
Net4Gas	Czech Republic	Cieszyn EX	Czech Republic	MWh /year	0	6 593 915	0	120	0	6 593 795	0	0	120
				M m ³ /year	0	587	0	0	0	587	0	0	0
Net4Gas	Czech Republic	Cieszyn EN	Poland	MWh /year	6 593 915	1 393 715	6 368 567	0	225 348	1 393 715	1 963 839	0	4 404 728
				M m ³ /year	587	124	567	0	20	124	176	0	391
Severomoravské plynárenské	Czech Republic	Branice	Poland	MWh /year	15 794	15 794	0	0	15 794	15 794	0	0	3 899
				M m ³ /year	1	1	0	0	1	1	0	0	0
LLC Gas TSO of Ukraine	Ukraine	GCP GAZ-SYSTEM/UA TSO (en)	Poland	MWh /year	49 494 000	21 978 319	45 363 353	603 372	4 130 647	21 374 947	914 472	603 372	44 448 881
				M m ³ /year	4 380	1 945	4 014	53	366	1 892	101	53	3 913
Bieltransgaz	Belarus	Tietierowka	Poland	MWh /year	2 665 580	1 875 779	1 207 676	0	1 457 904	1 875 779	254 516	0	953 160
				M m ³ /year	237	166	107	0	130	166	22	0	85
Bieltransgaz	Belarus	Wysokoje	Poland	MWh /year	61 703 250	28 630 308	41 261 473	92 329	20 441 777	28 537 979	2 377 302	92 329	38 884 171
				M m ³ /year	5 475	2 540	3 661	8	1 814	2 532	196	8	3 465
LLC Gas TSO of Ukraine	Ukraine	GCP GAZ-SYSTEM/UA TSO (ex)	Ukraine	MWh /year	0	56 624 119	0	12 862 927	0	43 761 192	0	12 036 791	826 136
				M m ³ /year	0	5 011	0	1 138	0	3 873	0	1 065	73
Gascade	Germany	Mallnow SGT EX	Germany	MWh /year	339 997 491	33 000 672	279 377 743	1 581 925	60 619 748	31 418 747	28 201 844	1 581 925	251 175 899
				M m ³ /year	32 939	3 197	27 066	153	5 873	3 044	1 973	153	25 093
Gascade	Germany	Mallow SGT EN	Poland	MWh /year	67 452 000	55 803 013	42 443 871	641 768	25 008 129	55 161 245	14 564 783	641 768	27 879 088
				M m ³ /year	6 535	5 406	4 112	62	2 423	5 344	1 637	62	2 475
Gazprom Transgaz Białoruś	Belarus	Kondratki	Poland	MWh /year	374 901 072	2 687 160	315 694 809	2 687 160	59 206 263	0	33 910 278	2 687 160	281 784 531
				M m ³ /year	36 321	260	30 585	260	5 736	0	5 492	260	25 093
OSGT GAZ-SYSTEM S.A.	Poland	Rewers Interconnector	Poland / SGT	MWh /year	0	87 346 135	0	0	0	87 346 135	0	0	0
				M m ³ /year	0	7 941	0	0	0	7 941	0	0	0

* Maximum firm capacity that the TSO can offer to network users, taking into account system integrity and the operational requirements of the transmission network.

** Realized transmission counted together in terms of firm and interruptible capacity.

Source: OGP Gaz-System S.A.

Firm and interruptible capacities were offered by the operator in accordance with the capacity allocation regulations.

Bundled capacity products in 2021 were offered at interconnection points – Cieszyn (interconnection with the Czech Republic) and PWP (interconnection of the national transmission system with the transit system)

on the GSA auction platform. Since 6 July 2020, in accordance with ACER Decision No 10/2019⁹³⁾, interconnection capacity at the German-Polish border at the GCP Gaz-System/ONTRAS and Mallnow points has been offered as bundled on the RBP auction platform. Other products at the interconnection points were offered on the GSA Platform.

During the reporting period, the process of procuring capacity on the GSA and RBP Platform went smoothly.

Pursuant to the provisions of the CAM NC, on 29 April 2021, the President of URE approved proposals for incremental capacity projects for two interconnections at the Polish-German border, that is, at the Gaz-System/ONTRAS GCP point connecting the National Transmission System and Trading Hub Europe and at the Mallnow point connecting the Transit Gas Pipeline System and Trading Hub Europe. On the same day, the incremental capacity project for the Poland-Czech Republic connection (point Cieszyn) was also approved. Subsequently, OGP Gaz-System S.A. was obliged by decisions issued by the President of URE to perform economic tests for the aforementioned incremental capacity projects.

In the period from 5 July to 30 August 2021, OGP Gaz-System S.A. conducted on the GSA Platform, the third non-binding market demand assessment for incremental capacity between the Polish and neighbouring transmission systems, for the following directions:

- Poland-Germany interconnection (Trading Hub Europe),
- Poland-Germany interconnection (Trading Hub Europe),
- Poland-Czech Republic interconnection,
- Poland-Lithuania interconnection
- Poland-Slovakia interconnection,
- Poland-Ukraine interconnection.

The next stage of the process of obtaining incremental capacity, in accordance with the CAM NC, will include only two projects:

- incremental capacity project between the transmission systems of Poland and Ukraine,
- the incremental capacity project between the transmission systems of Poland and the Czech Republic.

BAL NC

As of 2020, following the end of the transitional periods, the target market model resulting from the provisions of the BAL NC has been applied in Poland. Transmission system balancing and trade imbalance settlements for balancing zones for which OGP Gaz-System S.A. acts as transmission system operator are carried out in accordance with the requirements of the BAL NC. In 2021, there was no change compared to 2020 in the level of balancing fees.

While undertaking balancing activities, in accordance with the TNC, in each of the three balancing zones, OGP Gaz-System S.A. shall first use standard short-term capacity products. Only in the event that the standard short-term products do not ensure the possibility of balancing the system, then OGP Gaz-System S.A. may use balancing services. Within the E high-methane natural gas balancing zone, in 2021 OGP Gaz-System S.A. undertook balancing activities on TGE S.A. under standard short-term capacity products (under IDMg and DAMg), under which it purchased 843 GWh (169 balancing activities) and sold 936 GWh (195 balancing activities). Within the Transit Gas Pipelines System and Lw balancing zones, OGP Gaz-System S.A. did not undertake balancing activities in 2021.

By decision of 24 September 2021 the President of URE consented again to gas trading in the neighbouring balancing zone Trading Hub Europe (until 30 September 2021 functioning as the GASPOOL market area, and from 1 October merged with the Net-Connect-Germany market area into one German market area called Trading Hub Europe) and in the neighbouring balancing zone operating in the Czech Republic, as well as for the transmission of gas to and from these balancing zones (including the transmission of gas from the Trading Hub Europe balancing zone through the balancing zone operating in the Czech Republic), in order to perform balancing tasks in the balancing zones for which OGP Gaz-System S. A. performs the function of a transmission system operator, that is the National Transmission System (NTS) high-methane gas balancing zone and the balancing zone of the Polish section of the Yamal pipeline (TGPS), as well as consent to gas trading on the platform run by TGE S.A. in the NTS high-methane gas balancing zone and gas transmission to and from this balancing zone for

⁹³⁾ https://www.acer.europa.eu/sites/default/files/documents/Individual%20Decisions/ACER%20Decision%2010-2019%20on%20-gas%20capacity%20booking%20platform-Non-confidential%20-%20Clerical%20Mistake%20Corrigendum_1.pdf

the performance of tasks in the TGPS balancing zone. The consent was granted for the period from 1 October 2021 at 6:00 a.m. to 1 October 2022 at 6:00 a.m. The consent issued is justified by the limited hours of operation of the trading platform in balancing zones for which OGP Gaz-System S.A. acts as TSO and the lack of localized products available on the trading platform. The TSO may undertake balancing activities in neighbouring balancing zones only if the tools available in a given balancing zone (short-term markets of TGE S.A.) do not ensure the possibility of balancing gas in the transmission network.

In 2021 OGP Gaz-System S.A. did not undertake activities in neighbouring balancing zones.

IO NC

In 2021 OGP Gaz-System S.A. continued its cooperation with the following operators: the Czech NET4GAS, s.r.o., the German GASCADE Gastransport GmbH and Ontras Gastransport GmbH, and the Ukrainian LLC "Gas Transmission System Operator of Ukraine" (from 1 July 2020 under the terms of the new inter-operator agreement concluded on 5 June 2020 between OGP Gaz-System S.A. and LLC "Gas Transmission System Operator of Ukraine"), in accordance with the provisions of the inter-operator agreements.

OGP Gaz-System S.A. also continued to fulfil the following obligations in accordance with the IO NC:

- publication of the points at which the current agreements on maintaining an operational balancing account (OBA) are in force
<http://www.gaz-system.pl/strefa-klienta/do-pobrania/wymiana-danych/punkty-oba/>
- implementation of operational balancing account (OBA) agreements containing detailed arrangements on: rules for the nomination consistency checking process, rules for the allocation of gas volumes, communication procedure in case of exceptional events,
- promotion of common solutions for electronic exchange of information related to the performance of transmission contracts, based on the Electronic Document Interchange (EDI) standard, in the version developed for the gas industry called EDIG@S
<http://www.gaz-system.pl/strefa-klienta/do-pobrania/wymiana-danych/edigs/>
- promotion of common solutions for data exchange based on the AS4 protocol
<http://www.gaz-system.pl/strefa-klienta/do-pobrania/wymiana-danych/protokol-as4/>
- publication of daily data (in accordance with Article 16 of the INT NC Regulation) for each interconnection point regarding Wobbe index and calorific value
<https://swi.gaz-system.pl/swi/public/#!/sgt/wobbeDaily?lang=pl>
All above mentioned information is made available also in English.

4.2. Competition and market operation

4.2.1. Wholesale market

Natural gas acquisition and flows

Gas purchases from abroad, in the amount of 190.4 TWh, were supplemented with gas from domestic sources in the amount of 40.7 TWh. Total gas supplies from abroad in 2021 included imports and intra-Community acquisitions.

Table 27. Structure of gas supplies in 2021

Specification	Quantity [TWh]
Supplies from abroad	190.4
Extraction from domestic sources	40.7
Change in the stocks level	-4.7

Source: URE on the basis of data of OGP Gaz-System S.A. and gas-trading companies and the Ministry of Climate.

490.5 TWh of high-methane gas and 8.2 TWh of nitrogenous gas flew through the Polish transmission system. Most of the high-methane gas was transported in transit using the Yamal pipeline. The table below presents the most important directions of gas flow in the transmission system.

Table 28. Balance of trade flows* of high-methane and nitrogenous gas in the transmission network (including the Transit Gas Pipeline System) in 2021 [TWh]

Gas type		High-methane gas	Nitrogenous gas
Entry to the system in total		490.5	8.2
Out of which:	mines and denitrification plants	20.7	3.6
	storages	23.0	0.0
	non-EU supplies (without LNG)	366.1	0.0
	supplies from the EU	38.4	0.0
	LNG terminal	40.7	0.0
	others (entry from distribution)	1.6	4.6
Exit from the system in total		490.5	8.2
Out of which:	mixing plants and denitrification plants	0.0	1.2
	storages	27.7	0.0
	to the distribution network	155.1	6.8
	to final customers on the transmission network	52.7	0.2
	supplies to the EU (MWh)	251.2	0.0
	deliveries outside the EU	0.8	0.0
	operator's own needs (including change in operational balancing accounts)	3.0	0.0

* The data refers to the amount of gas injected into the network and off-taken from the transmission network as a result of execution of transmission contracts by the TSO. The data may differ from physical flows in the system.

Source: URE on the basis of data of OGP Gaz-System S.A. and EuRoPol GAZ S.A.

Trading in natural gas

At the end of 2021, 180 entities held a licence to trade in gaseous fuels compared to 185 at the end of 2020. Meanwhile, 87 companies actively participated in natural gas trading. In 2021 GK PGNiG acquired 376.6 TWh of gas (purchase and extraction), while gas trading companies from outside the GK PGNiG acquired 99.9 TWh of natural gas. The data on purchase and sale of gas by trading companies are presented in the table below. This value does not incorporate acquisition for own needs by trading companies under monitoring and gas acquisition by energy companies which are large final customers at the same time.

Table 29. Volumes of gas acquired and sold under wholesale trading by the surveyed trading companies in 2021 [TWh]

	Total	GK PGNiG	Other trading companies
Gas acquisition (purchase and extraction)	476.5	376.6	99.9
Wholesale sales of gas	196.1	139.4	56.7

Source: Data of the Ministry of Climate and URE.

Natural gas exchange

The sale and purchase of gaseous fuels on the Polish wholesale market takes place primarily on the commodity exchange operated by TGE S.A. (Commodity Market – CM and as of 1 May 2020 – Organized Trading Facility – OTF). Exchange market participants are mainly gaseous fuel trading companies and the largest final customers which can act independently after concluding an appropriate agreement with TGE S.A., becoming members of CM or OTF, or through brokerage houses or through

other entities having the status of a CM and OTF member from its own group which may conclude transactions for the benefit of other entities belonging to the same group.

Stock exchange trading takes place by concluding sales agreements (transactions) between members of CM and OTF.

In 2021 TGE S.A operated the following gas markets: Intra-day Market (IDMg), Day-Ahead Market (DAMg) and Gas Forwards Market of the Organized Trading Facility (GFM OTF).

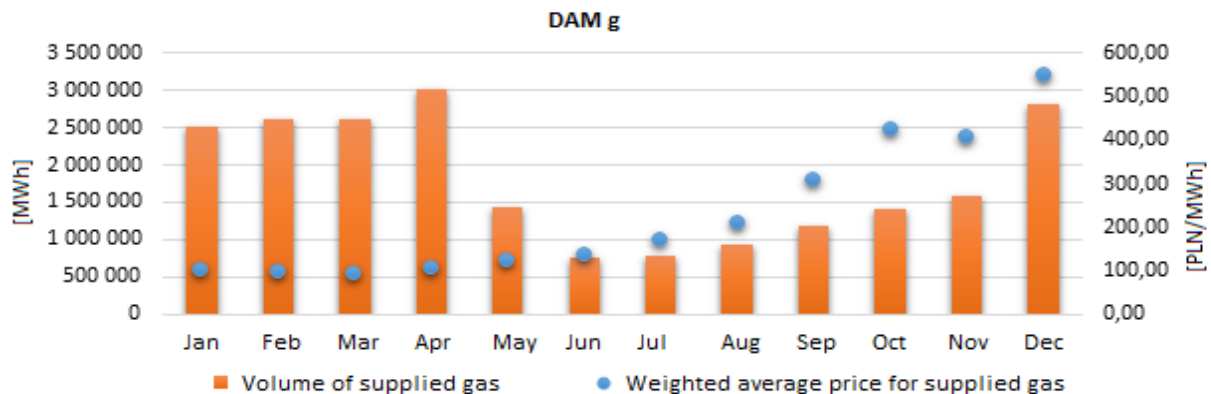
Subject of trade on the GFM OTF was the supply of gas in equal volumes at all hours of the delivery period in line with the instrument standard (weekly, monthly, quarterly and yearly).

Subject of trade on the DAMg is the supply of gas in equal volumes at all hours of the delivery day. It is a base instrument and one contract corresponds to the delivery of 1 MWh of gas in each hour of the delivery day. Trading is conducted during one day preceding the date of delivery in the continuous trading system. In addition, the subject of trading on the day-ahead gas market are weekend instruments with the delivery period from 6:00 a.m. on Saturday to 6:00 a.m. on Monday (gas weekend) in the equal amount of 1 MWh for each hour of the contract execution deadline. Quotations of the weekend instrument are carried out for 2 days preceding the delivery period.

Trading on the IDMg is conducted in the continuous trading mode.

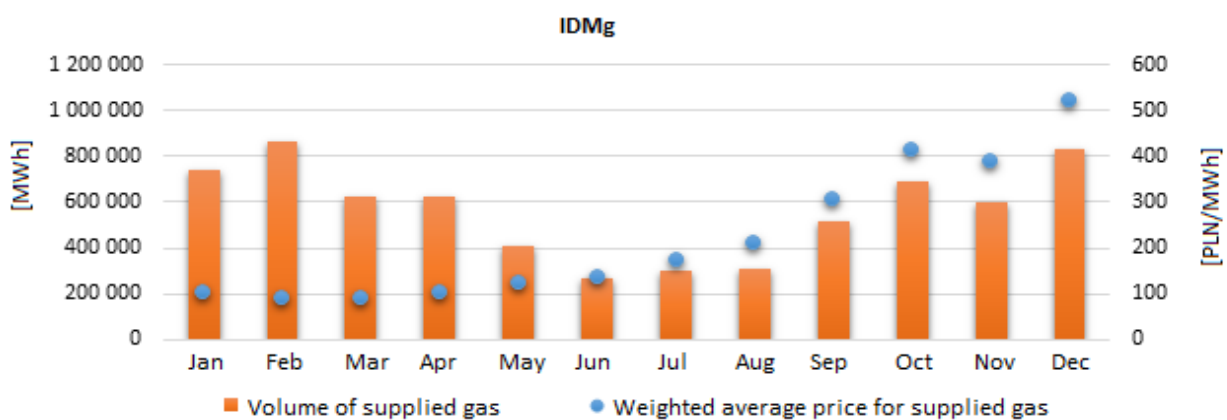
The figures below show the volume and price of gas delivered under contracts concluded on the DAMg, IDMg and GFM OTF.

Figure 31. Volume and weighted average monthly price of gas supplied as a result of the performance of contracts executed on the DAMg in 2021



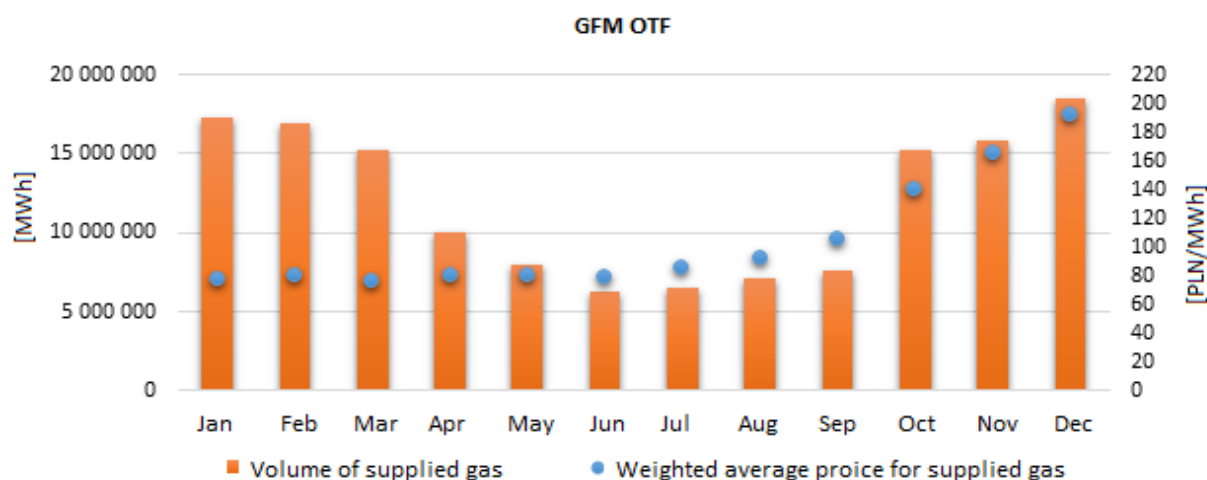
Source: Own analysis on the basis of data provided by TGE S.A.

Figure 32. Volume and weighted average monthly price of gas supplied as a result of the performance of contracts executed on the IDMg in 2021



Source: Own analysis on the basis of data provided by TGE S.A.

Figure 33. Volume and weighted average monthly price of gas supplied as a result of the performance of contracts executed on the GFM OTF, performed in 2021



Source: Own analysis on the basis of data provided by TGE S.A.

In 2021, as a result of the execution of contracts concluded on TGE S.A., 173,198,809 MWh of natural gas were delivered in the whole quotation period of a given contract type at the average price of 130.62 PLN/MWh (21,696,044 MWh on the DAMg market at the average price of 222.69 PLN/MWh; 6,771,099 MWh on the IDMg market at the average price of 234.58 PLN/MWh and 144,731,666 MWh on the GFM market at the average price of 111.96 PLN/MWh).

Trading in high-methane natural gas in the virtual point on the Over-the-Counter (OTC) market

In 2021, the President of URE also monitored transactions concluded at the virtual point on OTC market. As a result of performance of contracts executed in the virtual point on the OTC market, regardless of the contract conclusion date, a total of 16.4 TWh of natural gas was delivered at an average price of 128.47 PLN/MWh. The prices in particular quarters in comparison to exchange prices and prices of gas imports from the EU are presented in the Table below.

Table 30. Comparison of average prices of natural gas under contracts of sales in the virtual point on OTC, sales via TGE S.A. and purchase from abroad, in particular quarters of 2021 [PLN/MWh]

	QI	QII	QIII	QIV
Average prices from contracts on sales in the OTC virtual point with delivery in a specified period	77.74	86.04	121.58	197.49
Average prices from contracts on sales via TGE S.A. with delivery in a specified period	81.42	87.54	118.76	209.78
Average prices of natural gas purchase from abroad from EU Member States or EFTA Member States – parties to the EEA Agreement	85.72	102.40	211.24	371.49

Source: URE.

4.2.2. Retail market

The retail gas market is understood as the market for sales to final customers, irrespective of the volume of fuel purchased. On the supply side, at the end of 2021, 133 suppliers had contracts in place with the TSO allowing sales on the retail market (a decrease of 28 compared to 2020), and in the area of the distribution

network – PSG Sp. z o.o. – the number of contracts amounted to 73. Suppliers, in order to operate on the retail market, concluded contracts with individual (transmission and distribution) system operators. The maximum number of contracts concluded by one supplier was 12, and in the network of the largest DSO – PSG Sp. z o.o. – 44 suppliers of high-methane natural gas were actively selling (at least one valid contract with a customer).

In 2021, 27 natural gas trading companies and 11 of the DSOs were included in the detailed assessment by the President of URE. The DSOs included in the study had 6,750,806 customers (7,093,643 gas consumption points) connected to the network for high-methane gas and 372,701 customers (392,303 gas consumption points) for nitrogenous gas.

In the reporting year, however, total sales of high-methane and nitrogenous gas fuel to final customers amounted to 206,626,689 MWh, of which most, or as much as 61%, went to industrial customers and 28.7% to households. Total sales increased by about 2.75%, with the largest sales increases in utilities, services and trade (45.6%), households (18.8%) and agriculture (14.9%). The most likely reason for the increase in natural gas sales in these segments is the implementation of the state's climate protection policies, e.g. under the Clean Air Programme (replacing or decommissioning high-carbon heat sources with low-carbon ones) and the conversion of the economy to fuels other than coal (also in the generation of heat and electricity). In addition, the spread of home office in a situation where the pandemic persists for another year has probably contributed to an increase in household gas consumption. The table below provides information on the structure of natural gas sales to final customers.

Table 31. Structure of natural gas sales to final customers in 2021 [MWh]

Sales of high-methane and nitrogenous gas to final customers			
	Alternative suppliers	GK PGNiG	Total
Gas sales to final customers by trading companies operating in the country	23,260,482	183,366,207	206,626,689
including: industry	14,113,340	112,023,786	126,137,126
agriculture	155,557	478,931	634,488
trade and services	4,984,123	10,655,189	15,639,312
public utility	1,140,150	3,810,395	4,950,545
households	2,867,312	56,397,906	59,265,218
Own use	99,288	1,900,000	1,999,288
Total	23,359,770	185,266,207	208,625,977

Source: URE on the basis of data from a survey conducted by the President of URE.

The retail market for natural gas (high methane and nitrogenous) is characterized by a strong concentration. The share of GK PGNiG entities in gas sales to final customers was 88.74%, up by just over 3 percentage points on the previous year. The share of GK PGNiG entities in the retail market for liquefied natural gas (LNG) also increased in 2021, reaching 19.25%. Increase in the GK PGNiG's share in sales of gaseous fuel to final customers connected to the distribution system sustained from 2017. As for the gas market as a whole, the largest increase in the shares of GK PGNiG entities took place in the area of utilities and supplies to households. It should be borne in mind here that the supplier PGNiG OD Sp. z o.o. (from GK PGNiG) performs the function of a default supplier within the network of PSG Sp. z o.o. and OGP Gaz-System S.A. as well as the function of a reserve seller in situations stipulated by law or upon indication of a consumer. Thus, as an entity obliged to conclude a sales contract, it played a special role during the period of dramatic increases in natural gas prices in the second half of 2021, which also contributed to the increase in this supplier's market share, following the cessation of activity and/or termination of contracts by other trading companies. The remaining 11.26% of gas sales to final customers were made by alternative trading companies selling to final customers in the country. The value of the share of other suppliers varies by economic sector from 31.87% in the services and trade sector (in 2020, this share was 27.79%) to 4.84% in the household group.

The Herfindahl-Hirschman index for the high-methane natural gas market was 9,440 – by the number of consumers and 7,831 – by the volume of gas sold.

Table 32. Structure of LNG sales to final customers in 2021 [MWh]

	Alternative suppliers	GK PGNiG	Total
Industry	976,197	127,532	1,103,729
Agriculture	52,881	0	52,881
Trade and services	153,199	183,272	336,471
Public utility	8,992	0	8,992
Households	112,694	0	112,694
Total	1,303,963	310,804	1,614,767

Source: URE on the basis of data obtained in a survey.

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

Tariffs for gaseous fuels

The Polish legislator, by the Act of 30 November 2016 amending the Energy Law Act and certain other acts, excluded from 1 October 2017 the approval of gaseous fuels from the competence of the President of URE. Only for a transitional period lasting until 31 December 2023 was the approval of tariffs for household consumers exclusively left within the competence of the President of URE.

2021 was a year of major changes in gaseous fuel prices. Since the beginning of the year, gas prices were rising and we were faced with a very dynamic and hitherto unseen situation on the European gas market, resulting in high prices for this fuel. The cost of acquiring natural gas was rising, both in the case of purchases of gas products on TGE S.A. or other trading platforms and in B2B contracts. The situation on the gas market in 2020-2021 can be traced to the development of prices on TGE S.A.'s Day-Ahead Market during this period.

As a consequence of this situation, companies involved in the trade of gaseous fuels (that is, suppliers of gas to final customers – households), applied to the President of URE for approval of changes to the tariffs currently in force, in the part concerning gas prices for household consumers. Significant increases in the prices of gaseous fuels also occurred in the applications for subsequent tariffs submitted to the Regulator for approval.

Energy companies calculate tariffs on the basis of justified costs, that is, those costs that are necessary to be incurred in order to perform the obligations related to the activity they conduct – in this case, the trading of gaseous fuels. One of the key components of these costs is the cost of procuring gas for households. Since Q1 2021, there has been a significant increase in natural gas prices. For companies involved in the sale of gas on the retail market, this translates into an increase in the cost of obtaining this fuel in order to deliver (sell) it to consumers, among others, in households.

On 10 December 2021, the Act of 2 December 2021 amending the Energy Law Act came into force to minimize gas price increases for households.

The changes introduced by this amendment to the regulations on tariff calculation rules are intended to prevent the risk of one large, cumulative increase in gas prices for households in 2022 and, at the same time, ensure that suppliers of this fuel are able to recover the costs incurred in purchasing gas for the needs of their customers over a longer time horizon. As a result, the increase in gas prices for households may be lower on a one-off basis, but revenue will be recovered in subsequent years through prices that incorporate the costs thus deferred. This means that in those years gas prices will be higher than the resulting current cost of purchasing gas, even when wholesale gas prices return to lower levels.

The newly introduced mechanism in the tariff system is a special solution, resulting from the current situation on the gas market. It ensures that companies selling gas will be able to pass on the current increase in the purchase price of the commodity to subsequent years, and not, as before, only include it in the currently calculated tariff. By 30 June 2022, gas suppliers will be able to submit to the President of URE a tariff for gas sales to households calculated on the basis of only a part of justified costs, that is, a part of the cost of gas purchase. On the other hand, the part of the costs not included in the current tariff will be recoverable by the supplier in subsequent tariffs effective from the beginning

of 2023 or prices and tariffs set on competitive markets, for the next three years, that is, until the end of 2025.

In 2021, the President of URE approved a tariff for one energy company, that is, PGNiG OD Sp. z o.o., on the basis of a specific mechanism introduced to minimize gas price increases for household consumers. The prices and rates from this tariff are applicable from 1 January 2022.

Importantly, pursuant to § 29 para. 4 of the Gas Tariff Ordinance, the gaseous fuel prices and tariff rates set in the tariff are maximum prices and tariff rates. A gas supplier may apply in settlements with consumers lower prices and tariff rates of subscription fees than those set in the tariff approved by the President of URE, provided that consumers in particular tariff groups are treated equally.

The rules for tariff calculation in 2021 remained unchanged from those in force in 2020.

As already mentioned, in 2021, tariffs set by energy companies for the sale of natural gas were subject to approval by the President of URE when gas is sold to households. In this respect, the tariff of PGNiG OD Sp. z o.o. is of key importance, as the company supplies gaseous fuels to more than 90% of households.

In 2021 the President of URE conducted four administrative proceedings concerning PGNiG OD Sp. z o.o.'s tariff for the approval of the company's tariff for the supply of gaseous fuels.

The President of URE approved and published four tariff decisions concerning prices and tariff rates for household consumers applied by PGNiG OD Sp. z o.o.. The first, second and third decisions in order were approved in connection with proceedings for a change to the existing tariff. The first of the decisions taken was published on 15 April 2021 and came into effect on 1 May 2021. The second of the decisions taken was published on 16 July 2021 and came into effect on 1 August 2021. The third decision taken was published on 16 September 2021 and entered into force on 1 October 2021. The fourth tariff approval decision was published on 17 December 2021 and came into effect on 1 January 2022.

Gas prices in the amendment to Tariff No 10 approved on 15 April 2021 increased by 5.6% compared to Tariff No 10. Subscription fee rates remained unchanged. The average prices for all types of gas increased by 5.1%. However, the payments charged to PGNiG OD Sp. z o.o.'s customers in households consist of distribution fees in addition to gas prices and subscription fee rates. Therefore, considering the distribution fee rates of the largest gas distributor in Poland – PSG Sp. z o.o., which are most often used in household settlements, it can be estimated that the effect on the payments charged to customers was lower than that resulting from the increase in gas fuel itself and amounted to approx. 3.3% for high-methane gas customers and 3.56% and 3.51% for Lw and Ls nitrogenous gas customers, respectively.

By a decision of the President of URE of 16 July 2021, amendment No 2 to Tariff No 10 was approved. The gas prices set therein were increased by 12.4%, and subscription rates were kept unchanged. The average prices for all types of gas increased by 11.4% for customers consuming high-methane natural gas and Ls-nitrogenous natural gas and by 11.5% for customers consuming Lw-nitrogenous natural gas. Taking into account the distribution charge rates of PSG Sp. z o.o. – the comprehensive fee for gaseous fuels consumed by household customers increased by 7.46% for high-methane gas customers and by a respective 8.02% and 7.91% for customers consuming nitrogenous Lw and Ls gas.

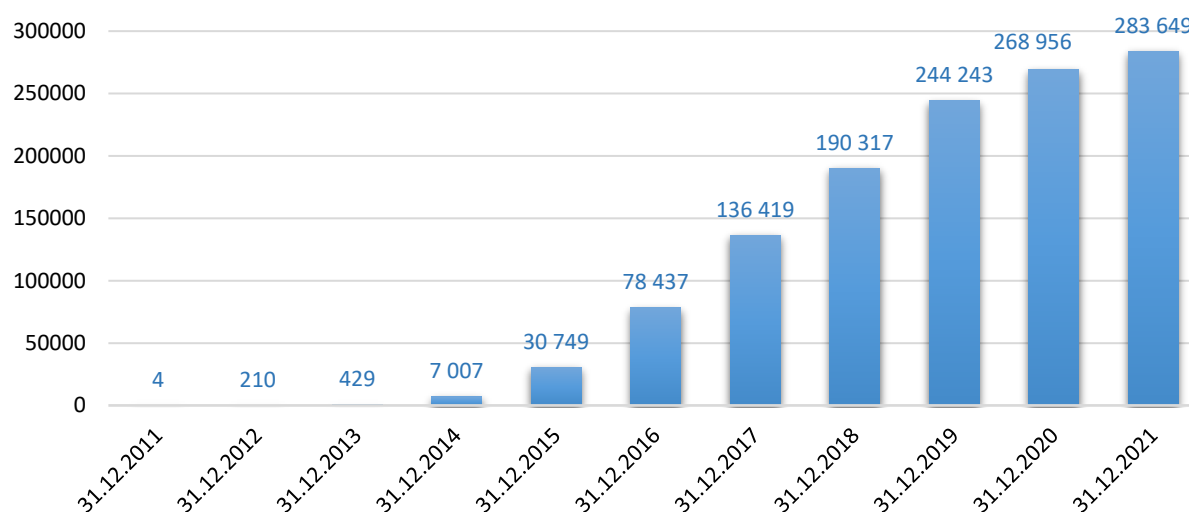
By a decision of the President of URE of 16 September 2021, amendment No 3 to Tariff No 10 was approved. The gas prices set therein were increased by 7.4%, and subscription rates were kept unchanged. The average prices for all types of gas increased by 6.8% for customers consuming high-methane natural gas and low-methane natural gas Ls and by 6.9% for customers consuming low-methane natural gas Lw. Given the distribution fee rates of PSG Sp. z o.o. – the comprehensive fee for gaseous fuels consumed by customers in households increased by 4.63% for high-methane gas customers and by 4.96% and 4.89% for Lw and Ls nitrogenous gas customers respectively.

By contrast, by decision of the President of URE of 17 December 2021, Tariff No 11 was approved, with a validity period until 31 December 2022. In order to limit the increase in the price of gaseous fuels for household consumers, the tariff was approved for the first time on the basis of a specific mechanism introduced to minimize price increases. The reduction in the scale of the increase was achieved by passing on part of the cost of gas purchases to three consecutive years. Under the decision of 17 December 2021, the established gas prices were increased by approximately 83% and the subscription rates were kept unchanged. The average trading prices for all types of gas increased by approximately 77% (for customers consuming both high-methane gas and Lw and Ls nitrogenous gas). Given the distribution charge rates of PSG Sp. z o.o. – the comprehensive fee for gaseous fuels consumed by household customers increased by 54.53% for high-methane gas customers and 57.72% and 56.66% for customers of Lw and Ls nitrogenous gas.

Supplier switching

By virtue of the right of access to the gas network (Article 4 para. 2 of the Energy Law Act) and the simultaneous obligation imposed on the operator to perform each gas purchase contract, consumers gained the possibility to purchase natural gas from any supplier already in 2007. However, the number of supplier-switching cases is not only a function of the rights granted, but also of the development of the market infrastructure, the state of competition and even consumer awareness and activity. The President of URE systematically monitors the degree of actual use of the supplier selection right by consumers. The analysis of the data from the completed questionnaires indicates an annual increase in the number of consumers switching their supplier, however, starting from 2016, the dynamics of these changes has been decreasing year by year. The data presented below (in cumulative terms) illustrate the development of TPA in Poland over the past period.

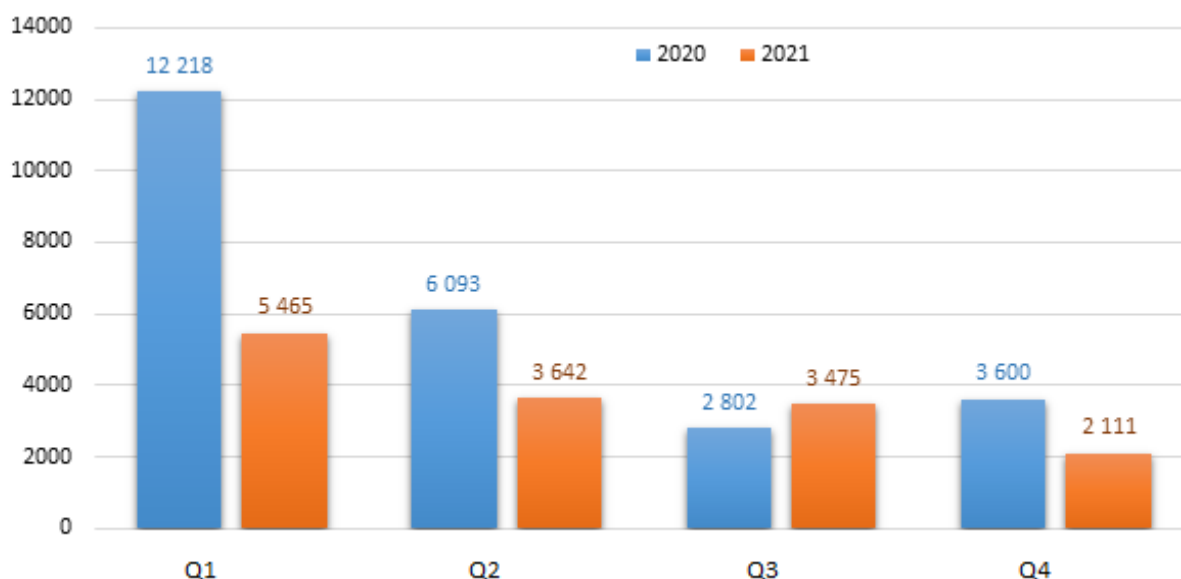
Figure 34. Number of cases of natural gas supplier switching by final customers (cumulatively)



Source: URE on the basis of data presented by the DSO.

Between 2011 and 2021, there was a steady increase in the number of customers switching sellers. At the end of 2021, the number of supplier-switching cases amounted to 283,649. This means that during 2021 a total of 14,693 entities joined the group of customers who switched supplier. This number represents approximately 59.5% of the corresponding number from the previous year (24,713 consumers). The relatively small increase in this number, compared to the increases observed in previous years, can at least in part be attributed to the pandemic situation, which significantly limited the ability of suppliers to reach potential customers. In addition, on 3 July 2021, the ban on concluding gas sales contracts and comprehensive contracts with households in direct sales came into force. Thus, one channel of consumer acquisition disappeared from the market, which may also translate into a lower increase in the number of supplier-switching than in previous years. The majority of supplier switching cases in 2021 (37%) were recorded in the first quarter and represented the implementation of contracts entered into in 2020, however, the number of these changes represented only less than 45% of the number of switches in the corresponding period of 2020. As the epidemic situation slowly normalized, the number of supplier-switching cases increased and in the third quarter exceeded the number of switches in the third quarter of 2020 by 24%. Clearly lower than in the other quarters, and more than 40% lower than in the corresponding period of the previous year, was the number of supplier-switching cases in the last quarter of 2021, the reason for which probably lies in the sharply rising prices of gaseous fuels on the wholesale market in the second half of the year. Faced with a significant increase in purchase prices (and the associated risks), suppliers significantly reduced their offerings and, in some cases, there were even terminations of contracts before they came into effect.

Figure 35. Number of gas supplier switches by number of customers in real terms – comparison quarter-on-quarter in the years 2020-2021



Source: URE on the basis of data presented by the DSO.

Despite the very high degree of monopolization of the gas market and difficult market conditions, 14,693 gas consumers (18,855 metering systems) changed their gas supplier in 2021, which represents 0.16% of total consumers. A comparison of the share of consumers who switched supplier in 2021 to the value for the previous year (0.38%) shows a decrease of just over 50% in this share.

Compliance Programmes

There are two entities operating on the gaseous fuel market – the distribution system operator PSG Sp. z o.o. and the storage system operator – Gas Storage Poland Sp. z o.o. – that are obliged to apply Compliance Programmes and submit reports on their implementation to the President of URE. In 2021 the President of URE approved an update to the Compliance Programme of PSG Sp. z o.o., and the changes aimed at strengthening the independence of the operator, which functions as part of the group, covered areas such as communications, marketing, research and development, protection of sensitive data, as well as the operation of information and communication technologies and the distinctiveness of the operator's brand compared to other companies in the group. On the other hand, for SSO – Gas Storage Poland Sp. z o.o., 2021 was the first full year of operation of the revised Compliance Programme, adapted to the Guidelines for the content of Compliance Programmes developed by DSOs and SSO, published by the President of URE in 2019. Both obliged entities published the Compliance Programmes on their websites.

Reports on the implementation of Compliance Programmes for 2021 were submitted by the statutory deadline of the end of March 2022. An analysis of the content of the reports indicates the growing importance of this document and the role of the Compliance Officer. Compliance Officers undertook education and training activities on the Compliance Programmes, the obligations of employees and the companies' management regarding operator independence and non-discriminatory treatment of system users, and the consequences of possible violations, including possible sanctions. Newly hired employees were trained within one month of their date of employment and submitted the required declarations, with a commitment to comply with the Compliance Programme, and training at SSO also extended to members of the Supervisory Board. Training on the Compliance Programme at PSG Sp. z o.o. is also given to apprentices and trainees, regardless of the scope of activities carried out during the apprenticeship or traineeship. Compliance Officers were also involved in the interpretation of the provisions of the Compliance Programmes, advice, consultation, interpretation of regulations and processing of applications in cases requiring clarification. Compliance Officers reviewed draft regulations, new rules, agreements and other documents before their adoption by the operator's

management, including liaising with the operator's other services on measures to be applied in the protection of sensitive information. The regulations of the Compliance Programme also apply to external contractors of the operator's companies, to service providers, as well as to other entities interested in access to data, such as local governments, researchers, students. Any cooperation with third parties that involved the transmission of commercially sensitive information was carried out on the basis of a non-disclosure agreement.

In 2021, no conflicts of interest within the meaning of the Compliance Programme or violations of the principle of equal and non-discriminatory treatment of users were identified in both DSOs and SSOs. The Compliance Officers and the President of URE did not receive any complaints regarding violations of the Compliance Programme either, nor were there any notifications of suspected conflicts of interest.

Suspension of supplies

Pursuant to the provisions of the Energy Law Act, the supply of gaseous fuels may be suspended in the event when 1) as a result of an inspection it has been established that an illegal consumption of gaseous fuels has occurred, 2) the consumer is in arrears with payment for the services provided, at least for 30 days after the expiry of the payment deadline and has failed to pay the amount due, despite being summoned. According to the monitoring carried out by the President of URE among the 11 largest DSOs in Poland, in 2021 gas deliveries were suspended in 64,322 cases, of which 99.68% concerned consumers in tariff groups W 1-4 (households).

In each of the consumer groups, no more than 1% of consumers were affected by supply suspensions. The reason for the majority of supply suspensions (77.8% – high-methane gas and 97.8% – nitrogenous gas) was the failure to make timely payment for the natural gas received.

4.2.2.2. Consumer protection and dispute resolution

The competences of the President of URE in the field of consumer protection, dispute resolution and the system of out-of-court dispute resolution are described in section 3.2.2.2.

4.3. Security of supplies

Pursuant to the Energy Law Act (Article 12) in conjunction with Article 7a para. 2 item 3 of the Act of 4 September 1997 on branches of government administration⁹⁴⁾ in conjunction with Article 1 para. 2 item 1 of the Regulation of the Prime Minister of 6 October 2020 on the detailed scope of activities of the Minister for Climate and Environment⁹⁵⁾, the minister competent for energy in 2021 was the state body responsible for energy policy, including issues related to energy security and in particular covering the supervision of the security of supply of gaseous fuels. These competences were exercised in 2021 by the Minister of Climate and Environment.

These included the tasks of the competent authority within the meaning of Regulation 2017/1938⁹⁶⁾, that is the authority responsible for implementing the measures set out in the aforementioned Regulation to safeguard the security of natural gas supply.

Nevertheless, considering the concept of state fuel security defined in the Act on Stocks, in the case of natural gas, as a state enabling current coverage of customer demand for natural gas in a specified volume and period of time, to the extent ensuring proper functioning of the economy – security of natural gas supplies understood as ensuring customers' access to energy of a specified quality and at transparent, cost-based prices, is an area of energy security which is also monitored by the President of URE under statutory regulations.

⁹⁴⁾ JoL of 2017 item 888.

⁹⁵⁾ JoL of 2015 item 2087.

⁹⁶⁾ Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) 994/2010 (EO OJ L 280).

Monitoring of the security of gaseous fuels supply, carried out in 2021, was focused on the areas of the market functioning which related in particular to the issues referring to:

- **licences**

Licences for foreign trade in natural gas are issued with consideration of diversification of natural gas supplies and energy security. An energy company dealing with foreign trade in natural gas is obliged to diversify natural gas supplies from abroad (Article 32 para. 2 of the Energy Law Act). In addition, in 2021, licences for foreign trade in natural gas included a condition relating to the obligation to diversify natural gas supplies. As part of the procedure for granting licences for foreign trade in natural gas, the President of URE also verifies whether the applicant has submitted a declaration undertaking to comply with the diversification obligation

- **diversification of supplies of natural gas from abroad**

In 2021, the President of URE monitored compliance with the provisions of the Ordinance of the Council of Ministers of 24 April 2017 on the minimum level of diversification of natural gas supplies from abroad by energy companies licensed to foreign trade in natural gas in 2020. The monitoring covered 23 entities. Due to the need to supplement the information and documentation provided, these activities were continued in 2022. On the other hand, the proper fulfilment of the 2021 diversification obligation by energy companies holding a licence for foreign trade in natural gas in 2021 will be monitored by the President of URE in 2022.

- **tariffs**

An indirect method of monitoring the security of gaseous fuels supply is tariffication of infrastructure companies. In the course of the tariff process, the extent of financing of assets (transmission, distribution, storage and liquefied natural gas installations), necessary for the supply of fuels to customers, is resolved. The amount of investment expenditures on network assets and the amounts allocated to repairs and modernization of these assets determine their physical condition, that is operational security.

- **approval of plans for introducing natural gas consumption restrictions developed by operators**

Pursuant to Article 54 para. 1 of the Act on Stocks in the event of:

- 1) a threat to the state's fuel security,
- 2) an unforeseen increase in the consumption of natural gas by customers,
- 3) occurrence of disruptions in natural gas imports,
- 4) failures in the networks of gas system operators,
- 5) a threat to the operational security of gas networks
- 6) a threat to the safety of persons
- 7) a threat of significant material losses,
- 8) necessity of fulfilling international obligations by the Republic of Poland

– restrictions on the consumption of natural gas, hereinafter referred to as “restrictions”, may be introduced for a specified period of time on the territory of the Republic of Poland or on a part thereof. With reference to the above, it should be emphasized that the introduction of restrictions on the consumption of natural gas may take place only in specific situations, and the purpose of such measures is to prevent the deterioration of situations threatening the state's fuel security.

Restrictions pursuant to Article 56 of the Act on Stocks may be introduced by way of an ordinance by the Council of Ministers at the request of the minister responsible for energy (for a specified period of time, on the territory of the Republic of Poland or on a part thereof, taking into account the importance of customers for the economy and functioning of the state, in particular the tasks performed by these customers and the period for which the restrictions will be introduced). The legal acts constituting the obligations concerning the drawing up of plans for introducing restrictions in the consumption of natural gas are the aforementioned Act on Stocks and the Ordinance of the Council of Ministers of 17 February 2021 on the Manner and Procedure for Introducing Restrictions in the Off-take of Natural Gas⁹⁷⁾ (hereinafter: Ordinance on Restrictions). Pursuant to the provisions of Article 58 para. 1 of the Act on Stocks, gas transmission system operators, gas distribution system operators and gas interconnection system operators or energy enterprises acting as operators are obliged to develop a plan for introducing

⁹⁷⁾ JoL of 2021 item 549.

restrictions in the off-take of natural gas. Pursuant to Article 58 para. 17 of the Act on Stocks, the aforementioned operators update the plans for introducing restrictions annually and submit them, by 15 November of a given year, to the President of URE for approval by way of a decision. The aforementioned Ordinance specifies the manner and procedure for the introduction of restrictions in the consumption of natural gas, including:

- 1) the manner in which the restrictions will be implemented;
- 2) the types of customers covered by the restrictions;
- 3) the scope and period of protection of customers from the introduced restrictions, in particular natural gas consumers in households, in the event of:
 - a) a shortage of natural gas in the gas system,
 - b) the occurrence of extremely low external temperatures in the period of the highest demand for natural gas in the gas system;
- 4) the scope of the restriction plans referred to in Article 58 para. 1 of the Act on Stocks and the manner of determining in them the volume of such restrictions;
- 5) the manner of making public information on restrictions;
- 6) the manner of cooperation of gas DSOs and natural gas SSO with the gas transmission system operator in the period of duration of restrictions, including the scope of transmitted information.

The year 2021 was a special year in relation to previous years in terms of the development of natural gas off-take restriction plans, as a new restrictions ordinance came into force on 10 April 2021, repealing the previous Council of Ministers ordinance dedicated to this issue. The new restrictions ordinance introduced a number of significant changes to increase the efficiency of the mechanism for introducing restrictions on natural gas off-take. These include, among others:

- 1) the introduction of a category of "protected customers", some of whom:
 - a) are not subject to restrictions, irrespective of the level of supply introduced;
 - b) are subject to restrictions only in supply level 12 (protected customers referred to in Article 7 para. 7 of the Ordinance);
 - c) are subject to restrictions in a part of their operations (to the extent not defined for protected customers),
- 2) subjecting a larger group of customers to restrictions in natural gas consumption, that is, all natural gas customers not classified as protected customers for a given level of supply,
- 3) defining supply levels in a different way (introducing supply levels from 1 to 12 instead of the current 10),
- 4) the use of values expressed in energy units to define the supply levels,
- 5) introduction of a mechanism allowing operators to develop a restriction plan when certain information is not provided by customers,
- 6) clarification of the manner of announcing the applicable supply levels, in particular by introducing the obligation to make them public 10 hours in advance.

The need to adapt the provisions of the Ordinance also arose from Regulation 2017/1938. The Ordinance allowed for the categorization of customers in a manner consistent with the mechanisms of the Regulation, among others, the group to be protected under solidarity support was identified.

In connection with the entry into force of the new Ordinance on restrictions on the consumption of natural gas, in order to unify the form and scope of information to be submitted with the applications for the approval of restrictions plans, the President of URE presented information⁹⁸⁾ on this issue together with the template of the content of a sample restriction plan, tables I and II of the part of the restriction plan and the statement to be submitted with the application for the approval of the aforementioned plan. In addition, in the reporting year, due to numerous questions regarding the development of new restriction plans, both prior to the deadline for submission of the plans in question and during their approval, URE representatives actively participated in meetings and explained issues relating to restriction plans developed under the new formula. The explanations largely concerned the manner in which customers were to be included in the restriction plans, in connection with the need to indicate in the plan by name the customers subject to full restrictions – up to and including level 12, and protected customers, subject only to level 12 restrictions. This was largely related to the size of the latter group in the plans of some DSOs.

Pursuant to Article 7 para. 1 of the Ordinance on Restrictions, the restrictions included in the plans are defined in supply levels 1 to 12 for customers and exit points from the gas system where they

⁹⁸⁾ Information from the President of URE No 46/2021 of 27 July 2021 on the obligation of gas distribution system operators and gas transmission system operator to develop plans for introducing restrictions in the off-take of natural gas.

off-take natural gas. The maximum volume of natural gas offtake in the individual supply levels is defined as follows:

- 1) level 1 corresponds to the size of the maximum contracted capacity that the customer may offtake at a given exit point from the gas system under the contract referred to in Article 5 para. 2 items 1 and 2 and para. 3 of the Energy Law Act,
- 2) level 2 corresponds to the average hourly and daily amount of natural gas off-taken by the customer at the relevant exit point from the gas system in the period from 1 July of the preceding year to 30 June of the year in which the plan was developed; days on which the daily off-take was equal to 0 kWh/day are not taken into account in the calculation,
- 3) levels 3 to 9 are defined as intermediate values between levels 2 and 10, decreasing proportionally. The Ordinance allows for a different variation of the aforementioned levels if there are technically justified reasons, but with the principle of a gradual reduction of natural gas off-take between supply levels 2 and 10 – exception: for natural gas customers whose contractual capacity (referred to in supply level 1) is less than 5 500 kWh/h, the natural gas off-take volume defined in supply levels 3 to 9 is equal to the off-take volume in supply level 2 (Article 7 para. 10 of the Ordinance on Restrictions),
- 4) supply level 10 – corresponds to the minimum hourly and daily amount of natural gas off-taken by the customer at a given exit point from the gas system, which does not pose a threat to the safety of persons or damage to or destruction of technological facilities, which amount, determined by the customer, may not exceed the highest of the minimum (hourly and daily) gas off-takes set for each year in the 3 years preceding 1 July of the year in which the plan was developed; the calculation shall not take into account days on which the hourly and daily volume of natural gas off-taken by the customer at a given exit point from the gas system did not exceed 15% of the value specified for that customer in supply level 2, determined for the year in question,
- 5) level 11 corresponds to an offtake of 0 kWh/h and 0 kWh/day of natural gas by a customer at a given exit point from the gas system,
- 6) level 12 corresponds to an off-take of 0 kWh/h and 0 kWh/day of natural gas by a customer at a given exit point from the gas system, including a protected customer as referred to in Article 4 para. 1 of the Ordinance on Restrictions:
 - a) items 2, 8 and 9;
 - b) item 13, to the extent that it is engaged in the production of heat for the customers referred to in Article 4 para. 1 items 2, 8 and 9 which offtake heat in the period from 1 September to 31 May for the purposes of central heating, domestic hot water, ventilation and technology in the form of steam and hot water, or in the supply of heat to these customers, provided that the installation of this customer of natural gas cannot be supplied with a fuel other than natural gas.

Pursuant to Article 4 para. 1 of the Ordinance on Restrictions, the restrictions stipulated in supply levels 1 to 11 apply to all natural gas customers, with the exception of:

- 1) natural gas customers in households,
- 2) the following entities connected to the gas distribution network:
 - a) entrepreneurs within the meaning of Article 4 para. 1 and 2 of the Act of 6 March 2018 – Entrepreneurs' Law (Journal of Laws of 2021, item 162);
 - b) entities carrying out production activities in agriculture in the field of agricultural crops and animal rearing, horticulture, vegetable growing, forestry and inland fishing;
 - c) farmers renting out rooms, selling home-cooked meals and providing other services on farms related to the stay of tourists;
 - d) producers that are farmers producing less than 100 hectolitres of wine during the economic year, as referred to in Article 17 para. 3 of the Act of 12 May 2011 on the manufacture and bottling of wine products, circulation of these products and the organization of the wine market (Journal of Laws of 2020, item 1891);
 - e) farmers who engage in the activity of sale referred to in Article 20 para. 1c of the Personal Income Tax Act of 26 July 1991 (Journal of Laws of 2020, item 1426, as amended);
 - f) rural housewives' associations operating under the Act of 9 November 2018 on rural housewives' associations (Journal of Laws of 2021, item 165), which fulfil the conditions referred to in Article 24 para. 1 of that Act.

– for which the contracted capacity at the point of natural gas off-take from the gas system or the sum of points of off-take of that gas from the gas system which supply the customer concerned at a single address, hereinafter referred to as "exit point from the gas system", does not exceed 710 kWh/h,

- 3) entities providing healthcare services within the meaning of the Act of 27 August 2004 on healthcare services financed from public funds (Journal of Laws of 2020, item 1398, as amended) connected to the gas distribution or transmission network,
- 4) organizational units of social assistance within the meaning of Article 6 item 5 of the Act of 12 March 2004 on social assistance (Journal of Laws of 2020, item 1876 and 2369) connected to the gas distribution or transmission network,
- 5) night shelters and heating facilities referred to in Article 48a para. 3 and 4 of the Act of 12 March 2004 on social assistance, connected to the gas distribution or transmission network,
- 6) organizational units of family support and foster care system within the meaning of Article 2 para. 3 of the Act of 9 June 2011 on family support and foster care system (Journal of Laws of 2020, item 821 and of 2021, item 159) connected to the gas distribution or transmission network,
- 7) units of the State Medical Rescue System and units cooperating with that system within the meaning of the Act of 8 September 2006 on the State Medical Rescue Service (Journal of Laws of 2020, item 882, 2112 and 2401 and of 2021, item 159) connected to the gas distribution or transmission network,
- 8) entities forming part of the educational system referred to in Article 2, items 1, 2, 7 and 8 of the Act of 14 December 2016 – Education Law (Journal of Laws of 2020, item 910 and 1378 and of 2021 item 4), connected to the gas distribution or transmission network,
- 9) public administration bodies within the meaning of Article 5 § 2 item 3 of the Act of 14 June 1960 – Code of Administrative Procedure (Journal of Laws of 2020, item 256, 695, 1298 and 2320 and of 2021, item 54 and 187) and offices servicing them, connected to the gas distribution or transmission network,
- 10) entities running nurseries and children's clubs, within the scope of this activity, as well as day care providers referred to in the Act of 4 February 2011 on the care of children aged up to 3 years (Journal of Laws of 2021, item 75), connected to the gas distribution or transmission network,
- 11) water and sewage enterprises within the meaning of Article 2 item 4 of the Act of 7 June 2001 on collective water supply and collective sewage disposal (Journal of Laws of 2020, item 2028) connected to a gas distribution or transmission network,
- 12) entities responsible for waste management, to the extent to which they perform the tasks referred to in Article 3 para. 1 item 2 of the Act of 14 December 2012 on waste (Journal of Laws of 2020, item 797, 875 and 2361), connected to the gas distribution or transmission network,
- 13) natural gas customers, to the extent that they are engaged in the production of heat for a customer referred to in items 1-12, off-taking heat in the period from 1 September to 31 May, for central heating, domestic hot water, ventilation and technology in the form of steam and hot water, or in the supply of heat to that customer, provided that the installations of those natural gas customers cannot be supplied with fuel other than natural gas.
– hereinafter referred to as “protected customers”.

The restrictions defined in supply level 12 apply to all natural gas customers, with the exception of protected customers as referred to in Article 4 para. 1 of the Ordinance on Restrictions:

- 1) items 1, 3-7 and 10-12,
- 2) item 13, to the extent that they are engaged in the production of heat for a customer referred to in para. 1 items 1, 3-7 and 10-12 that off-takes heat in the period from 1 September to 31 May for central heating, domestic hot water, ventilation and technology in the form of steam and hot water, or in the supply of heat to that customer, provided that the installations of those natural gas customers cannot be supplied with fuel other than natural gas.

In accordance with the provisions of the Ordinance on Restrictions, the restriction plan consists of two parts. The first part contains information on (i) the duration of the restriction plan, (ii) the aggregate maximum hourly and daily natural gas off-take quantities for individual supply levels from the first to the twelfth expressed in energy units – specified in a given plan for individual types of natural gas, drawn up in the form of a table, (iii) the generation units referred to in Article 4 para. 4 of the Ordinance, as determined by the gas transmission system operator after taking into account the opinion of the electricity transmission system operator. The second part of the plan shall contain information on the average hourly and daily volumes of natural gas referred to in Article 7 para. 3, as well as the determination of the maximum hourly and daily volumes of natural gas off-take in supply levels one to twelve expressed in energy units by individual customers connected to the network, with the exception of protected customers.

Operators shall inform customers of the maximum natural gas off-take volumes established for them in the approved restriction plan in individual supply levels. Pursuant to Article 58 para. 3 of the Act on

Stocks, these volumes specified in the approved restriction plans shall become an integral part of sales contracts, contracts for the provision of natural gas transmission or distribution services and comprehensive contracts, within the meaning of Article 5 para. 2 items 1 and 2 and para. 3 of the Energy Law Act.

Operators obliged to do so provided URE with a total of 49 applications for approval of the plan for introducing restrictions in natural gas consumption for the 2021/2022 season (in the previous 2020/2021 season 47 applications were filed), that is, all gas system operators involved in natural gas transmission and distribution – namely one gas transmission system operator and 48 gas distribution system operators. The difference between the number of operators functioning in the country and the number of applications for the approval of the plan for introducing restrictions in natural gas off-take is due to the fact that enterprises acting as operators of the coke-oven gas system are not covered by the relevant obligation. This is because the Act on Stocks regulates natural gas, while the scope of the Energy Law Act generally covers gaseous fuels (including natural gas).

In 2021, with regard to the gas restriction plans for the 2021/2022 season, the President of URE approved 12 restriction plans. Proceedings on the remaining restriction plans developed for the 2021/2022 season were continued in 2022.

No restrictions on the off-take of natural gas in the country or parts of it were introduced in 2021. The last introduction of restrictions on natural gas off-take took place in 2009.

- **agreeing on the draft network development plan for gas companies**

Agreeing with the President of URE on the draft network development plan allows companies dealing with transmission or distribution of gaseous fuels to secure adequate financial resources for the planned investment tasks, including tasks related to maintaining an appropriate level of reliability and quality of the network services provided, which have a direct impact on the security of gas supply.

Monitoring of the implementation of tasks resulting from the 2021 development plans highlighted further progress in efforts to diversify sources and directions of natural gas supply, that is activities contributing to market liberalization and directly enhancing the level of security of natural gas supply to Poland. In this context, of particular importance is the implementation of the Baltic Pipe project. This project is part of the North-South Corridor concept and the Baltic Energy Market Integration Plan (BEMIP). Moreover, in 2021, the transmission system operator implemented activities concerning other cross-border interconnections of key importance for the development of an integrated and competitive natural gas market in Central Europe and the Baltic Sea region, that is projects of interconnections Poland-Slovakia and Poland-Lithuania. These activities directly contribute to increasing the security and degree of diversification of natural gas supplies to Poland. These interconnections and the national transmission system will allow to supply partners in the eastern and southern directions with gaseous fuels.

Detailed information on the fulfilment by energy enterprises, transmission system operators and distribution system operators of obligations resulting from Article 16 para. 1 and para. 13 of the Energy Law Act is presented in Section 4.1.2.

- **maintaining mandatory stocks of natural gas**

Mandatory stocks of natural gas are maintained in the period from 1 October of a given year to 30 September of the following year. Thus, when describing issues related to the maintenance of mandatory stocks of natural gas in 2021, two sub-periods may be distinguished: from the beginning of the year until 30 September and from 1 October until the end of the year.

Two categories of entities (hereinafter jointly referred to as "obligated entities") are required to maintain mandatory stocks of natural gas (hereinafter also referred to as "storage obligation"):

a) energy companies engaged in the business of trading natural gas with foreign countries, hereinafter referred to as "companies" and

b) importers of natural gas, hereinafter referred to as "entities".

The first category includes both companies holding a licence for trading in natural gas and companies performing this activity without the need to hold such a licence due to the statutory exemption from this obligation under Article 32 para. 1 item 4 of the Energy Law (that is the annual turnover does not exceed EUR 100,000).

The second category generally comprises entities that bringing in natural gas into the territory of the Republic of Poland as an intra-Community acquisition or imports for purposes other than trading in that gas. For example, entities bringing in natural gas are customers importing natural gas for their own

use, including companies engaged in the transmission or distribution of natural gas, importing gas for purposes related to their own network activity.

The 2021 Act on Stocks provided for the implementation of the stockholding obligation in three different formulas:

- a) under a storage contract with domestic SSO,
- b) under a storage contract with foreign SSOs,
- c) under what is known as a stock ticket contract with an energy company engaged in foreign natural gas trading or gaseous fuel trading (contractor).

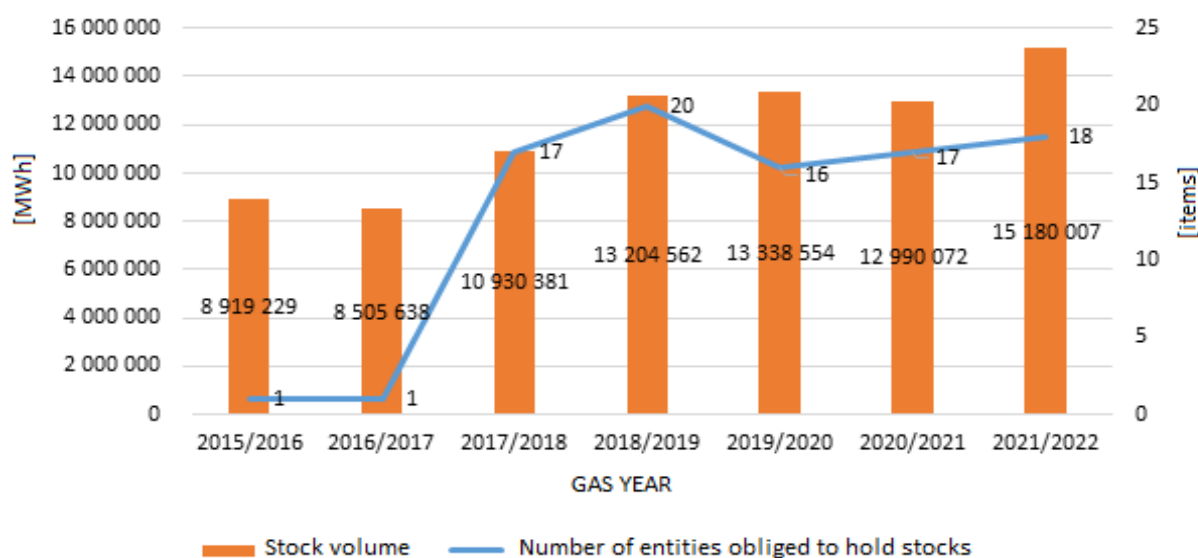
A stock ticket contract consists in allowing obligated entities to outsource the obligation to create and maintain mandatory stocks to another energy company. It is possible to create stocks on gaseous fuel belonging to both the principal and the contractor. The stocks so created can be held both domestically and internationally.

In 2021, for both mandatory storage obligation periods, that is until 30 September 2021 and from 1 October 2021, the storage obligation coverage with regard to entities was similar to that of 2020 (15 entities obliged to hold mandatory stocks as at 1 October 2020 vs 18 entities obliged to hold mandatory stocks as at 1 October 2021).

The tasks of the President of URE under the Act on Stocks related to, among others, establishing or verifying the volume of mandatory stocks, granting or refusing consent to conclude a stock ticket contract, controlling obliged entities with regard to the correctness of fulfilment of the stock obligation, sanctioning irregularities. Monitoring of the fulfilment of the obligation to maintain mandatory stocks of natural gas therefore covers both activities preceding the commencement of the obligation execution and its fulfilment.

In 2021, no mandatory stocks were released.

Figure 36. Volume of approved mandatory stocks of natural gas



Source: URE's own analysis.

When analyzing the above figure, it should be noted that compared to the corresponding data indicated in last year's Report, the values relating to the gas year 2020/2021 have changed. According to the Report of the President of URE for 2020, the volume of mandatory stocks of natural gas was 12,979,802 MWh. However, at the end of the 2020/2021 gas year, the volume of mandatory stocks approved by decisions of the President of URE increased to 12,990,072 MWh due to the issuance by the President of URE of decisions determining the volume of stocks for companies or entities that planned to commence bringing in natural gas from abroad and for entities that applied for a licence to foreign trade in natural gas (pursuant to Article 25 para. 5, first sentence, of the Act on Stocks).

- **the President of URE's consent to the conclusion of so-called stock ticket contracts for the purpose of fulfilling stockholding obligations**

The year 2021 was the fifth year in which obligated entities had the possibility to fulfil their stockholding obligation by concluding the so-called "stock ticket contract" referred to in Article 24b of the Act on Stocks. Pursuant to Article 24b para. 1 of the Act on Stocks, an energy company carrying out economic activity in the field of foreign trade in natural gas and an entity importing natural gas may commission, under a contract, the performance of tasks related to the maintenance of mandatory stocks of natural gas to another energy company carrying out economic activity in the field of foreign trade in natural gas or to an energy company carrying out economic activity in the field of trade in gaseous fuels. The basic requirements for the content of such a contract are contained in Article 24b para. 3 of the Act on Stocks. In addition, the Act indicates that in the event that the mandatory stocks of natural gas, maintained in accordance with Article 24b para. 1, do not constitute the property of the energy company carrying out economic activity in the field of foreign trade in natural gas or of the natural gas importer commissioning the maintenance of these stocks, the contract should also contain provisions guaranteeing the commissioning party the right to purchase these stocks within its duration and specifying the method of determining the resale price of these stocks (Article 24b para. 4).

Pursuant to Article 24b para. 6 of the aforementioned Act, before concluding a stock ticket contract, an energy company performing economic activity in the field of foreign trade in natural gas and an entity importing natural gas (as entities obliged to fulfil the stock holding obligation) shall be obliged to submit a draft of the contract to the President of URE and obtain consent for its conclusion. The President of URE, by way of a decision, shall either consent or refuse to consent to the conclusion of the contract referred to in para. 1 within 30 days from the date of receipt of a complete application for consent to the conclusion of the contract referred to in para. 1 (Article 24b para 7). The grounds for the refusal of the President of URE to consent to the conclusion of the aforementioned contract are stipulated in Article 24b para. 8 of the Act. This provision stipulates that the President of URE shall refuse to consent to the conclusion of a stock ticket contract if: (1) a draft of this contract does not contain the provisions referred to in Article 24b para. 3 of the Act on Stocks, (2) the location or technical parameters of the storage facilities and the gas networks to which these facilities are connected do not ensure the possibility of supplying the total quantity of mandatory natural gas stocks to the gas system within a period of no more than 40 days.

In the case of the implementation of the stockholding obligation based on stock ticket contracts, in 2021, as in the preceding year, the efficient conduct of administrative proceedings was of particular importance, as the conclusion of the relevant contract is conditional on the President of URE's consent to its conclusion in the form of a decision, and this should be issued within 30 days of receipt of a complete application (Article 24a et seq. of the Act on Stocks).

Pursuant to the aforementioned provisions, after prior submission of draft stock ticket contracts by the companies and entities concerned, the President of URE issued approvals for the conclusion of stock ticket contracts by decision. None of the applications submitted to the President of URE in 2021 for consent to conclude a stock ticket contract for the 2021/2022 season were refused.

In the 2021/2022 season, eight stock ticket contracts pertained to the maintenance of stock in the territory of the Republic of Poland, in two cases the stock ticket contracts pertained to the maintenance of stock outside the territory of the Republic of Poland.

- **monitoring the fulfilment of obligations relating to the maintenance of mandatory stocks of natural gas**

The statutory tool for monitoring obligations relating to the maintenance of mandatory stocks of natural gas is the provisions of Article 27 para. 2 items 1-2 of the Act on Stocks.

Pursuant to Article 27 para. 2 item 1 of the Act on Stocks, energy companies performing economic activity in the field of foreign trade in natural gas and entities importing natural gas (jointly referred to as "obligated entities") were required to submit information on the actual volume of mandatory stocks of natural gas maintained and the place of their storage as at 15 September 2021 – by 20 September 2021.

On the other hand, pursuant to Article 27 para. 2 item 2 of the Act on Stocks, obligated entities shall, by 15 May 2021, provide the minister competent for energy and the President of URE with information on: (1) actions taken in the period from 1 January to 31 December of the preceding year (here: from 1 January 2020 to 31 December 2020) with a view to ensuring the state's fuel security with regard to foreign trade in natural gas or imports of natural gas, and (2) fulfilment of the obligation to maintain mandatory stocks of natural gas.

The scope of the expected information, concerning actions taken to ensure the state's fuel security in the field of foreign trade in natural gas and the fulfilment of the stockholding obligation, and provided pursuant to Article 27 para. 2 item 2 of the Act on Stocks, was the same as that indicated in Information No 30/2019 of 23 April 2019 on the disclosure obligation of energy companies performing economic activity in the field of foreign trade in natural gas and entities importing natural gas. The communication drew attention to the fact that the disclosure obligation is referred by the legislator to the concept of the state's fuel security (understood as a condition allowing for the current coverage of the customers' demand for crude oil, petroleum products and natural gas, in a specific amount and time, to the extent enabling the proper functioning of the economy – Article 2 para. 1 item 1 of the Act on Stocks) and therefore this obligation has a broader scope than only directly related to the imports of natural gas, foreign trade in natural gas or only the implementation of the obligation to maintain natural gas stocks. In addition, on the basis of a survey dedicated to selected companies, additional information was obtained on the performance by obligated entities of obligations relating to the maintenance of mandatory stocks of natural gas in the period from 1 October 2021 to 30 September 2022.

In the period in question – as in preceding years – compliance with the obligation to maintain mandatory stocks of natural gas was monitored using information from obligated entities, as well as information provided by these entities in applications to the President of URE in other matters or documents submitted in the performance of other obligations, e.g. providing information on the implementation of contracts for the purchase of natural gas from abroad pursuant to Article 49c of the Energy Law Act. The information also came from other entities, including operators of transmission, distribution and storage systems, other trading companies, as well as administrative bodies (e.g. customs authorities pursuant to Article 25 para. 11 of the Act on Stocks).

The monitoring performed as described above showed that:

- a) 14 out of 15 entities obligated to establish mandatory stocks, including 12 energy companies conducting business in the field of foreign trade in natural gas, and two entities importing natural gas, met the stockholding obligation ending on 30 September 2021. One company failed to fulfil its obligation to maintain mandatory stocks of natural gas and was fined for failure to comply with the above-mentioned obligation,
- b) 17 out of 18 entities obligated to establish mandatory stocks (all but one for which the mandatory stocks had been verified) fulfilled the obligation to create mandatory stocks as at 1 October 2021, including 15 energy companies operating in the field of foreign trade in natural gas and two entities importing natural gas. In relation to one company, the President of URE initiated proceedings to impose a fine in connection with the suspected failure to meet the storage obligation as at 1 October 2021. The proceedings were completed in 2022,
- c) one company violated the obligation referred to in Article 24a para. 3 of the Act on Stocks, that is the order to use the transmission capacity reserved for the purpose of delivering the total amount of mandatory stocks of natural gas held outside the territory of the Republic of Poland to the national transmission or distribution network solely for these needs. In 2021, the President of URE initiated proceedings to impose a fine on the company for this violation. The proceedings ended in 2021.

5. ANTIMONOPOLY PROCEEDINGS IN CASES OF COMPETITION RESTRICTING PRACTICES AND OTHER MEASURES UNDERTAKEN BY THE PRESIDENT OF UOKiK IN RELATION TO COMPANIES IN THE ENERGY SECTOR⁹⁹⁾

5.1. Concentrations of energy companies and the impact of these changes on the development of competition on the market

In 2021, 16 decisions concerning the electricity market were issued. In all of these cases, the President of UOKiK found that the concentrations would not lead to a significant restriction of competition and consent was given. Below is a summary of these concentrations.

1. On 18/02/2021, by Decision No DKK-47/2021, the President of UOKiK gave its consent to a concentration consisting in the establishment, by Synthos S.A. with its registered office in Oświęcim (it belongs to a group controlled by Mr Michał Sołowow, the companies in the group are active in various industries) and Vattenfall AB with its registered office in Solna, Sweden (it conducts activities in the field of production, sale and distribution of electricity and heat), of a joint venture (implementation of a joint project consisting in the construction and operation of offshore wind farms on the Baltic Sea in the Polish exclusive economic zone).
2. On 08/03/2021, by Decision No DKK-59/2021, the President of UOKiK consented to a concentration consisting in the establishment of a joint venture (preparation, construction and operation of offshore wind farms) by Polski Koncern Naftowy ORLEN S.A., based in Płock (refinery and petrochemical production and wholesale and retail sales of fuels) and NP Baltic Wind B.V., based in Amsterdam, the Kingdom of the Netherlands (energy producer, conducting activities in the field of development, construction and operation of environmentally friendly energy infrastructure facilities).
3. On 10/03/2021, by Decision No DKK-64/2021, the President of UOKiK consented to a concentration involving the establishment of two joint ventures (preparation, construction and operation of offshore and onshore wind farms) by Ørsted Wind Power A/S, Denmark (the Ørsted Group is involved in renewable energy and its activities focus on the preparation of projects, construction and operation of offshore and onshore wind farms) and PGE S.A. with its registered office in Warsaw (generation, distribution and sale of electricity and heat).
4. On 24/03/2021, by Decision No DKK-72/2021, the President of UOKiK consented to a concentration consisting in the acquisition by Polski Koncern Naftowy Orlen S.A., based in Płock (refinery and petrochemical production and wholesale and retail sales of fuels), of control over Nowotna Farma Wiatrowa sp. z o.o., based in Gdańsk (conducts activities consisting in the generation of and sale of electricity and green certificates from wind power plants).
5. On 12/04/2021, by Decision No DKK-83/2021, the President of UOKiK consented to a concentration consisting in the establishment of a joint venture, namely CCGT Ostrołęka Sp. z o.o. with its registered office in Ostrołęka (construction of a gas and steam power plant) by Polski Koncern Naftowy Orlen S.A. with its registered office in Płock (refinery and petrochemical production and wholesale and retail sale of fuels), Energa S.A. with its registered office in Gdańsk (generation, distribution and sale of electricity) and Polskie Górnictwo Naftowe i Gazownictwo S.A. with its registered office in Warsaw (exploration and extraction of natural gas and crude oil, gas import, storage, sale and distribution of gaseous and liquid fuels, as well as production of heat and electricity).
6. On 20/04/2021, by Decision No DKK-92/2021, the President of UOKiK gave its consent to a concentration consisting in the acquisition of control over Vortex Energy – Obrót Sp. z o.o., with

⁹⁹⁾ Based on information provided by the President of UOKiK.

- its seat in Szczecin (provides services in the area of trading in energy from RES) by Columbus Energy S.A., with its seat in Kraków (operates in the area of sales and installation of renewable energy sources, electric vehicle charging points and energy storage facilities for the individual customer sector).
7. On 27/04/2021, by Decision No DKK-99/2021, the President of UOKiK approved a concentration consisting in the establishment of a joint venture called GETEC Sales & Trading GmbH, based in Hanover, Germany (to be established to operate in Germany in the supply of electricity, gas and certificates to industrial and multi-unit customers with high electricity and gas consumption which are looking for alternative supply solutions to fixed-price supply) between GETEC Energie GmbH, based in Hanover, Germany (conducting activity in energy supply, energy trading and energy services, offering solutions for the supply and distribution of electricity and gas, as well as process, consulting, energy storage and balance and schedule management services) and EDF Trading Ltd. based in London, UK (globally supplies energy products, that is electricity, gas, coal, transport, LNG, green certificates and carbon certificates and is active in wholesale markets and related areas, including transport and logistics management).
 8. On 18/05/2021, by Decision No DKK-115/2021, the President of UOKiK consented to a concentration consisting in the acquisition of control over Southern Windfarm sp. z o.o. with its registered office in Warsaw (generation of electricity in a wind farm located in Zopowe), Passat Energy sp. z o.o. with its registered office in Warsaw (will conduct energy production activities in a wind farm located in Korytnica) and Wind Field Korytnica Sp. z o.o. with its registered office in Warsaw (generation of electricity in a wind farm located in Korytnica) by Iberdrola Renovables Internacional, S.A.U., with its registered office in Bilbao, Spain (activities in the renewable energy sector in all activities, works and provision of services related to the production and marketing of electricity from renewable sources).
 9. On 18/08/2021, by Decision No DKK-185/2021, the President of UOKiK approved a concentration consisting in the establishment of a joint venture (offshore wind farms in areas located in the German Exclusive Economic Zone of the North Sea) by Northland Power Inc. with its registered office in Toronto, Canada (an energy generator, active in the development, construction and operation of environmentally friendly energy infrastructure facilities) and RWE Renewables GmbH with its registered office in Essen, Germany (active in the generation of energy from renewable and conventional sources).
 10. On 02/09/2021, by Decision No DKK-196/2021, the President of UOKiK gave its consent to a concentration consisting in the acquisition of control over SUEZ Zielona Energia Sp. z o.o., based in Warsaw (processing of non-segregated municipal waste and production of, among others, heat and electricity) by PreZero Warszawa sp. z o.o., based in Warsaw (a provider of waste management services).
 11. On 14/10/2021, by Decision No DKK-226/2021, the President of UOKiK approved a concentration consisting in the establishment of a joint venture under the name of Power Plant Pątnów S.A. (to be established for activities in the field of nuclear energy) by Zespół Elektrowni Pątnów-Adamów-Konin S.A. with its registered office in Konin (active in the generation and sale of electricity and heat) and MS Innovation Impulse GmbH with its registered office in Vienna, Austria (investment activities in the area of existing electricity generation assets, in particular those operating on the basis of hard coal and lignite combustion in order to modernize them with the use of zero- or low-emission technologies).
 12. On 18/11/2021, by Decision No DKK-256/2021, the President of UOKiK consented to a concentration consisting in the establishment of a joint venture named PGE Soleo 1 sp. z o.o., with its registered office in Warsaw, under the terms of the application (construction and operation of a photovoltaic power plant) by PGE Energia Odnawialna S.A., with its registered office in Warsaw (generation, distribution and sale of electricity and heat), and the Municipality of Kleszczów.
 13. On 16/12/2021, by Decision No DKK-287/2021, the President of UOKiK consented to a concentration consisting in the establishment of five joint ventures (preparation, construction and operation of offshore and onshore wind farms) by Ørsted Wind Power A/S, Denmark (the Ørsted Group is involved in renewable energy and its activities focus on project preparation, construction and operation of offshore and onshore wind farms) and ZE PAK S.A., Konin (active in the generation and sale of electricity and heat).
 14. On 20/12/2021, by Decision No DKK-295/2021, the President of UOKiK consented to a concentration consisting in the acquisition of control over Nowe Jaworzno Grupa Tauron sp. z o.o., based in Jaworzno (conducts activity in the generation of electricity), by Tauron Polska Energia S.A., based in

- Katowice (generation, distribution and sale of electricity and heat); on 13 November 2020 Nowe Jaworzno Grupa Tauron sp. z o.o. took over the operation of a new 910 MWe power unit in Jaworzno.
15. On 22/12/2021, by Decision No DKK-296/2021, the President of UOKiK approved a concentration involving in the establishment of a joint venture based in Germany by TenneT TSO GmbH, based in Bayreuth, Germany (one of the four electricity transmission system operators (TSOs) operating in Germany) and TransnetBW GmbH, based in Stuttgart, Germany (one of the four TSOs operating in Germany). The Joint Venture will be formed as a limited liability company to acquire from Tennet a 20% shareholding in Equigy B.V., based in Arnhem, the Netherlands. Equigy is a company consisting of five European TSOs, each with a 20% shareholding.
- Shareholders in Equigy:
- 1) Tennet,
 - 2) TenneT TSO B.V. based in Arnhem, the Netherlands,
 - 3) Terna S.p.A based in Rome, Italy,
 - 4) Swissgrid AG based in Aarau, Switzerland,
 - 5) Austrian Power Grid AG based in Vienna, Austria.
- Equigy is developing a blockchain-based trading platform for transactions in the market for ancillary services related to so-called distributed energy resources (e.g. electric vehicles, home battery systems, heat pumps and electricity generators). The platform may also include transactions and congestion management.
16. On 23/12/2021, by Decision No DKK-298/2021, the President of UOKiK consented to a concentration consisting in the establishment of three joint ventures (the planned activities of the companies include preparation, construction and operation of offshore wind farms located in the exclusive economic zone of Poland) by PGE Polska Grupa Energetyczna S.A. with its registered office in Warsaw (generation, distribution and sale of electricity and heat), ENEA S.A. with its registered office in Poznań (generation, distribution and sale of electricity and heat), and TAURON Polska Energia S.A. with registered office in Katowice (generation, distribution and sale of electricity and heat).

5.2. Administrative proceedings conducted by the President of UOKiK regarding competition restricting practices

In 2021, the President of UOKiK conducted the following administrative proceedings concerning competition restricting practices:

- 1) explanatory proceedings aimed at preliminary establishment whether the actions of ENEA Oświetlenie Sp. z o.o. with its registered office in Szczecin on the market for lighting services and maintenance and maintenance of lighting infrastructure for the purposes of providing lighting to roads and public places may infringe the provisions of the Act on Competition and Consumer Protection, justifying the initiation of antimonopoly proceedings (ref. no RBG.400.1.2020.PD). Proceedings closed, did not give grounds to initiate antimonopoly proceedings;
- 2) explanatory proceedings, concerning the preliminary establishment of whether there may have been abuse of the dominant position in the market for backup electricity supplies by electricity suppliers (including Energa Obrót S.A. with its registered office in Gdańsk) in the market for backup supplies of electricity in the electricity distribution areas of individual operators, including whether the case has an antitrust character (RŁO.400.8.2019). The proceedings are in their final stage – data has been collected from all distribution operators and incumbent suppliers regarding sales volumes, prices and market shares. On their basis, it is being analyzed whether the backup sales prices of Energa Obrót in 2018 were not unduly excessive.

5.3. Other conduct of energy companies that may violate competition rules, observed by the President of UOKiK

In 2021 the signals received by the President of UOKiK did not give grounds to take any actions (in particular to conduct explanatory or antimonopoly proceedings) other than those indicated in items I-II. The President of UOKiK carefully monitors the actions of undertakings active on the electricity production and distribution markets, thoroughly analyzing all incoming information on potential irregularities.

In case of suspicion of anti-competitive practices, the President of UOKiK takes appropriate actions within its powers.

5.4. Measures implemented to promote market transparency, that is measures aimed at providing customers with relevant market information

On 14 June 2021 the President of UOKiK issued decision No DOZIK-4/2021 against the company Fortum Marketing and Sales Polska (formerly Duon Marketing and Trading) of Gdańsk, which is a supplier of electricity and gas. UOKiK had received numerous complaints from consumers about sales conducted by representatives of that company in their homes, that is off-premises. In February 2020 the President of UOKiK initiated proceedings and charged Fortum Marketing and Sales Polska (FMSP) with violating the collective interests of consumers.

Practices applied by Fortum Marketing and Sales Polska

- Impersonating the existing electricity or gas supplier when visiting consumers and misleading them as to the purpose of signing the documents they were presented with, e.g. that it was a contract extension or an annex resulting from a company reorganization. In reality, it was a contract with a new supplier – Fortum Marketing and Sales Polska, which meant terminating the contract with the previous supplier.
- Concealing details of promotions. FMSP representatives did not inform consumers that taking advantage of the promised discounts, e.g. a 20% discount with a guarantee of price invariability for 4 years, required them to take additional actions within a strictly specified time and was only valid up to certain consumption limits. If they did not submit an appropriate application within 30 days of the publication of the tariff approved by the President of URE, e.g. for PGNiG, they had to pay their bills according to the normal price list instead of the promotional terms and conditions.
- Misleading about future bills. Consumers were tempted by the promise of lower electricity or gas bills. Yet, the bills turned out to be higher than those of the previous supplier, and FMSP representatives concealed information about additional fees, including, for example, a trade fee.
- Failure to provide consumers with copies of signed documents, which may have made it difficult for them to read the terms of the contract accurately, withdraw from the contract or pursue claims.
- Failure to inform consumers about the possibility of withdrawal from the contract. The consumer has the right to withdraw from an off-premises contract without any consequences within 14 days. According to the regulations, the company should inform him/her of this fact and give him/her a model withdrawal from the contract. FMSP representatives have not always complied with this requirement.
- Non-recognition of contract withdrawals. There have been cases where, despite the consumer's timely declaration, FMSP continued the process of changing the electricity or gas supplier, sending the customer bills and calls for payment.

Commitment to provide compensation to consumers

The company Fortum Marketing and Sales Poland ceased entering into contracts at consumers' homes. It also offered compensation to remove the negative effects of the unfair practices. The President of UOKiK issued a decision accepting the entrepreneur's commitments.

Any aggrieved consumer who lodged a complaint against FMSP no later than one year after the conclusion of the off-premises contract (between 1 November 2016 and 14 June 2021) was to receive compensation of PLN 49. Notwithstanding this, the Company was to remit or refund to such persons any fees associated with their early termination of the contract. For those who did not do so, FMSP was to make it possible to terminate the contract at no cost. On the other hand, with regard to consumers who complained of being misled about the terms of the promotion, the Company was to, among others, adjust the billing of their electricity or gas consumption receivables to take into account

the promised discount for the entire promotional period provided for in the contract and pay them an overpayment. The company had to inform each aggrieved consumer of their rights.

In addition, it should be indicated that in 2021 the President of UOKiK initiated two relevant proceedings:

- concerning the possible misleading of consumers by Enea S.A. with its registered office in Poznań through the way in which it informs consumers about the "Pewna cena" ("Sure Price") offer; and
- proceedings for recognition of the provisions of a model contract as prohibited concerning clauses specifying a one-off fee for early termination of a contract by an energy consumer.

5.5. Key actions taken by the President of UOKiK in the area of competition protection on the retail and wholesale market

Apart from the actions mentioned above, in 2021 the President of UOKiK did not take any actions to protect competition on the retail and wholesale markets.

5.6. Measures taken to deconcentrate the market

In 2021 the President of UOKiK did not undertake any actions aimed at market deconcentration.