

National Report

The President

of the Energy Regulatory Office

in Poland

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Acronyms and Abbreviations

ACER	Agency for the Cooperation of Energy Regulators
n/a	not available
Directive 2009/72/EC	Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC
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
DSO	Distribution System Operator
ENTSO-E	European Network of Transmission System Operators for electricity
ENTSO-G	European Network of Transmission System Operators for gas
ERO	Energy Regulatory Office
President of ERO	President of Energy Regulatory Office
EU	European Union
DNC	Distribution Grid Code
TNC	Transmission Grid Code
LNG	Liquefied Natural Gas
NES	National Electricity System
UOKiK	<i>Urząd Ochrony Konkurencji i Konsumentów</i> Office of Competition and Consumer Protection
OGP Gaz-System S.A.	Operator Gazociągów Przesyłowych Gaz-System S.A.
PGNiG S.A.	Polskie Górnictwo Naftowe i Gazownictwo S.A.
PSE S.A.	Polskie Sieci Elektroenergetyczne S.A.
POLPX	<i>Towarowa Giełda Energii S.A.</i> Polish Power Exchange
Regulation 713/2009	Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators
Regulation 714/2009	Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003
Regulation 715/2009	Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005
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
Regulation 347/2013	Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy

	infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009
RES	Renewable Energy Sources
SGT EuRoPol Gaz S.A.	System Gazociągów Tranzytowych EuRoPol Gaz S.A.
SSO	Storage System Operator
TSO	Transmission System Operator
TPA	Third Party Access
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 (Journal of Laws of 2014, item 1695, as amended)
Energy Law Act	Act of 10 April 1997 on Energy Law (Journal of Laws of 2012, item 1059, as amended)
Act on RES	Act of 20 February 2015 on renewable energy sources (Journal of Laws of 2015, item 478, as amended)

1. FOREWORD

The National Report of the President of ERO describes the situation and changes that took place on the gas and electricity market in 2015, as well as the Polish Regulator's activities aimed at further integration and development of the energy market.

Processes taking place on the national electricity and gas markets are significantly influenced by the introduced legislative amendments, including subsequent novelizations of the Energy Law Act. The novelization of the aforesaid act implemented in 2015 introduced changes as regards obligations resulting from the REMIT regulation, which are aimed at detecting and preventing abuse on the wholesale energy markets.

In 2015 works on a very important project of the Office, i.e. quality regulation, were finalised. The new regulatory model was developed with the aim to ensure that a consumer will be a customer of goods and services of the highest quality. The main reason for the introduction of the quality regulation model was to improve the quality of distribution services provided to users.

An important event as regards market integration was the issuance of the opinion of the Agency for Cooperation of Energy Regulators on the unscheduled energy flows in the Autumn of 2015. The opinion issued on request of the Polish Regulator recommends implementation of the market coupling method basing on the real energy flows, the so-called Flow-Based Market Coupling, in the region of Central and Easter Europe.

All these activities have been described below, in the report submitted to the European Commission and ACER. Thereby the President of ERO fulfils the reporting obligation set forth in the Polish and European law.



2. MAIN DEVELOPMENTS IN THE ELECTRICITY AND GAS MARKETS

Legal and regulatory changes

In 2015 works on one of the most important projects of ERO, i.e. the preannounced quality regulation, were finalised. The aim of introducing such a regulation is most of all to improve the quality of distribution services provided to end-users, i.a. by improving the quality and reliability of energy supply, improving the quality of customer service and ensuring optimum efficiency level of the implemented investments. The new regulation introduces a number of indicators which are to be improved by 50% at the end of the regulatory period, i.e. in 2020. For example, the current average interruption time in electricity supply (SAIDI) is 272 minutes per year. The aim of the new regulation is to shorten it to 136 minutes in 2020.

Many important actions were undertaken as regards building a single European energy market. Wholesale trade in electricity and natural gas is to be more transparent. In order to detect market abuse the Energy Law Act was amended again by implementing obligations stipulated in REMIT regulation into the national law. The aim of the regulation is to identify and prevent manipulations on the wholesale energy markets. All electricity and natural gas purchase and sell transactions concluded on TGE S.A. and on other market's segments, as well as information on the functioning of energy systems have to be reported.

A very important opinion for Poland was issued by ACER on the request of the Polish regulator. It concerned the so-called unplanned electricity flows. The problem results mostly from cross-border electricity transfers between Austria and Germany that are one market area; the transfers are not coordinated with other borders. There has been no method for cross-border transmission capacity allocation implemented on the border between these countries. Excluding the Austria-Germany border from the obligation to apply capacity allocation methods not only creates threats for the operational security of neighbouring electricity systems, but in the case of Poland practically prevents trade between the Polish and the German system because available transmission capacities are utilized to perform flows resulting from trade between Austria and Germany. ACER's Board of Regulators concluded that there are structural congestions i.a. on the borders between Poland and Germany, Germany and the Czech Republic, as well as the Czech Republic and Austria, which are, to high extent, caused by the cross-border trade between Austria and Germany. Due to that ACER's opinion recommends rapid implementation of Market Coupling mechanism in the Central and Eastern European region, basing on the real electricity flows in the grids, that is Flow-Based Market Coupling.

There have been also significant changes concerning the support system for renewable energy sources. A long-awaited act on renewable energy sources came into force, introducing a new method of support for the green energy, i.e. the auction system.

On 27 November 2015, along with the entry into force of the amendment of the Act on branches of government administration and some other acts¹⁾, including the Energy Law Act, there was a change of the entity exercising the State Treasury rights towards the electricity transmission system operator and the gas transmission system operator. Up to that point these rights were exercised by the minister responsible for economy, whereas pursuant to the new wording of Article 12a of the Energy Law Act they are currently exercised by the Government Plenipotentiary for Strategic Energy Infrastructure. The scope of rights exercised by the Plenipotentiary has not been changed in comparison to the time when they were performed by the Minister of Economy.

¹⁾ Journal of Laws of 2015, item 1960.

Electricity market

Wholesale market

The structure of electricity production in 2015 did not change in comparison to 2014. Vast majority of generation is based on conventional fuels, i.e. hard coal and lignite. Similarly to the previous years, there has been a further growth of share of generation from wind and other renewable energy sources. Wind generation remained the leader of "green" energy generation, mostly due to new capacities installed in the electricity system and favourable weather conditions.

The number and structure of entities of the electricity sector have not changed significantly. The highest share in the generation subsector was still held by PGE Polska Grupa Energetyczna S.A., whereas in the subsector of sales to end-users by TAURON Polska Energia S.A. The share of PGE Polska Grupa Energetyczna S.A. in generation in 2015 was at the level of 37.3%²⁾ (in 2014 – 37.9%, decrease by 0.6 percentage point). The share of TAURON Polska Energia S.A. group in 2015 amounted to 11.3%, which means an increase in comparison to 2014 by 0.5 percentage point.

Trade in electricity on the Polish energy market is mostly carried out in the organised market managed by TGE S.A. Currently 67 undertakings i.a. electricity producers, trading companies and brokerage houses hold the status of a TGE S.A.'s member. The total volume of transactions concluded in 2015 on all electricity markets of TGE S.A. amounted to 186.7 TWh and was comparable to the level of 2014, i.e. 186.8 TWh. Taking into account the delivery date, electricity supply with delivery in 2015 amounted to 190.5 TWh, which was equal to 117.5% of the gross electricity generation in 2015.

Retail market

Participants of the retail market comprise, along the end-users (both households and businesses), undertakings managing distribution network, including Distribution System Operators (DSOs) and electricity suppliers (trading companies).

In 2015, similarly to the previous years, there were 5 big DSOs operating on the electricity market, whose grids are directly connected to the transmission grid (DSOp) and which are obliged to separate distribution activity performed by the system operator from other types of activity not connected with electricity distribution (unbundling). Moreover, in 2015 there were 164 active companies designated DSOs acting within vertically integrated companies (the so-called DSO_v), which are not subject to the unbundling obligation.

The biggest share in the electricity sales to end-users was still held by the so-called incumbent suppliers. They perform a function of default suppliers for household consumers who have not decided to switch to a new supplier. In 2015, there were five default suppliers and over 100 alternative trading companies active in the electricity supply to end-users, including suppliers active in the household market segment. On the electricity market there are also suppliers (164 of them) acting within undertakings vertically integrated with the DSO_v.

The demand side of the retail electricity market comprises end-users. There are over 17.05 million of them, out of whom 90.3% (15.4 million) are the customers in G tariff group, with a great majority of household consumers (over 14.5 million) who purchase electricity for household consumption. The rest of end-users are industrial, business and institutional customers of A, B and C tariff groups. Groups A and B comprise customers supplied from the high and medium voltage grids, i.e. the so-called industrial customers, whereas group C are the customers connected to the low voltage grid consuming electricity for the purpose of conducted business activity.

In 2015 over 209 thousand customers of A, B and C groups actively exercised the right to purchase electricity from a chosen supplier. In the household segment their number amounted to over 375 thousand. That year was another year of a dynamic increase in the number of customers who switched supplier. At the end of 2015 a 36.6% growth in the number of TPA customers was noted in comparison to 2014.

Between the 4th quarter of 2014 and the 4th quarter of 2015 electricity prices were showing increasing tendencies in all tariff groups. The biggest growth in electricity prices was observed for B tariff group customers – by 5.1%, and the lowest in case of customers in G tariff group – by 1.0%. Prices for

²⁾ Share calculated taking into account electricity fed into the grid.

household consumers increased by 1.3%. In 2015 distribution fees increased for customers in all tariff groups. The highest increase of the distribution fee was noted for B tariff group – by 4.1%, and the lowest for the customers of A tariff group – by 2.6%. In case of household consumers distribution fees increased by 3.1%.

Gas market

Wholesale market

In 2015 there was a further development of the wholesale market in Poland, connected mostly with the increase in the number of undertakings owning a licence for trade in gaseous fuels and undertakings taking an active part in such trading, as well as binding obligation to sell natural gas on the power exchange. In the described year this obligation concerned 55% of gas fed into the network by the biggest entities operating on the market.

As of the end of 2015, 172 entities held licence for trade in gaseous fuels in comparison to 141 at the end of 2014. 63 undertakings actively participated in natural gas trading, while in 2014 there were 59 of them.

Sale and purchase of gaseous fuels on the Polish gas exchange market is performed mainly on the commodity exchange managed by TGE S.A. The gas exchange participants include mainly gas trading companies and big end-users who can act through brokerage houses or independently, after concluding a relevant contract with TGE S.A. and gaining the status of power exchange member. Trading on the exchange is performed through sales contracts (transactions) concluded between members of the exchange.

In 2015 TGE S.A. managed the following gas markets: Intra-Day Market, Day-Ahead Market and Commodity Forward Instruments Market with Physical Delivery. Sale of natural gas was also conducted in the auction system. In 2015, as a result of execution of contracts concluded on TGE S.A., 100,187,656 MWh of natural gas were delivered at an average price of 102.64 PLN/MWh.

Retail market

In the territory of Poland there is one big operator acting on the distribution networks of natural gas – PSG Sp. z o.o., and about 50 small local vertically integrated distribution system operators, whose networks are connected to the PSG Sp. z o.o.'s network or to the network of transmission system operator OGP Gaz-System SA.

In 2015 the sale of natural gas to final customers was still dominated by undertakings of the PGNiG S.A. Capital Group. In 2014 a division was introduced within this group, as a result of which final customers consuming more than 25 mcm per year are supplied by PGNiG S.A., while the rest of final customers by PGNiG OD Sp. z o.o. This division has not had an impact on the competition in the retail market as these companies have not been competing with each other on the gas market. However, in 2015 a subsequent increase in the share of alternative sellers in the retail market was observed. Share of PGNiG S.A. Capital Group in the sales of gas to end-users decreased and amounted to 80.22%, whereas the year earlier it was 89.24%. The remaining 19.78% of gas sales to end-users was performed by other trading companies active in the country (12.66%) and by companies selling gas from abroad directly to big end-users, who brought this gas to Poland on their own (about 7.12%).

Retail market is subject to gradual changes towards the development of competition. In 2015 an increase in the alternative suppliers' activity was observed. They undertook price competition with companies of the PGNiG S.A. Capital Group., taking advantage of the sustained declining trends in gas prices on wholesale markets and increasing technical abilities of the infrastructure for gas supply from the EU markets.

Certification

In 2015 the President of ERO continued the administrative proceeding on granting the certification of independence in the ISO model to OGP Gaz-System S.A. in reference to the TSO function performed by this company on the Polish section of Yamal pipeline owned by SGT EuRoPol GAZ S.A. The application in this case was submitted by OGP Gaz-System S.A. in March 2014. On 19 May 2015 the President of ERO granted OGP Gaz-System S.A. the certification of independence in ISO model in reference to the TSO function performed by this company on the Polish section of Yamal pipeline. The aforesaid certification proceeding was the first proceeding in Poland concerning TSO certification in the Independent System Operator model. The decision on this certification was published in the Bulletin of ERO, together with the opinions issued by the European Commission.

Security of supply

In 2015 gross national electricity consumption amounted to 161,438 GWh and was by around 1.7% higher in comparison to 2014. The level of national electricity consumption was over twice lower than the pace of GDP growth in 2015, which according to preliminary estimates of the Central Statistical Office of Poland amounted to 3.6% and was close to the result noted in 2014 (3.3%). At the same time the gross volume of electricity production in 2015 reached the level of 161,772 GWh and was by 5 205 GWh (i.e. 3.3%) higher than the previous year's volume. In the same period the excess of export over import of energy was small and amounted to 334 GWh. It shall be added that in 2014 Poland was net importer of electricity, and the import value exceeded export by 2,167 GWh. In 2015 both the share of import and export amounted to over 8% of total amount of electricity fed into and off-taken from the grid in the domestic balance of electricity, respectively.

In the country scale, for the last two years an increasing tendency has been observed both as regards the installed capacity and generating capacity by the undertakings of the generation sector. However, in 2015 these changes were significant, because in 2015 the installed capacity in NES increased by 3.4% in comparison to 2014 (from the level of 38,477 MW to 39,777 MW). The average annual capacity demand amounted to 22,219 MW, with the maximum demand at the level of 25,101 MW (which means, respectively, an increase by 1.0% and decrease by 1.07% in comparison to 2014). Relation of available capacity to generating capacity in 2015 was at a similar level as in 2014 and amounted to 68.8%.

The events that took place in 2015 resulted in introducing limitations to the supply and consumption of electricity in the territory of the country. On 9 August 2015 the TSO stated that the available generation reserve capacity has lowered below the necessary values, which was caused i.a. by the long-term unfavourable climatic and hydrological conditions. Heat wave that covered the whole territory of the country in August 2015 caused deterioration of the NES operational conditions. It concerned both power plants as well as transmission and distribution grid. Significant shortages in generation capacities that occurred were connected with worsened cooling conditions in the power plants, breakdowns of generation capacities and decreased transmission capacities of power lines. At the same time there was a big increase in the national power demand resulting from the wide-scale usage of cooling devices. The events described above created serious difficulties for the TSO in gaining generation resources sufficient to cover the domestic capacity demand. Due to that, pursuant to Article 11 c (1) (5) of the Energy Law Act, a threat to the security of electricity supply was found within the meaning of Article 3 (16d) of the Energy Law Act. In this situation, after exhausting all available measures intended to ensure the proper functioning of the electricity system, the TSO was forced to introduce restrictions in the supply and consumption of electricity in the territory of the country starting from 10 August 2015, pursuant to Article 11c (2) (2) of the Energy Law Act. At the same time on 10 August 2015 the TSO informed the Minister of Economy and the President of ERO about the threat to the security of electricity supply and the actions and measures undertaken to remove this threat and prevent its negative effects, and informed the Minister of Economy of the need to introduce restrictions on the basis of Article 11 (7) of the Energy Law Act. The request of the Minister of Economy to introduce the restrictions was accepted by the Council of Ministers by issuing a relevant ordinance. The Ordinance of the Council of Ministers of 11 August 2015 on introduction of restrictions in supply and consumptions of electricity was published in the Official Journal under item 1136 and was a basis to introduction of restrictions from 11 August 2015 from 24:00 hrs until 31 August 2015 until 24:00 hrs.

Gas supplies from abroad, in the amount of 122.8 TWh were supplemented with gas from domestic sources in the amount of 43.5 TWh. Total gas supplies from abroad in 2015 comprised imports from the east and the intra-Community supply, whereas its significant part was constituted by import from the east executed under long-term contract concluded between PGNiG S.A. and OOO Gazprom Export. The amount of gas purchased under this contract amounted to 89.5 TWh.

In 2015 the function of Storage System Operator was performed by Operator Systemu Magazynowania Sp. z o.o. This company performs its function on the assets owned by PGNiG S.A. The total active storage capacity of all UGS installations was equal to 2,795.6 mcm.

In 2015 the works towards completion and launching of the liquefied natural gas terminal in Świnoujście were continued. Launching of the LNG terminal will have a positive impact on the situation on the gas market in Poland and in the neighbouring countries. The terminal will enable transmission of gas from sources alternative to the currently existing, what will significantly increase the energy security.

Customer protection

The President of ERO consequently carries out a policy aimed at increasing consumer awareness. Undertaking activities aimed at popularization of key issues for the development of energy and fuels market in Poland, as well as rights of the energy market participants was one of the main information and education tasks of the Office.

The Information Point for Fuel and Energy Customers was launched in 2011. In accordance with its tasks, in 2015 the Information Point for Fuel and Energy Customers supported customers mostly by providing them with legal counsel as regards their relations with energy undertakings. Problems and requests submitted by customers concerned issues connected with the possibility to switch electricity supplier, terms and conditions of concluded agreements, customer service, settlements with the suppliers of electricity, gas and heat (billing, reading of meters, charges listed on the bill, prices). Customers reported also problems with timely realisation of network connection agreements.

Taking into account the increase in the number of customers who switch suppliers, which reflects the dynamics of the market liberalisation, as well as the increasing number of complaints concerning the activity of electricity and gas sellers, monitoring activities were undertaken to identify the infringements and protect reasonable customer interests. The experiences collected in 2015, in February 2016 provided for a publication of information on relevant, repeated problems leading to disputes between energy undertakings and customers, as well as a list of energy undertakings subject to monitoring.

3. ELECTRICITY MARKET

3.1. Network regulation

3.1.1. Unbundling

TSO

In the territory of the Republic of Poland there is one transmission system operator for electricity – PSE S.A. with its seat in Konstancin-Jeziorna, whose 100% of shares belong to the State Treasury. During the reporting period the changes were introduced into Polish public administration, which resulted in establishing a separate Ministry of Energy and appointing the Government Plenipotentiary for Strategic Energy Infrastructure. Following these changes, the rights of the State Treasury attached to PSE S.A.'s shares were transferred from abolished Ministry of Economy and, after the changes, these rights are exercised by the Government Plenipotentiary for Strategic Energy Infrastructure, on the basis

of Article 12a of the Energy Law Act, in relation to the Ordinance of Council of Ministers of 3 December 2015 on Government Plenipotentiary for Strategic Energy Infrastructure³⁾.

PSE S.A. runs business activity in the field of transmission of electricity in the territory of the Republic of Poland on the basis of licence for electricity transmission granted with the decision of the President of ERO and valid until 31 December 2030.

PSE S.A. conducts business using its own transmission grid and – to a small extent – with the use of electricity facilities leased under civil law agreements, i.e. usufruct agreements. PSE S.A. does not own transmission systems outside the territory of the Republic of Poland.

On 4 June 2014 the President of ERO made a decision to grant PSE S.A. the certificate of complying with independence criteria determined in Article 9d (1a) of the Energy Law Act. Granted certificate of independence allowed the President of ERO to appoint PSE S.A. as the TSO in the territory of the Republic of Poland until 31 December 2030.

DSOs

Conditions for the functioning of systems operators and their tasks are described in the Energy Law Act. Distribution system operators (DSOs) operating within vertically integrated companies and serving more than 100,000 customers connected to their grids, are obliged to be independent in terms of legal form, organizational structure and decision-making (Article 9d of the Energy Law Act).

At the end of 2015 in the territory of the Republic of Poland 169 DSOs appointed under the decisions of the President of ERO were involved in electricity distribution, including 5 entities legally separated from former distribution companies and 164 DSOs not obliged to be legally unbundled.

Four out of five legally unbundled DSOs operate within capital groups which are vertically integrated companies. The ownership supervision over these groups is, in principle, performed by the State Treasury, and over DSOs – indirectly via State Treasury-owned holding companies or parent companies, from which operator activities were unbundled and transferred to newly established companies. One DSO is owned by the company whose main shareholders are not associated with the State Treasury.

According to the Energy Law Act, in case of non-complying with independence conditions and criteria by transmission system operator or distribution system operator, this operator is subject to financial penalty. The financial penalty is also imposed on the entity which does not provide system operator appointed on the entity's grid with conditions for complying with independence criteria. In the above-mentioned cases, the fine cannot be lower than 1% and higher than 15% of revenue of penalized entrepreneur reached during the preceding tax year. The aforesaid penalties are imposed by the President of ERO. Irrespective of the above-mentioned fines, the President of ERO is allowed to impose financial penalty also on the energy company's manager, in the amount not exceeding 300% of their monthly remuneration.

There are no provisions in the Polish law order, which would oblige DSOs to change brand or elements of visualizations (rebranding).

Compliance Programmes

The DSOs' independence is ensured, in addition to accomplished unbundling, by the so-called Compliance Programmes, i.e. programmes developed by operators, describing activities that operators are obliged to undertake to ensure non-discriminatory treatment of system users. Programmes of DSOs are approved by the President of ERO, whereas DSOs are not obliged to submit Programmes for approval. Implementation of the approved Compliance Programmes is controlled by the President of ERO. The operators are obliged to submit, by 31 March each year, the reports describing activities undertaken in the preceding year aimed at implementation of the Compliance Programmes.

The President of ERO received within statutory deadline, i.e. by 31 March 2016, the reports on actions undertaken during the reporting year related to programmes' implementation, describing activities that should be undertaken to ensure non-discriminatory treatment of system users, including specific obligations of staff members resulting from these programmes. All submitted reports contained

³⁾ Journal of Laws of 2015, item 2116.

information required by the President of ERO. According to the requirement set forth in the Energy Law Act, the reports were published in the ERO's Branch Bulletin and on the ERO website.

In 2015 no breaches of the Compliance Programmes within any of the DSOs were recorded. Except for one case, there were no complaints and requests concerning non-discriminatory treatment of system users.

Pursuant to Article 9d (5) of the Energy Law Act, Compliance Officer is appointed by the operator in order to monitor Compliance Programme's implementation and should be independent in this activity, and provided with access to all information necessary to fulfil Officer's tasks, which is possessed not only by the DSO, but also by its affiliated entities. In order to ensure independence, the position of Compliance Officer should be separated from other positions in a given company. The submitted reports show that during the reporting year, similarly to previous years, Compliance Officers monitored respecting of the Compliance Programmes and:

- 1) reviewed applied templates of documents and gave opinion on their consistency with Programmes;
- 2) reviewed procedures applied to the provision of basic business services, such as: connection to the grid, distribution, supplier switching, advertising, customer service;
- 3) monitored proper use of DSO's brand in terms of differentiation from brands of other companies of vertically integrated enterprises;
- 4) reviewed contents of DSOs' websites.

All operators published the Compliance Programmes on their websites. Staff members of all DSOs had an opportunity to ask Compliance Officers about interpretation of particular provisions of the Programme. Employees could ask questions both electronically and during direct meetings with Officer.

3.1.2. Technical functioning

Balancing services

Rules for balancing and congestion management in NES are determined by (transmission and distribution) system operators and are subject to approval by the President of ERO in the electricity network code⁴⁾. In case of transmission system, balancing rules (rules of Balancing Market) are determined in the transmission network code (TNC) of PSE S.A., in the section "System balancing and congestion management". Rules for balancing in distribution grid must take into account rules indicated in the TNC. The President of ERO, within its competence determined in the law, monitors functioning of the operators, including balancing rules.

Distribution Network Codes (DNCs) are very important for retail market functioning. These network codes determine rules of retail electricity market functioning, including supplier switching procedure, rules for designating and providing metering data by DSOs, changes of entities responsible for commercial balancing, as well as principles of conduct in case of losing current supplier by household customers (last resort supply).

In 2015 the President of ERO approved changes to DNCs of five big distribution system operators: RWE Stoen Operator Sp. z o.o., ENERGA-Operator S.A., ENEA Operator Sp. z o.o., TAURON Dystrybucja S.A. and PGE Dystrybucja S.A. First amendment of all aforesaid DSOs' DNCs concerned nation-wide harmonization of the format of Energy Consumption Point (ECP) code, as of 1 July 2015, in relation to standardization of information exchange and planned implementation of nation-wide information exchange system on retail electricity market. Second important change concerned DNCs of three operators (RWE Stoen Operator Sp. z o.o., ENERGA-Operator S.A. and ENEA Operator Sp. z o.o.) and consisted in updating of standard electricity consumption profiles.

Moreover, in September 2015 administrative proceedings on approval of DNCs for above-mentioned five big DSOs were launched. The proceedings on DNCs' approval were completed after reporting period, i.e. in January 2016, whereas the date of entry into force of changes provided in those DNCs was set on 1 February 2016. The need to introduce these changes was connected with the planned implementation of harmonized information exchange system and communication standards in electricity retail market through launching Central Information Exchange System (CSWI). CSWI covers processes

⁴⁾ According to Article 9g (8a) of the Energy Law Act, Article 8 is not applied to network code developed by operator referred to in Article 9d (7). In practice, this means that distribution system operators who operate within vertically integrated structures and who operate on local (non-significant) area, are not obliged to submit their network codes for approval.

of information exchange between electricity distribution system operators, electricity suppliers and entities responsible for commercial balancing. The need to launch CSWI results, inter alia, from growing scale of processes in the retail market carried out by DSOs, including, among others, supplier switching, cancellation of sales agreements' notices submitted by suppliers and customers, providing access to metering and settlement data, dealing with complaints, execution of applications for electricity supply suspension submitted by electricity suppliers. Introduction of changes to DNCs will allow DSOs to reduce the time of execution of all processes, including reduction of time for supplier switching from the current 21 days to 14 days. In consequence, the time for notification of switching will also change, from the current 90 days to 30 days.

Within its powers the President of ERO monitors the functioning of balancing mechanisms while analysing information published by transmission system operator and periodical reports. The President of ERO also evaluates the correct functioning of adopted rules, basing on the monitoring of market developments, as well as on the basis of investigations explaining the reasons of potential interruptions.

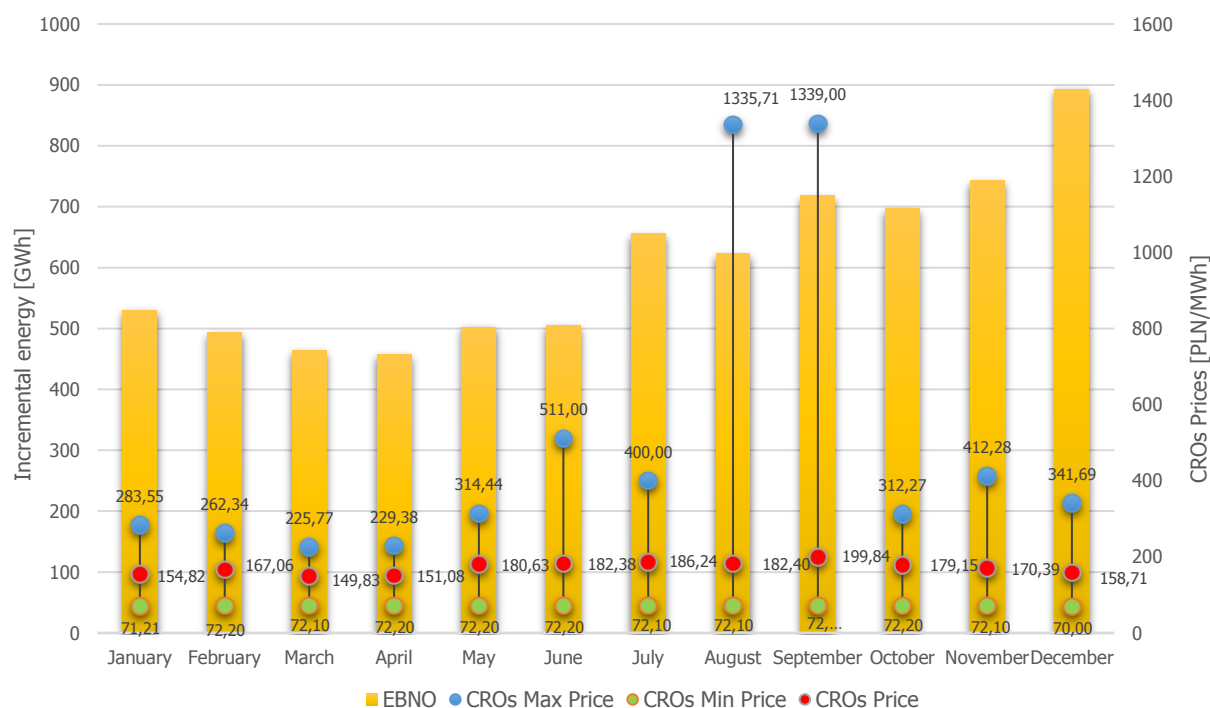
Balancing market operated according to the same rules as in the previous year. Detailed information on these rules was presented in the National Report 2015 of the President of ERO.

Small modifications to the functioning of balancing market were introduced with regard to calculation and settlements of operating power reserve (OPR). Apart from the changes introduced in 2014, aimed at ensuring stability of OPR budget execution in the period corresponding with planning period of PSE S.A.'s tariff, in 2015 small modifications were introduced with regard to full utilization of this budget, aimed at increasing incentives to offer generation capacities on the Balancing Market. These changes consisted in introduction of two additional modes of ORM settlements: (i) monthly supplementary settlement and (ii) yearly supplementary settlement. Establishing of such incentives will be particularly important in the near future due to difficult situation of NES balancing. Therefore, changes aimed at reaching the aforesaid objectives should be recognized as a step in the right direction.

At the end of 2015 116 entities participated in balancing market processes, including 20 generators, 9 end-users, 8 network customers, 72 suppliers, a power exchange, 5 DSOs and PSE S.A. as the TSO. Technical and commercial data were notified by 47 market operators and concerned 331 scheduling units.

Information on the volume and prices of balancing energy on the Balancing Market is one of the areas which are monitored by the President of ERO. These data are shown in Figure 1.

Figure 1. Purchased energy (EBNO) and the price of balancing energy on the Balancing Market (CROs) in 2015

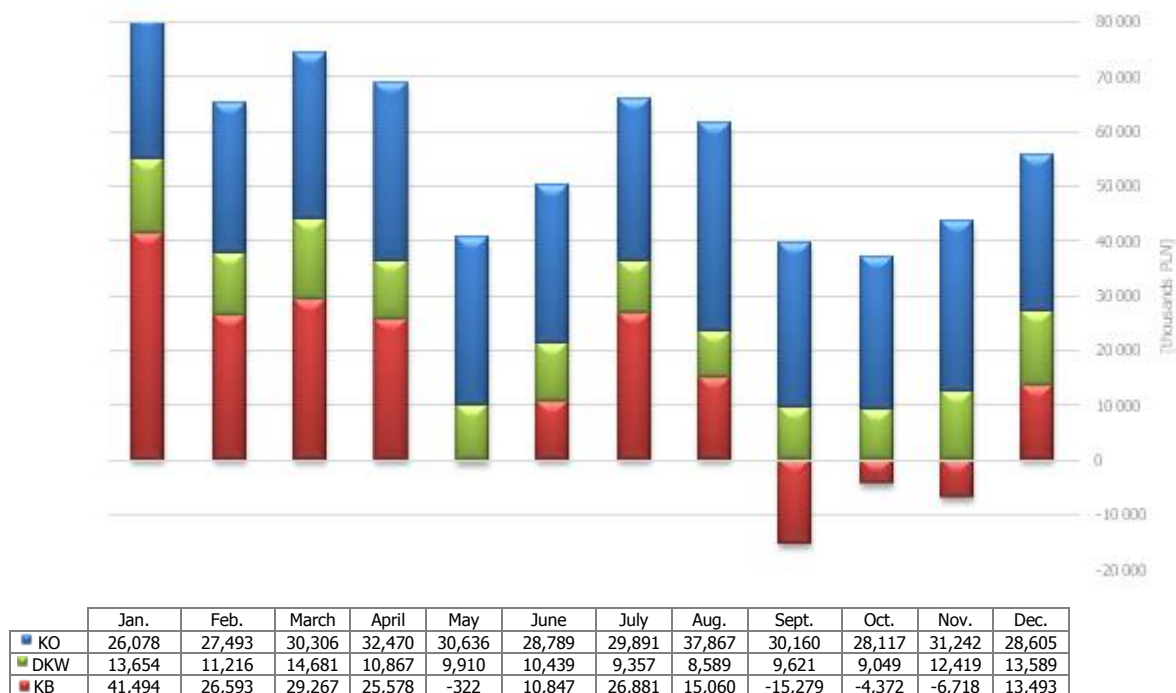


Source: ERO, on the basis of data provided by PSE S.A.

In 2015 total volume of electricity purchased on the Balancing Market (EBNO) grew in comparison to 2014 from 5.42 TWh to 7.28 TWh, i.e. by about 34.4%, which still constitutes a small part of gross national electricity consumption (about 4.5%). The maximum settlement price of deviation (CRO) in the balancing market varied between 225.77 PLN/MWh and 1,339.00 PLN/MWh, whereas weighted average monthly prices of CRO oscillated between 149.83 PLN/MWh and 199.84 PLN/MWh. Fluctuation of these prices results mainly from the variable level of capacity demand in NES as well as available capacities, including the level of power reserves in the system. It should be underlined that in September 2015, due to strained balancing situation and significant scale of remedial actions (cross-border redispatching), there were hours with higher electricity prices. It is also worth noting that in September a high "under-contracting" occurred in the balancing market (in contrast to the previous months), which also influenced settlement prices on this market.

In 2015 total volume of electricity delivered to the Balancing Market (EBND) amounted to 9.66 TWh and was by 2.38 TWh higher than the total volume of electricity purchased from the Balancing Market (EBNO), what indicates "over-contracting" of balancing market participants. This over-contracting occurred in most months of 2015. Congestion costs, calculated according to the definition determined in TNC, amounted to PLN 361.7 million. The developments of congestion costs as well as balancing costs and costs resulting from ESA (electricity sales agreements) relocation in subsequent months of 2015, are presented in Figure 2.

Figure 2. Costs of balancing consumers' demand (KB), costs of eliminating congestion (KO) and costs resulting from ESA relocation (DKW) in 2015



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

Costs of balancing consumers' demand (KB) oscillated between PLN -15,279 thousand and PLN +41,494 thousand, whereas extreme costs occurred in September and January 2015⁵⁾. Congestion costs (KO), calculated according to the definition included in TNC, as well as costs resulting from ESA relocation (DKW) varied between, respectively: KO – from PLN 26,078 thousand (January 2015) to PLN 37,867 thousand (August 2015), and DKW – from PLN 8,589 thousand (August 2015) to PLN 14,681 thousand (March 2015).

The operating power reserve (OPR) service is acquired by transmission system operator from generators whose generation units are at direct disposal of this operator - active generation scheduling units (JGWa). The number of settlement hours of OPR in 2015 amounted to 3,810 of which for 1,780 hours the OPR

⁵⁾ „+” means costs borne on the Balancing Market (payments for balancing market participants), „-” means revenues obtained on the Balancing Market (payments from balancing market participants).

settlement price was equal to reference price of PLN 37.28 for MW in an hour, what means that within these hours the volume of JGWa generation capacities settled as OPR was equal to or lower than the level of required operating power reserve, i.e. 4,155.37 MW in an hour. Weighted average hourly settlement price of OPR in 2015 amounted to 27.40 PLN/MWh, while hourly volume of JGWa generating capacities settled as OPR stood at 3,216.922 MW in an hour.

The OPR costs in 2015 (payments to generators for OPR) were lower than those set for quality rate calculation in the Tariff of PSE S.A. for 2015. In the hours with slight capacity surplus, not full hourly budget of OPR was spent due to limitation of maximum level of OPR hourly reference price, which resulted in lower costs.

In relation to balancing in distribution grids it should be underlined that the role of distribution system operators is reduced mainly to activities connected with management of metering data. To this extent, distribution system operators co-manage the Balancing Market. These rules are determined in distribution network codes, and they mainly influence implementation of TPA rule. Moreover, distribution system operators are obliged to act on the order of transmission system operator, and those rules were determined by the TSO in the transmission network code.

Security and reliability standards, quality of supply and service

The President of ERO is responsible for monitoring of electricity system operations, inter alia in terms of security of electricity delivery⁶⁾. This task was described in a general way and does not cover all activities referred to in Article 4 of Directive 2009/72/EC.

With regard to security and reliability of grid operation, the President of ERO reviews actions of electricity system operators undertaken as part of their statutory duties, and analyses them from the point of view of ensuring proper grid operations, taking into account criteria developed by system operators in the grid codes. Within its activities, the President of ERO assesses ability to cover electricity and peak capacity demand in electricity system. These tasks are performed ex-post and relate to evaluation of operational security of electricity systems in the context of fulfilling tasks by electricity system operators. This evaluation is submitted each year to the minister in charge of economy.

Detailed information on electricity system functioning with regard to available capacities of domestic power plants, capacity reserves and losses in relation to peak demand, is presented in point 3.3.1 of the Report.

Monitoring time taken to connect and repair

Energy companies providing services in the field of electricity transmission or distribution (network companies – the TSO and DSOs) are obliged to guarantee customers electricity supplies of appropriate quality, while minimizing the expenditures and costs incurred. Regulator is responsible for controlling the compliance of network companies with quality standards of customer service, and, upon a request of the customer, quality parameters of electricity, pursuant to the Energy Law Act.

Currently, according to the regulations in force, transmission system operator and distribution system operators publish on their websites information on continuity of electricity supplies with the use of SAIDI and SAIFI indicators for long-term planned and unplanned interruptions, taking into account extremely bad weather conditions, and MAIFI indicator for short-term interruptions.

The conducted verification of information published by network companies concerning the quality of electricity supplies enabled standardization of calculation methods and ways of quality data collection within particular network companies. It allowed for finishing, in 2015, works on the model of quality regulation which will cover the period of 2016-2020.

⁶⁾ The concept of electricity delivery is not consistent with the definition of electricity supply in the context of security of electricity supply. The evaluation of security of electricity supply is performed by the President of ERO in the report, which is drafted by the Regulator and submitted annually to the minister in charge of economy. This evaluation covers the scope of regulator's activities, as stipulated in the Energy Law Act. It should be underlined that this evaluation does not cover the forecasts of balancing electricity supply and demand in the next five years and capability to balance supply in the period from five to at least fifteen years, counting from the report preparation date (according to Article 4 of Directive 2009/72/EC). Such forecast is presented by the minister in charge of economy in the report drawn up and submitted to the European Commission every two years.

Implementation of quality regulation required, i.a. determining efficiency (quality) parameters. Except for SAIDI and SAIFI parameters, the connection time was determined as one of key indicators.

Monitoring safeguard measures

The rules for taking emergency actions by system operators in the event of threat to security of electricity supply, such as introduction of restrictions on power supply and off-take, are described in detail in relevant Ordinance of Council of Ministers, as well as in the network codes developed by electricity system operators. These rules are approved by the President of ERO before they come into force.

Each year transmission system operator shall develop Plan for introducing restrictions on power supply and off-take. In the event of circumstances that justify taking emergency actions, after exhausting by electricity transmission system operator, distribution system operators or combined system operator, in cooperation with all interested parties, all available measures to ensure proper functioning of electricity system, and assuring due care, the Council of Ministers may introduce restrictions on electricity supply and off-take on the request of the minister responsible for economy by means of an ordinance.

In 2015 there were circumstances that resulted in introduction of restrictions in electricity supply and off-take in the country, because the heat wave and lasting unfavourable weather and hydrological conditions led to worsening of national electricity system's operational conditions.

According to the Energy Law Act, the body responsible for notifying the European Commission about undertaken emergency measures is the Minister of Economy.

Renewable energy sources: connection, access, dispatching and balancing

Pursuant to the Energy Law Act, for connecting installations of renewable energy sources (RES) with an installed capacity not higher than 5 MW, half of the fee is charged, determined on the basis of actual costs of connection execution. These types of sources, as well as cogeneration units of installed capacity below 1 MW are treated preferentially, because for connection of other types of sources a full fee is charged, determined on the basis of all actual costs of connection. Moreover, preferential treatment concerns also micro-installations (installations of renewable energy sources of total installed electric capacity not higher than 40 kW, connected to electricity grid of rated voltage not lower than 110 kV, or of heating generating capacity not higher than 120 kW), which are connected to the distribution grid free of charge.

If the network undertaking refuses to conclude an agreement for grid connection or to connect RES installations first, this entity is obliged to immediately inform the President of ERO and interested entity about this fact in a written form, providing the reasons for the refusal. In case when refusal resulted from the lack of economic conditions for grid connection, the network undertaking may agree with the entity requesting connection on the level of the connection fee.

The entity acting as a default supplier is obliged to purchase electricity offered by generators, produced in the installations of renewable energy sources connected to distribution or transmission grid located within the operational area of this supplier. This purchase is conducted at the average price of electricity sales on the competitive market in the previous calendar year, announced each year by the President of ERO.

The applicable market functioning rules provide for priority grid access for electricity generated in the renewable energy sources. In particular, under Article 9c (6) of the Energy Law Act, electricity system operator within its operational area is obliged to grant all entities priority in distribution or transmission of electricity generated in installations of renewable energy sources or highly-efficient cogeneration, keeping the reliability and security of national electricity system. At the same time it should be underlined that in case of centrally dispatched generation units (CDGU)⁷⁾, whose operational

⁷⁾ According to § 2 point 4 of the Ordinance of Minister of Economy of 4 May 2007 on detailed conditions for electricity system functioning (Journal of Laws No 93, item 623, as amended), a centrally dispatched generation unit is a "generation unit:

- a) connected to electricity transmission network or
- b) condensing unit of generating capacity higher than 100 MW, connected to coordinated network of 110 kV or
- c) connected to coordinated network of 110 kV other than that referred to in the letter b), which is at the disposal of transmission system operator on the basis of separate agreements concluded with generator and electricity distribution system operator, to whose network this generation unit is connected".

schedules are determined by electricity transmission system operator as a part of central operation planning, the procedures provided in transmission network code are applied, which do not explicitly foresee priority rights for installations of renewable energy sources. The main criteria according to which TSO selects the generation units for operation in electricity system are reliability and security of system operation. It concerns in particular generation units co-firing conventional fuels with fuels classified as renewable energy sources (e.g. biomass).

Referring to responsibility for balancing of renewable energy sources it should be stated that the regulations in force do not provide any special (different) rights for such units. RES fall under the same balancing rules as other energy sources, both in relation to notification to electricity system operators of operation schedules and electricity sales agreements, and in relation to unbalance settlements.

In 2015 6,019 applications for connection of renewable energy sources to electricity grid were submitted to 5 biggest DSOs and TSO, with a total connection capacity amounting to 1,845 MW. In the same year, i.e. 2015, 2,596 RES units were connected to the grid, with total connection capacity of 1,765 MW. The biggest share in submitted applications and executed connections constituted solar power plants (5,640 applications and 2,273 executed connections), whereas wind power plants had the biggest share in total connection capacity (1,146 MW - total connection capacity of applications, 1,642 MW – total connection capacity of executed connections).

At the end of 2015 the number of RES units waiting for connection to grids of electricity system operators amounted to 5,029, what corresponds to total capacity waiting for connection equal 17,951 MW, of which: solar power plants represented 3,729 units and 1,114 MW, and hydropower plants represented 950 units with 16,438 MW.

The aforesaid data include micro-installations connected upon an application.

3.1.3. Network Tariffs for connection and access

Tariffs for transmission and distribution of electricity are set by the licensed energy companies according to the rules determined in the Energy Law Act and the Ordinance of Minister of Economy on detailed rules of setting and calculating tariffs and financial settlements in electricity trading (hereinafter: "Tariff Ordinance"). Energy companies submit tariffs to the President of ERO for approval on their own initiative or upon a request of the President of ERO.

Regulator approves and controls application of the electricity tariffs in terms of their compliance with the principles set forth in Article 44, 45 and 46 of the Energy Law Act, as well as analyses and verifies costs assumed by the energy companies as justified for calculation of prices and rates.

In case of documented change in external conditions of energy undertaking's business operations, the Regulator may determine ex-officio, by means of a decision, correction coefficients stemming solely from the change of external factors, which must be applied by the energy undertaking in relation to prices and rates determined in the tariff until the new tariff enters into force.

In case when tariff validity period expires, the energy undertaking shall apply hitherto tariff until entry into force of a new tariff, provided that the President of ERO has not issued a decision or the appealing proceeding against the Regulator's decision is pending.

The decisions of President of ERO may be appealed to the District Court in Warsaw – Court of Competition and Consumer Protection, through the President of ERO, within two weeks of their receipt date (Article 30 (2) and (3) of the Energy Law Act, and Article 479⁴⁶ point 1 and Article 479⁴⁷ § 1 of the Code on Civil Proceeding).

Each year the tariff approval process for electricity distribution system operators is preceded by publication of "Principles for DSOs' tariff calculation" by the Regulator; they serve as guidelines for tariff calculation, inter alia, with respect to determination of justified level of energy companies' regulated revenue. These guidelines are published in advance, in the period which allows DSOs to submit tariffs calculated on the basis of these guidelines, and ensures Regulator the time to approve and publish tariffs in the period enabling DSOs to apply them from the beginning of the calendar year.

In 2015, the President of ERO approved electricity tariffs of:

- 1) transmission system operator (TSO) – for entities using transmission services under transmission agreement,
- 2) distribution system operators (DSOs) unbundled on 1 July 2007 – for customers connected to distribution grid on all voltage levels, i.e. for industrial consumers, small and medium business and households (G tariff groups),

- 3) electricity suppliers, so-called default suppliers – in relation to consumers in G tariff groups, connected to the grid of a given distribution system operator, who are provided with complex service by the supplier,
- 4) other energy companies, so-called companies of industrial power sector – for electricity supply (to G tariff groups) and distribution to customers connected to these companies' grids.

As regards tariffs of electricity suppliers for household consumers (G tariff groups), these tariffs were approved by the President of ERO in December 2015 for a period until 31 December 2016.

Tariff approval of transmission system operator – PSE S.A.

In August 2015 PSE S.A. applied to the President of ERO for "determination of correction coefficients, stipulating projected improvement of performance efficiency in terms of operational costs of transmission activity of PSE S.A., as well as agreeing rules for determination of costs used as a basis for calculation of fee rates in the tariffs of PSE S.A. for 2016-2020". The application resulted from the fact that 2015 was the last year of the PSE S.A.'s 4-year regulatory period which covered the years 2012-2015. The proceeding on tariff approval of PSE S.A. for 2016 was completed by the decision of the President of ERO of 17 December 2015.

In the tariff a new level of transitional fee rates was taken into account, according to the Information of the President of ERO No. 41/2015 of 19 October 2015 on transitional fee rates for 2016.

The tariff also included charge for RES⁸⁾ and other statutory provisions on financial settlements resulting from the Act on RES.

Tariff approval for distribution system operators (DSOs) unbundled on 1 July 2007

As in the case of PSE S.A., 2015 was also a last year of regulatory period for 5 biggest DSOs. In view of that and taking into account changes in electricity sector and its environment, already in 2013 the works were launched on setting new rules of DSO regulation for another several-year period. In 2015, after completion of these works, the President of ERO published document "Strategy for Regulation of Distribution System Operators for 2016-2020" which represents continuation of transparent and stable rules for regulation of these companies. A new model of regulation with quality elements is applied from 2016. This model incorporates positive outcomes of hitherto policy of the Regulator (hitherto model of regulation has allowed for achieving strategic objectives of the security of electricity supply to customers, in particular through ensuring stable conditions for grid investments – investments significantly increased in comparison to previous regulatory periods) and is aimed at increasing the quality of electricity distribution services with maintaining price affordability of these services, as well as at keeping current level of investments. The effective fulfilment of quality regulation's goals (in the first period of the regulation, i.e. by 2017, it is aimed at achieving reduction of electricity supply interruption indicators SAIDI and SAIFI, and indicator measuring time for connection to the grid of customers of IV and V connection groups) would translate into tangible benefits for DSOs in the form of non-reduction of remuneration on capital in the tariffs for 2018 and subsequent years. This results from the fact that information concerning fulfilment of these goals in 2016 will be known only in 2017, and will be a basis for determination of the amount of return on capital in 2018.

In the process of tariff approval for 2016:

The level of justified operating costs and volume of network losses were determined on the basis of rules set out in documents "Operating costs for Distribution System Operators for 2016-2020 (unbundled on 1 July 2007)" and "Volume of network losses for Distribution System Operators for 2016-2020 (unbundled on 1 July 2007)". These quantities were determined basing on the results of comparative analyses which were conducted in 2014-2015 by the President of ERO in cooperation with energy companies involved in electricity distribution, i.e. ENEA Operator Sp. z o.o., ENERGA-Operator S.A., PGE Dystrybucja S.A., TAURON Dystrybucja S.A. and RWE Stoen Operator Sp. z o.o.

⁸⁾ RES fee rate will be applied from 1 July 2016, pursuant to Article 3 of the Act of 29 December 2015 on the amendment of the Act on Renewable Energy Sources and the Energy Law Act (Journal of Laws of 2015, item 2365).

Return on capital employed was determined on the basis of rules included in the document "Method for calculation of return on capital employed for Distribution System Operators in 2016-2020", wherein some effective modifications for calculation of certain parameters were introduced comparing to the rules that were in force in the previous regulatory period. It should be noticed that in the new regulatory period the return on capital employed will be calculated, in principle, according to the hitherto principles; however, it would also include coefficient of quality regulation implementation and regulatory index. In the tariffs for 2016 the above-mentioned indicators were not applied, and therefore they did not influence the level of return on employed capital. The President of ERO determined the regulatory index equal to 1 for all DSOs; however, the coefficient of quality regulation implementation will be applied for the first time in the tariff for 2018, because the data on implementation of quality regulation goals in 2016 will be known only in 2017.

The methods for calculation of other elements of regulated revenue for each distribution system operator were laid down in the document "Guidelines on tariff calculation for the period until 31 December 2016".

The above-mentioned documents are available on the ERO website: <http://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje/zalozenia-dla-kalkulac/2299,Zalozenia-do-kalkulacji-taryf-OSD-na-rok-2016.html>.

The process of tariff approval for electricity distribution services for 2016 started in November 2015 and concerned five companies, i.e. ENEA Operator Sp. z o.o., ENERGA-Operator S.A., RWE Stoen Operator Sp. z o.o., PGE Dystrybucja S.A. and TAURON Dystrybucja S.A. On 17 December 2015 the President of ERO approved tariffs for the aforesaid distribution system operators for the period until 31 December 2015.

As a consequence of the approval of those companies' tariffs (five DSOs), the distribution fee rates for final customers dropped by -1.6%, on average.

Prevention of cross-subsidizing

Under Directive 2003/54/EC concerning common rules for the internal market in electricity and the Energy Law Act, on 1 July 2007 distribution system operators (DSOs) were separated from the 14 vertically integrated companies, i.e. electricity distribution was unbundled from supply (trading) of this electricity. At present, after merging of the companies, there are 5 DSOs and 5 supply companies acting as default suppliers. They are independent business entities.

In case of other energy companies – so-called companies of industrial power sector – electricity tariffs cover whole network activity of the companies (all customers connected to the undertaking's grid), whereas in case of electricity supply tariff are applied only to consumers of G tariff groups (households) as a result of exempting by the President of ERO energy companies from the obligation to submit tariffs for approval (as regards consumers other than consumers of G tariff groups).

Tariff calculation for energy companies is based on clear rules which are intended to eliminate cross-subsidies between distribution and supply. The applied regulation model for biggest DSOs is a revenue cap with elements of cost of service. In 2015 the cost efficiency and technical efficiency (network losses) models were updated, using i.a. benchmarking. This model was a starting point for the subsequent regulatory period, i.e. 2016-2020. Also in 2015, the works on quality regulation model which will be applied in the next regulatory period were completed.

3.1.4. Cross-border issues

Access to the cross-border infrastructure, including the procedures for the allocation of capacity and congestion management

Pursuant to the Energy Law Act (Article 23 (2), point 11b), the President of ERO is responsible for approving methods of capacity allocation and congestion management, applied on the interconnections between Poland and other EU Member States, and for control of their consistency with Regulation 714/2009.

In 2015 the President of ERO approved methods of cross-border transmission capacity allocation on the interconnections with Sweden (SwePol) and Lithuania (LitPol). Transmission capacity allocation is carried out under implicit auctions within market coupling mechanism.

In 2015 the proceeding was conducted, initiated upon a request of PSE S.A., on the approval of methods of cross-border transmission capacity allocation on the borders of Poland and Germany, Czech Republic and Slovakia, within the so-called technical profile (synchronous interconnectors). The conducted proceeding concerned allocation methods for all time horizons: forward, day-ahead and intraday auctions. While analysing the evidence collected in the course of the administrative proceeding, the President of ERO called into question the compliance of allocation methods with the EU regulations. In the opinion of the President of ERO, the sole legally effective way to evaluate the compliance of capacity allocation methods applied in the region with the provisions of Regulation 714/2009 was to apply Article 7 (4) of Regulation 713/2009, i.e. to request ACER for the opinion on the compliance of CEE regulators' decisions approving the methods of allocation of cross-border transmission capacity with Regulation 714/2009 and the Guidelines annexed to that regulation. In September 2015 ACER issued opinion⁹⁾ in which Agency ascertained non-compliance of the CEE regulators' decisions approving cross-border transmission capacity methods with the EU regulations, as in the request of the President of ERO. The TSOs and regulators of CEE region were invited to:

- commit themselves, within 4 months of the date in which the Opinion is adopted and published, to adopt of a coordinated capacity allocation procedure on the DE-AT border, following a realistic yet ambitious implementation calendar with concrete steps. This implementation calendar should give TSOs and market participants a reasonable amount of time to prepare themselves for this important change,
- allocate maximum resources and efforts to the implementation of Flow-Based Market Coupling in the CEE region as early as possible and work together constructively to avoid any further delays or disputes,
- evaluate, within 4 months of the date in which the Opinion is adopted and published, whether the already implemented interim measures (e.g. virtual phase shifter in place since February 2014) are sufficient to ensure network security, or whether additional interim measures coordinated at regional level would be necessary to ensure that the network is operated safely until coordinated capacity allocation procedure on the DE-AT border is implemented.

Moreover, German and Austrian TSOs and regulators were invited to evaluate the need for potential transitory regulatory measures for market participants to accompany the implementation of coordinated capacity allocation procedure on the DE-AT border. All relevant NRAs were recommended to provide further support to market integration process during the transitional period until a coordinated allocation procedure on the DE-AT border is implemented. This support may imply approving CEE congestion management rules which are not fully compliant with Regulation 714/2009 and its Annex, until the measure recommended above becomes effective.

The Austrian Regulator did not acknowledge ACER's opinion as an act imposing on him and on the Austrian TSO any obligations, and appealed the opinion to the ACER Board of Appeal as well as to the European Court of Justice. ACER Board of Appeal dismissed the application as inadmissible.

The President of ERO actively participated in the implementation of ACER's recommendations via meetings and teleconferences with other concerned parties. In January 2016 the deadline for implementing the recommendations expired. Regulators and TSOs of the CEE region (as well as other German TSOs) sent a letter to ACER, in which they informed about the outcome of the discussions concerning the implementation of opinion's recommendations. Due to the lack of agreement on all necessary issues, mainly with regard to implementation of capacity allocation procedure on the DE-AT border itself, ACER notified the European Commission about non-implementation of the opinion.

In 2015 the European TSOs developed harmonized allocation rules (HAR) for forward capacity allocation in the whole Europe under the project of early implementation of FCA Guidelines. As the ACER's opinion was expected and due to the actions connected with its implementation, the proceeding on HAR approval conducted by the President of ERO was not completed in 2015.

In 2015 regulators of the CEE region were also monitoring the works under the project of merging the CAO (Central Allocation Office) and CASC (Capacity Allocating Service Company) in one JAO (Joint

⁹⁾ Opinion of the Agency for the Cooperation of Energy Regulators No 09/2015 on the compliance of National Regulatory Authorities' decisions approving the methods of allocation of cross-border transmission capacity in the Central-East Europe region with Regulation (EC) No 714/2009 and the Guidelines on the management and allocation of available transfer capacity of inter-connections between national systems contained in Annex I thereto (http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2009-2015.pdf).

Allocation Office). The merger took place in September 2015. Transmission capacities for 2016 were allocated according to harmonized allocation rules via JAO.

Monitoring the use of revenues from interconnectors

Under Article 23 (2) (11) of the Energy Law Act, the President of ERO is responsible for controlling the compliance of electricity transmission system operator or combined electricity system operator or other market participants with the obligations imposed by Regulation 714/2009, as well as for performing other tasks of regulatory authority resulting from this regulation.

Pursuant to point 6.5 of the guidelines on the management and allocation of available transfer capacity of interconnections between national systems (hereinafter "guidelines"), which constitute an Annex to Regulation 714/2009, by 31 July each year the regulatory authorities shall publish a report setting out the amount of revenue collected for the 12-month period up to 30 June of the same year and the use made of the revenues in question, together with verification that that use complies with this Regulation and those Guidelines and that the total amount of congestion income is devoted to one or more of the three prescribed purposes, referred to in Article 16 (6) of the Regulation.

According to accounting records as for the mid-February 2016, the revenue from allocation of cross-border capacity under coordinated auctions on the synchronous profile registered in 2015 amounted to PLN 8,155,697.37. From January to December 2015, the transmission system operator reimbursed part of collected revenues to participants of cross-border exchange. The aforesaid revenue reduction was connected with the fact that cross-border exchange players returned part of transmission rights purchased under annual or monthly auctions in exchange for daily auctions. The revenue reimbursement arising from the reduction of transmission capacities, recorded during whole 2015, was PLN 1,866,077.37. Hence, the actual revenues of transmission system operators achieved from cross-border transmission capacity allocation on synchronous interconnectors (reduced by the above-mentioned reimbursement) in the period from 1 January to 31 December 2015 amounted to PLN 6,289,619.61.

According to accounting records as for the mid-February 2016, the revenues of transmission system operator arising from transmission capacity allocation on direct-current Poland-Sweden and Poland-Lithuania interconnectors amounted to PLN 106,849,553.15 and PLN 521,274.06, respectively.

The amount of revenue from allocation of cross-border transmission capacity on the interconnections with other EU Member States, earned for the period from 1 January 2015 to 31 December 2015 and calculated in line with accounting regulations in force, will be fully paid into the Earmarked Fund. This fund was established by adoption of the Resolution of the Management Board of PSE S.A. of 25 May 2006 on the Earmarked Fund Rules.

Transmission system operator will spend the revenues collected from the cross-border transmission capacity allocation on purposes referred to in Article 16 (6) (b) of Regulation 714/2009, i.e. on maintaining or increasing technical capacities of interconnectors through investments in the grid. It mainly concerns the implementation of investments in new interconnectors, stipulated in the Development Plan agreed with the President of ERO and afterwards included in operating investment plans of transmission system operator. In particular, TSO will spend money collected in the Fund on financing of some investments within the project of construction of Poland-Lithuania interconnector (as one of financing sources). In the period from 1 January 2015 to 31 December 2015, a total of PLN 345,013,651.00 was spent from the Earmarked Fund on the above-mentioned purpose. Due to the time-consuming nature of investment processes and their schedules, the aforesaid amount of spent funds is not tantamount to the decreasing of Earmarked Fund in equity capital of PSE S.A. in a given year. However, in view of the fact that in 2015 the investments within the project of construction of Poland-Lithuania interconnector were completed and tangible assets arising from this investment were commissioned, the decrease of the Earmarked Fund will be carried out under relevant Resolution of General Meeting of Shareholders of PSE S.A.

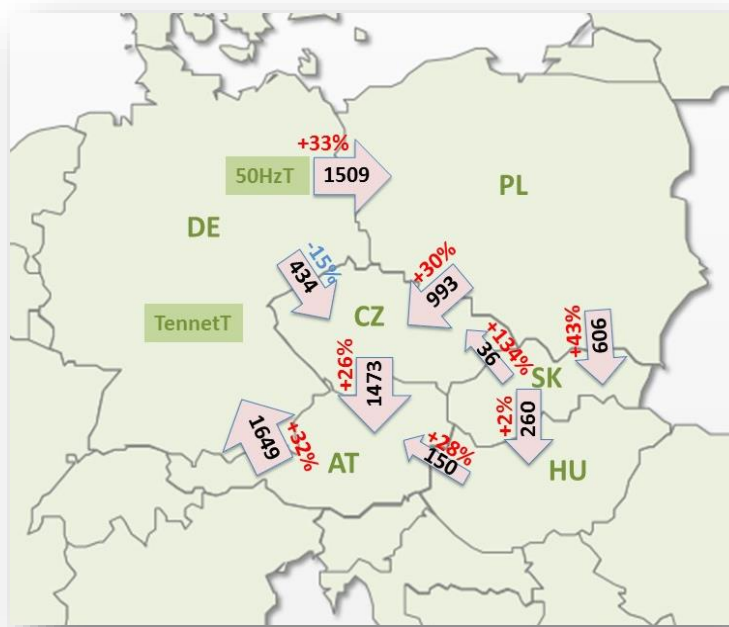
Unplanned flows of electricity

Unplanned electricity flows constitute cross-border exchange of electricity, which was not notified to the transmission system operator in the form of cross-border commercial schedules and, therefore, is not subject to market-based mechanism of cross-border transmission capacity allocation. This

phenomenon is one of the main topics discussed among the regulators of Central-East Europe, as well as a main barrier to implementation of effective and fully-coordinated congestion management rules in this region, i.e. Flow Based Allocation – FBA.

Figure 3 shows annual average volumes of unplanned flows of electricity on the borders of Poland and some other borders in the Central-East Europe in 2015, as well as their change in comparison to 2014.

Figure 3. Average annual volume of unplanned power flows on the Polish borders and some other borders in the region of Central-East Europe in 2015 [MW-h] as well as change in this volume in comparison to 2014 [%]



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

It should be noted that average annual volumes of unplanned power flows on the Polish synchronous borders (presented in MW in a given hour), in particular on the Polish-German border, comprise significant part of import transmission capacities, which result from technical capacity of national transmission system in the conditions of safe system operation. In consequence, import transmission capacity made available to market participants constitutes only a small part of technical capacity. Moreover, transmission capacity for the import direction is allocated in short-time horizons (day-ahead, but mainly on the intraday market), because of impossible to predict unplanned flows of electricity in long-time horizons. It results from the fact that unplanned power flows are connected with wind generation within the German transmission grid managed by the transmission system operator 50Hertz, as well as with cross-border electricity exchange between Germany and Austria, which is to a high extent physically conducted via grids of other, neighbouring transmission system operators.

One of the main reasons for the aforesaid situation is lack of coordination of rules for calculation and allocation of cross-border transmission capacities in the CEE region. Due to that, a large safety margins are assumed for calculation purposes, which take into account reasonably foreseeable impact of external factors on the Polish electricity system operation. Lack of adequate coordination caused significant limitations to transmission capacity available for allocation on synchronous profile. Despite applied safety measures the threats to network operation occurred, which forced a large scale application of remedial actions, including bilateral re-dispatching. While calculating available transmission capacity, PSE S.A. was guided by the criteria of system operation reliability, including "n-1" criterion (a shutdown of one cross-border interconnection line, line of national electricity system or line of neighbouring electricity system will not cause system failure) and took into account forecasted weather conditions, generation in wind power plants in Germany, non-agreed compensatory flows, conduct of market participants, accidental events, modelling and calculation errors.

The increase in volume of unplanned power flows in the recent years results in a lower availability of cross-border transmission capacity for the Polish market participants. It is caused, inter alia, by difficulties in predicting physical cross-border flows of electricity, arising from commercial transactions concluded within the CEE region, as well as by lack of adequate remedial measures available to TSO. The decreased transmission capacity results, therefore, from lack of coordinated rules for calculation and allocation of transmission capacities in the CEE region.

Adoption of the ACER's Opinion No. 09/2015 (issued upon a request of the President of ERO, who recognizes the urgent need to include the topic of unplanned power flows in the international agenda), which shall result in enhancing the security of electricity supply both in Poland and other EU Member States, confirms advisability of undertaken actions. At the same time, information included in the Report of PSE S.A. (submitted to the President of ERO) presenting the findings on the reasons for occurred threat to the security of electricity supply, validity of undertaken actions and measures applied to eliminate it, due care of electricity system operators and system users (including electricity customers) about ensuring the security of electricity supply in the period from 10 August 2015 to 31 August 2015¹⁰⁾, reveals that PSE S.A. cooperates with operators of CEE region mentioned in the ACER's Opinion as regards development of the said action plan. It should be also underlined that the draft plan was finally prepared, however its implementation and execution would require consent of all interested parties, which has not been possible to agree so far.

Monitoring investment plans and assessment of their consistency with Community-wide network development plan

Each year the analyses on planned targets' performance are conducted, and their results are used in the process of agreeing the next editions of development plans or their updates. These analyses are performed on the basis of annual reports on the implementation of development plans, which have to be submitted by energy companies under Article 16 (18) of the Energy Law Act.

The conducted analyses of the reports on development plans' implementation in 2015 showed that five biggest DSOs and the TSO executed in total level of investment expenditures higher by PLN 773 million than it was planned. TSO realized investments in the amount of PLN 1,536 million, whereas planned level of investments amounted to PLN 1,012 million. Five biggest DSOs executed investments in the amount of PLN 6,038 million, whereas the level of agreed investments (model) amounted to PLN 5,788 million.

In 2015, on the basis of Article 23 (2a) point 2 of the Energy Law Act, the President of ERO developed another report presenting and evaluating, i.a. implementation of plans referred to in Article 16 (2) and (4) (i.e. TSO's and DSOs' development plans with respect to meeting current and future demand for gaseous fuels or electricity). In the report the level of implementation of development plans in 2013-2014 was presented¹¹⁾.

In September 2015, according to Article 16 (13) of the Energy Law Act¹²⁾, the energy company PSE S.A. submitted for agreeing with the President of ERO the draft development plan with respect to satisfying current and future electricity demand in the years 2016-2020. In January 2016 the President of ERO acknowledged this draft as agreed.

The control of consistency of PSE S.A.'s development plan with the European-wide development plan (TYNDP) established by ENTSO-E, is carried out alongside every update of each of the aforesaid documents. Identified inconsistencies are clarified with TSO on regular basis (usually these inconsistencies result from different dates of documents' updates). In 2015 the consistency assessment

¹⁰⁾ In this period in Poland the restrictions in electricity supply to end-users were introduced due to occurrence of threat to security of electricity supply.

¹¹⁾ Report is available on the ERO's website: <http://ure.gov.pl/pl/publikacje/biuletyn-urzedu-regula/6115,Biuletyn-Urzedu-Regulacji-Energetyki-2015.html>

¹²⁾ In 2013 the Energy Law Act was amended. Under Article 17 of the Act of 26 July 2013 on amendment of Energy Law Act and some other acts (Journal of Laws of 2013, item 984), i.e. the so-called "amending act", transmission system operator for electricity was obliged to establish development plan, in line with the wording of the amending act, for the first time within 2 years from entry into force of this act. This means that the first development plan, complying with the requirements of Article 16, in amended wording, should be developed within 2 years from 11 September 2013, i.e. by 10 September 2015. The novelization of the Energy Law Acts also introduced changes to required contents of the document. The most important changes are as follows: obligation to consult on development plans with interested parties and obligation to develop a report on responses to consultations, determination of ten-year horizon of the plan, necessity to take into account the European-wide ten year network development plan in the national development plans.

was performed i.a. in the course of agreeing next update of PSE S.A.'s development plan and during the works on the ACER's Opinion on the ENTSO-E draft Ten-Year Network Development Plan 2014, as well as ACER's Opinion on the National Ten-Year Network Development Plans.

Monitoring technical cooperation between the EU and third-country TSOs

National electricity system is connected with two electricity systems of two third countries – Belarus and Ukraine. In case of the cross-border interconnection with Belarus, the existing line remains decommissioned due to the poor technical condition that prevents its utilization. Interconnection with Ukraine enables electricity supplies, which are carried out with a use of transmission capacity allocation mechanism based on explicit monthly auctions. The auctions, implemented by Polish TSO, are unilateral.

Cooperation with regulatory authorities from other EU Member States

ERO cooperates with regulatory authorities of the EU Member States within the ACER Board of Regulators, working groups, task forces and work-streams functioning within ACER's structure. Works on market development are focused mainly on network codes and framework guidelines, projects of early implementation of solutions that would be subject to legal regulation, market monitoring report, as well as other issues connected with market-based aspects of cross-border cooperation. The cooperation of the President of ERO with other national regulatory authorities within Regional Initiatives was focused on the CEE region.

In 2015, within the cooperation with other regulators on cross-border energy infrastructure, the President of ERO was engaged in works on the request of Lithuanian transmission system operator LITGRID AB for cross-border allocation of costs for the "Alytus-PL/LT border" project. As a result of these works, on 16 April 2015 ACER adopted a decision on cross-border allocation of costs for the above-mentioned project, according to which all costs of the aforesaid investment project were allocated to Lithuanian transmission system operator LITGRID AB¹³⁾. Moreover, in 2015 there were works conducted on the selection of projects for the second European list of Project of Common Interests – projects necessary for the realization of priority corridors and areas of energy infrastructure, stipulated in Annex I to Regulation 347/2013. These works were carried out within regional working groups, composed by the representatives of the European Commission, ACER, ENTSO-E, Member States, national regulatory authorities, and transmission system operators. The President of ERO participated in works of the following groups: "Baltic Energy Market Interconnection Plan in electricity" (BEMIP Electricity) and "North-South electricity interconnections in Central Eastern and South Eastern Europe" (NSI East Electricity). As a result of these works, on 18 November 2015 the Commission adopted the second list of PCI projects. The list comprises projects carried out in the territory of Poland, which project promoter is PSE S.A.¹⁴⁾.

In 2015 the cooperation with national regulatory authorities of the Visegrad Group was continued. V4 regulators have been meeting on regular basis within Forum of V4 Regulators in order to discuss current energy topics of national, regional and the European relevance. It was also decided to launch a project on conducting comparative analysis of V4 countries towards price deregulation. The implementation of the project is scheduled for 2016.

In November 2015, in Augustów, the meeting of regulators of Lithuania, Latvia, Estonia and Poland was held. The meeting was organized by the President of ERO, and it was aimed at enhancing cooperation between national regulatory authorities of these countries. It was the first meeting of regulators of this group, and the cooperation will be continued in 2016.

¹³⁾ Decision is available on the ACER's website: http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2002-2015.pdf

¹⁴⁾ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.019.01.0001.01.ENG&toc=OJ:L:2016:019:TOC

3.1.5. Compliance with and implementation of the EU regulations on national level

Compliance of the regulatory authority with binding decisions of the Agency for the Cooperation of Energy Regulators and European Commission and with the ACER Guidelines

According to Article 37 (1)(d) of Directive 2009/72/EC, regulatory authorities shall comply with and implement any relevant legally binding decisions of the Agency and of the Commission. In the reporting period, these bodies did not issue any legally binding decision addressed to ERO.

Article 39 of Directive 2009/72/EC states that any regulatory authority and the Commission may request the opinion of the Agency on the compliance of a decision taken by a regulatory authority with the Guidelines referred to in this Directive or in Regulation (EC) No 714/2009. In November 2014 the President of ERO requested the opinion of ACER with regard to compliance of CEE regulators' decisions on capacity allocation methods with Regulation 714/2009 and with guidelines attached hereto. The opinion on this matter was issued on 23 September 2015.

Compliance of network companies with relevant EU legislation

The President of ERO, while monitoring the electricity market, shall control fulfilment of duties resulting from Regulation 714/2009 by electricity TSO and other electricity market participants. Regulator performs these tasks on its own, as well as in cooperation with other regulatory authorities and ACER, e.g. when implementing network codes and the EC guidelines.

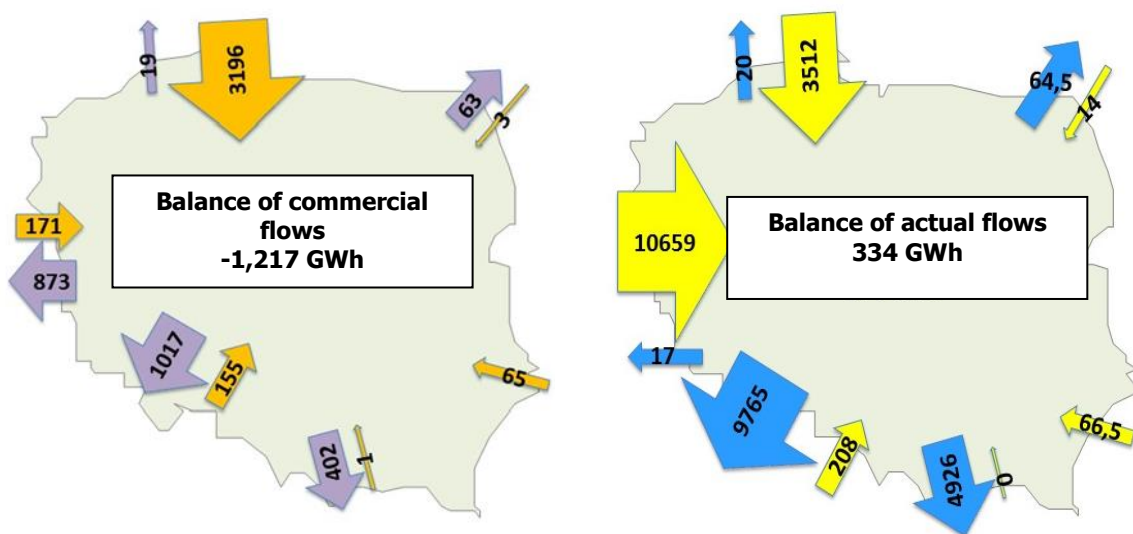
Monitoring of compliance with independence criteria

Since 4 June 2014, i.e. since the date of adopting the decision on granting the energy company PSE S.A. the certification of meeting the independence criteria, compliance with these criteria has been monitored. The particular emphasis is placed on monitoring of issues which were pointed out as problematic in the opinion of the European Commission, i.e. the issue of PSE S.A.'s rights to disposing of electricity facilities used for the fulfilment of duties in the field of electricity transmission, equal treatment of their owners and other system users, as well as the issue of PSE S.A.'s independence in the context of independence of respective government bodies.

The monitoring is carried out by tracking of press releases and websites. Also, once a year the evaluation of compliance with independence criteria is planned to be held. The evaluations conducted hitherto show the lack of violation of independence criteria.

Monitoring of coordinated cross-border exchange

The balance of commercial cross-border exchange and actual flows of electricity from respective countries to Poland and from Poland to other countries in 2015 is shown in Figure 4.

Figure 4. Balance of commercial and actual electricity flows at interconnections with other countries in 2015 [GWh]

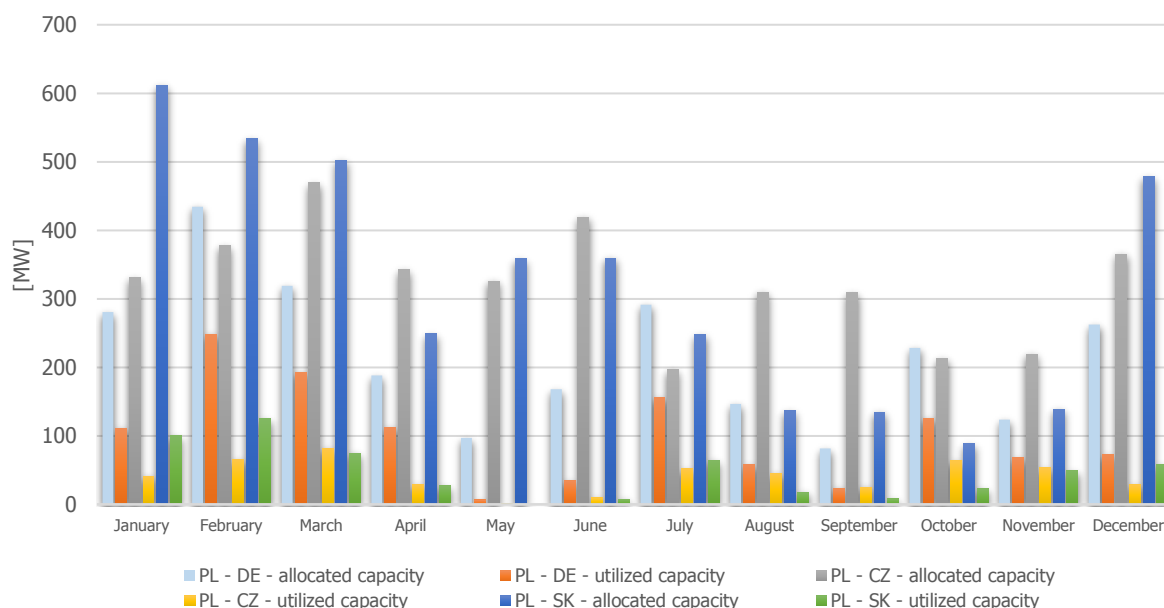
Source: ERO, on the basis of data provided by PSE S.A.

As it can be noticed, the commercial balance on the Polish borders amounted to -1,217 GWh (imports). It should be noted that the observed significant reduction of the balance of cross-border trade (although it is still import) may have a number of reasons, such as the level of electricity prices on neighbouring markets in relation to prices on the domestic market in connection with an increase in domestic electricity demand (by about 1.7%), as well as the amount of transmission capacities available for market participants. At the same time, one should pay attention to the significant difference between commercial and actual flows of electricity on synchronous borders (Germany, Czech Republic, Slovakia), as well as to the difference between commercial balance and the balance of actual electricity flows, which may result from increasing unplanned electricity flows and the necessity to increasingly apply remedial actions (more information on unplanned flows of electricity may be found in point 3.1.4.).

The amount of cross-border transmission capacities in 2015 was determined separately for synchronous profile, direct current interconnector with Sweden and Lithuania, and 220 kV Zamość-Dobrotwór radial line (Ukraine). In each case the NTC method was applied, taking into account balancing conditions. Transmission capacities were calculated with a use of mathematic model most adequate for a given time horizon, in which systems of neighbouring countries were represented. Safety margins applied for the calculation took into account the really probable influence of external conditions on the Polish system operation. This led, in particular, to significant limitations of import capacities available on synchronous profile. Despite of applied preventive measures the threats to grid operation occurred, forcing an application on a large scale of remedial actions, including bilateral re-dispatching, the total volume of which increased from about 139 GWh in 2013 and 362 GWh in 2014, up to 1,538 GWh in 2015. What is more, in 2015 the bilateral re-dispatching often turned out to be insufficient, what enforced the necessity to implement multilateral re-dispatching (MRA), the total volume of which in 2015 amounted to about 662 GWh.

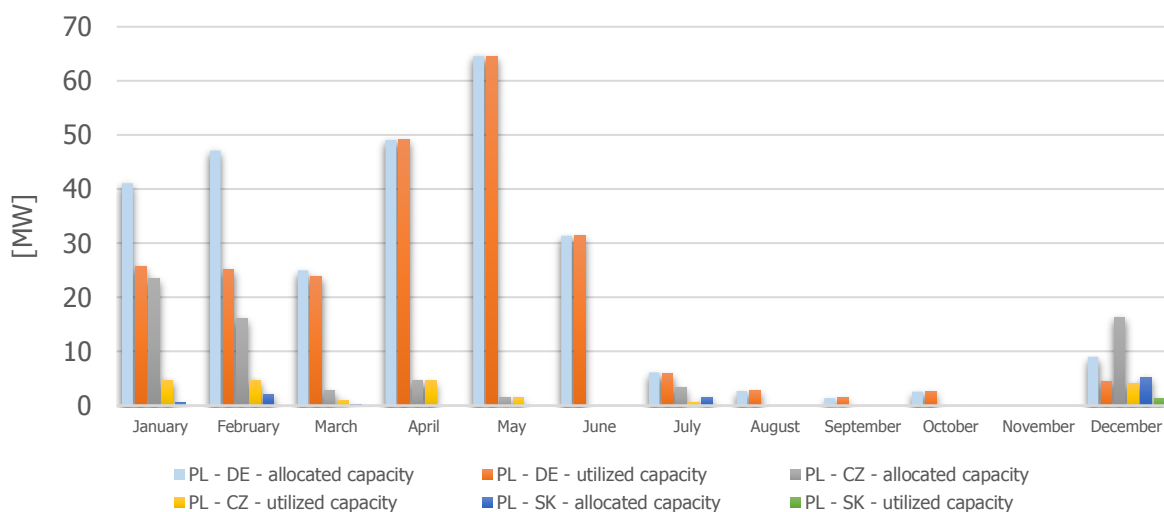
In 2015 cross-border transmission capacity allocation on synchronous profile was performed on the basis of "Coordinated auction rules for transmission capacity allocation in Central-East Europe". 8 transmission system operators of seven countries participated in the auctions, i.e.: ČEPS, a.s.; TenneT TSO GmbH; 50Hertz Transmission GmbH; PSE S.A.; MAVIR Hungarian Independent Transmission Operator Company Ltd.; Slovenská elektrizačná prenosová sústava, a.s.; Elektro-Slovenija, d.o.o. and Austrian Power Grid AG. Figures 5 and 6 below show monthly average volumes of allocated and utilized transmission capacity, made available altogether within coordinated yearly, monthly, daily auctions and on the delivery day in 2015 – in export and import directions, respectively, on the synchronous interconnections.

Figure 5. Comparison of average monthly transmission capacity allocated and utilized in export direction on synchronous interconnections in 2015 [MW]



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

Figure 6. Comparison of average monthly transmission capacity allocated and utilized in import direction on synchronous interconnections in 2015 [MW]



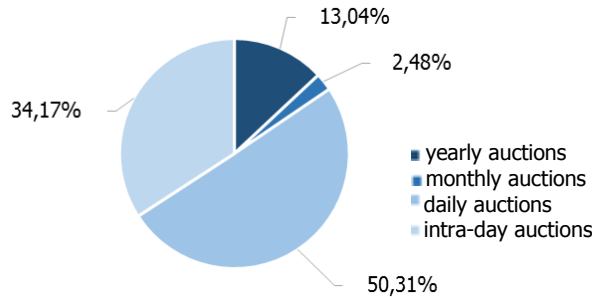
Source: ERO, on the basis of data provided by PSE S.A.

Allocation of total offered capacity to commercial profiles (separately for Germany, the Czech Republic, Slovakia) is carried out on the basis of ranking of price offers submitted by participants. The data presented above show that in case of exports market participants in most months of 2015 expected the highest market surplus on the borders with Czech Republic and Slovakia. At the same time, the degree of utilization of allocated transmission capacities may indicate that in the greatest degree the transmission capacities allocated to Germany were utilized. The situation in allocation of transmission capacities was different in the case of electricity imports. In particular, the greatest volume of offered transmission capacities was allocated from Germany and Czech Republic. In case of imports, the degree of utilization of allocated transmission capacities was very high.

It should be noted that the amount of allocated transmission capacities in the export direction is significantly higher than in the case of imports. This situation is caused mainly by unplanned flows of

electricity. Also, because of unplanned power flows the significant part of transmission capacities is allocated in short-time horizons. Specifically, transmission capacities in the import direction were allocated only under day-ahead auctions (on average, 25% of offered transmission capacities) and intraday auctions (on average, 75% of offered transmission capacities). The annual average share of transmission capacities in export direction, allocated under coordinated auctions in respective time horizons in 2015, is presented in the figure 7.

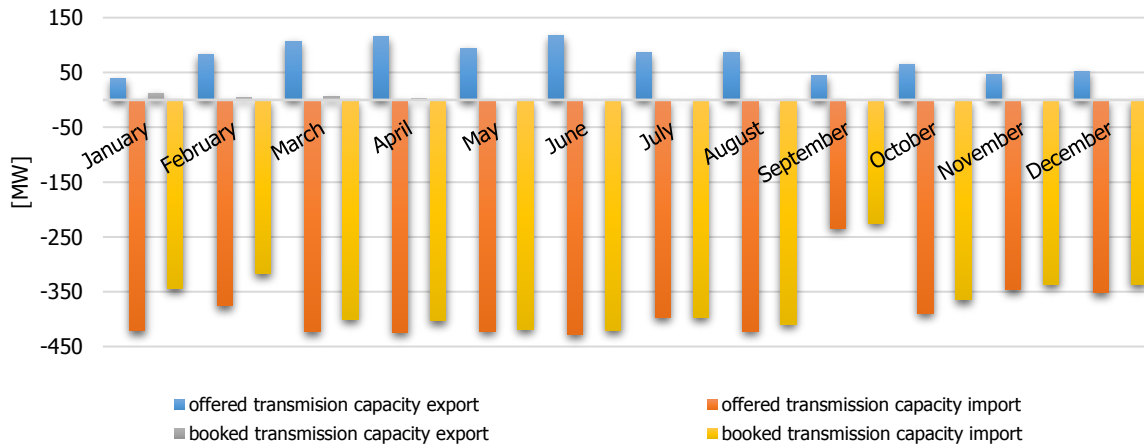
Figure 7. Annual average share of transmission capacities on synchronous interconnections in export direction allocated within coordinated auctions in respective time horizons in 2015 [%]



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

Transmission capacity allocation on direct current interconnector Poland-Sweden was in 2015 performed in export and import directions by POLPX and Nord Pool AS on the basis of market coupling mechanism. The maximum monthly-average offered transmission capacities amounted to: 117 MW in the export direction from Poland and 428 MW in import direction to Poland. The average volumes of offered transmission capacities in subsequent months are compared in Figure 8.

Figure 8. Comparison of monthly average transmission capacities offered and allocated on the Poland-Sweden interconnector in 2015 [MW]



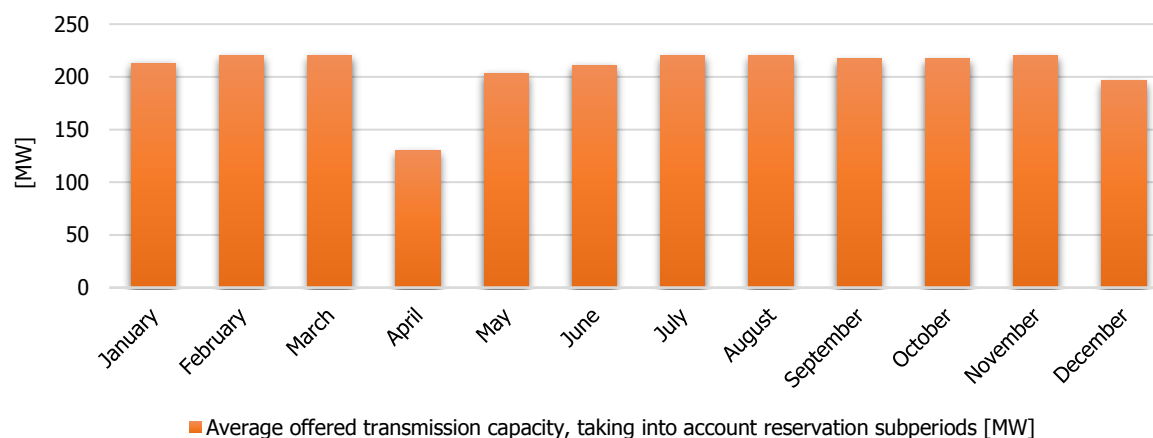
Source: ERO, on the basis of data provided by PSE S.A.

The above data regarding, in particular, booking of transmission capacities allow for saying that for most of the time in 2015 electricity prices were lower on Scandinavian market, what in consequence resulted mainly in electricity imports to Poland.

On 8 December 2015 the first transmission capacity auction under market coupling mechanism was conducted on the Poland-Lithuania interconnector. Maximum hourly volumes of offered transmission capacities in December 2015 amounted to: 400 MW in export direction to Lithuania, and 488 MW in import direction to Poland. Average monthly amounts of transmission capacities offered and allocated in December 2015 amounted to: 174 MW and 114 MW, respectively, in export direction to Lithuania; and 257 MW and 6 MW, respectively, in import direction to Poland.

Transmission capacities on the Poland-Ukraine interconnection were made available on the basis of "Rules for monthly auctions of transmission capacity on PSE S.A. and NEK UKRENERGO cross border interconnection in 2015", according to which transmission capacity allocation in import direction to Poland is carried out under monthly auctions. Within these auctions the transmission capacities of up to 220 MW were made available to participants. However, transmission capacities were reduced for selected days (reservation sub-periods) due to planned line shutdowns or risk of exceeding voltage limits. Figure 9 presents monthly average transmission capacities offered on Poland-Ukraine interconnection, in the direction UKRENERGO → PSE S.A. (imports) in 2015.

Figure 9. Monthly average volumes of transmission capacities offered on the Poland-Lithuania interconnector, in direction UKRENERGO → PSE S.A. (imports) in 2015



Source: ERO, 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 2015

Limitations understood as reductions of cross-border transmission capacities allocated under auctions, were determined by transmission system operator according to the rules approved by the President of ERO.

In case of cross-border exchange on synchronous interconnections under daily auctions, in 2015 the limitations (reductions) did not occur.

In case of cross-border exchange on non-synchronous interconnections Poland-Sweden and Poland-Lithuania, transmission capacities are allocated within market coupling mechanism, i.e. in a time horizon no longer than day-ahead. Transmission system operators of Poland and Sweden, and Poland and Lithuania respectively, made the capacity available to market participants, accepted and nominated transfer schedules submitted by power exchanges. Commercial realization of the transfer schedules was guaranteed by above-mentioned operators. In consequence, on direct current Poland-Sweden and Poland-Lithuania interconnectors in 2015 there were no limitations to allocated cross-border transmission capacities.

The other case of non-synchronous cross-border exchange is an exchange on the Poland-Ukraine interconnector via 220 kV Zamość-Dobrotwór line. On this interconnection, there was reduction of allocated transmission capacity to 0 MW from 00:00 of 14 August 2015 to 24:00 of 31 August 2015. This was caused by the occurrence of a threat to security of electricity supply in NES arising from heat wave and unfavourable hydrological situation in the country, and a consequent necessity to establish technical and financial conditions for ensuring emergency supply from the Ukrainian operator. The reduction of allocated transmission capacity to 0 MW on this interconnector occurred again from 7:00 of 29 October 2015 to 18:00 of 30 October 2015, which was caused by the necessity for emergency shutdown of Zamość-Dobrotwór line in the continued mode.

3.2. Promoting competition

3.2.1. Wholesale market

In 2015 gross domestic electricity consumption amounted to 161,438 GWh and grew by 1.7% in comparison to 2014. The level of domestic electricity consumption was more than twice lower than the pace of GDP growth in 2015, which, according to the preliminary estimations of the Central Statistical Office of Poland, amounted to 3.6% and was close to the value recorded in 2014 (3.3%). At the same time, the volume of gross domestic electricity generation in 2015 reached 161,772 GWh and was lower than the previous year volume by about 5,205 GWh (i.e. by 3.3%). In the same period the surplus of exports over imports was slight and amounted to 334 GWh. It is worth adding that in 2014 Poland was a net electricity importer, and the volume of imports exceeded exports by 2,167 GWh. In 2015, both imports and exports constituted more than 8% of total electricity fed into and off-taken, respectively, in domestic balance of electricity.

Wholesale electricity market structure by entities

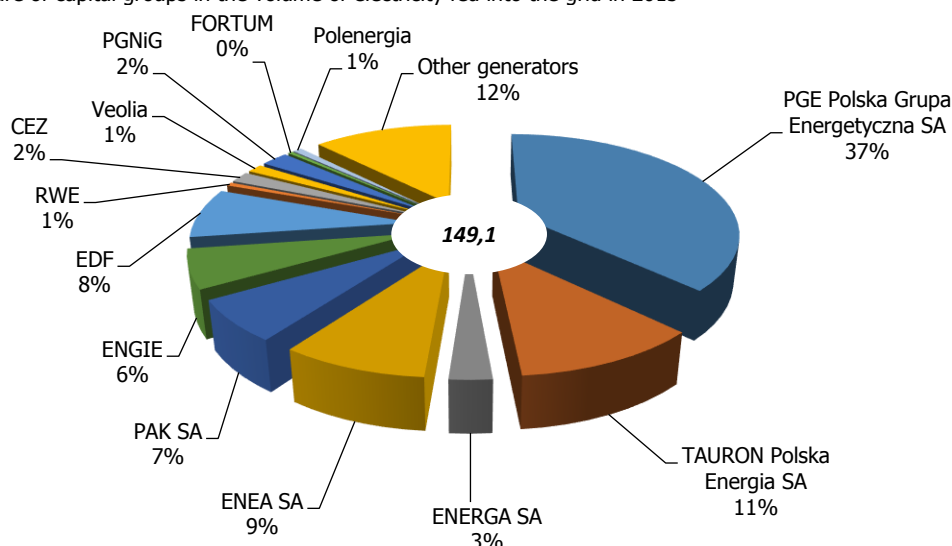
The structure (broken down by entities) of electricity sector and the concentration level in the market were shaped mainly by the horizontal consolidation process, and afterwards by vertical consolidation of energy companies owned by the State Treasury. The consolidation process resulted i.a. from "Programme for electricity sector", adopted by the Council of Ministers in 2006.

The number and structure of entities in electricity sector have not change significantly since the implementation of the "Programme for electricity sector". In the subsequent years their shares in the market have been changing and the dispersed generation has been developing, in particular wind energy. There have been also transformations within capital groups connected with the change of structure and consolidation of entities, both within capital groups owned by the State Treasury and private ones.

The biggest share in generation subsector in 2015 was still held by the capital group PGE Polska Grupa Energetyczna S.A., and in the market of electricity supply to end-users - by TAURON Polska Energia S.A. The share of PGE Polska Grupa Energetyczna S.A. in the generation segment in 2015 was 37.3%¹⁵⁾ (in 2014 – 37.9%, drop by 0.6 percentage point). The share of TAURON Polska Energia S.A. group in 2015 amounted to 11.3%, what stands for growth by 0.5 percentage point in comparison with 2014.

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

Figure 10. Share of capital groups in the volume of electricity fed into the grid in 2015



Source: Data of Ministry of Energy and ERO.

Notice: Since 1 January 2015 the capital group Dalkia has operated under the international brand Veolia. In 2015 French Energy company GDF Suez changed its name to ENGIE.

¹⁵⁾ Share calculated according to the volume of electricity fed into the grid.

The condition of competition in the electricity market was described mainly with indexes measuring market shares and concentration level (table below).

Table 1. Level of competition in generation subsector*

Year	Number of entities with at least 5% market share in installed capacity	Number of entities with at least 5% market share in volume of electricity fed into the grid	Share of three biggest entities in installed capacity [%]	Share of three biggest entities in the volume of electricity fed into the grid [%]	HHI Index ¹⁶⁾	
					Installed capacity	Electricity fed into the grid
2014	5	6	53.6	57.7	1,441.0	1,823.1
2015	5	6	52.2	57.4	1,366.0	1,762.9

* for all entities operating in the generation segment, which are subject to statistical obligation; including installed capacity and electricity fed into the grid of wind and water sources.

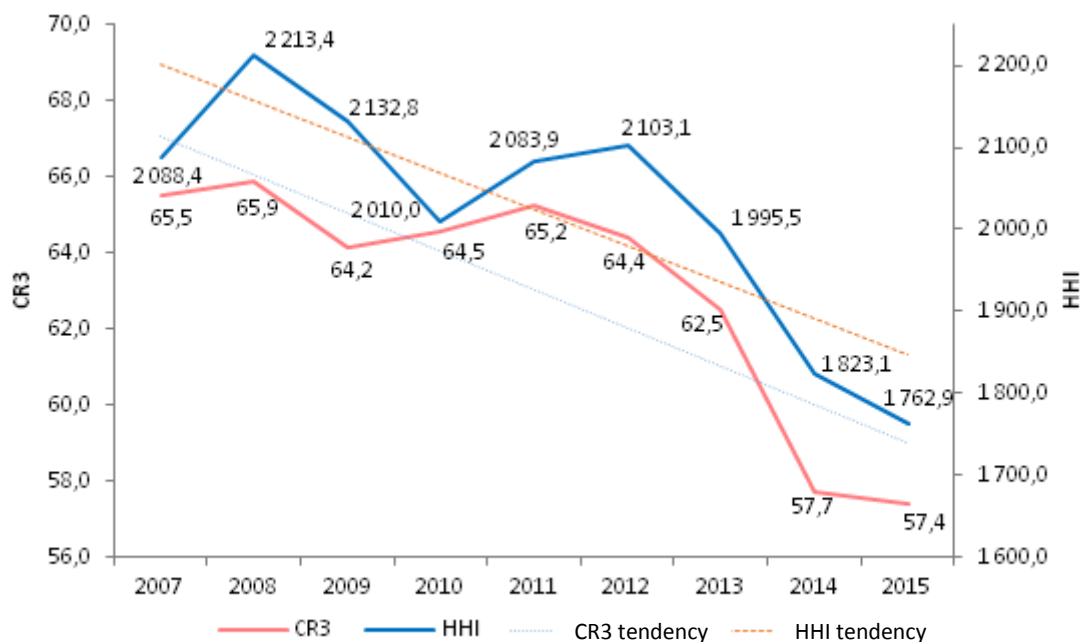
Source: Data of Ministry of Economy and ERO.

Market share index of three biggest entities, measured according to volume of electricity fed into the grid (taking into account the volume of electricity delivered by generators directly to end-users) in 2015 reached 57.4%. At the same time, 2015 was another year which marked decreasing tendency of this index. In relation to the previous year, this index decreased by 0.3 percentage point. The similar trend, although distinctly more evident, is observed in case of second index – share of three biggest generators in installed capacity – the share dropped in 2015, comparing to 2014, by 1.4 percentage point. Three biggest generators (i.e. producers concentrated within following capital groups: PGE Polska Grupa Energetyczna S.A., TAURON Polska Energia S.A., ENEA S.A.) in total had on their disposal a little more than half of installed capacity and held less than 60% of electricity generation in the country. The capital groups within which the three generators operate are vertically integrated companies, and are present in all energy subsectors – from extraction, through generation both in conventional and RES sources, to distribution and supply of electricity.

Decreasing tendency of HHI, measured according to the installed capacity and volume of electricity fed into the grid (including volume of electricity delivered by generators directly to end-users) was kept in 2015. The drop of this index was significant as it decreased in 2015 in comparison to 2014 by 5.2% and 3.3%, respectively. It is worth underlining that this index, calculated for electricity generation in 2015 reached the value that allows for saying that the market concentration level is medium. However, the index calculated for installed capacity is significantly below the high concentration threshold. The changes of concentration index and index of market shares of three largest entities in the generation subsector in the years 2007-2015 are presented in the figure below.

¹⁶⁾ Herfindahl-Hirschman Index (HHI) is determined as a sum of the squares of individual market shares of all undertakings constituting a given branch: HHI > 5 000 – very high level of concentration, HHI from 1,800 to 5,000 – high level of concentration, HHI from 750 to 1,800 – medium level of concentration, below 750 – low level of concentration (according to "Report on electric power and gas internal market development progress status", Brussels 2005 and J. Kamiński: Metody szacowania siły rynkowej w sektorze energetycznym, Polityka Energetyczna, Volume 12, Number 2/2, 2009).

Figure 11. Concentration level in generation subsector and market shares of three largest entities by volume of electricity fed into the grid, in 2007-2015



Source: Data of Ministry of Energy and ERO.

Referring to the above concentration data it should be noted that in the last three years these indexes have significantly decreased. It is caused mainly by the growing electricity production in renewable energy sources, mainly wind, in national electricity generation mix. In long-term horizon (2007-2015) the tendency of change in concentration index and market share of three biggest entities, is also decreasing.

Sales of electricity in respective market segments

The structure and mechanism of market functioning do not differ from corresponding structures and mechanisms, which have been developed in most European countries recognized as competitive markets. Market participants have wide, equal access to different forms of electricity sales, as well as access to information concerning volumes and prices of electricity contracted and sold on the wholesale market.

Developments of types of electricity sales in generation and trading segments in 2014-2015 are presented in the tables below.

Table 2. Types of electricity sales by generators in 2014-2015 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	Final customers	Other sales*
2014**	53.1	79.9	9.2	0.0	3.5	3.6
2015	66.9	71.3	7.9	0.0	3.7	3.4

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

** Data were changed comparing to data in the Activity Report of President of ERO for 2014 due to data correction by evaluated entities.

Data is based on information from entities selected through purposive sampling.

Source: Data of the Ministry of Energy and ERO.

Table 3. Types of electricity sales by trading companies in 2014-2015 [TWh]

Year	Trading companies	Regulated markets, including power exchange	Balancing market	Exports	Final customers	Other sales*
2014**	127.9	57.2	4.7	2.2	114.5	24.0
2015	142.6	81.6	6.1	1.4	115.8	24.7

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

** Data were changed comparing to data in the Activity Report of President of ERO for 2014 due to data correction by evaluated entities.

Data is based on information from entities selected through purposive sampling.

Source: Data of Ministry of the Energy and ERO.

Similarly to previous years, in 2015 the main types of electricity sales among generators were: sales on the regulated market where power exchange played a dominant role (47% share in total sale of electricity by generators), as well as sales to trading companies (41% share). In case of trading companies, they targeted their sales mainly towards other trading companies (38% share in total electricity sales of trading companies), as well as towards final customers (31% share). To a lesser extent, but also significant, they targeted their sales towards power exchange (22% share).

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

Monitoring of electricity market functioning covers, among others, the wholesale electricity prices.

Within the monitoring, the data on bilateral contracts concluded on the OTC market and on power exchange (POLPX) are collected and analysed. On the basis of surveys submitted by electricity producers and trading companies, as well as from reports of public statistics, information i.a. on the average annual prices of electricity sales on the competitive market, and average quarterly prices of electricity sales on competitive market (as of second quarter of 2015), as well as average quarterly prices of electricity sold under other rules than public sale are calculated and published.

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

According to Article 23 (2) point 18, letter b of the Energy Law Act, the President of ERO shall publish, by 31 March each year, average price of electricity sales on the competitive market in the previous year. In 2014 average annual price of electricity sales on the competitive market was 163.58 PLN/MW, while in 2015 this price amounted to 169.99 PLN/MW. As can be seen from the above, average price on the competitive market in 2015 grew in comparison to price of the previous year by about 4%. Comparing the level of average annual price of electricity sales on the competitive market with the power exchange market run by POLPX, it should be stated that this price was by about 9% lower than average electricity price on the spot market - day-ahead market (DAM) in 2015 (155.66 PLN/MW), and simultaneously by about 3% higher than volume-weighted average transaction price of yearly contracts for baseload delivery for next year on the commodity forward instruments market with physical delivery, which in 2015 amounted to 164.37 PLN/MW.

Algorithm for calculation of the average yearly price on the competitive market covered electricity sales (volume and value) carried out by generators and trading companies in competitive segments of domestic electricity wholesale market, i.e. sales to:

- trading companies under bilateral contracts,
- power exchange.

Sale of electricity to balancing market was not taken into account in the algorithm of price calculation due to the technical nature of this market segment.

In case of vertically consolidated capital groups¹⁷⁾, the volume and value of electricity sales to trading companies outside the capital group and to power exchange were taken into account for price calculation.

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

The obligation to calculate and announce a calculation method for average quarterly price of electricity sales on the competitive market is stipulated in Article 195 of the Act on RES. The President of ERO announces abovementioned price together with the method of its calculation within 90 days from the end of each quarter. Taking into account the transitional provisions of the above act, for the first time this price was calculated and announced by the President of ERO in September 2015 and concerned 2nd quarter of that year.

Algorithm of calculation of average quarterly price of electricity sales on the competitive market is the same as in case of average annual price of electricity sales on the competitive market.

Below table shows the average quarterly prices of electricity sales on competitive market, published by the President of ERO in 2015.

Table 4. Average quarterly prices of electricity sales on the competitive market, published in 2015

2015	
Quarter	Average quarterly price of electricity sales on the competitive market [PLN/MWh]*
II	170.19
III	172.75
IV	167.36

* Average quarterly price of electricity sales on the competitive market calculated for the first time in 2015, starting from second quarter.

Source: Data of POLPX and ERO.

Comparing the level of average quarterly price of electricity sales on the competitive market in 2015 with the power exchange market run by POLPX, it should be stated that this price is close to quarterly prices on the power exchange. Algorithm adopted for price calculation to a great extent takes into account volumes of electricity sold on the power exchange, what allow electricity wholesale market participants to estimate its level in close approximation even before official publication of this price by the President of ERO.

Average quarterly price of electricity which does not fall under the public sale obligation

Pursuant to Article 49a (8) of the Energy Law Act, the President of ERO is obliged to announce in the ERO Bulletin, within 14 days from the end of quarter, the average quarterly price of electricity sales which does not fall under obligation stipulated in paragraph 1 and 2 of this Article. The volumes and average quarterly prices of electricity sold under rules other than those determined in Article 49a (1) and (2) of the Energy Law Act, in respective quarters of 2015, were as follows:

¹⁷⁾ Capital group in the meaning of Article 3 (1) (44) of the Act of 29 September 1994 on accountings (Journal of Laws of 2013, item 330).

Table 5. Average quarterly price of electricity sold under the rules other than those stipulated in Article 49a (1) and (2) of the Energy Law Act

2015		
Quarter	Average quarterly price of electricity sold under rules other than those determined in Article 49a, paragraph 1 and 2 of the Energy Law Act [PLN/MWh]	Volume of electricity sold under rules other than those determined in Article 49a, paragraph 1 and 2 of the Energy Law Act [TWh]
I	172.22	15.5
II	172.39	12.2
III	174.74	12.9
IV	171.87	14.4

Source: ERO, on the basis of data submitted by electricity producers for respective quarters of 2015.

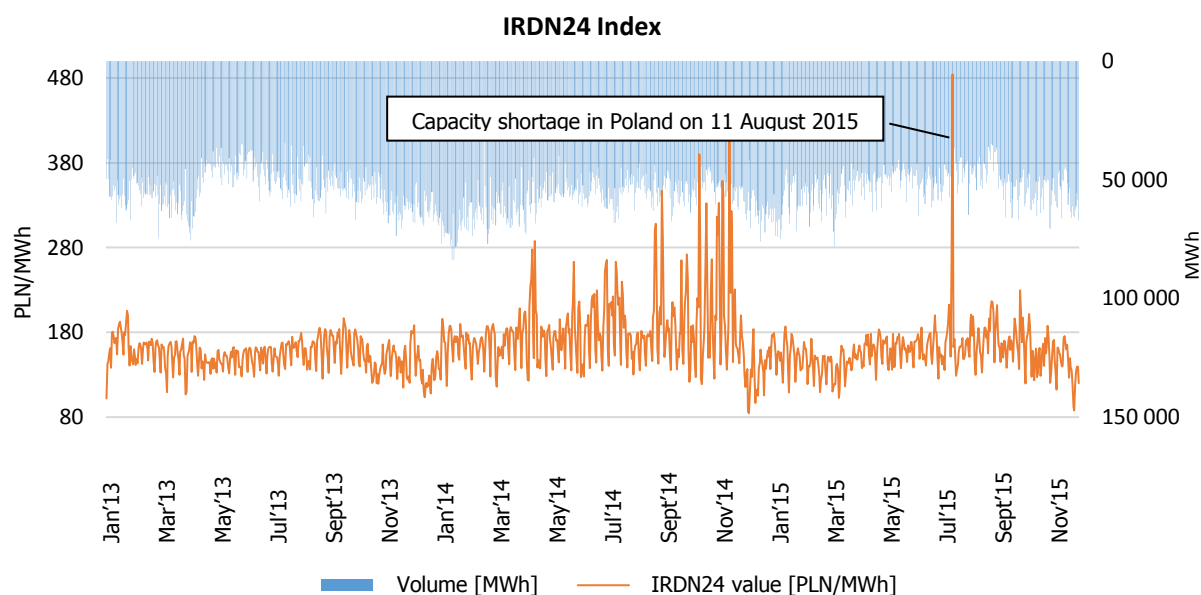
Average quarterly price of electricity sold under rules other than those stipulated in Article 49a (1) and (2), is calculated with the use of the data from execution of contracts on electricity sales to trading companies concluded by energy companies involved in electricity generation which are obliged to sell part of generated electricity in a manner stipulated in Article 49a (1) and (2) of the Energy Law Act. The price does not include: taxes (VAT, excise tax), charges not connected with the volume of sold electricity, and financial obligations related to the certificates of origin.

Average quarterly price of electricity sold under principles other than those stipulated in Article 49a (1) and (2) of the Energy Law Act did not change significantly in individual quarters of 2015 and varied within a narrow range from 171.87 PLN/MWh to 174.74 PLN/MWh.

Prices on spot market of POLPX

The below figure presents development of prices on the spot market – DAM, managed by POLPX. IRDN24 index shows arithmetic average price of all transactions of DAM trading session, calculated for particular delivery date.

Volume-weighted average price of electricity on DAM in 2015 amounted to 155.66 PLN/MW and was lower by 29.09 PLN/MW in comparison to 2014 when this price was 184.75 PLN/MW.

Figure 12. Average monthly electricity price of spot transactions, measured by IRDN24 [PLN/MWh], and volume of electricity traded on DAM market [MWh]

Source: ERO, on the basis of data provided by POLPX.

Prices on commodity forward instruments market with physical delivery of POLPX

In 2015 the drop in electricity prices on commodity forward instruments market with physical delivery was observed. This tendency was reflected by the decrease of prices in BASE_Y-16 forward contracts (yearly contracts with baseload delivery in 2016), when the volume-weighted average transaction price of this contract in the whole 2015 was at the level of 164.37 PLN/MW. In comparison to 2014, when the price of BASE_Y-15 forward contracts concluded in 2014 with a delivery in the next year amounted to 169.25 PLN/MW, the drop of prices of yearly forward contracts by about 2.9% was observed.

At the same time, average monthly price of BASE_Y-16 contracts in December 2015 was equal 166.75 PLN/MWh, whereas the monthly average price of corresponding contracts (BASE_Y-15) in December 2014 amounted to 175.53 PLN/MWh, which indicates a drop of this price by 5% in 2015 in comparison with the previous year.

Transparency of the wholesale electricity market – fulfilment of duties under REMIT regulation

According to REMIT, market participants entering into transactions required to be reported to the Agency shall register themselves in the national register of market participants prior to entering into these transactions. In order to enable the fulfilment of this duty, national regulatory authorities shall establish national registers of market participants. Polish national register of market participants was launched on 17 March 2015; registration system is available on: <http://www.ure.gov.pl/pl/remi/rejestracja-remit>.

On 30 October 2015 the novelization of the Energy Law Act came into force, which increased competences of some regulatory authorities, including the President of ERO, with regard to preventing manipulations in the wholesale energy markets and illegal use of insider information, as well as provided for sanctions for violation of obligations stipulated in REMIT regulation. Pursuant to the amended provisions, the President of ERO is empowered to conduct explanatory investigations and carry out controls in cases concerning market manipulation, attempts of market manipulation and illegal use of insider information. In 2015 the President of ERO received several notifications about potential market manipulations by wholesale energy market participants. The detailed analyses of presented incidents evidenced that they did not constitute a violation of permissions stipulated in REMIT regulation.

The provisions of REMIT impose an obligation to publish insider information on wholesale energy market participants. In order to ensure effective fulfilment of this obligation an Exchange Information Platform (EIP) managed by POLPX was established in cooperation with the representatives of the whole energy sector and under the patronage of the President of ERO. Publication of information on EIP is conducive to ensuring transparency of the wholesale energy market. The Platform is accessible for every market participant free of charge. Apart from the power exchange data, the Platform is used for publication of information on the electricity system operation, including data on generation and electricity demand, as well as insider information, including data on planned and unplanned generation capacity outages.

3.2.2. Retail market

Retail electricity market is an electricity market segment in which final customer is a counterparty and purchases electricity for its own purposes. Retail market players, alongside end-users (both household consumers and enterprises), comprise also companies managing distribution grid, including DSOs, and electricity suppliers (trading companies).

In 2015, as in the previous year, the President of ERO retained the obligation to submit, on annual basis, tariffs for approval with respect to:

- electricity supply companies, so-called default suppliers – in relation to consumers in G tariff groups connected to the grid of a given distribution system operator, who are provided with complex service by the supplier;
- other energy companies, so-called companies of industrial energy sector, as regards electricity supply (to G tariff group) and electricity distribution to consumers connected to these companies' grids.

For other consumer groups electricity prices are shaped by the market. Electricity tariffs for G tariff groups, approved by the President of ERO, are published in the ERO Bulletin.

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

Since 2010, all electricity suppliers selling electricity to final consumers are legally obliged to publish on their websites and make publically available in their premises information on electricity sales and terms and conditions of their application. In case of big industrial/commercial consumers offers are presented individually by supply companies. Prices and other terms and conditions of the agreement are each time negotiated with the client and are different, depending on delivery time, volume and firmness of off-take.

In 2015, as in the previous years, there was a tariff comparison tool available on the ERO website, which allowed for comparing electricity suppliers' offers addressed to household consumers, thus helping in selection of the best offer. In 2015, similarly to the previous year, on average 28 suppliers per month put their offers in the tariff comparison tool.

The President of ERO on quarterly basis monitors average prices in electricity trade applied to final consumers, broken down by the consumption criteria (i.e. consumers with annual electricity consumption below 50 MWh, between 50 and 2,000 MWh, and above 2,000 MWh). In the ad hoc evaluations – as needed – the President of ERO monitors the levels of prices of electricity sales to final consumers with the use of public statistics. This information is presented in the table below.

Table 6. Number of consumers, volume, value and average prices of electricity applied to final consumers, broken down by consumption

Consumption	Number of customers	Volume [MWh]	Value [thousand PLN]	Average price [PLN/MWh]
< 50 MWh	16,553,981	43,355,275	11,856,959.6	273.48
50 – 2,000 MWh	62,059	27,253,706	6,506,397.6	238.73
> 2,000 MWh	3,503	31,509,886	6,362,692.6	201.93
Total	16,619,543	102,118,867	24,726,049.8	242.13

Source: On the basis of quarterly surveys of default suppliers in 2015.

Still, the largest share in electricity sales to final consumers is held by incumbent suppliers, which after unbundling of distribution system operators remained a party to complex agreement (i.e. agreement combining electricity sales agreement and electricity distribution agreement). They act as default suppliers towards household consumers who have not decided to switch to new supplier. In 2015 there were 5 default suppliers and more than 100 alternative supply companies dealing with electricity sales to final consumers, including suppliers active on the household market. On the electricity market, there are also suppliers (164) functioning within companies vertically integrated with DSO.

Demand side of the retail market comprises final consumers. There are above 17.5 million end-users, of whom 90.3% (more than 15.4) are consumers in G tariff group, and the vast majority of them are households (above 14 million) which buy electricity for household consumption. Other end-users are consumers in A, B and C tariff groups. Group A and B include consumers supplied on the high and medium voltage level; they are the so-called industrial consumers. C tariff group comprises consumers connected to low voltage grid, taking off electricity for business purposes, the so-called commercial consumers. Electricity consumers have a right to continuous and reliable electricity supply from chosen electricity supplier.

Degree to which electricity consumers exercise their rights on the retail market can be measured by their willingness to conclude electricity sales agreement with freely chosen electricity supplier. In 2015 more than 209 thousand of consumers of A, B, and C tariff groups actively exercised their right to purchase electricity from chosen supplier, whereas in the household segment this number amounted to more than 375 thousand. That year was another year of dynamic growth in the number of consumers who switched supplier. At the end of 2015 36.6% increase in the number of consumers who switched supplier was observed in comparison to 2014, while in the case of consumers of A, B and C tariff groups this growth was 45.2%, and in the case of consumers of G tariff group the increase amounted to 32.3%.

Undoubtedly, possibility to take advantage of the list of suppliers active within an operational area of the operator to whose grid the customer is connected, which is published on the website of that operator, is a great facilitation to consumer who switches supplier. Similarly to the previous years, in 2015 lists of suppliers were available on the websites of all DSOs. Consumers could also compare

suppliers' offers on their own, with the use of Online Electricity Price Calculator, available on the ERO website.

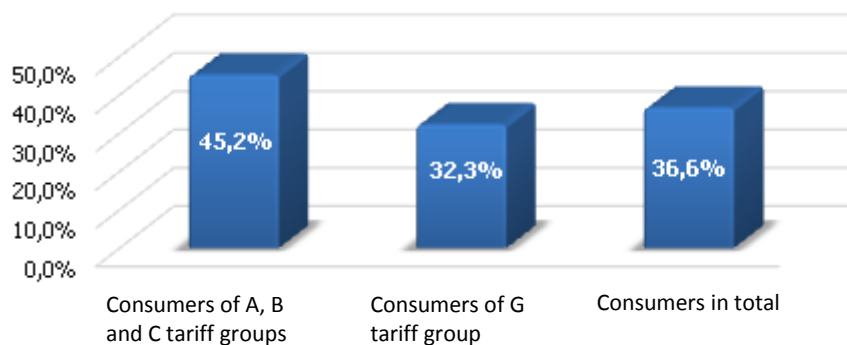
Most consumers, including households, are supplied electricity under complex agreements concluded with default suppliers. Such agreements are held by almost all consumers who have not switched electricity supplier. Consumers of A, B and C tariff groups who have changed supplier take off electricity under two separate agreements: electricity sales agreement concluded with supplier and distribution service agreement concluded with operator. When it comes to household consumers, only part of suppliers commonly applied the complex service agreement after the switching, most of them carried out electricity sales under two separate agreements.

In 2015 the President of ERO was receiving consumers' requests for intervention in cases concerning unfair commercial practices of supply companies. As in the previous year, suppliers often acted via hucksters, who introduced themselves as ERO's employees or representatives of the current supplier. A common practice among suppliers is non-informing the consumers about all elements of the offer, e.g. additional charges (commercial charges), or misinforming them, what leads consumers to conclude agreements which are unfavourable to them. The President of ERO is not a competent body in such cases, although Regulator informs consumers about their rights. Suppliers' activities often contain elements of practices violating collective interests of consumers by breaching the obligation to provide consumers with accurate, true and full information, as well as unfair commercial practices or acts of unfair competition. In 2015, according to competence, Regulator forwarded about 200 cases which could indicate illegal activities of suppliers to the President of UOKiK for investigation.

While evaluating supplier switching growth rate, it should be kept in mind that in the overall context still relatively small number of consumers (about 3.43%) exercised their right to switch supplier. However, it should be underlined that comparing to 2014 a slight increase of this rate was noted (in 2014 it was 2.53%).

The percentage growth in the number of TPA consumers at the end of 2015 in comparison to previous year, broken down by tariff groups, is presented in Figure 13.

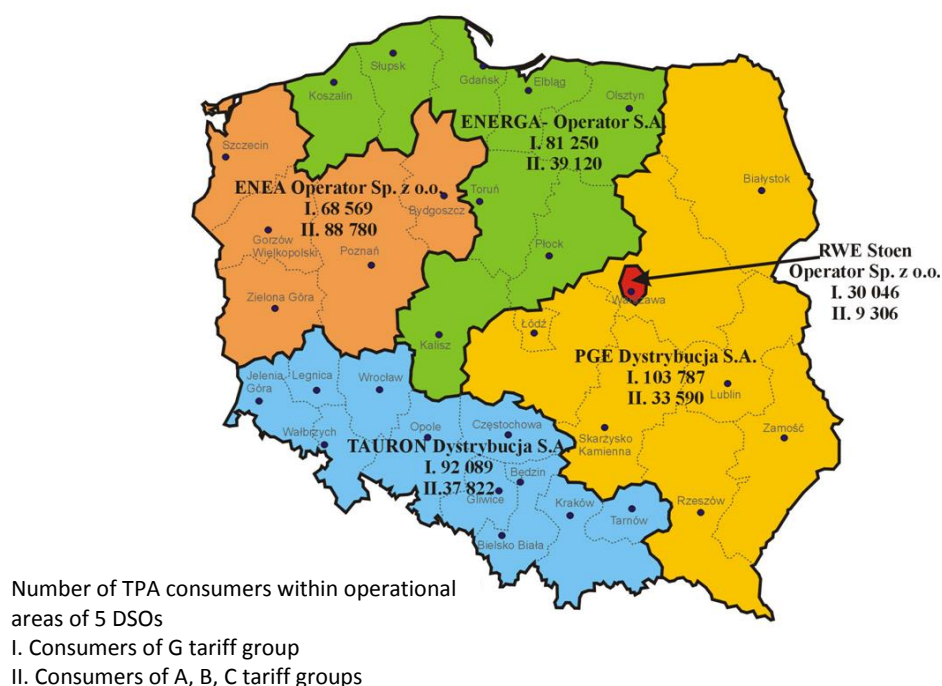
Figure 13. Percentage change in number of TPA consumers, broken down by tariff groups (as at the end of 2015, in comparison to the previous year)



Source: ERO, on the basis of data provided by DSOs.

The analysis of data provided by individual operators shows that in 2015 exercising of TPA right varied depending on the region of the country (Figure 14). The highest number of consumers in A, B, C tariff groups who switched supplier occurred within the operational area of ENEA Operator S.A. – 88,780 consumers. In the households segment, the highest number of consumers who changed supplier was noted within the operational area of PGE Dystrybucja S.A. – 103,787 consumers. A slightly lower number of consumers in this segment occurred within the operational area of Tauron Dystrybucja S.A., where the number of supplier switches amounted to 92,089.

In 2015 the highest volume of electricity delivered under TPA rule was bought by consumers connected to the grid of TAURON Dystrybucja S.A., where electricity delivered to consumers exercising the right to switch supplier constituted more than 53.57% of total volume of electricity delivered within the grid of this DSO (25,088.5 GWh). This situation is caused by a significant share of big industrial consumers who switched supplier in the total volume of electricity delivered to consumers connected to this DSO's grid.

Figure 14. Exercising the right to switch a supplier within operational areas of individual distribution system operators

Source: ERO.

Total volume of electricity (delivered through distribution grids) sold in 2015 to end-users under market-based rules, i.e. under TPA rule, amounted to 59,305.1 GWh, i.e. 45.60% of total electricity delivered to final consumers. It should be noted that in 2014 final consumers were supplied electricity under market-based rules, i.e. after exercising TPA rule, in the amount of 56,714.7 GWh, i.e. 43.58% of total electricity delivered to end-users. The above data prove the development of competition in electricity market in Poland.

A, B, C tariff groups comprise those final consumers who are supplied electricity on high, medium and low voltage levels for the purposes other than living purposes. Prices for those consumers are not subject to approval of the President of ERO. Consumers in G tariff group are consumers who off-take electricity on a low voltage level for living purposes. Tariffs for sale of electricity to these consumers are still approved by the President of ERO. Moreover, it should be noted that tariffs are applied only in relation to default suppliers. The supplier who does not act as a default supplier applies prices which are not subject to approval by the President of ERO.

3.2.2.2. Recommendations on supply prices, investigations and measures to promote effective competition

System of price regulation

The President of ERO still retains the obligation to annually submit electricity tariffs for approval with regard to consumers of G tariff group (composed mainly by households) connected to the grids of the distribution system operator, and who have not switched supplier. Electricity prices for these consumers are included in the tariffs of supply companies, approved by the President of ERO and published in "Branch Bulletin of Energy Regulatory Office – Electricity". Prices for other consumer groups are shaped by the market.

The approval process of electricity tariffs for 2016 started in November 2015. As a result of conducted proceedings, in December 2015 these tariffs were approved by the President of ERO for the period until 31 December 2016.

As the President of ERO has exempted energy companies from the obligation to submit for approval the tariffs for electricity supply to consumers other than those in G tariff groups, Regulator approves

tariffs only for household consumers (G tariff group)¹⁸⁾. Tariff calculation is based on clear rules, which cover i.a. external costs of energy companies, including costs of supporting different energy sources, including i.a. RES. Hence, the risk of suffering the loss by energy companies is reduced to minimum. Moreover, in case of significant change of external conditions, the companies are allowed to apply to the President of ERO for the tariff correction with regard to increased costs.

Carrying out investigations and imposing measures to promote effective competition

In 2015 the President of ERO received more than 3 thousand letters (complaints) requesting intervention in cases related to energy undertakings' practices, which, according to consumers, violated the supplier switching process. The President of ERO undertook a number of actions aimed at clarifying issues covered by the complaints, related mainly to hindering electricity supplier switching.

Below the main issues highlighted in the consumers' complaints are listed:

- improper functioning of information exchange platforms in IT systems as regards submitting applications for supplier switching;
- ordering de-installation of the meter due to error or inappropriate conduct of undertaking's employee;
- double invoicing;
- unfounded launching of last resort supply;
- unjustified obliging consumers to adapt metering-billing equipment;
- questioning the validity of sales agreements' termination (e.g. submitting the notice of termination without proxy)
- termination of agreements without appropriate notice period;
- unfounded rejection of supplier switching notifications (e.g. due to incorrect personal data of consumer or incorrect address of Power Purchase Point)
- lack of distribution agreement after completed supplier switching process;
- lack of agreement on submission of metering data for the purpose of settlements in the balancing market between DSO_p and DSO_n;
- refusal to conclude General Distribution Agreement by small DSOs;
- delay in submission of metering data necessary to make settlements.

Actions undertaken by the Regulator in relation to the above complaints in most cases successfully led to case clarification, correction of mistakes or errors, and to switching of supplier by electricity consumers.

In the fourth quarter of 2015 the President of ERO has started to receive complaints also from alternative suppliers, who pointed to untimely submission of metering data by one of the largest DSOs. The President of ERO, acting under Article 28 of the Energy Law Act, have been successively (i.e. after receiving complaints from individual supply companies) requested the DSO to provide explanations. Due to the fact that timely submission of metering data to suppliers is crucial to proper functioning of TPA rule, the President of ERO, having in mind the necessity of solid and comprehensive clarification of the case, has continued the actions undertaken in the reporting year in 2016.

Antimonopoly proceedings on cases restricting competition, and other activities conducted by the President of Office for Competition and Consumer Protection (UOKiK) in relation to companies of the energy sector¹⁹⁾

In 2015 the President of UOKiK carried out the following antimonopoly proceedings in cases restricting competition:

- 1) By the Decision No. RKR-3/2015 of 20 July 2015, it was substantiated that Tauron Sprzedaż sp. z o.o., with its registered seat in Kraków, abused the dominant position in the market of electricity last

¹⁸⁾ Electricity consumers of G tariff group may benefit from market offer of hitherto supplier or decide to change (choose) supplier, or do not take any steps and benefit from prices determined in the tariff approved by the President of ERO – it is solely for consumers to choose.

¹⁹⁾ On the basis of information provided by UOKiK.

resort supply, within the following operational areas: Jeleniogórskie, Legnickie, Opolskie, Wałbrzyskie, Wrocławskie, Bielskie, Będzińskie, Częstochowskie, Krakowskie and Tarnowskie, by:

- a) imposing on consumers excessive obligation to provide financial security within 5 days from the date of concluding agreement for last resort supply of electricity, towards future payments resulting from the agreement, i.e. security in the amount of:
 - i. equivalent to 2,5-fold of volume of electricity purchased during last settlement period – in case of commercial consumers with annual electricity consumption not higher than 3 GWh, or
 - ii. equivalent to 1,22-fold or 1,23-fold of volume of electricity planned for purchasing by the consumer within a month, and simultaneously committing consumer to pay decadal advance payments towards amount dues for electricity – in case of commercial consumers with annual electricity consumption exceeding 3 GWh;
- b) applying in the agreements for last resort supply the provisions on the basis of which supplier is entitled to unilaterally terminate the agreement and, thereby, to discontinue electricity supply in cases other than those stipulated in Article 6a and 6b of the Energy Law Act, under which energy company is entitled to suspend electricity supply, i.e. provision which:
 - i. reserves the right, for all parties to the agreement, to terminate the agreement at a 14-day or one-month notice following a written notice by this party, with an effect from the end of calendar month;
 - ii. reserves the right for the supplier to terminate the agreement at a 7-day notice, in the case when the other party is at risk of insolvency or this party applied for initiating bankruptcy or recovery proceeding in the circumstances indicating that the application is justified, and, additionally, in the case of launching of a winding-up proceeding;
 - iii. reserves the right for the supplier to terminate the agreement at a 7-day notice, in the case when the other party breaches essence provisions of the agreement, and the breach is not remedied within 10 days from the date of receiving written notice containing specifics of the violation and demand to remedy the breach;
 - iv. reserves the right, for all parties to the agreement, to terminate the agreement at 7-day notice, in the case when the other party has failed to fulfil the obligations to deliver or off-take electricity due to an event of force majeure, for a period longer than 30 consecutive days or for more than 60 days in the calendar year;

The undertaking committed itself to take actions aimed at preventing the alleged breaches. The adjustment efforts proposed by the undertaking were assessed positively and, under the above-mentioned decision, the undertaking was obliged to implement these measures by:

- a) adoption and implementation, by the undertaking, of the document "Principles and procedures for concluding the agreement on last resort supply of electricity in Tauron Sprzedaż sp. z o.o.", providing internal rules applied by the company for charging and collecting securities in relation to commercial customers with annual electricity consumption not exceeding 3 GWh and to customers with annual electricity consumption higher than 3 GWh, determining:
 - i. way of calculating the amount of security as an equivalent to planned one-month electricity consumption of the customer, except for the cases when customer provides entrepreneur with an information about actual, documented electricity consumption during one month;
 - ii. obligation of undertaking to inform customer within 3 working days from the date of agreement conclusion about necessity to establish financial security and its amount, as well as possibility of providing information on actual electricity consumption during one month, in order to calculate the amount of security on the basis of actual consumption;
 - iii. deadline for establishing the security by the customer, which is 10 calendar days from the date of informing customer about the obligation to provide security;
 - iv. rule of waiving the obligation to establish security in cases when customer is an entity of public finance sector, and possibility to withdraw the obligation of establishing security in other particularly justified cases;
- b) change of provisions of standard agreements, applied when concluding agreements for last resort supply of electricity, in the way declared by the undertaking in the commitment, consisting in:
 - i. adequate adjustment of the provisions concerning the amount and the deadline for establishing security;
 - ii. removing provisions providing for the obligation to make pre-payments;
 - iii. making relevant changes or removing contested provisions, what will lead to eliminating the supplier's right to unilaterally terminate the agreement, which resulted from these provisions.

The analysis of the report submitted by the undertaking in February 2016 confirmed the fulfilment of obligations imposed on it under the decision.

- 2) By the Decision No. RKR-4/2015 it was substantiated that Tauron Sprzedaż GZE sp. z o.o., with its registered seat in Gliwice, abused dominant position in the market of last resort supply of electricity, within Gliwickie operational area, by:
- a) imposing on consumers excessive obligation to provide financial security within 5 days from the date of concluding agreement for last resort supply of electricity, towards future payments resulting from the agreement, i.e. security in the amount of:
 - i. equivalent to 2,5-fold of volume of electricity purchased during last settlement period – in case of commercial consumers with annual electricity consumption not higher than 3 GWh, or
 - ii. equivalent to 1,22-fold or 1,23-fold of volume of electricity planned for purchasing by the consumer within a month, and simultaneously committing consumer to pay decadal advance payments towards amount dues for electricity – in case of commercial consumers with annual electricity consumption exceeding 3 GWh;
 - b) applying in the agreements for last resort supply the provisions on the basis of which supplier is entitled to unilaterally terminate the agreement and, thereby, to discontinue electricity supply in cases other than those stipulated in Article 6a and 6b of the Energy Law Act, under which energy company is entitled to suspend electricity supply, i.e. provision which:
 - i. reserves the right, for all parties to the agreement, to terminate the agreement at a 14-day or one-month notice following a written notice by this party, with an effect from the end of calendar month;
 - ii. reserves the right for the supplier to terminate the agreement at a 7-day notice, in the case when the other party is at risk of insolvency or this party applied for initiating bankruptcy or recovery proceeding in the circumstances indicating that the application is justified, and, additionally, in the case of launching of a winding-up proceeding;
 - iii. reserves the right for the supplier to terminate the agreement at a 7-day notice, in the case when the other party breaches essence provisions of the agreement, and the breach is not remedied within 10 days from the date of receiving written notice containing specifics of the violation and demand to remedy the breach;
 - iv. reserves the right, for all parties to the agreement, to terminate the agreement at 7-day notice, in the case when the other party has failed to fulfil the obligations to deliver or off-take electricity due to an event of force majeure, for a period longer than 30 consecutive days or for more than 60 days in the calendar year;

The undertaking committed itself to take actions aimed at preventing the alleged breaches. The adjustment efforts proposed by the undertaking were assessed positively and, under the above-mentioned decision, the undertaking was obliged to implement these measures by:

- a) adoption and implementation, by the undertaking, of the document "Principles and procedures for concluding the agreement on last resort supply of electricity in Tauron Sprzedaż sp. z o.o.", providing internal rules applied by the company for charging and collecting securities in relation to commercial customers with annual electricity consumption not exceeding 3 GWh and to customers with annual electricity consumption higher than 3 GWh, determining:
 - i. way of calculating the amount of security, as an equivalent to planned one-month electricity consumption of the customer, except for the cases when customer provides entrepreneur with an information about actual, documented electricity consumption during one month;
 - ii. obligation of undertaking to inform customer, within 3 working days from the date of agreement conclusion, about necessity to establish financial security and its amount, as well as possibility of providing information on actual electricity consumption during one month, in order to calculate the amount of security on the basis of actual consumption;
 - iii. deadline for establishing the security by the customer, which is 10 calendar days from the date of informing customer about the obligation to provide security;
 - iv. rule of waiving the obligation to establish security in cases when customer is an entity of public finance sector, and possibility to withdraw the obligation of establishing security in other particularly justified cases;
- b) change of provisions of standard agreements, applied when concluding agreements for last resort supply of electricity, in the way declared by the undertaking in the commitment, consisting in:
 - i. adequate adjustment of the provisions concerning the amount and the deadline for establishing security;

- ii. removing provisions providing for the obligation to make pre-payments;
- iii. making relevant changes or removing contested provisions, what will lead to eliminating the supplier's right to unilaterally terminate the agreement, which resulted from these provisions.

The analysis of the report submitted by the undertaking in February 2016 confirmed the fulfilment of obligations imposed on it under the decision.

- 3) By the Decision No. RPZ 17/2015 of 17 December 2015 it was decided to discontinue antimonopoly proceeding concerning the suspicion that ENEA OPERATOR Sp. z o.o., with its registered seat in Poznań, applied the practices restricting competition, referred to in Article 9, paragraph 2, point 5 of the Act on Competition and Consumer Protection, consisting in abusing the dominant position in the local electricity distribution market, covering the areas of the following voivodeships: Wielkopolskie (former: Poznańskie, Piłskie and Leszczyńskie), Zachodniopomorskie, Lubuskie and Kujawsko-Pomorskie (former: Bydgoskie), by counteracting the development of competition in the national electricity generation market through flagrant violation of deadlines, determined in the executive regulations of the Energy Law Act, for issuing grid connection conditions and defining the scope of the impact assessment of projected wind-farm on the electricity system.
The proceeding followed up the proceeding concluded in the point II of the Decision of the President of UOKiK of 30 September 2008 (Ref. No. RPZ-34/2008). As a result of an appeal, the decision in the above-mentioned point was validly revoked by the judgement of 17 March 2011 of the Court of Appeal (Ref. No. VI ACa 1027/10), whereas by the decision of 8 March 2012 (Ref. No. III SK 36/12) the Supreme Court refused to refer the cassation appeal of the President of UOKiK for examination.
- 4) By the Resolution No. RWR-172/2015 of 15 October 2015 the antimonopoly proceeding was initiated due to the suspicion that Tauron Sprzedaż Sp. z o.o., with its registered seat in Kraków, abused the dominant position in the regional market of purchase of electricity generated from renewable energy sources, in the territory covering operational area of Tauron Sprzedaż sp. z o.o. which act as the obliged supplier, i.e. the area of Małopolskie, Śląskie, Dolnośląskie and Opolskie Voivodships, through making the conclusion of the agreement on sales of electricity generated from renewable energy sources dependent on accepting or fulfilling other provisions not related to or normally associated with the scope of the agreement, i.e. settling in the aforesaid agreement issues related to charges for commercial balancing, what might constitute a breach of Article 9, paragraph 1 and paragraph 2, point 4 of the Act of 16 February 2007 on Competition and Consumer Protection.
The proceeding is pending.

Moreover, in 2015 the President of UOKiK conducted a number of explanatory proceedings, including inter alia:

- 1) By the Resolution of 7 May 2014, the explanatory proceeding was initiated with the aim to preliminary determine whether within the fulfilment of public-law obligation to provide access to electricity market by PGE Dystrybucja S.A., with its registered seat in Lublin, with regard to connecting renewable energy sources of new electricity generators (wind farms) to electricity grid, the violation of the Act of 16 February 2007 on Competition and Consumer Protection occurred, including whether this case has antimonopoly nature (Ref. No.: RWA-400-14/14/MSK/MK).
The Branch of UOKiK in Warsaw received signs that PGE Dystrybucja S.A., when analysing the technical abilities to connect another energy source to the grid, takes into account not only capacities covered by the concluded grid connection agreements and issued grid connection conditions, but also capacities included in the rejected applications for grid connection (refusals to connect to the grid). There was a suspicion that such conduct of the company may constitute a practice restricting rules of electricity system operation by blocking the right to connect to the grid for investors intending to run business in the field of electricity generation, which might constitute an abuse of dominant position of this company in the market.
The collected evidence and its analysis did not give grounds for initiating the proceeding.
- 2) On 27 January 2015 the President of UOKiK initiated explanatory proceeding in order to preliminary determine whether the actions of Tauron Sprzedaż sp. z o.o in Kraków towards small hydropower plants, consisting in imposing by the aforesaid entrepreneur of unfair conditions for purchase of electricity generated from renewable energy sources, as well as making the purchase of this electricity conditioned upon the necessity to settle commercial balancing obligation, may constitute violation of the provisions of the Act of 16 February 2007 on the Competition and Consumer

Protection, in particular Article 9, what justifies initiating the antimonopoly proceeding (Ref. No.: RWR-400-7/15/JB).

The explanatory proceeding was completed on 3 September 2015. The findings of the explanatory proceeding in question gave grounds for initiating antimonopoly proceeding against Tauron Sprzedaż Sp. z o.o. (Ref. No.: RWR-411-13/15/JB).

- 3) Resolution of 19 March 2015 completed the explanatory proceeding, which was intended to preliminarily determine whether the actions of PGE Dystrybucja S.A., with its registered seat in Lublin, with regard to setting conditions and circumstances for network connection of wind energy sources violated the prohibition on abusing the dominant position in the relevant market, what justifies initiating the antimonopoly proceeding, including whether the case has an antimonopoly nature (Ref. No.: RŁO-400-1/14/TD).

The proceeding was launched due to the notifications concerning suspicion that PGE Dystrybucja in Lublin applied practices restricting competition. The notifying party accused PGE Dystrybucja of setting grid connection charges at unjustified level (covering grid extension) and imposing very short validity terms of the grid connection agreement.

The collected evidence and its analysis did not give grounds for initiating antimonopoly proceeding.

Other activities of the President of UOKiK:

- 1) On 14 December 2015, the Branch of UOKiK in Łódź received a notification from the entrepreneur with a request to solve the dispute between notifying party and PGE Dystrybucja S.A. Łódź-Teren (hereinafter "entrepreneur") and the Energy Regulatory Office. The subject of the dispute was a restitution of grid connection conditions for constructed wind power plant. As a part of investigation of the notification, without initiating formal explanatory proceeding, the actions were taken to determine whether in the case in question the acts of violation of collective consumer interests by abusing the dominant position could have occurred (or only the violation of individual interest of the notifying party). In this regard, PGE Dystrybucja S.A. Łódź-Teren was requested to take a specific stance on the contents of notification. At the same time the request was sent to the Branch of the Energy Regulatory Office in Łódź to provide information about circumstances of the dispute on the grid connection, as well as about the way of settling this dispute. The notifying party was informed about the above-mentioned actions.

After conducting necessary clarifications, with a letter of 29 April 2016, the notifying party was informed that the established facts did not demonstrate that in the case in question there were sufficient indications which could evidence the possibility of applying, by the entrepreneur, practices restricting competition and violating public interest. The evidence and information presented in the notification and supplemented in the course of investigation did not give grounds for initiating the proceeding in the case in question, within the statutory powers of the President of UOKiK.

- 2) In the context of liberalization of electricity supply market as of 2007, the President of UOKiK has recognized both a number of benefits and problems for consumers. The aforesaid results from the widening knowledge gap between consumers and companies concerning the current shape of electricity market, what is used by unfair electricity suppliers. The signs received by the President of UOKiK indicate that undertakings involved in electricity supply mainly apply practices infringing collective interests of consumers, consisting in misleading consumers as regards their identity, e.g. by informing that they represent the current electricity supplier, misinforming consumers about particularly profitable prices, non-informing consumers about obligation to pay two invoices. In many cases entrepreneurs do not inform consumers about the statutory right to withdraw from a contract, or even do not provide consumers with documents signed by them. Unfair electricity suppliers most frequently address their offers to older people, who are even less aware of changes in the legal environment. Most often the whole procedure is conducted in a hurry, which leads to even greater disorientation of the consumer. Most complaints and notifications received by the President of UOKiK in 2015 concerned activities of the following suppliers: Polska Energetyka Pro Sp. z o.o. with its registered seat in Warsaw, Energetyczne Centrum S.A. with its registered seat in Warsaw, Novum S.A. with its registered seat in Warsaw. With regard to these entrepreneurs, the President of UOKiK currently conducts proceedings concerning application of practices restricting collective consumer interests.

Activities and recommendations of the President of ERO aimed at promotion of effective competition

Taking into account the increase in the number of consumers who switch supplier, which reflects dynamics of market liberalization, as well as growing number of complaints concerning activity of electricity suppliers, the monitoring aimed at detecting violations and protecting justified consumers' interests was conducted. As a result of experiences gained in 2015, information on important, recurring problems which lead to disputes between energy companies and consumers, as well as a list of monitored energy companies were published on the ERO website in February 2016. The results of monitoring are evaluated, and Regulator plans further ad hoc investigations as well as to oblige suppliers to undertake recovery programmes.

In the opinion of the Regulator, it is justified to consider to legally constraint the possibility to impose charges on consumers, in the case when consumers terminate the fixed-term electricity sales agreement before the date of its expiration. Regulations currently in force allow supply companies to obtain revenues from termination of electricity sale agreement prior to expiry date, which have in many cases by far exceed revenues that these companies would obtained from continuation of the agreement. The above-mentioned payments currently constitute a significant barrier to unhampered supplier switching. Therefore, it would be advisable to consider introduction of legal changes, which would to some extent "protect" consumers from aggressive activities of electricity sellers, e.g. by banning door-to-door sales, introducing maximum term for which electricity sale agreement can be concluded (24 months), or preventing electricity suppliers from applying contractual penalties for termination of fixed-term agreement before its expiration date.

At the same time, taking into account the high number of cases carried out by ERO related to consumers' problems with delays in settlements for electricity consumption after switching, it seems justified to introduce legal possibility for the President of ERO to impose sanctions for exceeding the statutory deadline for conducting settlements with consumer by the hitherto supplier. Pursuant to Article 4j (7) of the Energy Law Act, the hitherto supplier is obliged to make settlements with the consumer who has switched supplier not later than within 42 days from the switching date. Therefore, the possible delay of hitherto supplier in settlements with consumers, which exceeds this deadline, is non-compliant with the provisions of the law.

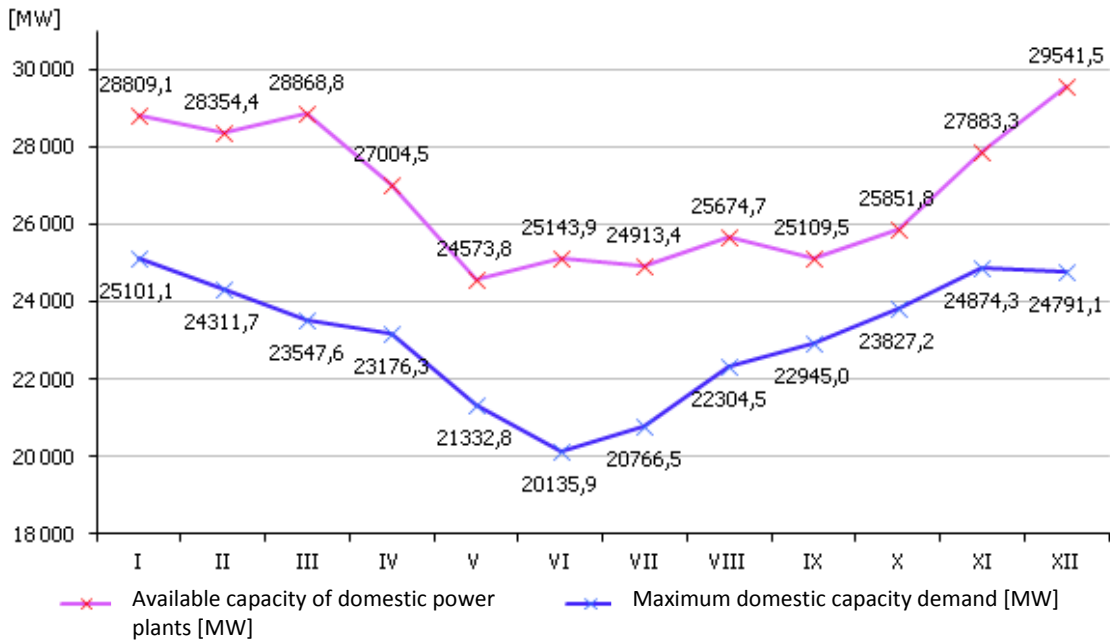
It should also be considered to introduce, by the legislator, the obligation for the DSO to use its own logo, name and other elements connected with communication and brand, which would not cause confusion in relation to separate identity of a unit of vertically integrated undertaking involved in supply of gaseous fuels or electricity. The hitherto experience shows that the same logo and similar name of DSO and supply company operating within the same capital group mislead consumers as regards DSO's independence. Such visual endeavour favours the supply company of DSO's capital group by suggesting that exactly this supplier will to the greatest extent ensure the security of electricity supply.

3.3. Security of supply

3.3.1. Monitoring balance of supply and demand

Under the obligation to monitor security and reliability of network operation, the President of ERO shall review actions undertaken by electricity system operators in this regard and assesses them in terms of ensuring proper network operation. In particular, within the monitoring of electricity system functioning, the ratio of available capacity of domestic power plants to peak capacity demand in NES in subsequent months of 2015 was evaluated. It is shown in the figure below.

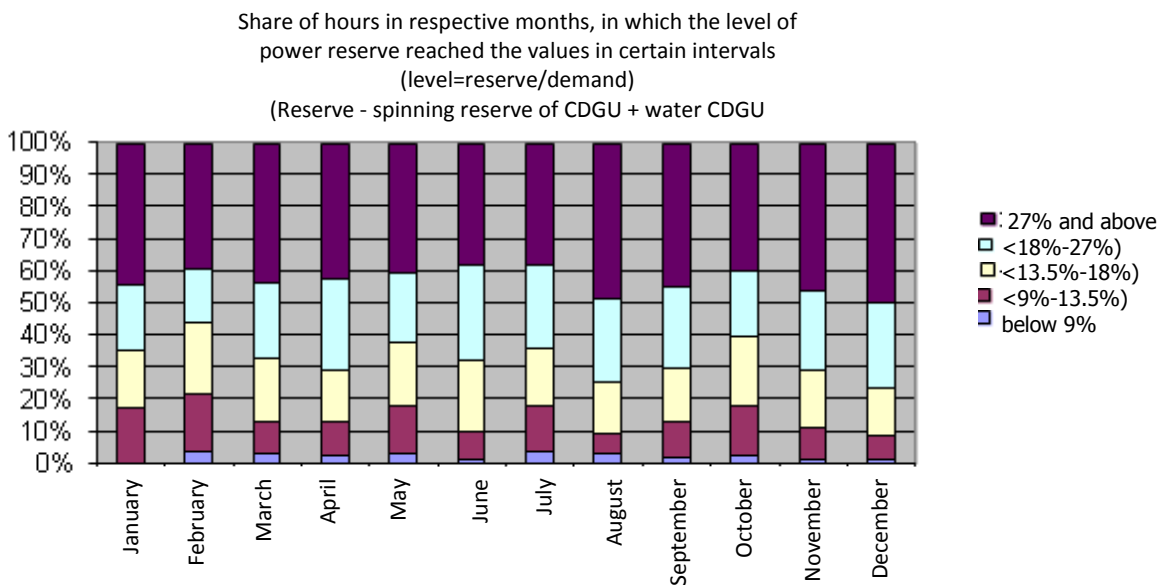
Figure 15. Available capacity of domestic power plants and maximum domestic capacity demand in the evening peak, shown as average values on working days of a month in 2015



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

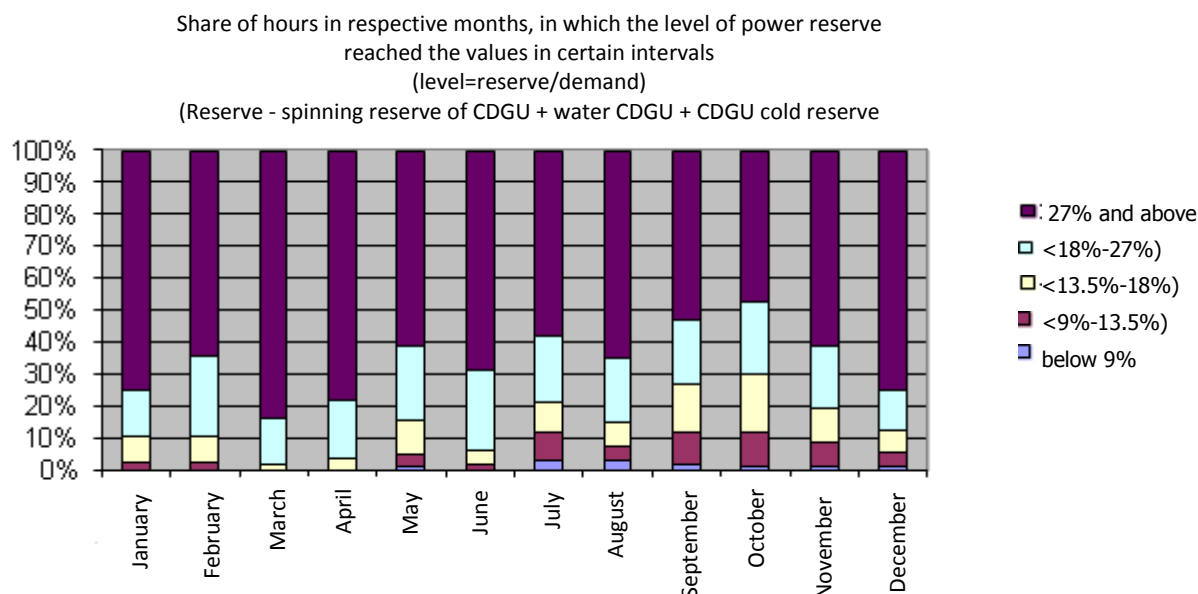
Figures 16 and 17 show percentage share of hours in a month, in which the capacity reserves related to capacity demand achieved particular value ranges, i.a. reference value set out in the TNC at the level of 9%. Figure 16 shows the levels of capacity reserve calculated as a sum of spinning reserve of thermal CDGU and reserve of water CDGU, whereas in Figure 17 – as a sum of spinning reserve of thermal CDGU, reserve of water CDGU and cold reserve of thermal CDGU.

Figure 16. Percentage share of hours in particular months, in which power reserve (a sum of spinning reserve of thermal CDGU and reserve of water CDGU) related to capacity demand reached the level: below 9%; from 9%, inclusive, to 13.5%; from 13.5%, inclusive, to 18%; from 18%, inclusive, to 27%; and 27% and above



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

Figure 17. Percentage share of hours in particular months, in which power reserve (a sum of spinning reserve of thermal CDGU, reserve of water CDGU and cold reserve of thermal CDGU) related to capacity demand, achieved the level: below 9%; from 9%, inclusive, to 13.5%; from 13.5%, inclusive, to 18%; from 18%, inclusive, to 27%; and 27% and above)



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

Table 7. Minimum and maximum capacity reserves (including cold reserve) in 2015, in the morning and evening peaks (on the basis of daily reports of PSE S.A. of all days of the year)

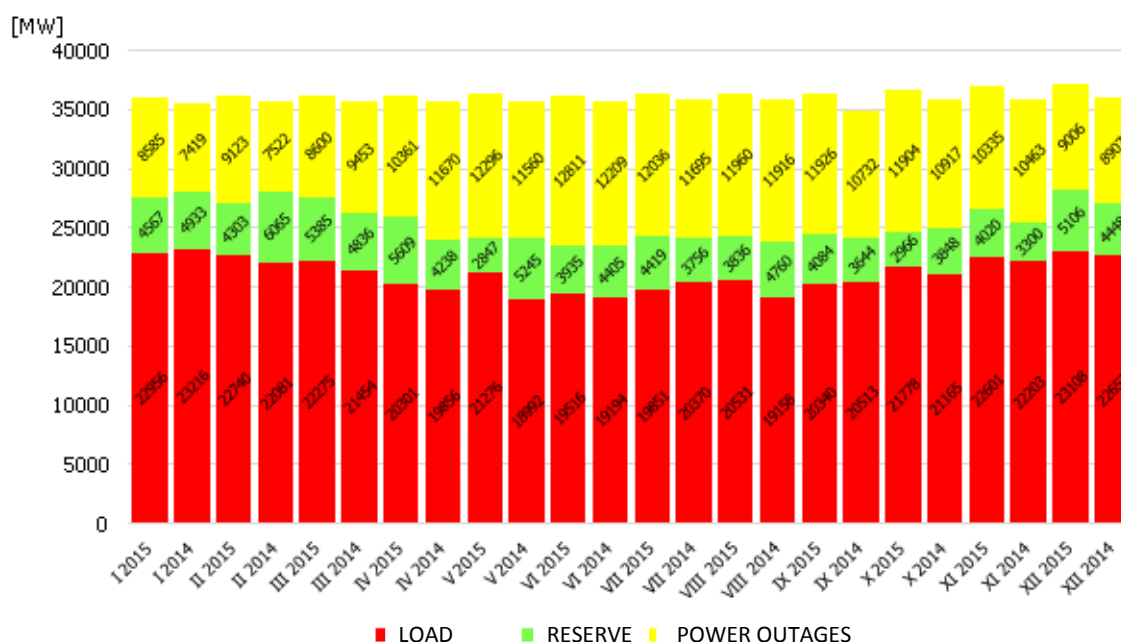
	Morning peak		Evening peak	
	power reserve [MW]	reserve/demand [%]	power reserve [MW]	reserve/demand [%]
min	748	3.49	1,182	5.21
max	17,716	126.99	15,971	103.07

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

Figure 18 compares average monthly values (corresponding to evening peaks on working days) of loads, outages and reserves in the system in subsequent months of 2014 and 2015. According to the presented data, in 2015 the average volume of power reserves in the system in relation to recorded loads was at the level comparable to 2014. However, the biggest differences indicating the significant drop of this index comparing to referential data of 2014 occurred in May and August 2015 (what corresponds to the introduction of restrictions to electricity supply and off-take, in particular in the 33rd week of 2015, i.e. the 20th degree of power supply limitations, and continuation of power supply at the degrees between 11th and 16th during this week). The highest increase in the average level of reserves in the system in relation to the recorded loads, compared to referential period of the previous year, occurred in April 2015. Basing on the average monthly values of evening peaks on working days presented in the figure 18, it may be noticed that in 2015 average value of power outages was slightly higher in comparison to corresponding period of 2014, except for periods: March-April and November-December.

On annual average, in 2015, comparing to 2014, there were noticeable drops of capacity reserves of utility power plants and power outages connected with extensive, medium and emergency renovations.

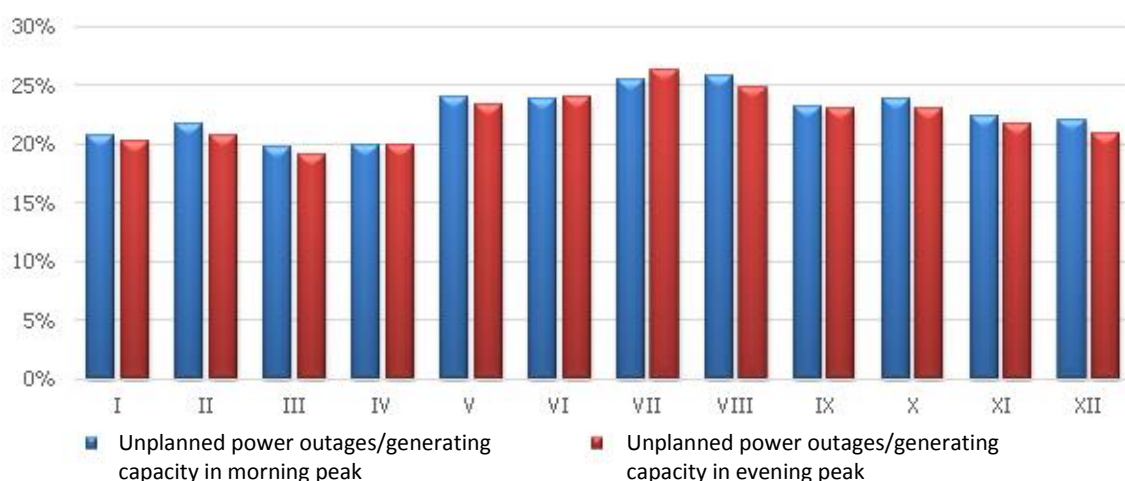
Figure 18. Utility power plants - comparison of selected aspects of operation in 2015 and 2014 (on the basis of average monthly values of evening peaks on working days)



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

Unplanned power outages in relation to generating capacity in the morning and evening peaks were similar, and the biggest difference did not exceed 1% (unscheduled power outages include outages arising from current and emergency renovations, maintenance outages, thermal, and grid operation-related outages, excluding long-term renovations).

Figure 19. Power outages (unscheduled) in relation to generating capacity in the evening and morning peaks of capacity demand on working days of particular months of 2015



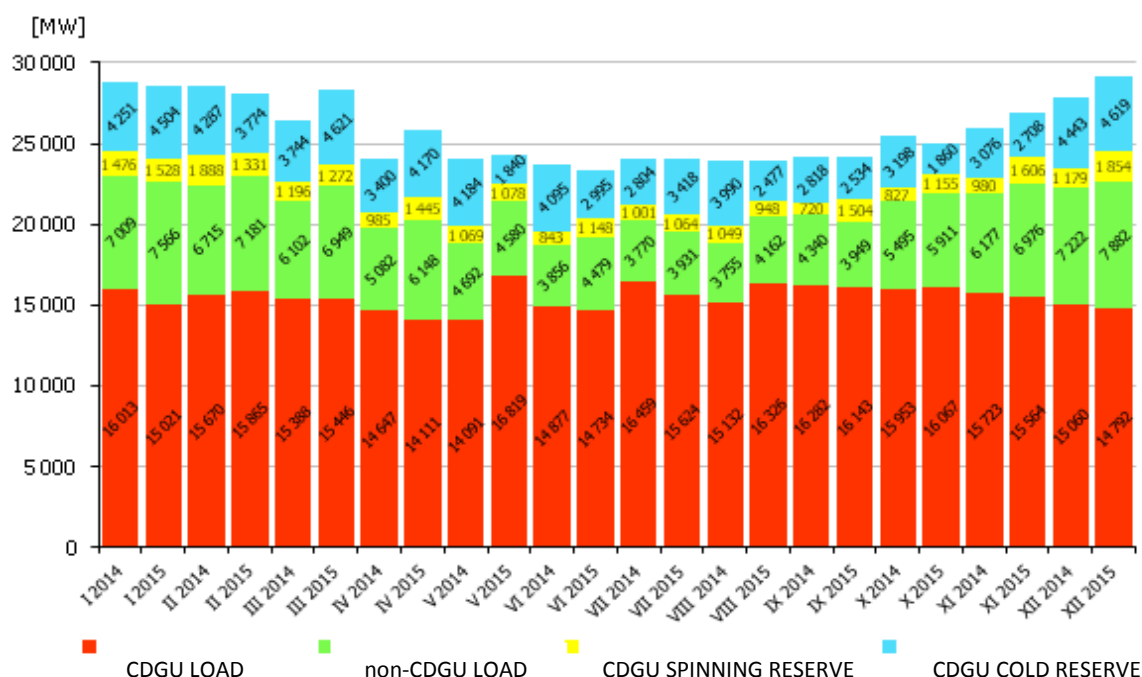
Source: ERO, on the basis of data provided by PSE S.A.

The biggest power outages (unplanned) related to domestic capacity demand on working days occurred in summer season (June-August 2015), reaching the extreme level for the evening peak in July 2015 at a value of 49%.

Figure 20 presents data on available capacities and power reserves of domestic power plants in 2014-2015, according to which the average annual load of Centrally Dispatched Generation Units

(CDGU) remained at the level comparable to 2014, while load of non-CDGU increased significantly in comparison to the previous year, by more than 8.5%. When comparing average annual volumes of spinning and cold reserves of CDGU with load of CDGU, it should be noticed that the share calculated as a ratio of reserve and load, did not change significantly in case of spinning reserve: it grew from 7.1% in 2014 to 8.5% in 2015, whereas in case of cold reserve – it decreased from 23.9% to 21.1%.

Figure 20. Available capacities and power reserves of domestic power plants, available to TSO in 2015, compared to 2014 – average monthly values of daily peak capacity demand in the country



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

3.3.2. Monitoring investments in generation capacities

Pursuant to Article 23 (2) point 19 of the Energy Law Act, in the wording effective since 30 October 2015, the President of ERO shall collect information concerning the existing, being under construction and planned energy infrastructure in the sector of:

- natural gas and electricity, including electricity from renewable energy sources, except for infrastructure for generation of electricity from agricultural bio-gas,
- liquid bio-fuels, as referred to in the Act on bio-components and liquid fuels – being of interest to the EU, and for passing them on to the minister responsible for energy, by 15 July of reporting year, as referred to in Regulation 256/2014, in the scope laid down in points 2-4 of the Annex to this regulation²⁰).

²⁰ Current wording of Article 23 (2) point 19 of the Energy Law Act results from the amendment to the Energy Law Act introduced by the Act of 11 September 2015 on amendment of Energy Law Act and some other acts (Journal of Laws of 2015, item 1618), which changed the above-mentioned provision as of 30 October 2015, as well as by an Act of 19 November 2015 on the amendment of Act on government administration branches and some other acts (Journal of Laws of 2015, item 1960), which change the above provision as of 27 November 2015. Article 23 (2) point 19 of the Energy Law Act, in force until 29 October 2015, was as follows:

"The President of ERO shall collect information concerning existing, being under construction and planned energy infrastructure in the sector of:

- natural gas and electricity, including electricity from renewable Energy sources, except for infrastructure for generation of electricity from agricultural bio-gas,
- liquid bio-fuels, as referred to in the Act on bio-components and liquid fuels; – being of interest to the EU, and for passing them on to the minister responsible for economy, by 15 July of reporting year, as referred to in Regulation of the Council (EU, EURATOM) No 617/2010, in the scope laid down in points 2-4 of the Annex to this regulation".

The above obligation results from Regulation (EU) No 256/2014 of the European Parliament and of the Council of 26 February 2014 concerning the notification to the Commission of investment projects in energy infrastructure within the European Union, replacing Council Regulation (EU, Euratom) No 617/2010 and repealing Council Regulation (EC) No 736/96, hereinafter referred to in as "Regulation 256/2014", as well as Commission Implementing Regulation (EU) No 1113/2014 of 16 October 2014 establishing the form and technical details of the notification referred to in Articles 3 and 5 of Regulation (EU) No 256/2014 of the European Parliament and of the Council and repealing Commission Regulations (EC) No 2386/96 and (EU, Euratom) No 833/2010, hereinafter referred to in as "Regulation 1113/2014".

According to Article 9t of the Energy Law Act, in the wording effective since 30 October 2015, energy companies involved in generation of electricity, including the units of renewable energy sources with the exception of generation of electricity from agricultural biogas, transmission of electricity or gaseous fuels, storage of gaseous fuels, natural gas liquefaction and regasification of liquefied natural gas, as well as entities implementing or planning investment projects, shall fulfil the obligation stipulated in Regulation 256/2014 by submitting to the President of ERO information concerning energy infrastructure in natural gas and electricity sectors, to the extent determined in point 2 or 3 of the annex to that Regulation²¹⁾. Moreover, according to Article 30 (2a) of the Act on bio-fuels, the producers and entities implementing or planning investment projects are obliged to submit to the President of ERO information on energy infrastructure for liquid bio-fuels production in relation to installations in which liquid bio-fuels may be produced or refined.

Hence, on 5 May 2015 the President of ERO published Information No. 19/2015 on collecting information on existing, being under construction and planned energy infrastructure, and informed energy companies about the obligation to notify information concerning energy infrastructure in the scope determined in Regulation 256/2014, according to the format stipulated in Annex to Regulation 1113/2014²²⁾.

Moreover, on 10 June 2015 the President of ERO sent individual letters to four energy companies, summoning to submit information on existing, being under construction and planned energy infrastructure in relation to generation units of thermal power plants, which installed capacity (capacity of power generators) is higher than or equal to 100 MWe.

Information provided by energy companies owning generation units of thermal power plants with installed capacity higher than or equal to 100 MWe, as on 31 March 2015, shows that there is more than 2,500 MW under construction. The capacity of additional elements of infrastructure, which are to be commissioned in 2015-2020, was equal to 2,600 MW. Installations, which are to be decommissioned in 2015-2020, have capacity of above 2,900 MW.

After analysis of collected information, pursuant to Article 23 (2) point 19 of the Energy Law Act, by a letter of 13 July 2015 this information was submitted to the Minister of Economy, who is the body responsible for notifying the European Commission about information on energy infrastructure, as referred to in Regulation 256/2014.

Moreover, monitoring of investments in generation capacities by the President of ERO is carried out on the basis of 15-year investment plans of electricity producers, submitted to the President of ERO every two years (according to the provisions of the Energy Law Act currently in force) by energy companies involved in generation of electricity in units of total installed capacity not lower than 50 MW.

Last examination of monitoring the security of electricity supply was conducted by the President of ERO in 2014, and its findings were described in detail in the National Report 2015. The next examination is to be carried out in 2016.

²¹⁾ Current wording of Article 9t of the Energy Law Act results from the novelization of the Energy Law Act, introduced by the Act on RES, which changed the above-mentioned provision as of 4 May 2015, and by the Act on 11 September 2015 on the amendment of Energy Law Act and some other acts (Journal of Laws of 2015, item 1618), changing the above-mentioned provision as of 30 October 2015.

Article 9t of the Energy Law Act, in force until 29 October 2015, was as follows: "energy companies involved in generation of electricity, including in the units of renewable energy sources with the exception of generation of electricity from agricultural biogas, transmission of electricity or gaseous fuels, storage of gaseous fuels, natural gas liquefaction and regasification of liquefied natural gas, as well as entities implementing or planning investment projects, shall fulfil the obligation stipulated in the Council Regulation (EU, Euratom) No 617/2010 by submitting to the President of Energy Regulatory Office information concerning energy infrastructure in natural gas and electricity sectors, to the extent determined in point 2 or 3 of the Annex to that regulation".

²²⁾ Notwithstanding the provisions of the Energy Law Act in effect as of 29 October 2015, it should be noticed that the Regulation of the European Parliament and of the Council No 256/2014 is of general application, binding in its entirety and directly applicable in all Member States. Therefore, it was assumed that the detailed information which should be submitted to the President of Energy Regulatory Office was determined in Regulation 256/2014.

Investment projects related to cross-border infrastructure

Investment projects connected with cross-border interconnections are included in the PSE S.A.'s Development Plan in terms of satisfying current and future electricity demand in 2016-2025:

Modernization and development of 400/220 kV Krajnik substation
Modernization and development of 400/220/110 kV Mikułowa substation
Construction of 400 kV Kozienice – Siedlce Ujrzanów line
Development of 400/220/110 kV Kozienice substation
Construction of 400 kV Ostrołęka – Stanisławów line
Development of 400/220 kV Stanisławów substation
Development of 400/220/110 kV Ostrołęka substation
Construction of 400 kV Ostrołęka – Olsztyn Mątki line
Development of 400/220/110 kV Olsztyn Mątki substation

List of investment projects aimed at construction and extension of the cross-border interconnections is included in Ten Year Network Development Plan, developed in 2014 (TYNDP 2014).

3.3.3. Measures to cover peak demand and electricity shortfalls of one or more suppliers

In this regard the President of ERO has a competence to announce, organise and conduct tenders for building new electricity generating capacities or implementing projects aimed at reduction of electricity demand. It should be underlined that these actions may be undertaken in case of possible occurrence of long-term threat to electricity supply, after ascertaining by the minister responsible for economy on the basis of the report developed and submitted to the European Commission every two years, that existing and being under construction electricity generating capacities as well as endeavours to rationalize electricity consumption do not guarantee long-term security of electricity supply. Prior to announcing the tender, the President of ERO consults with the minister responsible for public finance and with other relevant public administration bodies on the types of economic and financial instruments enabling construction of new generation capacities or implementation of projects reducing electricity consumption on preferential terms. The President of ERO concludes with the winning bidder an agreement stipulating bidder's duties, types of financial and economic instruments as well as rules for settlements of financial support arising from these instruments. The detailed requirements concerning contents of tender documents as well as terms and conditions of organising and conducting a tender are stipulated by the minister in charge of economy in the ordinance.

With respect to other measures aimed at covering peak demand and remedying shortfall in electricity supply by one or more suppliers, these measures are determined by the minister responsible for economy, who is a competent authority to supervise the security of supply in gaseous fuels and electricity and to supervise the functioning of domestic energy systems to the extent specified in the Energy Law Act. In particular, these actions are provided for in the energy policy, drafted by the minister responsible for economy. Currently "Energy policy of Poland until 2030" is in force, adopted by the resolution of the Council of Ministers on 10 November 2009.

4. THE GAS MARKET

4.1. Network regulation

4.1.1. Unbundling

TSO

There is one transmission system operator on the territory of Poland – OGP Gaz-System S.A., a company wholly owned by the State Treasury. TSO's activity in 2015 comprised managing the national transmission system owned by OGP Gaz-System S.A. This activity was performed under a decision designating the company as the gas transmission operator for the period until 31 December 2030, issued by the President of ERO. The company performs its activity under the licence for gaseous fuels transmission valid until 31 December 2030.

In addition, OGP Gaz-System S.A. performs the tasks of gas transmission system operator on the Polish section of the Yamal-Western Europe pipeline, owned by EuRoPol Gaz S.A. which holds a licence for transmission of gaseous fuels. Operator's functions on this section of the transit pipeline are performed in the independent transmission system operator model, under the decision of the President of ERO ex officio designating OGP Gaz-System S.A. as the TSO for the period until 31 December 2025.

On 27 November 2015, along with the entry into force of the amendment of the Act on government administration branches and some other acts, including the Act on Energy Law, there was a change of the entity exercising the rights of State Treasury as the only shareholder. Up to that point these rights were exercised by the minister in charge of economy, whereas pursuant to the new wording of Article 12a of the Act on Energy Law they are currently exercised by the Government Plenipotentiary for Strategic Energy Infrastructure.

The certification procedure of transmission system operators, including a separate certification procedure for transmission system operators in reference to entities controlled by an entity with its registered office in third country, have been regulated in the provisions of Articles 9h¹ and 9h² of the Energy Law Act. Detailed information on the certification procedure was provided in the National Report 2015.

In reference to OGP Gaz-System S.A. in the scope of operatorship on its own networks the ownership unbundling (OU) model shall apply, whereas with regard to networks that do not constitute a property of OGP Gaz-System S.A., i.e. the Polish section of the Yamal pipeline – the independent system operator (ISO) model.

Certification process of OGP Gaz-System S.A. in the OU model was finalised in 2014. On the basis of information and documents collected in the course of proceeding and taking into account the opinion of the European Commission, the President of ERO, with the decision of 22 September 2014 granted the company the certification of independence in reference to performing TSO's tasks on its own networks.

In 2015 the President of ERO continued the administrative proceeding on granting the certification of independence in the ISO model to OGP Gaz-System S.A. in reference to performing TSO tasks on the Polish section of the Yamal pipeline owned by SGT EuRoPol GAZ S.A. Application in this regard was filed by OGP Gaz-System S.A. in March 2014.

In September 2014 the European Commission issued an opinion in the aforesaid case in which it took a position that, prior to granting the certification, ERO shall conduct a detailed examination pursuant to Article 11 of Directive 2009/73/EC and then notify the EC the amended draft decision comprising such assessment. The President of ERO, having regard to Article 3 (2) of Regulation 715/2009, took into account the above-mentioned EC's recommendation and requested the Minister of Foreign Affairs to issue an opinion referred to in Article 9h² (2) of the Energy Law Act. The amended draft decision comprising impact assessment of granting the certification of independence to OGP Gaz-System S.A. on the security of gas supply in the EU was submitted to the European Commission in January 2015.

On 19 March 2015 the European Commission acting pursuant to Art. 3 (1) of Regulation 715/2009 as well as Article 10 (6) and Article 11 (6) of Directive 2009/73/EC issued the second opinion on the

certification of OGP Gaz-System S.A. in the ISO model. The opinion comprised remarks concerning gas compression stations and measuring stations, network and investment planning, capacity assessment, access to confidential information and application of Article 11 of Directive 2009/73/EC.

After supplementing evidence and conducting subsequent analyses, with the decision of 19 May 2015 the President of ERO granted OGP Gaz-System S.A. the certification of independence in the ISO model in reference to the TSO function performed by this company on the Polish section of Yamal pipeline.

In the course of the aforesaid proceeding the European Commission issued two opinions with recommendations that should be to the highest extent taken into consideration by the national regulatory authority. The European Commission raised, in particular, issues such as the current usage of gas compressing stations and measuring stations located on the Polish section of Yamal pipeline, and obliged the President of ERO to perform assessment whether granting the certification to OGP Gaz-System S.A. will not pose a threat to the security of gaseous fuels supply to Poland and other EU Member States.

The President of ERO conducted such assessment and concluded that granting the certification of independence to OGP Gaz-System S.A. will not pose a threat to the security of gaseous fuels supply. What is more, the conclusions resulting from the analysis of collected materials allow for clearly stating that granting this operator the certification of independence in the ISO model will have a positive impact on the security of gaseous fuels supply to Poland and other EU Member States.

In addition, taking account of the opinion of the European Commission, the President of ERO in the issued decision recommended OGP Gaz-System S.A. to take over the implementation of tasks connected with the current usage of gas compressing stations and measuring stations located on the Polish section of the Yamal pipeline within 24 months from the day on which the aforesaid decision came into force.

The decision on the above-mentioned certification, together with the opinions issued by the European Commission, was published in the Bulletin of ERO.

Unbundling rules determined in the Act on Energy Law

The Energy Law Act determines the unbundling rules for TSO, DSO and SSO. It is aimed at ensuring efficient unbundling of gas transmission, distribution and storage activity from activities connected with the production or supply of natural gas.

Failure to comply with the unbundling requirements is sanctioned with a financial penalty. In the light of Article 56 (2) points 20 and 21 of the Energy Law Act, a financial penalty shall be imposed on anybody who does not respect the conditions and criteria of independence of the system operator, referred to in Article 9d (1-2), and on anybody who does not provide the operator designated for its network with conditions and criteria of independence, referred to in Article 9d (1-2).

The scope of activity that may be carried out by the gas TSO is determined in Article 9d (1) of the Energy Law Act, pursuant to which transmission system operator and combined system operator are, in terms of their legal and organisational form and the decision making process, independent from other activity not related to:

- 1) transmission, distribution or storage of gaseous fuels, or natural gas liquefaction or regasification of liquefied natural gas in facilities for liquefied natural gas, or
- 2) transmission or distribution of electricity.

In addition, pursuant to Article 9d (1a) of the aforesaid Act, in order to ensure independence of transmission system operator or combined system operator the same person or entity cannot:

- 1) directly or indirectly exercise a decisive influence on or exercise other rights over a company involved in production, generation or supply of gaseous fuels or generation or supply of electricity, as well as directly or indirectly exercise a decisive influence on or exercise other rights over a transmission system operator or combined system operator, and exercise a decisive influence on the transmission system or the combined system,
- 2) appoint members of the supervisory board, the management board or other bodies legally representing the transmission system operator or combined system operator, or towards transmission system or combined system, as well as directly or indirectly exercise a decisive influence on or exercise other rights over a company involved in production, generation or supply of gaseous fuels or generation or supply of electricity,

3) perform the function of a member of the supervisory board, the management board or other bodies legally representing the transmission system operator or combined system operator, or towards a transmission system or a combined system, as well as perform any of these functions in a company involved in production, generation or supply of gaseous fuels or generation or supply of electricity.

In the course of proceedings for granting the certification of compliance with independence criteria conducted in the years 2014-2015, the President of ERO analysed whether the TSO meets the conditions and criteria of independence.

The Act regulates also the scope of independence of the gas distribution system operator. Pursuant to Article 9d (1d) of this Act, DSO which is in the structure of vertically integrated undertaking shall remain independent from other activities not related to distribution of gaseous fuels or electricity in terms of its legal and organisational form as well as decision-making. In addition, in order to ensure the independence of the distribution system operator the following cumulative criteria of independence shall be met:

- 1) the persons responsible for the management of the distribution system operator may neither participate in the management structures of the vertically integrated undertaking or energy undertaking engaged in transmission, extraction, production or trade in gaseous fuels or transmission, generation or trade in electricity, nor be responsible, directly or indirectly, for the current activity in this area,
- 2) the persons responsible for the management of distribution system operator are provided with the ability to act independently,
- 3) the distribution system operator shall have the right to make independent decisions as regards the assets necessary to run business in the distribution of gaseous fuels or electricity,
- 4) the body of the vertically integrated undertaking may neither give the distribution system operator instructions regarding its ongoing activities, nor make decisions in the scope of network construction or upgrade, unless these instructions or decisions concern the activities of the distribution system operator which would go beyond the approved financial plan or other equally-important document (Article 9d (1e) of the above-mentioned Act).

Moreover, pursuant to Article 9d (1h) of the Energy Law Act, transmission system operator, distribution system operator and combined system operator may neither perform business activity connected with production, extraction or trade in gaseous fuels or electricity, nor perform it for other energy undertakings on the basis of a contract.

The Act provides also for exemptions from unbundling obligation for the gas DSOs. Pursuant to Article 9d (7) of the aforesaid Act, obligation of legal and organisational unbundling of gas DSO shall not apply to vertically integrated undertaking which serves less than 100 thousand customers connected to gas distribution system being a part of the undertaking, provided that sales of gaseous fuels by this undertaking is not higher than 150 mcm. It shall not apply either to a vertically integrated undertaking which serves less than 100 thousand customers connected to gas distribution system being a part of the undertaking, provided that the undertaking sales gaseous fuels other than high-methane or nitrogen natural gas, including liquefied natural gas, delivered through the gas network.

The Energy Law Act contains also the provisions concerning the independence of the storage system operator. Pursuant to Article 9d (1f) of this Act, the SSO which is part of vertically integrated undertaking shall remain independent in terms of its legal and organisational form and decision-making from other activities not related to storage, transmission or distribution of gaseous fuels. Moreover, pursuant to Article 9d (1g) of the aforesaid Act, in order to ensure the independence of storage system operator the following cumulative criteria shall be met:

- 1) the persons responsible for the management of storage system operator may neither participate in the structures of vertically integrated undertaking or energy undertaking engaged in extraction, production or trade in gaseous fuels, nor be responsible, directly or indirectly, for the current activity in this area,
- 2) the persons responsible for the management of the storage system operator are provided with the ability to act independently,
- 3) the storage system operator shall have the right to make independent decisions as regards the assets necessary to pursue economic activity in the scope of storage of gaseous fuels,
- 4) the body of the vertically integrated undertaking may neither give the storage system operator instructions regarding its ongoing activities nor make decisions in the scope of storage installation construction or upgrade, unless these instructions or decisions concern the activities of the storage system operator which would go beyond the approved financial plan or other equivalent document.

Distribution System Operators

As of 31 December 2015, business activity in the scope of distribution of gaseous fuels was performed by 52 distribution system operators appointed by the decisions of the President of ERO, including one legally separated operator.

The one aforesaid DSO being subject to the unbundling obligation is Polska Spółka Gazownictwa Sp. z o.o., which belongs to PGNiG S.A. Capital Group. The company is carrying out business activity consisting in distribution of gaseous fuels through distribution networks of low, medium and high pressure for the needs of customers located in the territory of the Republic of Poland. In addition, 51 energy undertakings performed DSO functions locally.

Storage System Operator

In 2015 the function of storage system operator was carried out by Operator Systemu Magazynowania Sp. z o.o. (hereinafter: "OSM Sp. z o.o."), appointed SSO until 31 May 2022 on the basis of the decision of the President of ERO. The company performs its function on the assets owned by PGNiG S.A. As of 31 December 2015 OSM Sp. z o.o. carried out its tasks as regards the following storage installations: UCGS Mogilno, UGS Husów, UGS Wierzchowice, USG Strachocina, UGS Swarzów, UGS Brzeźnica and UCGS Kosakowo.

Natural Gas Liquefaction System Operators

As of 31 December 2015 the following five entities performed the function of natural gas liquefaction system operators: PSG Sp. z o.o., DUON Dystrybucja S.A., LNG-Silesia Sp. z o.o., PGNiG S.A. and Barter S.A.

Compliance Programmes

Legal basis for the development of Compliance Programmes by the operators has been described in chapter 3.1.1.

In 2015 the following gas sector entities were obliged to develop Compliance Programmes: storage system operator (OSM Sp. z o.o.) and distribution system operator (Polska Spółka Gazownictwa Sp. z o.o.). Both companies are subsidiaries of PGNiG S.A. Compliance Programmes of the aforesaid companies have been approved by the President of ERO by means of decision. OGP Gaz-System S.A. as a company wholly owned by the State Treasury is not obliged to develop such Programme.

According to the Energy Law Act, Compliance Officer is responsible for the implementation of reporting obligation as regards Compliance Programmes. The tasks of the Compliance Officer comprise i.a. development of a report on the implementation of Compliance Programme and submitting it to the President of ERO. Both DSO and SSO implemented their reporting obligations within the term resulting from the binding provisions, i.e. by 31 March 2016. The submitted reports have been published by the President of ERO in the Bulletin of ERO and on the Office website.

In 2015 no cases of infringement of the principle of equal and non-discriminatory treatment of the distribution system users were detected. There were also no complaints received regarding the application of Compliance Program provisions, or any notification of the suspicion of conflict of interest.

4.1.2. Technical functioning

Balancing services

According to the regulations binding in Poland, gas system balancing in the national transmission system is performed by the TSO as part of the provided gas transmission services. TSO is responsible for balancing both in the transmission system and distribution systems connected to it. Commercial balancing carried out by the transmission system operator is based in daily settlements of particular system users.

Balancing area of the National Transmission System (NTS) comprises balancing area for high-methane gas (NTS_{HM}) and balancing area for nitrogen gas (NTS_N). In addition, Yamal pipeline constitutes a separate balancing area for high-methane gas (the so-called Transit Gas Pipeline System – TGPS). NTS_{HM} and TGPS balancing areas are currently connected by a virtual interconnection point, the so-called Point of Interconnection (PoI), which comprises two physical points. These areas have also cross-border interconnection points. In contrary, balancing area for nitrogen gas does not have any interconnection points with other balancing areas and does not have cross-border interconnection points. It is an area which is fed only from the Polish gas mines. Transmission system operator conducts activity in the field of system balancing by selling/purchasing standard short-term products on the gas exchange or on the balancing services market.

Balancing rules in all the aforesaid balancing areas are in line with the Network Code on Gas Balancing of Transmission Networks (BAL). In each of these areas there have been interim measures introduced, which were approved by the President of ERO until 30 September 2016 (with the possibility to prolong this period on a reasoned request from the operator). Interim measures applied on the NTS_{HM} balancing area include balancing market platform and imbalance tolerance (at the level of 5%). On the TGPS balancing area and balancing area for nitrogen gas interim measures in the form of balancing market platform and temporary charge for imbalance have been introduced. Temporary charge for imbalance is calculated on the basis of the margin price mechanism, in a different manner in the case of TGPS balancing area and the balancing area for nitrogen gas.

Since 1 October 2015 the operator has applied a mechanism to ensure cost neutrality of the balancing activities. There have been three stages of implementing a balancing neutrality charge foreseen, although the balancing neutrality charge in the first gas year, starting from 1 October 2015 and lasting until 30 September 2016, is equal 0. The charge paid or collected in the next gas year will be calculated per month, taking into account the result of the balancing activity for the period of 1 October 2015 to 30 September 2016, as well as current results.

In addition, taking advantage of the possibilities provided for in the BAL Code, with the decision of 5 October 2015, the President of ERO agreed for the TSO to carry out balancing services in the form of sale/purchase of gas on the neighbouring GASPOOL balancing area (European Energy Exchange – EEX) and to transmit gas to and from this balancing area.

Security and reliability standards, quality of service and supply

The tasks of the President of ERO include monitoring of the gas system functioning, i.a. in the scope of the security of gas supply. This task has been formulated in a general way – a statutory provision which is the source of the obligation in question does not mention specific actions, as it is in case of Article 5 of Directive 2009/73/EC.

In terms of security and reliability of supply, the President of ERO shall review the way of carrying out the statutory duties by the gas system operators, and evaluate their performance in terms of ensuring proper operation of the system, in accordance with the criteria set out in the Network Code. The inspection is also carried out within the analysis of the reports on the execution of the development plans, including monitoring of the projects aimed at ensuring the continuity of transmission and distribution services, while maintaining the required level of security and reliability, as well as creating conditions for market development. Criteria relevant to the security of supply, taken into account in the analysis of investment projects, concern:

- adaptation of gas system to the new operating conditions resulting from the connection of new sources of gas and new customers;
- possibility to diversify the directions and routes of gas supply to Poland;
- reconstruction or modernisation of the existing gas infrastructure;
- adapting systems to binding standards, legal and technical regulations;
- elimination of the so-called bottlenecks in the networks.

Monitoring is carried out on the basis of the annual reports on the implementation of development plans for satisfying current and future demand for gaseous fuels, and comparing them with the agreed development plan as regards the list of investments and expenditures that the undertaking planned to bear and in a consequence borne, and quantitative data relating in particular to the number of customers and the amount of supplied gas – planned and executed. In addition, the state of network security can

be evaluated on the basis of information on the age structure of assets, as well as the number of interruptions and breakdowns included in the aforesaid reports. The findings of the above-mentioned monitoring shall be taken into account in the further regulatory activities of the President of ERO, in particular at the stage of agreeing development plans.

In addition, controlling of the safety standards includes controlling if the relevant entities fulfil the obligation to maintain the obligatory natural gas reserves, as well as reporting by the operators on the applied limitations in gas supply.

Controlling the quality standards of customer service and quality parameters of gaseous fuels shall protect consumers from lowering the quality of delivered fuel (including i.a. its combustion heat), the standards of provided services (supply interruptions) and the customer service standards by the gas undertakings operating on the market.

Quality parameters of gaseous fuels, as well as the quality standards of customer service, including the method of satisfying complaints, are regulated in the Ordinance of the Minister of Economy of 2 July 2010 on detailed conditions of gas system operation²³⁾. According to the regulation, gaseous fuels supplied by gas undertakings shall meet certain quality parameters. At the same time, the ordinance obliges the TSO and DSO to measure particular quality parameters. Parameters for gaseous fuels are determined in Transmission Network Code and relevant Distribution Network Codes. In this scope, the President of ERO, within the network development plans, monitors also the number of gas networks points in which gas quality parameters are measured.

Controlling the quality of gaseous fuels is conducted at customer request. Moreover, in case of objections as regards the quality of supplied gaseous fuels, customer may request examination of the measurement system operation in an independent testing laboratory accredited by a certification body pursuant to the rules and procedures specified in the Act of 30 August 2002 on the compliance assessment system²⁴⁾. In case of irregularities, the energy undertaking shall cover the costs of tests, as well as shall adjust the settlement for the supplied gas at its own cost under the terms and within deadlines set out in the tariff.

The current practice shows that objections come mainly from household customers, whereas intervention of the President of ERO consists mainly in calling the distribution system operators to submit reports on the quality of natural gas (including average monthly combustion heat) in the part of gas network to which the installation of the complaining customer was connected. In some cases, also the results of analyses carried out by research institutes and scientific units were used, as the Regulator neither has a laboratory nor adequate equipment to conduct independent measurements of the gaseous fuels quality.

Regulatory activities of the President of ERO in the scope of controlling the quality standards of customer service and quality parameters of gas are also reflected in the process of approving tariffs for gaseous fuels. The President of ERO approves prices and fee rates contained in the tariff only when they are calculated taking into account the quality parameters specified in the above-mentioned ordinance on detailed conditions for gas system operation. If the quality parameters of gaseous fuels referred to in the above-mentioned ordinance are not met, customers are entitled to a discount determined according to the rules provided for in the tariff. Moreover, the tariff provides for discounts in charges for gas supply due to the breach in quality standards of customer service. The method for discount calculation is determined in the provisions of the ordinance on tariff calculation for gaseous fuels, and its level shall be determined in the tariffs approved by the President of ERO.

Customers who complain to the Regulator on the activities of gas undertakings are usually not aware of their own rights. In such cases, they are provided with explanations and information about rights and responsibilities according to current legal status.

In case of TSO, control in the scope of safety and reliability standards of supply and quality standards is also conducted through analysis of TSO's quarterly reports on discounts for failure to meet quality standards of gaseous fuels, and restrictions to the supply introduced due to the reasons attributable to the TSO.

²³⁾ Journal of Laws of 2014, item 1059.

²⁴⁾ Journal of Laws of 2016, item 655.

Monitoring time to connect and repair

Monitoring the gas system functioning in terms of conditions for connecting entities to the network and their execution, as well repairs of these networks, is conducted by ERO on a regular basis and is carried out i.a. through verification and analysis of information from undertakings, their customers and other stakeholders. Information about interruptions and limitations in gas supply are presented in the table below.

Table 8. Information on interruptions and limitations of gas supplies in the transmission network in 2015

	number	Interruptions and limitations			
		duration [minutes]	number of affected customers	average time [minutes per customer]	volume of unsupplied fuel [mcm]
Downtimes	30	2,395	1	2,395	0.0388
Ongoing scheduled works	45	1,064,526	n/a	23,656	n/a
Limitations	0	-	-	-	-

Source: ERO.

In 2015 Gaz-System S.A. recorded 30 breakdowns causing downtimes and limitations to gas supply to one entity during 2,396 minutes. Average downtime in gas supply during breakdown amounted to 2,396 minutes per customer and the amount of fuel that was not supplied to customers was equal 0.038 mcm. The operator executed 45 scheduled works with a total time of downtimes and limitations of 1,064,526 minutes and average downtime during the implemented scheduled works equal 23,656 minutes per customer.

Compared to 2014, the time of downtimes and limitations in gas supply resulting from breakdowns was at a similar level (in 2014 – 2,190 minutes). At the same time the number of breakdowns was significantly reduced in comparison to the previous year (by 18 breakdowns), together with the number of entities affected by interruptions and limitations in gas supply during downtimes which was lower by 3 customers.

Moreover, in comparison to 2014 the number of scheduled works was significantly reduced – from 77 to 45, but the time of interruptions and limitations in gas supply to customers caused by the scheduled works was longer by 315,876 minutes.

In 2015 interruptions in gas supply concerned one customer ordering transmission service. Interruptions and limitations occurred in 5 cases out of 30 downtimes. Comparing the data presented above with the data from previous periods it should be observed that the number of noted downtimes in the transmission network was reduced by over one-third. In addition, significant lack of limitations in gas supply in 2015 should be noted. Moreover, the number of interruptions due to scheduled works carried out by Gaz-System S.A. was almost seven times higher in comparison to 2014. However, the number of downtimes was reduced thanks to the investment works carried out by TSO, which can be a result of the scope of conducted works.

Insufficient level of the transmission network development translates into problems with ensuring supplies to customers applying for connection to the distribution networks. This causes the need to conclude the so-called interruptible supply contracts, and refuse to connect to the network due to technical reasons. Network investment needs are also proven by the data on average duration of interruptions in gas supplies per customer connected to the transmission network, which in 2015 amounted to 2,395 minutes per customer. It should be noted that this time was over four times longer than in 2014.

Table 9. Interruptions in gaseous fuels supply to customers connected to the transmission and distribution networks in 2015

Year	Downtimes caused by					
	breakdowns			scheduled works in progress		
	duration	number of affected customers	average time	duration	number of affected customers	average time
	[minutes]	[number]	[minutes per customer]	[min.]	[number]	[minutes per customer]
2005	43,341,809.10	109,571	395.56	79,411,583.60	194,219	408.88
2006	89,518,594.80	123,361	725.66	76,721,978.40	153,386	500.19
2007	46,707,750.34	89,218	523.52	78,061,416.00	153,083	509.93
2008	110,416,057.40	104,108	1,060.62	131,395,059.60	130,673	1,005.53
2009	81,563,843.00	102,763	793.71	130,628,780.40	151,273	863.53
2010	27,236,695.80	117,616	231.60	55,470,326.40	162,637	341.07
2011	134,905,821.96	136,307	989.72	162,790,249.80	183,548	886.91
2012	102,370,430.40	91,931	1,113.56	159,639,406.18	166,928	956.34
2013	63,372,633.60	105,730	599.38	65,364,360.60	156,603	417.39
2014	19,894,108.80	97,022	205.05	53,612,689.20	126,884	422.23
2015	25,227,170.40	78,141	322.84	22,990,615.20	81,840	280.92

Source: ERO.

In 2015 the President of ERO monitored time taken by the undertakings to connect to the gas network. Information on the connections to the networks of OGP Gaz-System S.A. and distribution system operators who were subject to the unbundling obligation, completed in 2015 are presented in the table below. In case of DSOs the number of completed connections is not equal to the number of new connected customers (72,529) due to the connections of multifamily buildings.

Table 10. Information on the connections to the gas network completed in 2015

	No. of completed network connections	No. of completed full-charge connections	No. of connections completed after initial refusal
OGP Gaz-System SA	9	6	0
Distribution System Operators*	38,572	2	11

* Distribution system operators subject to the legal unbundling obligation.

Source: ERO.

Information presented in the table shows a high number of gas network connections completed by DSOs and the TSO in 2015. At the same time, on the basis of information obtained under gas system monitoring concerning conditions for connecting entities to the network carried out by ERO, the main reasons for missing the network connection deadline provided for in the agreements were identified, including, among others:

- difficulties with obtaining required administrative and legal decisions (i.e. difficulties with obtaining property owners' permits for localisation and construction of a pipeline/connector, often connected with a necessity to obtain legal title to the real estate on which gas network or installation was supposed to be built; time-consuming administrative or court proceedings related to determining utility easement),
- customers' delays in meeting the deadlines set in the network connection agreement,
- unfavourable weather conditions causing the delays in outdoor works.

The tasks imposed on the Regulator were also carried out through monitoring of fulfilment of the obligation to notify the President of ERO about every case of refusing connection to the gas network by network companies²⁵⁾. In addition, the Regulator settles also disputes regarding refusals to conclude connection agreement and considers complaints concerning network connection conditions and their execution, as well as conducting repairs of those networks. In 2015 ERO received notifications from gas undertakings informing about issuing 7,006 gas network connection refusals. Such cases are subject to the Regulator's monitoring.

²⁵⁾ Article 7 (1) of the Energy Law Act "... If energy undertaking refuses to conclude a network connection agreement, it shall be obliged to immediately in writing notify the President of the Energy Regulatory Office and the interested entity about this refusal, stating reasons for its refusal".

Table 11. Number of gas network connection refusals

No.	Name of the undertaking	No. of refusals in 2015
1	OGP Gaz-System S.A.	3
2	Polska Spółka Gazownictwa Sp. z o.o.	7,003
	TOTAL	7,006

Source: ERO.

Information presented in the above table indicates three cases of transmission network connection refusal, and a high number of refusals to connect to the distribution network. It is related to different technical conditions, including the location of the applicant (significant distance from the network or location within area not covered by the development plan), and significantly higher number of consumers applying for connection to the distribution network than to the transmission network. Under monitoring of undertakings in terms of fulfilling their obligation to notify the President of ERO of every gas network connection refusal, the undertakings pointed out to the lack of economic conditions and lack of technical conditions as the main reasons for refusal. However, lack of technical conditions for executing the connection was related to the insufficient technical network capacity in the given area – the so-called bottlenecks, where the lack of transmission network development determines further development of distribution infrastructure and inability to connect new customers. The remedy for the present situation are therefore further investments in gas infrastructure (in accordance with the development plans agreed with the President of ERO), which should contribute to the development of transmission and distribution systems for natural gas in Poland, as well as have an impact on the optimisation of their work and increase their capacity, including for the supply of gas to new directions.

Monitoring access to storage, linepack and other ancillary services, monitoring correct application of criteria that determine model of access to storage

The duties assigned to SSO are carried out by Operator Systemu Magazynowania Sp. z o.o. In 2015 operator's functions were carried out by the SSO with the use of storage capacities in the Cavern Storage Installation Group (GIM Kawerna) comprising extended storage installations in CUGS Kosakowo and CUGS Mogilno, in Sanok Storage Installation Group (GIM Sanok) comprising extended storage installation UGS Husów as well as storage installations UGS Strachocina, UGS Swarzędów and UGS Brzeźnica, and in storage installation UGS Wierzchowice. Active storage capacity of all the SSO's storage installations in 2015 amounted to 2,765 bcm (over 31 TWh).

The rules and standardised procedures for making storage capacities available are set out in the Storage Service Rules (SSR). In 2015 SSO received five requests for the conclusion of agreements on the provision of storage services for commercial purposes, including one from the TSO. It should be underlined that all applicants were granted storage capacities according to the demand indicated by them. However, SSO did not receive any application aimed at establishing and maintaining obligatory reserves. Applications that were submitted to the SSO did not cover the whole storage capacities offered by the operator. The following services have not been used: interruptible service in GIM Sanok with the possibility to start the provision in 2015/2016 storage year, interruptible service in UGS Wierzchowice, and firm service in GIM Kawerna with the possibility to start the service provision in 2015/2016 storage year. Long-term services offered in 2015 were ordered only for the period of one storage year. Currently the maximum period for which storage service can be ordered is 4 storage years. SSO made available 598 GWh of storage capacity to third parties under short-term services on interruptible conditions. In 2015 SSO did not receive any request for the provision of such service.

SSO assessed the utilisation of ordered storage capacity on a regular basis with the use of congestion management instruments. Thanks to that, unused nominal off-take and injection capacities were made available as part of the daily storage service provided under interruptible conditions. When analyzing the utilisation of the contracted storage capacities, SSO verifies the utilisation degree. However, if the utilisation level is below 70% it reserves the right to reduce the capacities and offer them to other market participants. In 2015 storage facilities were fully utilised. In addition, there is a possibility to purchase storage capacities on the secondary market. SSO is responsible for the organisation of secondary trading. However, it should be noted that in 2015 no request for sale of the contracted storage capacity was filed, and therefore no transaction was made to trade in such capacity.

To perform its information obligations, SSO makes publicly available information, i.a. on storage capacity allocation rules and mechanisms, including information on the offered services, terms and conditions of concluding contracts for the provision of storage services, as well as terms and conditions of providing these services (nomination, re-nomination, allocation). The aforesaid rules have been included in the Rules of Provision of Storage Services, published on the SSO website (www.osm.pgnig.pl). Information on the contracted and available storage capacities, as well as scheduled and unscheduled storage capacity restrictions is also published by the SSO. The aforesaid information is also available in English.

Monitoring the implementation of safeguard measures

In 2015 the President of ERO monitored the implementation of safeguard measures in the event of sudden crisis on the energy market, a threat to the physical security or safety of persons, equipment, installations or system integrity, by approving emergency plans for restrictions in natural gas consumption developed by the transmission, distribution and combined system operators. It was also carried out within verification or determination of the level of obligatory reserves of natural gas, and analysis of information related to the aforesaid measures.

Restrictions in natural gas consumption

Pursuant to the Act on Stocks, if in the assessment of gas transmission system operator or gas combined system operator actions referred to in Article 50 (actions undertaken by energy companies performing business activity in the scope of importing gas for its further resale to customers, as well as by entities ordering the provision of transmission or distribution of natural gas, aimed at counteracting the threat resulting from disruptions in natural gas supply to the gas system, or unforeseen increase in its consumption by customers, especially actions determined in procedures referred to in Article 49 (1) of the Act on Stocks) and Article 52 (release of obligatory reserves of natural gas by the gas transmission system operator after obtaining approval from the minister responsible for economy – currently the minister responsible for energy) of the aforesaid act, will not lead to restoration of fuel security of the State in reference to natural gas, the operator shall, on its own initiative or on the basis of information obtained from the energy undertaking performing business activity in the scope of importing gas for its further resale to customers, notify the minister responsible for economy the need to introduce restrictions to the natural gas consumption according to the restriction plans referred to in Article 58 (1) of the Act on Stocks. The restrictions of the maximum hourly and daily consumption of natural gas can be introduced in case of: threat to the fuel security of the country, unforeseen increase in natural gas consumption by customers, disruptions to natural gas supply, failure in networks of gas system operators, threat to the security of system operation, threat to the safety of persons, threat of substantial material losses, or the necessity to fulfil international obligations by the Republic of Poland.

Restrictions in natural gas consumption can be introduced by the Council of Ministers at the request of the minister responsible for economy, by means of an ordinance, for a fixed period of time on the whole territory of the Republic of Poland or its part, while taking into consideration the significance of customers to the economy and the functioning of the State, particularly the tasks performed by those customers and the period for which restrictions will be introduced.

The gas transmission, distribution and combined system operators or energy undertakings acting as operators, are obliged to develop plans on introducing restrictions to natural gas consumption. The plans determine the maximum hourly and daily volumes of natural gas consumption for individual customers connected to the network for particular supply levels (in levels from 2 to 10). Entities obliged to develop the restriction plans inform the customers about the maximum volume of natural gas consumption set for them in the approved restriction plans for the particular supply level. Those volumes, set forth by the approved restriction plans, become an integral part of sale agreements, transmission or distribution agreements and common service agreements.

The restriction plans are updated annually and are submitted for the approval of the President of ERO by 15 November of a given year.

Pursuant to the Ordinance of the Council of Ministers of 19 September 2007 on the manner and methods of implementing restrictions to the natural gas consumption²⁶⁾, the restrictions apply to the customers who simultaneously meet the following conditions: they off-take natural gas at the exit point from the gas system if the sum of contracted capacities set forth in the contracts referred to in Article 5 (2) point 2 and Article 5 (3) of the Energy Law Act for this exit point amounts to at least 417 cubic metres per hour, and they are included in the restriction plans. The restrictions resulting from the aforementioned plans do not apply to household consumers. In connection with the implementation of settlement system based on energy units as of 1 August 2014, pursuant to § 46 (1) of the Ordinance of the Minister of Economy of 28 June 2013 on the specific rules for setting and calculating tariffs and charges in gaseous fuels trading²⁷⁾, restriction plans are developed by the operators in energy units (kWh per hour and kWh per day).

During the time when the restrictions are in force, gas transmission system operator:

- fulfils the obligations related to introducing restrictions by determining and disclosing to the public the gas supply levels according to the restriction plans,
- coordinates the actions of energy undertakings performing business activity in the scope of natural gas trading, other gas system operators, operators of natural gas storage systems, gas liquefaction system operators in order to ensure the gas system security and implementation of restrictions introduced on the basis of the Act on Stocks,
- has at its disposal the total volume and capacity of natural gas storage and natural gas liquefaction installations connected to the gas system, as well as releases obligatory reserves of natural gas.

In 2015 the obliged operators submitted 47 applications for the approval of restrictions plans for the 2015/2016 season. In this regard, the President of ERO in 2015 issued 23 decisions, although the restriction plans of fundamental importance for the gas system functioning, i.e. the plan developed by the gas transmission system operator – OGP Gaz-System S.A. and the restriction plan developed by the gas distribution system operator Polska Spółka Gazownictwa Sp. z o.o., were approved with the decisions of 29 December 2015. The remaining restriction plans submitted to the President of ERO in 2015 and developed for the season of 2015/2016 were approved in 2016.

In 2015 restrictions in natural gas consumption were not implemented by the Council of Ministers.

Obligatory reserves of natural gas

Pursuant to Article 24 of the Act on Stocks, in order to ensure gas supplies to the Republic of Poland and to minimise the effects of a threat to the fuel security of the State, emergency situation in the gas network, unforeseen increase in natural gas consumption - energy companies performing business activity in the scope of importing gas for its further resale to customers are obliged to maintain obligatory reserves of natural gas. The aim of maintaining the obligatory reserves is to prevent the negative effects of disruptions in the natural gas supply, which enable rapid interventions allowing for compensation of deficiencies in the balance of gas supply to the market.

What is important, the aforesaid undertaking can be exempted from the obligation to maintain obligatory reserves of natural gas, if the number of its customers is not higher than 100 thousand and gas supply is not higher than 100 mcm per calendar year. The exemption is made by the minister responsible for energy (until 17 March 2016 – minister responsible for economy) on request of this undertaking, by means of a decision for a fixed time, or until a change in factual situation which constitutes a basis for this exemption.

Pursuant to Article 25 of the Act on Stocks, the President of ERO, by means of a decision, verifies (Article 25 (3)) or determines (Article 25 (5)) the volume of obligatory reserves of natural gas. The verification of the indicated reserves concerns undertakings which already conduct the activity in the scope of importing gas for its further resale to customers, while determining the volume of those reserves refers to entities that are starting the activity in the scope of importing gas for its further resale.

In the first case, undertaking sets the level of the obligatory reserves of natural gas on the basis of the volume of its imports in the period from 1 April of the preceding year until 31 March of the year in question, resulting from the statistical reports prepared by this company. The undertaking is obliged to

²⁶⁾ Journal of Laws No 178, item 1252.

²⁷⁾ Journal of Laws of 2013, item 820.

submit the information about the determined level of reserves to the President of ERO by 15 May of a relevant year.

In the second case, the level of obligatory reserves is determined by the President of ERO:

- for the period from the starting date of import until 30 September, on the basis of the undertaking's declaration concerning the planned import volume,
- from 1 October until 30 September of the following year, on the basis of average import volume in the previous period of conducting the activity.

In 2015 there were 50 proceedings on determining or verifying the obligatory reserves of natural gas conducted. Out of the conducted proceedings:

- 21 were finalised with a decision issued pursuant to Article 25 (2) of the Act on Stocks;
- 27 were finalised with a decision issued pursuant to Article 25 (5) of the Act on Stocks;
- 2 were discontinued.

Other activities in monitoring the implementation of safeguards measures

In 2015 the President of ERO monitored the implementation of safeguard measures also by the analyses of information received in connection with functioning of the above-mentioned measures, in particular:

- **information submitted to the President of ERO pursuant to Article 27 (2) of the Act on Stocks by the energy companies running business in the scope of natural gas imports for the purpose of its further resale to customers**, i.e. the information about actions undertaken during the period from 1 April of the previous year to 31 March of a given year, in order to (1) ensure fuel security of the state with respect to foreign trade in natural gas, and (2) implement the obligation to maintain obligatory reserves of natural gas.

In 2015 46 undertakings submitted to the President of ERO information pursuant to Article 27 (2) of the Act on Stocks. In addition, 2 undertakings which were not obligated to do so have submitted the aforesaid information.

- **information collected by the President of ERO in survey conducted among energy undertakings which hold a licence for foreign trade in natural gas, concerning the obligation to maintain obligatory reserves of natural gas and having developed procedures referred to in Article 49 (1) of the Act on Stocks**

The survey was conducted among 55 energy undertakings holding a licence for foreign trade in natural gas as of 30 September 2015. The answers received from the undertakings show that in the assessed period obligatory reserves of natural gas were maintained by only one undertaking, i.e. PGNiG S.A.

- **information provided to the President of ERO by gas transmission system operator pursuant to Article 24 (4) and Article 52 (7) of the Act on Stocks**

In accordance with Article 24 (4) of the Act on Stocks, if it is determined that technical parameters of storage installations do not ensure the off-take of obligatory reserves of natural gas to the gas system in the period not longer than 40 days, gas transmission system operator or gas combined system operator shall notify this fact to the President of ERO within 7 days. In 2015 the President of ERO did not receive from the gas transmission system operator any information provided pursuant to Article 24 (4) of the Act on Stocks. According to Article 52 (7) of the Act on Stocks, gas transmission system operator or gas combined system operator shall immediately inform the minister responsible for economy and the President of ERO about the date and amount of released obligatory reserves of natural gas. This information is provided daily until 10:00 a.m., and concerns the previous day. In 2015 the President of ERO did not receive the information provided in accordance with Article 52 (7) of the Act on Stocks from gas transmission system operator.

4.1.3. Network and LNG Tariffs for connection and access

Gas undertakings holding a licence for transmission, distribution or storage of gaseous fuels, liquefaction of natural gas or regasification of the liquefied natural gas perform the aforesaid activities based on tariffs set by them and approved by the President of ERO.

The prerequisite for approval of a tariff is its compliance with the provisions of the Energy Law Act and implementing acts, including in particular the Ordinance of the Minister of Economy of 28 June 2013 on the specific rules for setting and calculating tariffs and charges in gaseous fuels trading²⁸⁾.

In proceedings for tariff approval the President of ERO carries out a detailed analysis of costs, which constitute the basis for calculation of fee rates, making sure that there are no cross-subsidies between licensed and unlicensed activities, and between different types of licensed activities. The tariffs approved by the President of ERO are published in the Bulletin of ERO within 14 days from the approval date. Gas undertakings shall start applying tariffs not earlier than after 14 days and not later than 45 days from the publication date.

The decision of the President of ERO approving or denying approval of the undertaking's tariff may be appealed to the District Court in Warsaw - Court of Competition and Consumer Protection, through the President of ERO, within two weeks of its receipt date.

The possibility for the President of ERO to set or approve provisional tariffs for the provision of transmission or distribution services in case of delays in their determination by undertakings providing those services, stipulated in the provisions of Directive 2009/73/EC has not been implemented to the Polish law so far.

Undertakings involved in the transmission or distribution of gaseous fuels are obliged to enter into network connection agreements with entities requesting connection to their network. Agreements shall be concluded on the basis of equal treatment, provided that there are technical and economic conditions for connection and supply of these fuels, and the applicant meets the conditions for network connection and off-take. The fee for connection of entities which do not perform activities in the transmission or distribution of gaseous fuels, their production or extraction, gaseous fuels storage and liquefaction or regasification of liquefied natural gas to the high-pressure network, is equal $\frac{1}{4}$ of the actual costs of execution of the connection. For connecting entities performing business enumerated in the preceding sentence, the fee shall be charged in the amount corresponding to the actual cost of the connection. The fee charged for connecting entities whose equipment, installations and networks are being connected to a network of low, medium and higher pressures is determined on the basis of fee rates calculated by the distribution network operators and included in their tariffs approved by the President of ERO. These rates are calculated on the basis of $\frac{1}{4}$ average annual investment in construction of network sections used for connecting these entities, set out in the development plan developed by the distribution system operator.

The key infrastructural undertakings in the gas sector are OGP Gaz-System S.A., PSG Sp. z o.o. and SGT EuRoPol Gaz S.A. (undertakings involved in gas delivery), OSM Sp. z o.o. (undertaking providing storage services) and PLNG S.A. (undertaking providing services in the scope of regasification of liquefied natural gas, which in 2015 commissioned its installations).

In reference to OGP Gas-System S.A., the tariff approved with the decision of the President of ERO of 17 December 2014 was in force throughout 2015. The tariff comprised rates of transmission fees for entry to and exit from the transmission system. These rates were set for high-methane and nitrogen natural gas, including high-methane natural gas at the entry to and exit from the underground gas storage facilities. As it was mentioned in the previous report, the share of revenues generated from fixed fees was set at 90% for both high-methane and nitrogen gas, whereas rates at the points of entry to and exit from storage facilities were set at 20% of fixed transmission rates at points of entry to and exit from the natural gas transmission network. At the same time, the aforesaid tariff included provisions adjusting it to the provisions of the Commission Regulation establishing a Network Code on Gas Balancing of Transmission Networks.

On 17 December 2015 the amendment of this tariff as regards the discounts due to the breach in quality standards of customer service was approved and at the same time the validity term of the tariff was prolonged until 30 June 2016.

Similarly to OGP Gaz-System S.A., also PSG Sp. z o.o. had its tariff approved by the President of ERO on 17 December 2014. The aforesaid undertaking, which is divided into 6 distribution areas, has unified the criteria for qualifying customers of high-methane gas distribution service from these areas connected to a network with pressure above 0.5 MPa in the place of its off-take. Apart from the aforesaid amendment, the undertaking has introduced a possibility to conduct settlements for the provision of distribution services under special conditions. Similarly to OGP Gaz-System S.A., on 17 December 2015 the President of ERO approved the amendment to the tariff in respect to the aforesaid discounts for the customers of distribution services and services of regasification of liquefied natural gas. In addition, the

²⁸⁾ Journal of Laws of 2013, item 820.

President of ERO approved the possibility to obtain a discount due to the off-take of non-odorised gas, and at the same prolonged its validity term.

In relation to Operator Systemu Magazynowania Sp. z o.o., on 25 May 2015 another tariff was approved, changing the offer of storage services. Particular storage facilities were formed into groups, creating the so-called GIM Kawerna and GIM Sanok, whereas UGS Wiechrzowice remained in the offer as a separate storage facility. The types of provided services have not been changed and therefore the ordering party was able to purchase a bundled unit, flexible bundled unit or a separated storage service. It was similar in the case of conditions of service provision, i.e. it could be carried out on firm or interrupted basis both under long-term and short-term contracts, divided into monthly, weekly and daily contracts.

Customer using the storage service was not obliged to order capacities at the entry to and exit from the transmission system and was not charged by the transmission system operator in this respect, because Operator Systemu Magazynowania Sp. z o.o. takes the costs of capacity purchase into account in the basis for the calculation of its tariff.

The key undertakings in the gas sector include also SGT EuRoPol Gaz S.A., which was subject to two administrative proceedings. The first one was completed with the decision of the President of ERO of 16 October 2015 changing the tariff approved on 17 December 2014 in connection with the obligation to implement the Commission Regulation establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems. The aforesaid change consisted in introduction into the tariff of mechanisms which allow for the provision and settlement of quarterly and intra-day services. The second proceeding was completed with the decision of the President of ERO of 17 December 2015 approving the new tariff for the transmission of high-methane natural gas, established for the period until 31 December 2016.

4.1.4. Cross-border issues

Access to cross-border infrastructure, including allocation and congestion management

On 1 November 2015 the provisions of Commission Regulation (EU) No 984/2013 of 14 October 2013 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems (the so-called CAM Network Code) came into force. These rules were partially implemented in the TSO's Network Codes already in 2014, although the final alignment of these codes to the content of CAM NC took place in March 2016.

Allocation of capacity products, including annual, quarterly, monthly, daily and intra-day products, both firm and interruptible, is held under auctions carried out on the auction platform chosen by the TSO. In case of Poland it concerns mostly interconnections with Germany at Mallnow and Lasów interconnection points and with the Czech Republic at Cieszyn interconnection point, as well as connection of the NTS_{HM} balancing area and the Yamal pipeline in Point of Interconnection (PoI). The same procedure is applied in case of points of interconnection with third countries (i.e. Ukraine and Belarus). Product auctions are carried out with the use of GSA (Gaz-System Aukcje) capacity platform launched by the transmission system operator. On the PoI and Cieszyn points allocations of bundled products are held, whereas on the cross-border interconnections with Germany and third countries there are non-bundled products. TSO has been in discussions with German and Ukrainian operators in order to fully implement CAM Network Code i.e. enable the offering of bundled products.

In 2015 OGP Gaz-System S.A. was cooperating with the German operator Gascade on the allocation rules for the competing transmission capacity at the Mallnow interconnection point. The operators did not conclude an agreement in this scope as it was impossible to precisely determine the relation between available capacity at Mallnow point and capacity at other points on the Gascade's transmission system. Due to the lack of such agreement, the President of ERO has not given its consent to the TSO for the allocation of competing transmission capacity at the Mallnow point.

In relation to congestion management on the cross-border interconnections with the EU countries the rules described in Annex 1 to Regulation 715/2009 are applied. Those are the rules of oversubscription and buy-back (OS&BB), surrender, as well as long term use it or lose it (LT UIOLI). In March 2016 the Firm Day-Ahead use it or lose it (FDA UIOLI) mechanism was also implemented. This

procedure will be applied in reference to the interconnection points with the EU countries, which will be determined in a separate decision of the President of ERO issued in 2016, taking account of results of the ACER's report on the existing system congestion.

Cooperation with the regulatory authorities from other countries

Cooperation on the implementation of Network Codes

Works on the harmonised implementation of CAM Network Code have been held throughout 2015 within the works of GRI SSE region and under pilot projects on the Cieszyn interconnector with the use of the platform for bundled capacity allocation GAZ SYSTEM Aukcje (GSA). It should be indicated that OGP Gaz-System S.A. launched GSA allocation platform already in 2014. GSA allocation platform is also offered to other TSOs for their use. Currently there are three platforms for capacity reservation operating on the territory of the European Union. In addition to GSA platform there is PRISMA platform established by the operators from Western Europe and the Regional Booking Platform (RBP) launched by the Hungarian TSO. In 2015 intensive works on the development of common rules for cooperation of the three platforms were carried out by the representatives of those platforms, involved TSOs and regulators. The most important issues that need to be agreed include the rules for applying harmonised standards of electronic communication between platforms and operators and market participants. An external consultant has prepared an opinion on the compliance of all platforms' operations with the CAM regulation rules. The results of this analysis have been published on the ACER website²⁹⁾. According to the prepared analysis none of the platforms has been fully compliant with the CAM provisions. On the other hand it should be underlined that the lack of compliance was temporary, and the GSA and PRISMA platforms have declared to fully implement the provisions of CAM regulation by 1 November 2015.

In 2015 bilateral cooperation between the Energy Regulatory Office and the German Regulator Bundesnetzagentur (BNetzA) was continued in order to agree the implementation method of the CAM regulation. Main subject of the consultation is to choose the right platform for the allocation of bundled capacity at the Mallnow and Lasów interconnection points on the Polish-German border. Lack of agreement in this scope between OGP Gaz-System S.A. and the German operators OSP ONTRAS Gastransport GmbH (Lasów interconnector) and Gascade Gastransport GmbH (Mallnow interconnector) resulted in the fact that transmission capacities on the aforesaid interconnectors are still offered only as non-bundled products on two different platforms (GSA and PRISMA).

In 2015, as part of activities for the harmonised implementation on BAL regulation, ACER in cooperation with ENTSO-G organised workshop for market participants in Budapest to present the initial results of the monitoring process for the implementation of NC provisions, as well as to hold discussions on various model of the Code implementation, as well as barriers and problems connected therewith. During the workshop attended by the representatives of ERO and OGP Gaz-System S.A. issues such as i.a. operational balancing, information obligations, imbalance charges and TSO's financial neutrality as regards balancing activities have been discussed. In addition, pursuant to the provisions of BAL regulation, the President of ERO has sent draft decisions on the implementation method of this code to the regulators of the neighbouring systems for consultation.

Cooperation with the Energy Community

In 2015 representatives of ERO actively participated with the Energy Community (EnC) within the GRI SSE structures, as well as in collaboration between ACER and EnC. In 2015 ERO took part in the works within EnC's structures and provided opinions on documents developer by the Community, including i.a. those concerning cross-border market integration in the region. Moreover, in 2015 the project of CAM NC implementation on the Polish-Ukrainian border was initiated.

²⁹⁾ *Capacity booking platforms assessment. Final report*, 15 September 2015, Baringa Partners LLP: http://www.acer.europa.eu/Gas/Framework%20guidelines_and_network%20codes/Documents/Gas%20Capacity%20booking%20platforms%20assessment.pdf

Integration of systems in the Visegrad Group (V4)

In 2015, under the Slovak (1st half of 2015) and Czech (2nd half of 2015) Presidency the Visegrad cooperation continued works on implementation of the Roadmap towards a common regional V4 gas market, adopted in 2013. The main objectives of this document include development of infrastructure and interconnections between the V4 countries, cooperation on the physical market integration in the region and on the implementation of the network codes. Political support for this process and coordination of actions among ministries, National Regulatory Authorities and Transmission System Operators is ensured by the V4 Forum for Gas Market Integration. Most works are carried out within this Forum.

During the Slovak Presidency in the Visegrad Group (i.e. from 1 July 2014 until 30 June 2015) the priorities of works included cooperation on security of gas supply, harmonized implementation of the network codes, development of transmission infrastructure and implementation of the Gas Target Model in the V4 region.

In addition, the project on the assessment of necessary conditions required for obtaining trade licences in the countries of the region was continued in 2015. The aim of the project is to create a basis for harmonisation in the scope of granting licences in the entire V4 region.

The Czech Republic took over the presidency in V4 region on 1 July 2015. Since then works on the implementation of infrastructure project within North-South corridor have speed up, along with the works on counteracting barriers for trade integration of V4 gas markets and ensuring security of gas supply in the region.

Cooperation on infrastructure issues

In 2015 the cooperation of the President of ERO with other regulatory authorities was also carried out in relation to the tasks arising from Regulation 347/2013, especially the works concerning implementation of decisions concerning the projects of common interest (PCI). Article 2 (4) of Regulation 347/2013 defines "project of common interest" as a project necessary to implement the energy infrastructure priority corridors and areas set out in Annex I and which is part of the Union list of projects of common interest referred to in Article 3 of this regulation.

On 18 November 2015 the European Commission published the second European list of projects in the natural gas sector which were granted the PCI status. Projects of key importance for the energy integration have once again included strategic investment projects of the Polish TSO.

TSO's investment projects had been subject to analysis and assessment and then were granted the priority status within two regional gas initiatives:

Priority Corridor North-South Gas Interconnections in Central Eastern and South Eastern Europe ("NSI East Gas"):

- Poland-Czech Republic interconnector;
- Western part of the North-South Corridor in Poland;
- Poland-Slovakia interconnector;
- Eastern part of the North-South Corridor in Poland.

Priority Corridor Baltic Energy Market Interconnection Plan in Gas ("BEMIP Gas"):

- Poland-Lithuania interconnection;
- „Baltic Pipe“;
- capacity extension of Świnoujście LNG terminal in Poland.

Thanks to extension and construction of new bi-directional interconnections, OGP Gaz-System S.A. plans to improve the level of diversification and energy security of the country in line with the assumptions of the Energy Policy of Poland until 2030.

Moreover, in reference to cross-border investment projects the President of ERO in 2015 carried out mostly the tasks imposed on the National Regulatory Authority by Regulation 347/2013. This Regulation determines the so-called priority corridors and thematic areas, as well as defines procedures and criteria allowing for selection of the Projects of Common Interest (PCIs). In addition, the regulation provides for the possibility – in the case of project that meets certain criteria – for investment costs which cannot be borne by the operators to be covered to a certain extent from the EU funds, i.e. Connecting Europe Facility (CEF).

Pursuant to the Commission Delegated Regulation (EU) No 1391/2013 of 14 October 2013 amending Regulation (EU) No 347/2013³⁰⁾ as regards the Union list of projects of common interest, the status of the Projects of Common Interest included in the list of PCI projects adopted by the European Commission has been determined. Among other investment projects of the energy sector, the list comprised also Polish gas projects meeting the criteria stipulated in Regulation 347/2013. These are: project of interconnection between Poland and Denmark, the so-called "Baltic Pipe"; project for the capacity extension of LNG terminal in Świnoujście; and the projects of interconnections between Poland and neighbouring EU countries, i.e. the Czech Republic, Slovakia and Lithuania. These projects were in 2015 for the second time qualified as meeting the PCI criteria, which was confirmed in another delegated act of the Commission.

From among the projects included in the first list of cross-border gas interconnection projects, the operator of the Polish transmission system OGP Gaz-System S.A. has chosen three projects with the highest maturity and implementation level, in reference to which decisions pursuant to Article 12 of Regulation 347/2013³¹⁾ were issued in 2014:

1) Project of the Poland-Czech Republic interconnector

This project was included in the PCI list as an element of the Priority Corridor "North-South Gas Interconnections in Central Eastern and South Eastern Europe", the construction of which will allow for flow of gas between Poland, the Czech Republic, Slovakia and Hungary, therefore connecting LNG terminals in Poland and Croatia. The project of Poland-Czech Republic gas interconnection was described in point 6.1. of the Regulation as the so-called "Cluster Czech – Polish interconnection upgrade and related internal reinforcements in Western Poland". Implementation of this project consists in the construction of efficient bi-directional gas interconnection between Poland and the Czech Republic, which will enable gas flows at the level of 5 bcm per year in the Poland-Czech Republic direction and 6.5 bcm per year in the Czech Republic-Poland direction, with a possibility for further extension. Border point will be located on the Czech side in the Hat/Owsiszczce region and in the Silesian voivodeships on the Polish side. In the Polish part – apart from the 60 km long pipeline connecting both systems – the project comprises also the construction of new network of a length of 237 km, and construction of a compression and metering station. The assumed commencement date of the particular project parts is 2019.

2) Project of the Poland-Slovakia gas interconnector

Similarly to the project described above, this project is included in the construction of Priority Corridor North-South Gas Interconnections and was described in point 6.2. of the Regulation as "Cluster Poland – Slovakia interconnection and related internal reinforcements in Eastern Poland". Implementation of this project consists in the construction of bi-directional interconnection between Poland and Slovakia, which will enable gas flows at the level of 4.7 bcm per year in the Poland-Slovakia direction and 5.7 bcm per year in the Slovakia-Poland direction, with a possibility for further extension. Gas interconnection will be 164 km long and provides for the extension of gas system on the Polish and Slovak sides. In the case of Poland – apart from the 58 km long pipeline connecting both systems – the project comprises also the construction of new network of a length of 258 km, and construction of a gas compression station. The foreseen term for project implementation is 2019/2020.

3) Project of the Poland-Lithuania interconnection

This project was included in the PCI list as an element of the Priority Corridor "Baltic Energy Market Interconnection Plan in Gas". At the same time, it was described in point 8.5 of the Regulation as the so-called cluster – Extension of Infrastructure in the Easter Part of the Baltic Sea, comprising the Poland-Lithuania interconnection known as "GIPL" (Gas Interconnection Poland-Lithuania). Implementation of this project consists in the construction of bi-directional efficient interconnection between Poland and Lithuania aimed at ensuring integration of the currently separated markets of the Baltic countries. The planned gas pipeline is to reach the length of 534 km. In total it covers the construction of 357 km long pipeline on the Polish side and 177 km long pipeline on the Lithuanian side. The initial point is planned in Rembelszczyzna (PL), and the final point in Jauniunai (LT). The initial capacity shall reach 2.4 bcm per year in the Poland-Lithuania direction. The capacity in the opposite direction (in the direction from

³⁰⁾ OJ EU of 2013, L 349/28.

³¹⁾ Pursuant to Article 12 (3) of the Regulation 347/2013, as soon as such a project has reached sufficient maturity, the project promoters, after having consulted the TSOs from the Member States to which the project provides a significant net positive impact, shall submit an investment request. For projects included in the first Union list, project promoters shall submit their investment request by 31 October 2013.

Lithuania to Poland) shall reach between 1.0-1.7 bcm per year. The foreseen term for project implementation is 2019/2020.

Decisions on the aforesaid investments have number of implications, including financial ones, connected with the implementation of projects they concern. Regulation 347/2013 allows i.a. for the interested National Regulatory Authorities (or ACER on their behalf) to determine in their decisions the level of investment expenditures arising from the project in one country to be covered by the transmission system operators in the countries which benefit from the project. The decisions consider the costs and benefits of an economic, social and environmental character, as well as the possible need for financial support, associated with the projects in the relevant Member States. This means that in certain cases the Regulation allows for the possibility of covering the investment costs connected with the implementation of the project in one Member State by the tariff for network access in other Member States, in which the project generates a net positive impact. Terms and conditions of covering these costs by individual transmission system operators shall be established in coordinated investment decisions issued by the NRAs of the concerned Member States. Notwithstanding the above, the indicated decision is a condition to apply for the support from relevant EU funds.

As regards Poland-Czech Republic interconnection, in 2015 the President of ERO carried out activities which were a continuation and a result of the decision of 24 June 2014 on *cross-border allocation of costs incurred by OGP Gaz-System S.A., concerning the implementation of the project of Poland-Czech Republic gas interconnection*. Issuing this decision the President of ERO recognized the joint investment request of the Polish transmission system operator OGP Gaz-System S.A. and the Czech transmission system operator Net4Gas s.r.o. to take a coordinated decision on the cross-border allocation of costs of the Poland-Czech Republic gas interconnector, and include it in the tariffs for gaseous fuels transmission, as justified. At the same time, the President of ERO approved the method of settling and including in the transmission tariffs of OGP Gaz-System S.A. of mutual guarantees, aimed at reducing the investment risk associated with the construction of the interconnection on both sides of the border. Symmetrical decision, agreed with the President of ERO and addressed to the Czech gas transmission system operator – NET4GAS s.r.o. – was issued by the Czech regulator.

It should be mentioned that the project assumed that the missing amount necessary for implementation by Gaz-System S.A. of the aforesaid project on the Polish territory will be supplemented with the UE funds from the Connecting Europe Facility (CEF). Therefore, issuing the decision on the investment request was a condition to apply by the operators for the financial support from this source, which according to the assumptions should limit the tariff effects of the planned interconnection passed on the network users. As a result, Polish operator Gaz-System together with the Czech transmission system operator NET4GAS s.r.o. was granted financial assistance from the CEF fund. A relevant tripartite agreement with the Innovation Network Executive Agency (INEA) on the EU's financial support for the project named *"Preparatory studies for the Poland-Czech Republic interconnection [known as Stork II] between Libhošť (CZ)- Hat' (CZ-PL) – Kędzierzyn (PL)"* was signed in May 2015. Under the aforesaid agreement, the project was granted financial assistance for the preparatory works at the level of EUR 1.5 million. It should be emphasised that the preparatory works of the project were granted the maximum financial assistance for studies, i.e. 50 %. In addition, in June 2015 the European Commission decided to grant financial support for the implementation of construction works in the amount of EUR 62.6 million (this money shall be allocated to the project promoters).

Activities of the President of ERO in 2015 were aimed at ensuring predictability and comparability of regulatory conditions in Poland and the Czech Republic. These conditions to a high extent were determined in the coordinated decisions issued by the regulators of both countries. It should be underlined that the same understanding of the provisions of the decisions in the future will have a significant meaning for the operators due to the need to limit the risks connected with the implementation of the project. Therefore, to provide clarifications and interpretations, the regulators i.a. held a meeting with NET4GAS, s.r.o. and OGP Gaz-System S.A. companies which plan to implement this interconnection, with the participation of the European Commission representatives. An explanation of treatment, on the Czech side, of the domestic costs incurred by NET4GAS s.r.o., to which cross-border allocation conducted through the OGP Gaz-System S.A.'s guarantees does not apply, was developed as a result of meetings. Pursuant to the joint interpretation of Article 12 of Regulation No 347/2013 it was confirmed that the concerned costs will be subject to a standard national regulatory mechanism and will be included in the rates for domestic gas transmission. Moreover, these costs will also be included in the calculation of future tariffs with parameters ensuring the required level of reimbursement under the terms determined in the above-mentioned coordinated investment decisions.

As a result of these actions the Czech operator withdrew the appeal against the decision of the regulator, which – as mentioned earlier – opened the way to effectively apply for funds from the CEF and removed one of the major obstacles to the decision on launching the implementation of the interconnector.

In reference to Poland-Slovakia project, in 2015 the President of ERO monitored the works concerning implementation of Regulator's decision of 28 November 2014 on cross-border allocation of costs incurred by OGP Gaz-System S.A., concerning the implementation of the project of Poland-Slovakia gas interconnection. In order to support the assessment and implementation of the investment, representatives of the President of ERO were participating in the works of Working Group established on 22 November 2013 under an intergovernmental agreement, i.e. *"Agreement between the Government of the Republic of Poland and the Government of the Slovak Republic on cooperation in the implementation of the investment project concerning interconnector between the Polish and Slovak transmission systems"*.

In addition, implementing the provisions of Annex III, point 2.7 of Regulation 347/2013, the President of ERO in cooperation with the Slovak Regulator in June 2015 participated in assessment study carried out by ACER for PCIs, including the Poland-Slovakia interconnector, which concerned the adopted methodology for cost-benefit analysis and consistency of the applied criteria.

It should be here reminded that the President of ERO has been supporting OGP Gaz-System S.A.'s activities aimed at obtaining financial support from the EU funds. A relevant tripartite agreement was signed in June 2015 by the project promoters, i.e. OGP Gaz-System S.A. and eustream a.s. with INEA on the EU's financial support for the project named *"Preparatory studies and engineering works for the Poland - Slovakia Gas Interconnection"*.

Under the above-mentioned agreement, the project was granted financial assistance at the level of EUR 4.6 million from CEF instrument.

As regards Poland-Lithuania interconnection the activity of the President of ERO in 2015 to a high extent concerned the implementation of ACER's Decision of 11 August 2014 No 01/2014 on the investment request including cross-border cost allocation for the gas interconnection Poland-Lithuania Project of Common Interest No 8.5 (hereinafter: GIPL)³²⁾, and connected activities aimed at limiting project risks.

During various meetings with the representatives of the European Commission and other EU authorities such as ACER and INEA, with the representatives of the national authorities such as the Ministry of Economy, the Ministry of Foreign Affairs, as well as with the project promoters and Regulatory Authorities of the Baltic States it was emphasised that ERO supports the project due to its pan-European importance. However, it was underlined that net positive impact of the project which were identified in the ACER's Decision on GIPL refer to LT, LV and EE, whereas PL will bear net negative impact (costs outweigh benefits), and therefore it is justified for the project to be neutral for the users in Poland. In this context it should be noted that Article 12(1) of the Regulation 347/2013 provides for the obligation to bore investment costs by the relevant operators of the Member States to which the project provides a net positive impact, which is not the case of Poland.

During the aforesaid meetings it was also indicated that the Projects of Common Interest should be implemented jointly, and therefore should not be only the cared for by the authorities of the countries on which territories they are to be implemented, but most of all by the beneficiaries, i.e. countries which will gain real benefits from the investment implementation. The fact that PCIs constitute projects of the highest priority in the national policy and are included in the national development plans and the

³²⁾ Regulatory Authorities were not able to agree a common position within the time limit provided for in the Regulation, and pursuant to Article 12 (6) of Regulation 347/2013 the case was referred to ACER – "Where the national regulatory authorities concerned have not reached an agreement on the investment request within six months of the date on which the request was received by the last of the national regulatory authorities concerned, they shall inform the Agency without delay. In this case or upon a joint request from the national regulatory authorities concerned, the decision on the investment request including cross-border cost allocation referred to in paragraph 3 as well as the way the cost of the investments are reflected in the tariffs shall be taken by the Agency within three months of the date of referral to the Agency." As a result, on 11 August 2014, ACER issued Decision No 01/2014 on the investment request including cross-border cost allocation for the Project of Common Interest, i.e. the gas interconnection Poland-Lithuania. Under the aforesaid decision, ACER recalculated the cost-benefit analysis submitted by the promoters of the project and assessed the submitted project in terms of, among others, the admissibility of the project, including the consultations conducted with the operators from the neighbouring countries affected by the project, its stage and maturity. In the ACER's decision Poland was identified as a country incurring costs (i.e. a net negative effect), while the net beneficiaries were: Lithuania, Latvia and Estonia. Therefore – as indicated in the decision – lump sums should be paid by the TSO of the Member States on which the project has a significant positive net effect, i.e. Lithuania, Latvia and Estonia, to the TSO of the Member State with a net negative effect of the project, i.e. Poland.

Community-wide network development plan does not mean that in consequence national users are unconditionally obliged to guarantee its financing through tariff, at the same time taking over a big part of risks from the countries which are net beneficiaries of the project.

Within the course of joint works at the level of Regulators of the interested Member States, works were undertaken to develop a common document, the so-called *Statement of Clarification* to describe the expected manner of project implementation and minimise the arising risks. In the end, it was impossible to reach a common approach due to the expectation of net beneficiaries that Polish customers who are not net beneficiaries of this project, will take over a substantial part of the risks of countries who are its beneficiaries through the transmission tariff.

As part of the analysis carried out by the Energy Regulatory Office in 2015 to assess the impact of the project on the operator's tariff, it was estimated that assuming a gas flow at a level corresponding to 20% of the technical capacity of the pipeline, transmission rates of OGP Gaz-System S.A. will increase by 7.7%, and in the absence of flow - by 9.7%³³⁾.

Monitoring investment plans and assessment of consistency with the Community-wide network development plan

Energy undertakings involved in the transmission or distribution of gaseous fuels, pursuant to Article 16 (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. Pursuant to the aforesaid provision these plans shall consider:

- a) local spatial development plans – in case of gaseous fuels distribution;
- b) findings of the concept of the National Spatial Development Policy or findings of spatial development plan of a given voivodeships, or in the case of lack thereof a development strategy of the voivodeships – in case of gaseous fuels transmission;
- c) Energy Policy of the State;
- d) Community-wide ten-year network development plan referred to in Article 8 (3) of Regulation 715/2009 – in the case of gaseous fuels transmission.

The discussed plans – pursuant to Article 16 (7) of the aforesaid Act – cover also in particular:

- a) the expected range of gaseous fuels supply;
- b) projects concerning modernization, extension or construction of the network, and the planned new sources of gaseous fuels;
- c) projects concerning modernization, extension or construction of interconnections with gas systems of other countries;
- d) projects which rationalize the fuel consumption at the users' part, including projects concerning collection, transmission and processing of measurement data from remote reading meters;
- e) the expected investment financing method;
- f) the expected revenue necessary to implement the plans;
- g) the planned investment implementation timetable.

In addition, these plans – pursuant to Article 16 (10) of the aforesaid Act – should ensure long-term maximum efficiency of expenses and costs borne by energy undertakings in such a way that these expenses and costs did not cause an abnormal increase of prices and charges for the supply of gaseous fuels in particular years, while ensuring consistency, reliability and quality of supply.

Gas Transmission System Operator – pursuant to Article 16 (9) of the aforesaid Act – when determining the level of gas interconnection in the development plan, should take into account especially:

- a) national, regional and European sustainable development objectives, including the projects being elements of the Priority Axis Projects determined in Annex VII to Regulation 347/2013;
- b) existing gas interconnections and their most efficient exploitation;

³³⁾ ACER's assessment of the GIPL implementation on the tariff of the Polish operator at the level of 4.5% correspond to the discounted tariff increase within 20 years of its usage, whereas ERO's analyses refer to 2019, i.e. the first year after investment completion which will be the most important from the Polish customers' point of view.

In case of absence of flows, the cumulated discounted effect in the 20 year horizon (indicator used by ACER in the CBCA decision) will amount to 6.4% instead of 4.5%.

c) preserving the right proportion between the construction costs of new gas interconnections and benefits resulting from their constructions for the end-users.

Pursuant to Article 16 (11) of the aforesaid Act, demand for the new capacities in the transmission or distribution system reported by entities connected to the network or applying for network connection should also be taken into account in the development plan.

Agreeing of the draft development plans is conducted pursuant to the provisions of Article 16 (13) of the above-mentioned Act and is aimed at ensuring compliance of these draft plans with the Act and its implementing provisions. 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 undertaking and its customers – have a direct impact on the level of the future tariffs of the undertaking. Therefore, agreeing the draft development plans is directly connected with issuing decisions on tariff approval.

Monitoring of the investment plans was based on the reports on their execution, which energy undertakings involved in the transmission and distribution of gaseous fuels submit to the President of ERO by 30 April of each year.

In 2015 the development plan for satisfying the current and future demand for gaseous fuels, developed by OGP Gaz-System S.A. (TSO) for the period 2014-2023 and agreed with the President of ERO in 2014, was in force. This plan was described in detail in the previous National Report for the year 2014.

Figure 21. Relevant investment projects of the TSO finalised in 2015



Source: OGP Gaz-System S.A., "Consolidated report on the physical execution in the accounting year 2015", p. 17.

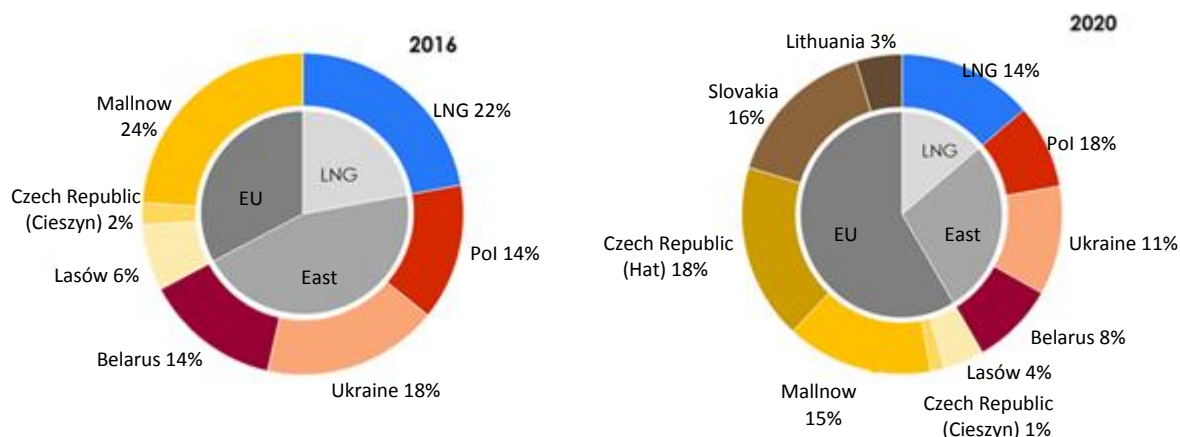
In addition, in 2015 design works were conducted for 16 investment tasks connected with the construction of pipelines that are parts of PCI projects. Construction permits were obtained in reference to the four of them (Lwówek-Odolanów pipeline, Czeszów-Kielczów pipeline, Czeszów-Wierzchowice pipeline and Hermanowice-Strachocina pipeline).

This means that in 2015 TSO continued activities aimed at implementation of the projects that gained PCI status pursuant to the decision of the European Commission of 14 October 2013.

In addition, in the discussed year TSO submitted a request for agreeing another development plan, titled "National Ten-Year Development Plan for the Transmission System. Development Plan for Meeting the Current and Future Demand for Gaseous Fuels in the Years 2016-2025" (hereinafter: NTYDP), which was agreed on 6 April 2016. Development plan for the years 2016-2025 is the first plan that had been developed by TSO and agreed with the President of ERO pursuant to the novelised provisions of the Energy Law Act, and which concerns both own infrastructure of TSO and the infrastructure entrusted

to the TSO, i.e. infrastructure owned by System Gazociągów Tranzytowych EuRoPol Gaz S.A., on which the TSO performs operator's tasks in the ISO model. In the NTYDP for the years 2016-2025 OGP Gaz-System S.A. plans further development of the transmission network, especially interconnections which apart from ensuring high diversification of sources and directions of gas transmission shall ensure access to competitive markets. In the 2020 perspective, as a result of implementation of the projects included in the NTYDP, OGP Gaz-System S.A. foresees further significant improvement of the extent of diversification of supply directions and sources. It plans to reach this goal by executing two new interconnections in the South of Poland: with the Czech Republic and Slovakia, as well as the Poland-Lithuania interconnection.

Figure 22. Change of diversification level between the years 2016 and 2020



Source: OGP Gaz-System S.A., "National Ten-Year Development Plan for the Transmission System. Development Plan for Meeting the Current and Future Demand for Gaseous Fuels in the Years 2016-2025", p. 99.

OGP Gaz-System S.A. has also presented in NTYDP investment tasks concerning transmission infrastructure owned by SGT EuRoPol GAZ S.A. (hereinafter: SGT), on which it performs operator's function (hereinafter: SGT's infrastructure). These tasks will be fully financed by SGT.

Investment tasks on the SGT's infrastructure are mostly aimed at maintaining its full technical efficiency by implementation of replacement investments and execution of necessary modernisation works.

In this context it should be noted that the Preventive Action Plan (in which the Minister of Economy designated OGP Gaz-System S.A. as the entity responsible for activities, implementation of which will contribute to improvement of the energy security of Poland in the energy sector) concerns i.a. extending the functionality of the Yamal pipeline. The most important tasks indicated in this Plan and implemented by OGP Gaz-System S.A. include:

1. Expanding the gas off-take ability at Mallnow physical reverse-flow point;
2. Expanding the gas off-take ability at Lwówek entry point;
3. Connecting transmission network with the Yamal pipeline in the Zambrów area.

Extension of the Mallnow interconnection point and thereby enabling the provision of physical reverse-flow at Mallnow point was a key project for the security of natural gas supply to Poland. This task was executed in 2014, a year before the deadline indicated in the Preventive Action Plan. The investment was finalised on 31 March 2014. Due to the above, already since 1 April 2014, the technical ability to import gas to Poland under reverse flow service on firm basis has been provided, in the volume of 2.3 bcm per year (about 263,000 cubic metres per hour). In emergency situation (in case of suspension of natural gas supply from East), it will be possible to off-take gas up to 620,000 cubic metres per hour (which corresponds to about 5.5 bcm per year).

OGP Gaz-System S.A.-owned transmission network cooperates with SGT's infrastructure through the so-called Point of Interconnection (PoI), which consists of physical points in Włocławek and Lwówek. Modernization of the entry point in Lwówek provided for daily technical capacity of 6.95 mcm per day and an annual technical capacity of 2.31 bcm per year. The task was implemented in accordance with the deadline specified in the Preventive Action Plan, i.e. in 2015.

As a result of the extension of Włocławek point in January 2015, OGP Gaz-System S.A. has provided new technical abilities for gas supplies to Poland from the West with the use of virtual reverse

mechanism on SGT's infrastructure. Thanks to this, ability to import gas from Germany on firm basis currently amounts to 5.5 bcm per year (an increase by 3.2 bcm), and taking into account the capacity offered on an interruptible basis (2.7 bcm) even up to 8.2 bcm.

In addition, continuing activities aimed at increasing the functionality of the Yamal pipeline, on 9 October 2015 OGP Gaz-System S.A. signed with GASCADE Gastransport GmbH the "Second Agreement for the expansion of the Mallnow metering station" to carry out the investment consisting in increasing the available capacity in the direction to Poland to 700,000 cubic metres per hour (reverse-flow) what is related to the construction of an additional measuring string at the Mallnow station. Completion of these works is expected in September 2016.

In the years 2016-2017 TSO plans to implement further modernization of the Lwówek node, comprising: measuring strings, power supply, control system and increase of the capacity to 1 mcm per hour.

The planned and analysed new connections of the transmission network with SGT's infrastructure in Wydartów and Zambrów should also be mentioned. Currently, consultations/negotiations are held between OGP Gaz System S.A. and SGT Europol Gaz with regard to connecting the transmission network to SGT's infrastructure in the Zambrów area.

4.1.5. Compliance

Compliance of transmission and distribution companies, system owners and gas undertakings with the relevant Community legislation, including cross-border issues

The scope of responsibilities and tasks imposed on TSO is specified in Article 9c and 9g of the Energy Law Act. Within its competences, the President of ERO monitors the fulfilment by the TSO of its obligations, including especially those related to non-discriminatory treatment of system users and implementation of the reporting obligations, as well as implementation of the TNC in terms of system balancing and congestion management in the gas system, as well as conducting settlements and providing information required by law to system users.

The transmission system operator is responsible for balancing the demand both within the transmission system and in the distribution systems connected to the transmission system. Pursuant to the provisions of Regulation 715/2009, the TSO shall publish on its website data on cumulative imbalance for all users at the beginning of each balancing period (gas day), and the expected total imbalance for all users at the end of each day of gas. The TSO shall also inform about actions taken in order to balance the system. The publication contains also information on the incurred costs and generated revenues related to system balancing.

In connection with the fulfilment of obligations arising from Regulation 715/2009 and concerning contractual congestion management mechanisms, in 2015 OGP Gaz-System S.A. made available bundled capacity in the Point of Interconnection (PoI) under the over-subscription mechanism in the period from 22 January 2015 to 31 March 2015. TSO on its website publishes information about the capacities resulting from the over-subscription procedure at certain points of the national transmission system and the SGT system. Following the analysis conducted on the basis of the Transmission Network Code, TSO found no need to apply within the long-term capacity allocation, a procedure based on the long-term "use it or lose it" (long-term UIOLI). Network users can also withdraw from using the allocated capacity. In 2015 there was one case of a request for the resignation from the allocated capacity. However, due to failure to meet the formal requirements and the inability to issue an offer on the secondary market, the resignation has not been finally approved. System users also have the ability to share or resell the unused contracted capacity on the secondary market. Ability to share or resell capacity is regulated by the TNC.

OGP Gaz-System S.A. is obliged to publish data on the functioning of the transmission system in accordance with the transparency requirements indicated in Article 18 of Regulation 715/2009. In 2015 Gaz-System S.A. carried out these duties primarily through publishing information about offered transmission services, as well as on the applied terms and conditions of their provision. In addition, TSO on a regular basis provides detailed information on technical, contracted and available capacities for all relevant points. TSO publishes also detailed information on the quality parameters of the transmitted gas and the required pressure level for all relevant points.

TSO provides information concerning the basis and methodology for tariffs calculation on its website, along with a calculator of charges for transmission service and gas odourisation. Since 1 October 2013, the

TSO is also obliged to publish information determined in Regulation 715/2009 on the platform established by ENTSO-G (*Transparency Platform*).

Table 12 presents data on the transmission capacities on interconnectors of the national transmission system managed by OGP Gaz-System S.A. (including the SGT system).

Table 12. Interconnections with other transmission systems, taking into account firm and interruptible capacities (including SGT system)

System operator	Operator's country	Interconnection point	Direction of supply	Unit	Total firm transmission capacity*	Contracted transmission capacity	Unused contracted firm transmission capacities	Executed transmission**
OSGT Gaz-System S.A.	Poland	Point of Interconnection	Poland	[mcm/year]	8,380.1	6,429.3	2,199.5	4,229.8
				[MWh/year]	92,842,634.2	71,493,898.0	23,994,541.8	47,499,356.2
GASCADE	Germany	Mallnow SGT	Germany	[mcm/year]	29,945.13	30,670.7	3,623.9	27,046.8***
				[MWh/year]	331,792,005.83	339,831,235.2	35,920,587.8	303,910,647.4****
GASCADE	Germany	Mallnow reverse SGT	Poland	[mcm/year]	5,418.24	3,494.1	1,250.7	2,243.4***
				[MWh/year]	60,034,099.20	38,714,600.5	13,547,069.7	25,167,530.8
ONTRAS	Germany	Lasów reverse**	Germany	[mcm/year]	0.0	0.0	0.0	6.1
				[MWh/year]	0.0	0.0	0.0	67,593.0
ONTRAS	Germany	Lasów	Poland	[mcm/year]	1,595.2	1,314.1	598.9	715.2
				[MWh/year]	17,786,703.0	14,651,827.0	6,620,130.1	8,031,696.9
ONTRAS	Germany	Gubin (we)	Poland	[mcm/year]	17.5	17.5	13.9	3.6
				[MWh/year]	196,399.2	196,399.0	155,647.3	40,751.7
Net4Gas	Czech Republic	Cieszyn reverse	Czech Republic	[mcm/year]	0.0	0.0	0.0	0.004
				[MWh/year]	0.0	0.0	0.0	48.0
Net4Gas	Czech Republic	Cieszyn	Poland	[mcm/year]	601.0	576.1	559.9	16.2
				[MWh/year]	6,749,275.1	6,469,450.0	6,287,450.0	182,000.0
Gazprom Transgaz Belarus	Belarus	Kondratki SGT	Poland	[mcm/year]	32,611.85	33,619.0	1,975.4	31,643.6***
				[MWh/year]	361,339,342.26	372,498,799.4	17,018,876.5	355,479,922.9****
Ukrtransgaz	Ukraine	Drozdowicze	Poland	[mcm/year]	4,303.0	4,383.9	917.7	3,466.2
				[MWh/year]	48,623,346.3	49,494,000.0	10,464,127.1	39,029,872.9
Beltransgaz	Belarus	Tietierowka	Poland	[mcm/year]	236.5	236.5	166.4	70.1
				[MWh/year]	2,665,580.4	2,665,580.0	1,877,500.4	788,079.6
Beltransgaz	Belarus	Wysokoje	Poland	[mcm/year]	4,989.7	3,255.1	845.4	2,409.7
				[MWh/year]	56,234,088.0	36,684,804.0	9,547,985.6	27,136,818.4
Ukrtransgaz	Ukraine	Hermanowice	Ukraine	[mcm/year]	0.0	0.0	0.0	139.3
				[MWh/year]	0.0	0.0	0.0	1,562,975.5
ONTRAS	Germany	Kamminke	Germany	[mcm/year]	131.4	0.0	0.0	0.0
				[MWh/year]	1,463,796.0	0.0	0.0	0.0

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

** Executed transmission calculated including both firm and interruptible transmission capacities.

*** Cubic metres in GOST standard were calculated to N cubic metres with the conversion factor 0.9313.

**** Physical flow.

Source: According to the data of OGP Gaz-System S.A.

The President of ERO monitors the implementation of the obligations of the transmission system operator, including those relating to cross-border issues, i.a. through periodic surveys and under the monitoring process coordinated by ACER. Apart from issues related to the incomplete implementation of the CAM Network Code on the border with Germany (in reference to the selection of a common platform for bundled capacity allocation and offering) indicated in the previous chapters, no other incompliance with the provisions of the European law was identified in 2015. There was no penalty imposed on TSO for failure to implement obligations arising from the EU legislation.

Monitoring fulfilling the certification conditions by the TSO

Issue of compliance with the certification criteria by the TSO was subject to the analysis of the President of ERO within the certification proceeding on granting OGP Gaz-System S.A. the certification of independence in the ISO model. This proceeding was finalised in May 2015. Results of the aforesaid analysis were presented in the final decision of the President of ERO, which closed the proceeding; this decision was published in the Public Information Bulletin of ERO.

4.2. Promoting competition

4.2.1. Wholesale market

In 2015 there was a gradual development of the wholesale natural gas market in Poland, related mainly with the increase in the number of undertakings holding licence for trade in gaseous fuels and the number of undertakings actively participating in this trade, as well as with the obligation to sell natural gas on the commodity exchange. This obligation in the described year amounted to 55% of the gas fed into the network. As of the end of December 2015, 172 entities held licences for trade in gaseous fuels on the wholesale market, whereas 63 undertakings were actively participating in the trade in natural gas.

In 2015 506.1 TWh of high-methane gas and 7.6 TWh of nitrogen gas flowed through the Polish transmission system. Most of high-methane gas was transited with the use of the Yamal pipeline. The below table shows the most important directions of gas flows in the transmission system.

Table 13. Balance of high-methane and nitrogen gas trade flows* in the transmission system (including Transit Gas Pipeline System) in 2015 [TWh]

2015			High-methane gas	Nitrogen gas
Type of gas				
Entry to the system, in total			506.1	7.6
of which:	mines and denitrating plants		27.1	7.6
	storage facilities		23.5	0.0
	supplies from outside the EU		422.5	0.0
	supplies from the UE		32.9	0.0
	other (entries from distribution)		0.1	0.0
Exit from the system, in total			506.1	7.6
of which:	blending stations and denitrating plants		0.0	3.1
	storage facilities		20.6	0.0
	to the distribution network		101.8	3.3
	to the final customers on the transmission network		47.8	0.9
	supplies to the UE		329.1	0.0
	supplies outside the EU		1.6	0.0
	operator's own needs (including the change in operator's account)		5.2	0.3

* Data concern the amounts of gas fed into the transmission network and off-taken from it under execution of transmission agreements concluded by the TSO with system users (energy undertakings and final customers). These data can differ from the physical flows in the system.

Source: ERO, on the basis of data provided by OGP Gaz-System S.A. and SGT EuRoPol GAZ S.A.

Data on the purchase and sales of gas by trading companies are presented in the table below. The volume of acquired gas includes acquisition for own needs by the trading companies that were subject to monitoring, and direct acquisition from abroad by big customers.

Table 14. Volume of gas acquired and sold within wholesale trade by the largest trading companies in 2015 [TWh]

	Total	PGNiG S.A. Capital Group	Other trading companies
Acquired gas (purchase and extraction)	288.2	236.1	52.1
Wholesale sales of gas	116.1	97.5	18.6

Source: ERO, on the basis of data provided by the trading companies.

In 2015 volume of trading in natural gas in the virtual point on the Over-the-Counter (OTC) market amounted to 7.9 TWh. Average price of gas in this segment amounted to PLN 95.96 per MWh.

Sales and purchase of gas on the Polish wholesale gas market are carried out most of all on the commodity exchange run by POLPX. The participants of the stock market are mainly gaseous fuels trading companies and big end-users who can either act independently after concluding a relevant agreement with POLPX and becoming members of the commodity exchange, or act through brokers. Trading on the exchange is conducted through the conclusion of sales contracts (transactions) between the exchange members.

In 2015 POLPX carried out the following gas sales markets: Intraday Market, Day-Ahead Market and Forward Instruments Market with Physical Delivery. Sales of natural gas were also conducted in the auction system.

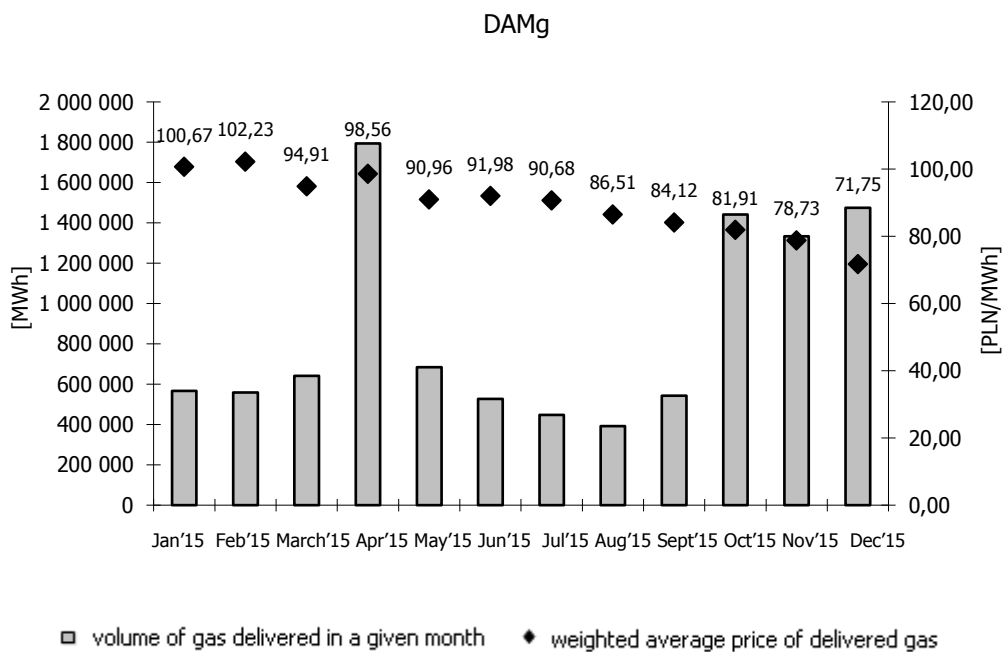
Subject of trade on the Commodity Forward Instruments Market with Physical Delivery for gas (CFMg) is the supply of gas in equal volumes at all hours of the delivery period compatible with the standard of the product (monthly, quarterly and yearly).

Subject of trade on the Day-Ahead Market (DAMg) is the supply of gas in equal volumes at all hours of the delivery day. It is a base type product, and one contract corresponds to the delivery of 1 MWh of gas during each hour of the delivery day. Trading is conducted during one day preceding the date of delivery in the fixing and continuous trading system.

Trading on the intraday market (IDMg) is conducted in the continuous trading mode.

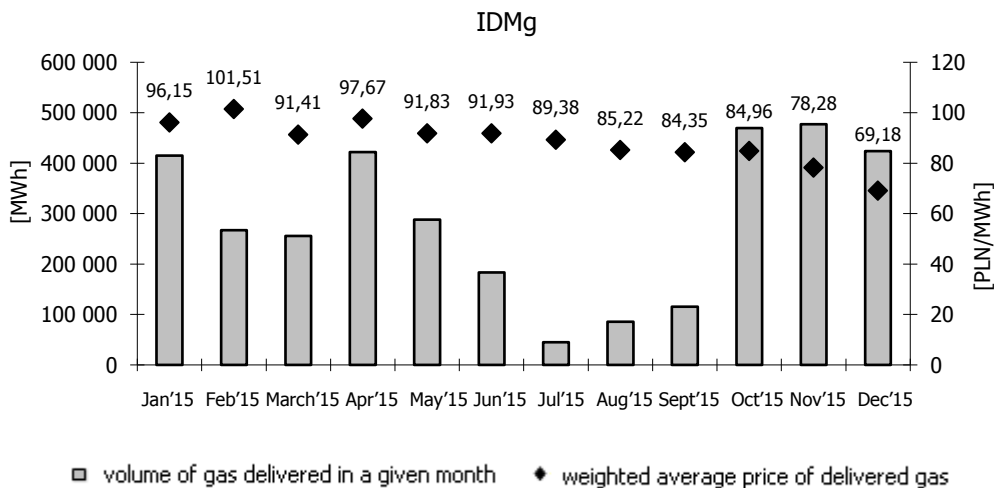
The figures below show the volume and price of gas delivered under contracts concluded on the Intraday Market, Day-Ahead Market and Forward Instruments Market with Physical Delivery for gas products.

Figure 23. Volume and price of gas delivered as a result of the execution of contracts concluded on the gas Day-Ahead Market (DAMg) in 2015



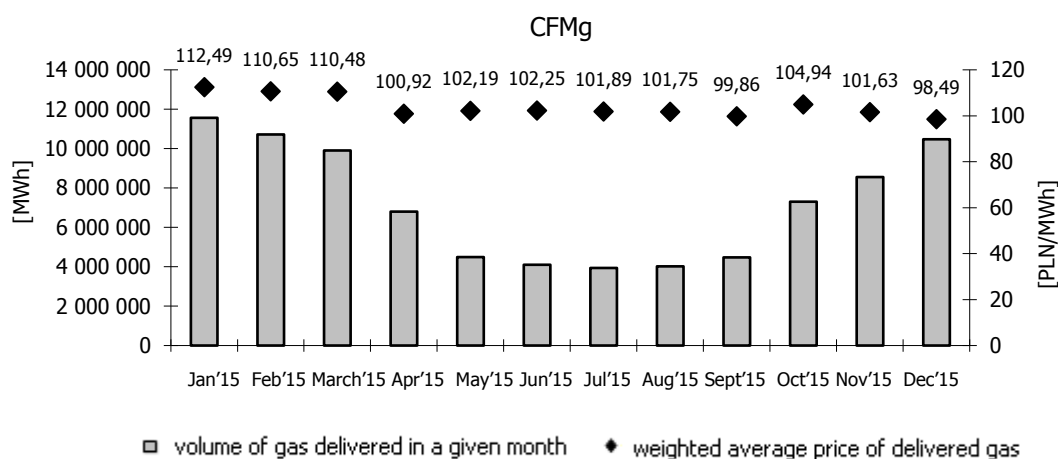
Source: ERO, on the basis of data provided by POLPX.

Figure 24. Volume and price of gas delivered as a result of the execution of contracts concluded on the gas Intraday Market (IDMg) in 2015



Source: ERO, on the basis of data provided by POLPX.

Figure 25. Volume and price of gas delivered under contracts concluded on the Commodity Forward Instruments Market with Physical Delivery for gas (CFMg) and executed in 2015



Source: ERO, on the basis of data provided by POLPX.

In 2015, as a result of contracts concluded on POLPX, 100,187,956 MWh of natural gas were delivered at an average price of 102.64 PLN/MWh. During this period, the volume of delivered gas amounted to 10,406,525 MWh on the Day-Ahead Market, 3,447,180 MWh on the Intraday Market and 86,334,251 MWh on the forward market. In 2015 the average price of gas delivered as a result of contracts concluded amounted to 87.62 PLN/MWh on the DAMg, 87.75 PLN/MWh on the IDMg and 105.05 PLN/MWh on the CFMg.

4.2.1.1. Price monitoring, market transparency and its level of openness to competition

Results of monitoring of wholesale gas prices are published by the President of ERO on its website every quarter. In terms of commodity exchange trading these results are presented on the above figures. As a result of introduction of the obligation to sell natural gas on the commodity exchange on the Polish market, a dynamic development of the liquidity of this platform has been observed. In 2015 the volume of natural gas supplied under transactions concluded on a commodity exchange in relation to domestic consumption amounted to 59.1%. In addition, in the last quarter of 2015 a significant increase in liquidity in the spot markets on the commodity exchange was observed. It is related, among others, with the implementation of the Balancing Network Code in the gas transmission networks, which requires the transmission system operator to carry out balancing activities through commodity exchange.

A significant dynamics of change have been also observed on the OTC market. While in 2014 majority of the transaction volume was held by the entities of PGNiG Capital Group, since 2015 a significant increase in activity of alternative sellers has been visible in this segment.

It should be emphasized that introduction of the obligation of public sale of gas has enabled the creation of wholesale gas market, characterized by high transparency of transactions concluded on the commodity exchange. Thanks to this, entities importing natural gas from abroad or extracting the fuel from domestic deposits have the opportunity to offer it to all interested market participants on a non-discriminatory basis.

However, the binding volume of gas that is currently subject to the obligation to sell gas on the commodity exchange and the fact that entities of smaller scale of operations in the domestic market are exempted from this obligation result in high concentration of gas trading on the commodity exchange. At the same time, the high level of obligation is not reflected in the dynamics of change on retail market to the expected extent. Therefore, lowering the level of this obligation and the extension of its scope to other trading companies should be considered.

4.2.2. Retail market

In 2015 gas sales to final customers was still dominated by undertakings of the PGNiG S.A. Capital Group. In 2014 a division was introduced within this group as a result of which wholesale customers and final customers consuming over 25 mcm per year are supplied by PGNiG S.A., whereas other customers are supplied by PGNiG OD Sp. z o.o. This division did not have an impact on the level of competition on the retail market, because these two companies have not been competing with each other on the gas market. However, in 2015 further increase in share of alternative suppliers on the retail market has been observed. PGNiG S.A. Capital Group's share in the sales of natural gas to end-users decreased in 2015 and amounted to 80.22%, whereas in the preceding year it was equal 89.24%. The remaining 19.78% of gas sales to end-users was conducted by other trading companies active on the domestic sales market (12.66%) and by companies selling gas mostly on the German market directly to big final customers who brought this gas to Poland on their own (about 7.12%).

In 2015 in the group of alternative sellers active of the domestic market five undertakings had a share of over 1% in sales to final customers. The share of the remaining trading companies was below this level.

Pursuant to the provisions of Article 47 of the Energy Law Act, energy undertakings shall develop tariff according to the scope of conducted activity (held licences), and submit it for approval to the President of ERO, who approves the tariff or refuse to approve is if it finds that the tariff has not been determined in accordance with the provisions of Articles 44-46 of the Act. The provision of Article 45 (1) of the aforesaid Act imposes an obligation on energy undertakings to calculate tariffs in a manner that ensures: covering the justified costs of their activity, a reasonable return on capital employed in this activity and the protection of customer interests against unjustified level of prices and fee rates.

The rules for tariff calculation in 2015 have not changed in relation to the rules in force in 2014.

With respect to the largest entities active in the field of trade in gaseous fuels, i.e. PGNiG S.A. and PGNiG OD Sp. o.o., 5 tariff proceedings were conducted in 2015. PGNiG S.A. served wholesale customers as well as end-users consuming over 25 mcm of high-methane natural gas per year and corresponding amounts of nitrogen gas, while PGNiG OD Sp. o.o. served the remaining end-users with consumption not exceeding the above-mentioned amount.

The aforesaid entities base their activities on regulated prices, hence in the case of PGNiG S.A., in the tariff which has been in force since 1 January 2015 the number of tariff groups was significantly increased, taking annual volume of gas consumption (6 ranges) and the coefficient of inequality (7 ranges) as eligibility criteria. As a result, 126 tariff groups have been created for customers of each type of gas who use common service agreements. In addition, significant changes in the structure of tariff groups have been introduced.

In 2015 gas prices in the tariff of PGNiG S.A. were lowered three times, which was related to a the downward trend in world oil prices that has been observed since mid-2014, and low gas prices in the wholesale markets of Western Europe. The first reduction came into force on 1 January 2015, while another was approved on 16 April 2015.

On 17 July 2015 the President of ERO approved a new tariff of PGNiG S.A. for the provision of gaseous fuels, in which - apart from prices - also the value of discounts for failure to meet quality standards of customer service was changed. In addition, the offer for customers at the virtual point was extended by new tariff groups (from index 7 to index 10).

The last tariff proceeding conducted in 2015 was finalised on 16 December 2015 with the approval of a three-month tariff.

With respect to PGNiG OD Sp. o.o. two tariff proceedings were carried out in 2015. The first one was finalised with a change of tariff effective from 1 September 2015, consisting in reducing the average price of high-methane gas and nitrogen gas Lw. At the same time, offer addressed to customers of propane-butane-expanded gas was excluded from the tariff due to switching by customers previously supplied with this gas to high-methane gas.

On 17 December 2015 another tariff of this company was approved; the tariff follows the trend of decreasing gas prices.

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

The retail market is subject to gradual changes towards development of competition. In 2015 an increase in the activity of alternative suppliers was observed. Taking advantage of the continuing downward trend in gas prices on wholesale markets and increasing technical parameters of the infrastructure for gas brought in from the EU markets, they have been undertaking price competition with companies of PGNiG S.A. CG. Despite maintaining the administrative regulation of natural gas prices, the provisions of law allow for selling gas below the price established in the tariff, provided that customers in all tariff groups are treated equally. Monitoring of the gas market functioning undertaken by the President of ERO in 2015 showed that the majority of gas suppliers sold this fuel to end-users below the prices set in the approved tariff. This situation concerned approximately 40% of the volume of gas sales to end-users.

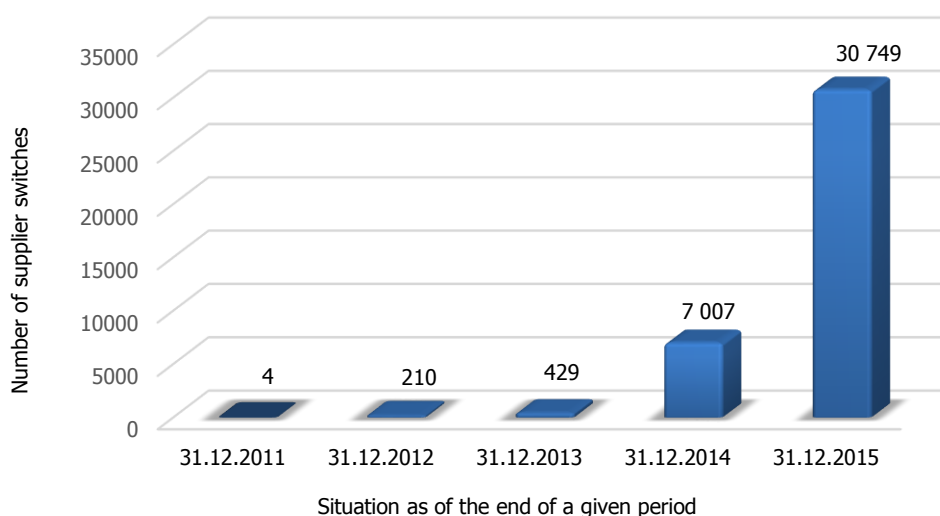
In February 2016 energy undertakings were surveyed to assess the conditions of natural gas market functioning in 2015. Summary of the results of this survey confirmed the presence of significant restrictions on the further development of competition in the retail market, which is caused by, among others:

- lack of timetable to implement the ruling of the Court of Justice of the EU of 2015 on the regulation of natural gas prices in Poland for non-household customers. Gas suppliers expect urgent withdrawal of approval of tariffs for gas sales to commercial customers;
- high cost of obligatory stockpiling by gas suppliers importing gas in the volume exceeding the threshold for exemption from the obligation to maintain obligatory reserves (i.e. in the volume exceeding 100 mcm per year). According to the gas suppliers the need to incur the costs of maintaining obligatory reserves would make their price offer unattractive in comparison to the price of gas offered by the companies of PGNiG S.A. CG;
- limited possibility of real diversification of gas supplies to Poland due to infrastructure constraints and not adjusting legal requirements concerning diversification of gas supplies to the current market situation. They emphasized, among others, the need for final decision whether natural gas imported to Poland with the use of virtual reverse flow is subject to diversification requirements;
- high degree of concentration of gas trading on the commodity exchange market, which is caused by the imposing the obligation to sell natural gas on a commodity exchange only on one participant of the gas market in Poland, i.e. PGNiG S.A.;
- barriers to access to the distribution network of vertically integrated small DSOs which refuse to provide distribution services to alternative suppliers due to the previously concluded gas purchase agreements with a "take-or-pay" clause;
- insufficient access to market information and in the settlement process. Attention was drawn to the need to introduce information exchange systems using electronic communication means and to publish more information in English, especially as regards the TSO functioning;
- limited possibility of diversifying purchases by bigger end-users, who have contracts with the current supplier with clauses obliging them to keep the gas orders at unchanged levels;
- requirements of the public administration authorities as regards providing detailed data on the functioning of energy undertakings, which causes a significant burden for smaller market participants.

Changes that have occurred in the functioning of the transmission system and the wholesale market, especially access to information, equal treatment of market participants and access to cross-border interconnections have been positively evaluated.

In 2015 the President of ERO continued to monitor the actual level of execution of the right to choose supplier by eligible customers, due to the gradually progressing liberalization of gas market.

Pursuant to the binding Third Party Access (TPA) rule, regulated in Article 4 (2) of the Energy Law Act, end-users can individually use the network of local supplier in order to have gas or electricity purchased from a chosen supplier delivered. The freedom of supplier choice is affected by several important factors, i.a.: degree of customer awareness and motivation to switch supplier, as well as the ease of making the change or the number of competitive offers on the market. Analysis of the data from filled-in surveys shows a clear increase in the number of customers switching supplier in the years 2011-2015, in particular in 2015. In 2011 only a few cases of switching were reported, in 2012 their number increased to 210, in 2013 to 429, in 2014 to 7,007, while the number of changes from the beginning of the monitoring until the end of the fourth quarter of 2015 amounted already to 30,749.

Figure 26. The number of supplier changes (according to the number of switches) as of the end of 2011, 2012, 2013, 2014 and 2015

Source: ERO.

It should be noted that vast majority of the 30,749 supplier switches made by the end of 2015 – as many as 27,563 – concerned customers from 1-4 tariff groups, i.e. mainly household customers. This situation may be caused by intensive advertising campaigns addressed to this group of customers carried out recently by some suppliers, as well as the gradual market entry by new suppliers, resulting in increased competition and more attractive offers for customers. The increase in consumer interest in the subject of supplier switching on the gas market is also seen in the increase in the number of telephone inquiries addressed in the current year to the Information Point for Gaseous Fuels and Energy Consumers – a unit within the structure of the Energy Regulatory Office, which objective is to inform consumers about their rights on the energy markets but also of their responsibilities in relation to energy undertakings.

4.2.3. Recommendations on supply prices, investigations and measures to promote effective competition

Pursuant to the provisions of Article 45 (1) of the Energy Law Act and implementing ordinances issued on the basis of Article 46 of the aforesaid Act, energy undertakings calculate tariffs for gaseous fuels or electricity which allow for covering the planned justified costs of conducted business activity, along with the fair return on capital employed in this activity. The deviations of the planned costs from the actual costs (both above and below the threshold) are not taken into account in the tariffs of these undertakings, determined in the subsequent years.

Nevertheless, in case of a significant change of the conditions of conducting business activity by the aforementioned undertaking during the time when the tariff is in force, the undertaking can apply to the President of ERO for approval of the correction of binding tariff. In well-justified cases (both in the situation when external conditions threaten the financial standing of the undertaking, and when they generate too high revenues) the President of ERO, after completing an administrative proceeding, can issue a decision correcting the applied tariff.

Taking into account the current shape of gas market, the President of ERO recommends supporting effective competition i.a. by proposing changes to the provisions of the Energy Law Act. In the Regulator's opinion it seems reasonable to protect the interests of household consumers by introducing statutory regulations concerning the last resort supplies, analogically to the electricity market. In addition, due to the growing interest in switching gas supplier on the networks of small DSOs, it is worthwhile to consider a change of the system of granting exemptions from TPA to ensure that prior to obtaining such exemption it is not possible to refuse access to the network.

In terms of wholesale market, in order to accelerate its development it would be advisable to make it more flexible and to clarify the mechanisms that ensure energy security, such as the obligation to maintain obligatory reserves or the requirements of gas supply diversification.

Antimonopoly proceedings in cases restricting competition, and other activities conducted by the President of the Office for Competition and Consumer Protection (UOKiK) in relation to the gas sector companies³⁴⁾

By the Resolution of 17 October 2014, according to Article 49 (1) and Article 88 (2) in relation to paragraph 85 of the Act of 16 February 2007 on the Competition and Consumer Protection, the President of UOKiK initiated a proceeding on imposing on Polskie Górnictwo Naftowe i Gazownictwo S.A. in Warsaw and PGNiG Obrót Detaliczny sp. z o.o. in Warsaw, a financial penalty, as referred to in Article 107 of aforesaid Act, due to the suspicion of delaying the implementation of point I).4) of the conclusion of the decision of UOKiK President dated 31 December 2013, Ref. No.: DOK-8/2013, i.e. in the scope, in which the decision put an obligation to provide:

- a) customers whose agreements include provisions limiting possibility to decrease the volume of gas ordered for subsequent years in relation to the volume ordered in a current year or previous years, for gas consumers other than household consumers - with an offer to change the concluded agreement by, depending on the wording, either removing paragraphs containing the contested provisions of the agreement, or making relevant modification to those paragraphs in order to remove the questioned provision;
- b) customers whose agreements include provisions limiting possibility to decrease the contractual capacity ordered for subsequent years in relation to the contractual capacity booked in the current year or the previous years, for gas consumers other than household consumers – with an offer to change the concluded agreement by, depending on the wording, either removing paragraphs containing the contested provisions of the agreement, or making relevant modification to those paragraphs in order to remove the questioned provision.

The President of UOKiK, by a decision No. DOK-3/2015 of 25 September 2015, imposed on Polskie Górnictwo Naftowe i Gazownictwo S.A. a financial penalty of PLN 10,442,635 (EUR 2,450,000). The fine was imposed in the amount of EUR 5,000 for each of 490 days of the delay in implementation of the proposed obligation.

Moreover, by the Resolution of 19 August 2015, the explanatory proceeding was initiated, which investigated two cases of potential abuse of dominant position by PGNiG S.A. and PGNiG OD sp. z o.o.

The first one concerns applying by these companies a potentially anticompetitive discount policy. The second relates to questioning, by PGNiG OD sp. z o.o., power of attorneys granted by hitherto clients of the company to a new supplier with the aim to terminate the agreement with PGNiG OD sp. z o.o. under the supplier switching process (Ref. No.: DOK1-400-1/15/FS).

The proceeding is pending.

4.3. Security of supply

Pursuant to the Energy Law Act, in 2015 the government authority in charge of energy policy, including issues related to energy security, was the Minister of Economy. Currently it is the Minister of Energy (pursuant to the Act of 11 February 2016 on amending the act on branches of government administration and some other acts, which came into force on 17 March 2016, words "minister responsible for economy" used in the Energy Law Act and Act on Stocks in relevant grammatical cases are replaced with words "minister responsible for energy" used in relevant grammar cases). At the same time, this minister was also the competent authority as regards the security of gas supplies referred to in Regulation 994/2010. The Regulator has been cooperating with the Minister of Economy with regard to the tasks stemming from the aforesaid Regulation and Directive 2009/73/EC, in connection with the competences of the President of ERO determined in the national law.

³⁴⁾ On the basis of information provided by UOKiK.

In consequence, the security of natural gas supply understood as ensuring customer access to the energy of specified quality and at transparent prices, is the area of energy security monitored by the President of ERO with the use of instruments assigned to it.

4.3.1. Monitoring balance of supply and demand

Gas supplies from abroad in the amount of 122.8 TWh were supplemented with gas from domestic sources in the amount of 43.5 TWh. In 2015, the total supply of gas from abroad comprised import from the Eastern direction and intra-Community supplies, whereas its significant part was constituted by import from the Eastern direction carried out under the long-term contract concluded between PGNiG S.A. and OOO Gazprom Export. 89.5 TWh of gas was purchased under this contract.

Information about the structure of gas supplies in 2015 is presented in the table below.

Table 15. Structure of gas supplies in 2015

Specification	Volume [TWh]
1. Supplies from abroad, including:	122.8
- "Yamal contract"	89.5
2. Extraction	43.5

Source: ERO, on the basis of data provided by gas trading companies

In 2015 506.1 TWh of high-methane gas and 7.6 TWh of nitrogen gas flowed through the Polish transmission system. Most of high-methane gas was transited with the use of the Yamal pipeline. The below table shows the most important directions of gas flow in the transmission system.

Table 16. Balance of high-methane and nitrogen gas trade flows in the transmission system (including Transit Gas Pipeline System) in 2015 [TWh]

2015		High-methane gas	Nitrogen gas
Entry to the system, in total		506.1	7.6
of which:	mines and denitrating plants	27.1	7.6
	storage facilities	23.5	0.0
	supplies from outside the EU	422.5	0.0
	supplies from the UE	32.9	0.0
	other (entries from distribution)	0.1	0.0
Exit from the system, in total		506.1	7.6
of which:	blending stations and denitrating plants	0.0	3.1
	storage facilities	20.6	0.0
	to the distribution network	101.8	3.3
	to the final customers on the transmission network	47.8	0.9
	supplies to the EU [MWh]	329.1	0.0
	supplies outside the EU	1.6	0.0
	operator's own needs (including the change in operator's account)	5.2	0.3

Source: ERO, on the basis of data provided by OGP Gaz-System S.A. and SGT EuRoPol GAZ S.A.

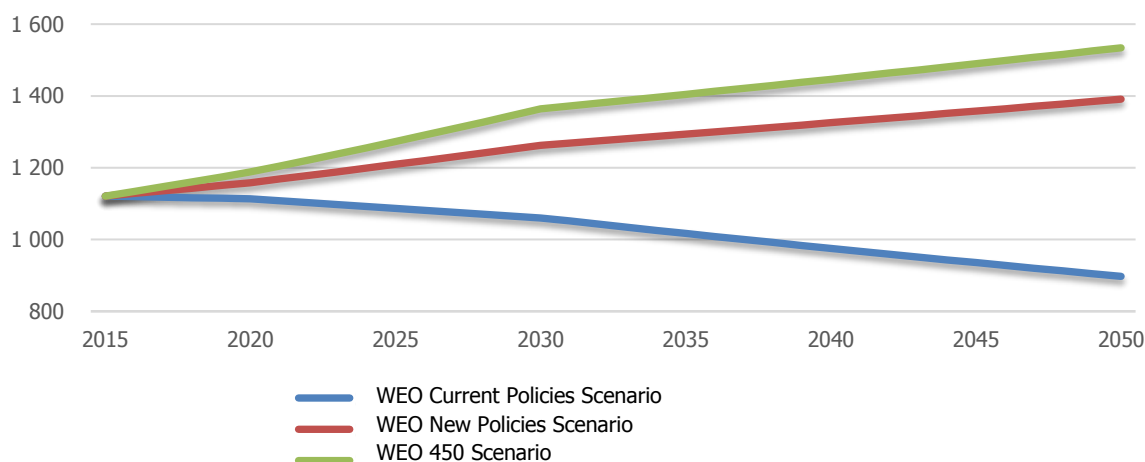
4.3.2. Expected future demand and available supplies as well as envisaged additional capacity

Development of interconnection enables gas trading between the EU Member States. This situation can be beneficial to companies from countries that buy cheaper Russian gas and can sell its surplus to countries where the price of the Russian gas is higher. In such a situation Poland could use the same resource offered at a lower price.

Gas prices in the European virtual trading points are favourable for the Polish importers of gas, but their instability has to be taken into account. The conducted historical analysis indicates that prices are

rising significantly at the beginning of the year in the period of low temperatures, when the demand for gas is the highest.

Figure 27. Forecasted gas prices [PLN/1,000 m³]



Source: Development Plan of OGP Gaz-System S.A.

With regard to the demand for gas transmission service, the largest increase is expected in the situation of the development of electricity sector (especially CHP) based on a gaseous fuel. Changes in the electricity market will have the greatest impact on the future demand for gas and the dynamics of changes in the volume of transmitted gas.

In comparison to the forecast set out in the agreed Development Plan for the years 2014-2023, OGP Gaz-System S.A. has made a significant revision of the forecasts of demand for gas, which is related to significant changes on the electricity market in Poland. According to OGP Gaz-System S.A. there has been a significant decline in the interest of potential investors in the construction of new generating units based on gas fuel. This decrease results from the suspension of works related to the construction of new gas power plants by some investors and the replacement of outdated coal units with steam-gas blocks in large power plants located in the larger urban areas.

Taking into account the expected increase in capacity at entry points to the national transmission system, the Transmission System Operator has identified potential trends and possible export scenarios in the perspective of 2015-2035.

The following issues were foreseen when creating the assumptions for the analysis:

- maintaining the current level of domestic extraction;
- commissioning of the LNG terminal in Świnoujście and its possible extension;
- launching of another cross-border interconnections, i.e. new interconnectors Poland-Czech Republic, Poland-Slovakia, Poland-Lithuania and Poland-Ukraine;
- extension of the existing entry points from the Western direction, i.e. Lasów and Mallnow.

4.3.3. Measures to cover peak demand and shortfalls of suppliers

Monitoring of the security of gas supply carried out in 2015 was focused on the areas of the market functioning referred to the activities described below, with particular emphasis on the issues relating to:

- licences

In the case of licence for foreign trade in natural gas, the entity's ability to create obligatory reserves that have an influence on the security of supply is taken into consideration. The entity applying for such licence has to: possess its own storage capacities, have a concluded preliminary agreement for the provision of storage services for obligatory reserves, or obtain an exemption from the obligation of maintaining obligatory reserves (through an administrative decision issued by the Minister of Economy). Moreover, the President of ERO, when issuing the licence, informs the entrepreneur about the obligation to ensure the proper level of supply diversification pursuant to the Ordinance of the Council of Ministers of 24 October 2000 on the minimum level of diversification of foreign natural gas supplies. The issued licences for foreign trade in natural gas include obligation to ensure diversification of gas supply.

- tariffs

Tariffication of the infrastructure undertakings is an indirect method of monitoring of the security of gas supply. The range of financing the assets (transmission, distribution, storage and liquefied gas installations) required for supplying fuels to customers is settled in the tariffication process. The levels of investment outlays for network assets, as well as the amounts of money designated for repairs and modernisation of these assets determine their physical condition, i.e. operational security. Review of the annual and quarterly reports submitted by the companies of the PGNiG S.A. CG and OGP Gaz-System S.A. show that the approved tariffs have ensured good financial condition of the undertakings, thereby allowing for the financing of investments, modernisation plans and repairs.

- approving the plans of introducing restrictions to the natural gas consumption, developed by the operators

Pursuant to Article 58 (1) of the Act on Stocks, operator of the gas transmission system and the operators of gas distribution systems are obliged to develop plans of introducing restrictions to the natural gas consumption, and pursuant to Article 58 (17) of the Act on Stocks the above-mentioned operators shall update the restriction plans every year and submit them, until 15 November of a given year, for the approval of the President of ERO in the form of a decision. Restriction plans developed by the operators define minimum hourly and daily volumes of gas off-take by particular customers connected to their networks who meet the criteria to be included in the restriction plans, for particular supply levels from 2 to 10 (see Article 58 (2) of the Act on Stocks in connection with § 4 (1) (1) of the Ordinance of the Council of Ministers of 19 September 2007 on the manner and method of introducing restrictions to the natural gas off-take³⁵⁾). Developing restriction plans and then the possible implementation of restrictions in the natural gas consumption by the Council of Ministers through an ordinance shall facilitate the security of natural gas supply in the event of: threat to the national fuel security, unexpected increase in natural gas consumption by customers, occurrence of disruption in the import of natural gas, failure in the networks of gas system operators, threat to the safety of persons, threat of substantial property damage and the need to fulfil international obligations by the Republic of Poland (see Article 54 (1) of the Act on Stocks).

- aggregation of information provided to the President of ERO pursuant to Article 27 (2) of the Act on Stocks by energy undertakings conducting business in the scope of natural gas imports for the purpose of its further resale to customers

Pursuant to Article 27 (2) of the Act on Stocks, energy undertakings performing business in the scope of natural gas imports for the purpose of its further resale to customers, shall submit to the Minister of Economy and the President of ERO by 15 May of each year information on activities undertaken in the period between 1 April of the preceding year and 31 March of a given year, in order to (1) ensure the fuel security of the State in terms of foreign trade in natural gas, and (2) fulfil the obligation to maintain obligatory reserves of natural gas. In 2015 information pursuant to Article 27 (2) of the Act on Stocks was submitted to the President of ERO by 46 energy undertakings.

- conducting a survey among energy undertakings which hold a licence for foreign trade in natural gas in respect to the obligation to maintain obligatory reserves of natural gas and to have developed procedures referred to in Article 49 (1) of the Act on Stocks

In 2015 the President of ERO conducted a survey regarding the obligation to maintain obligatory reserves of natural gas. The objective of the study carried out in 2015 was to get information on the implementation of tasks connected with maintaining obligatory reserves of natural gas in the period from 1 June 2015 to 30 September 2015, and on having operational procedures referred to in Article 49 (1) of the Act on Stocks, i.e. the procedures applicable in case of: disruptions in the supply of natural gas to the gas system and the unexpected increase in natural gas consumption by customers. The survey covered 55 energy undertakings holding licences for foreign trade in natural gas as of 30 September 2015. According to responses received from the energy undertakings in the described period only one undertaking was maintaining the obligatory reserves of natural gas, i.e. PGNiG S.A.

- agreeing draft development plans of gas network undertakings

Agreeing draft network development plans with the President of ERO allows for monitoring the initiatives necessary for maintaining the required level of reliability and quality of provided network services.

As a result of agreeing draft development plans, network undertakings implement investment and renovation projects in order to ensure security of gas supply to customers.

³⁵⁾ Journal of Laws of 2007, No 178, item 1252.

- determining or verifying the level of obligatory reserves of natural gas by means of a decision and monitoring the maintenance of these reserves

These obligations are implemented in order to ensure the supply of natural gas to the Republic of Poland, and to minimise the effects of a possible threat to the fuel security of the country, emergency situation in the gas network, and unexpected increase in natural gas consumption.

- monitoring the diversification level of gas supply

An important element of ensuring energy security of the country is the diversification of sources of natural gas supply from abroad, according to the volumes specified in § 1 (1) of the Ordinance of the Council of Ministers of 24 October 2000 on the minimum level of diversification of foreign natural gas supplies. The aforesaid volumes determine, for the period from 2001 to 2020, the maximum share of gas imported from one country of origin in relation to the total amount of gas imported in a given year. According to the provisions of the aforesaid ordinance, in the years 2015-2018 the maximum share of gas imported from one country of origin in relation to the total amount of gas imported in a given year cannot be higher than 59%.

Pursuant to Article 32 (1) point 4 and 2 of the Energy Law Act, business activity in the scope of foreign trade in natural gas is a licensed activity. Relevant licences are granted taking into account the need to diversify sources of natural gas and ensure energy security. Licences for foreign trade in natural gas issued by the President of ERO comprise a diversification obligation.

The President of ERO conducts annual monitoring of the diversification level of foreign gas supplies and analyses compliance with the provisions of the above-mentioned ordinance by entities holding licences for foreign trade in natural gas.

In 2015 the President of ERO once again monitored the diversification level of natural gas supplies executed by the licensees, concerning the fulfilment of the above-mentioned obligation in 2014. The monitoring covered 47 licensees who in 2014 held licences for foreign trade in natural gas. Due to necessity to send numerous summons to supplement the provided documentation, monitoring was finalised only at the end of 2015.

As a result of the conducted monitoring of the level of diversification of gas supplies from abroad it was established that 30 licensees brought in natural gas. These deliveries comprised both import and intra-Community acquisition. 17 out of 47 licensees reported that in 2014 they did not bring in natural gas from abroad under the held licences for foreign trade in natural gas, neither through import nor intra-Community acquisition.

- monitoring of congestion management

In 2015 also the tasks in the management of natural gas transmission were executed, consisting, in particular, in the identification of the scale and place of congestions, as well as in identifying the reasons of their occurrence and the ways to prevent them. Congestions may occur in the gas system, i.a. in relation to: the occurrence of the so-called bottlenecks, including limited network capacity; the need to maintain minimum pressure at exit points from the system and stable quality parameters of gaseous fuels; carrying out works in the system, including renovation and modernisation, and occurrence of emergency situations.

In order to minimise the occurring system congestions, works have been continued concerning both investments in new pipelines and modernisation of the important existing transmission system assets, such as, i.a.: completing the construction of the liquefied natural gas terminal in Śwnoujście, completing the construction of Szczecin-Gdańsk, Szczecin-Lwówek, Rembelszczyzna-Gustorzyń, Lasów-Jeleniów and Gałów-Kielczów pipelines, as well as extension of the Rembelszczyzna node.

- trade restrictions in the supply of gaseous fuel introduced in 2015

As a market means to ensure security of gas supply, trade restrictions in the supply of gaseous fuel are one of the key tools used to ensure supply of natural gas. Nevertheless, due to the fact that customers' demand for gas was covered from the available sources, no trade restrictions in the supply of gas were introduced in 2015.

- monitoring conditions for network connection and their implementation

In 2015 the President of ERO monitored the conditions for connecting entities to the transmission and distribution network. Monitoring of the conditions for connecting entities to the network and establishing of the connection is carried out, i.a. in the course of investigation proceedings related to the complaints of entities requesting network connection, and during administrative proceedings concerning the refusal to conclude network connection agreement. In case of the Transmission System Operator the number of completed connections amounted to nine, while the number of refusals, i.e. denied transmission network connection requests, amounted to three. The situation is different in case of the distribution network where the number of denied connection requests was much higher and

amounted to 7.003. However, it is due to much longer network and higher number of potential customers. The reasons for denials indicated by the operators were, in particular, lack of technical conditions, including lack of capacity on the existing gas network; a considerable distance from the gas network or lack of underlying gas pipeline; lack of permits to enter the area where the investment would be carried out and lack of economic conditions.

5. CONSUMER PROTECTION AND DISPUTE SETTLEMENT IN ELECTRICITY AND GAS

5.1. Customer protection

Compliance with Annex 1 to Directives 2009/72/EC and 2009/73/EC

In September 2013 the provisions amending the Energy Law Act came into force, implementing i.a. provisions of Annex 1 to Directives 2009/72/EC and 2009/73/EC. These provisions oblige DSO to enable customers of gaseous fuels or electricity to switch supplier within 21 days, and determine the system of vulnerable consumers' protection based on housing allowance. Moreover, consumers gained a right to receive final settlement with the current supplier not later than within 42 days from the day of supplier switching. Under the amended provisions of the Energy Law Act, the President of ERO has also been obliged to develop a set of energy consumer rights in cooperation with the President of UOKiK on the basis of the European Commission's guidelines. This document shall contain practical information on the rights of consumers of electricity and gaseous fuels. Electricity and gas suppliers, in turn, have been obliged to deliver to households a copy of the set of energy consumer rights and to assure public access to this document.

Consumer right to conclude agreements guaranteeing honest and transparent conditions regarding receiving compensations and return of payments, the consumer right to file complaints and settle disputes

Pursuant to the provisions of the Energy Law Act, every energy undertaking involved in transmission or distribution of gaseous fuels or energy is obliged to ensure provision of transmission or distribution services of these fuels or energy to every customer and supplier on the basis of equal treatment. The provision of transmission or distribution services of gaseous fuels or electricity is carried out on the basis of a contract that the undertaking is obliged to conclude. The undertaking is also obliged to conclude connection agreement with any entity applying for network connection, provided that technical and economic conditions allow for the connection and off-take. Pursuant to the provisions of the Energy Law Act, the default supplier is obliged to provide complex service and conclude common service agreement (an agreement comprising the provisions of sales agreement and agreement for the provisions of distribution services) on the basis of equal treatment, with a household customer of gaseous fuels or electricity who does not exercise the right to choose supplier. Undertakings providing storage services of gaseous fuels and natural gas liquefaction are also obliged by law to conclude agreements with customers, which are a basis for the provision of these services.

The provisions of the Energy Law Act specify the minimum catalogue of issues that should be regulated within the agreements. Network connection agreement should specify, inter alia, the connection deadline, the connection schedule and the expected date of concluding the contract on the basis of which gaseous fuels or energy will be provided.

Contract for the provision of distribution services should in turn define, i.a. the quality standards and conditions to ensure the reliability and continuity of supply of gaseous fuels or energy, as well as technical parameters of gaseous fuels or energy, and the amount of discount for failure to meet these

parameters and quality standards of customer service. Sales agreement or common service agreement shall also specify the parties to the contract, and comprise information on consumer rights, including the way of filing complaints and settling disputes, the possibility of obtaining assistance in the event of failure, as well as the place and manner to familiarise oneself with the applicable tariffs, including charges for the maintenance of gas or electricity system.

Moreover, every agreement shall specify its duration and conditions of its termination. All terms and conditions of the agreement must be known to the customer in advance. Energy undertakings are obliged to immediately provide customers with draft contracts (sales agreement, contract for the provision of transmission or distribution services of gaseous fuels or energy, common service agreement, contract for the provision of gaseous fuels storage service and contract for the provision of natural gas liquefaction service), or draft amendments to the concluded agreements, with the exception of changes in prices or fees specified in the approved tariffs. If the concluded contracts are to be amended, a written notice of the right to terminate the contract shall be sent together with the draft amended agreement.

In case of distance or off-premises contract concluded after 24 December 2014 household consumer may, within 14 days, withdraw from it without providing reasons by submitting a written statement of withdrawal to the energy undertaking with whom the agreement was concluded. The period for withdrawal shall be deemed to have been observed if the statement is sent before its expiry. If the undertaking provides the possibility to file a statement of withdrawal electronically, consumer may withdraw from the contract by submitting a statement of withdrawal through the undertaking's website. In this case the undertaking is obliged to immediately send to the consumer, on a durable medium, acknowledgment of receipt of the statement of withdrawal from the contract filed electronically. In a situation where the consumer was not informed about the right of withdrawal, the right to withdraw from the contract expires after 12 months from the date of expiry of the 14-day deadline for withdrawal. However, if the consumer is informed by the undertaking about the right to withdraw from the contract before the aforesaid 12-month period, the deadline to withdraw from the contract expires after 14 days from informing consumer about this right.

Consumer right to obtain information about prices and charges applied by energy undertakings and, in case of their change, the right to obtain notice about any intention to introduce changes to the agreement and information about the right to withdraw from the agreement after receiving such notice

Pursuant to the provisions of the Energy Law Act, gas suppliers and electricity suppliers who supply final customers are obliged to publish on their websites and make publicly available at their premises, information on the current sales prices of gaseous fuels and energy, as well as terms and conditions of their application. At the same time, as it was indicated above, energy undertakings are obliged to promptly notify customers all draft changes that will be introduced to the concluded agreements, and along with the draft changes the undertakings are obliged to submit a written information about the right to terminate the agreement in case of lack of acceptance for the changed terms and conditions. Moreover, customers are informed by the supplier about every increase in prices or fee rates for the supplied gas or electricity specified in the approved tariffs. The supplier is obliged to give notice within one settlement period from day of the increase. Consumer should be notified in a transparent and understandable way.

Consumer right to choose the method of payment. Employing estimation methods guaranteeing accurate forecasts of the consumption (in case of settlements based on forecasts)

Enabling consumers to submit payments in various forms was subject of the President of ERO's recommendation addressed to the undertakings of the electricity sector (Good Practice collection). In practice, energy undertakings accept various payment methods, and consumers are entitled to choose the method, e.g. in the form of direct debit, bank transfer (including online transfers), payment made at a post office or other designated places (e.g. chosen store chains), as well as possibility to pay invoices in cash at the customer service points of energy undertakings.

The issues connected with applying settlements based on forecasts are regulated by the Minister of Economy in the provisions of executive ordinances to the Energy Law Act. In case of electricity settlements:

- settlement period for I-IV connection groups shall be no longer than two months, and for customers of V connection group (household consumers) it cannot be longer than one year. Settlement periods determined in the tariff of an undertaking providing complex service are correlated with the settlement periods of the undertaking providing distribution service for its customers,
- if the settlement period is longer than one month, during this period fees for electricity and for transmission and distribution of this energy can be charged in the amount determined on the basis of forecasted electricity consumption in this period, based on the volume of electricity consumption determined on the basis of readings of metering and billing equipment conducted in the analogical period of the preceding calendar year. Significant changes in electricity consumption declared by the consumer are taken into account in the forecasts.

In case of settlements for off-taken gaseous fuels or provided services related to the delivery of these fuels, the undertaking conducts settlements based on the measuring system readings made in the settlement periods specified in the tariff. Settlement period for customers consuming gaseous fuels in the amount not higher than 110 [kWh/h] should not be longer than 12 months. Payments in the settlement periods can be charged in the amount determined on the basis of forecasted consumption of gaseous fuels, set according to the rules specified in the tariff. In these forecasts undertaking shall take into account significant changes in consumption of gaseous fuels reported by the consumer.

Consumer right to switch supplier within the three-week period and to receive final settlement with the previous supplier within 6 weeks

Pursuant to the provisions of the Energy Law Act, energy undertaking involved in transmission or distribution of gaseous fuels or energy, while applying objective and transparent rules ensuring equal treatment of system users, enables customer of gaseous fuels or energy connected to its network to switch supplier upon conditions and procedure specified in separate provisions.

Customer can withdraw from an agreement concluded for indefinite period without bearing any costs by submitting a written statement. However, this customer has to cover all the amounts due for the off-taken gaseous fuel or consumed energy and provided transmission or distribution services of gaseous fuels or energy. A fixed-term agreement can also be terminated by the customer without him bearing any costs or compensations other than those stipulated in the agreement.

In case of households legal provisions determine the notice period for contract termination. Namely, such an agreement is terminated on the last day of the month following the month in which the customer's statement was received by the energy undertaking. The customer may indicate a later date of contract termination.

Distribution system operators are obliged to implement the supplier switching procedure no later than within 21 days from the day of notifying the relevant operator on the conclusion of a supply agreement with the new supplier.

Previous suppliers are obliged to make final settlements with customer no later than within 42 days from the day of supplier switching. In order to make this obligation possible to implement, system operator is obliged to provide the previous and the new supplier with data concerning the volumes of gaseous fuels or energy consumed by the customer, within the period enabling the previous supplier to make settlements with the customer.

Consumer right to benefit from the transparent, simple and inexpensive procedures for investigating complaints and settling disputes with the use of out-of-court system. Institution of customer ombudsman as a support for customers and an alternative mechanism to resolve disputes

The Act on the out of court resolution system for customer disputes will constitute an implementation of Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive

2009/22/EC (Directive on consumer ADR). The draft law on the out of court resolution system for customer disputes is currently considered by the Sejm (lower chamber of the parliament) of the Republic of Poland.

The main objective of the directive is to ensure the availability of ADR procedures for all disputes occurring between consumers and undertakings on the internal market.

The aim of draft regulations:

- access to simple, efficient, fast and low-cost ways of resolving disputes,
- improvement of ADR's efficiency,
- improvement of customer protection,
- wide sector coverage,
- system shall have a comprehensive character, apply horizontally and be free from loopholes,
- system coherence, common mechanisms for action which facilitate monitoring of the entire system and efficient elimination of potential irregularities,
- ensuring expertise,
- ensuring better access for citizens to ADR entities, which will have impact on the popularization and development of such methods of dispute resolution.

The ADR Directive is planned to be implemented by so-called mixed model, i.e. model in which ADR entities of a public and non-public character coexist and at the same time are supplemented with horizontal entity acting within trade inspections. It provides for the coexistence of sectoral ADR entities and ADR entity of a horizontal function. Implementation of the directive, therefore, consists in the evolution and development of the current ADR model on the basis of solutions present in Poland – the current ADR model comprises permanent consumer arbitration courts of the Trade Inspection.

There are Municipal and District Consumer Ombudsmen in Poland, to whom customers can complain in individual cases, including the energy-related cases. The competences of Customer Ombudsmen comprise i.a. providing free of charge customer 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.

Sales agreement or common service agreement should comprise i.a. information about the way of filing complaints and settling disputes. At the same time, the supplier of gaseous fuels or electricity has been obliged to inform household consumer about his rights, including the way of filing complaints and settling disputes.

Competences of the President of ERO in respect of settling disputes were described in detail in point 5.2. However, it should be noted that the regulator settles disputes under administrative regime, which does not fully correspond to the alternative dispute settlement mechanisms.

Notwithstanding the above, it should be noted that the tasks of the President of ERO include also carrying out information activities addressed to the electricity and gas consumers, including providing information via comprehensive information point comprising an info-line to inform and promote the right to switch supplier. In order to fulfil this tasks, there is the Information Point for Fuel and Energy Customers within the structure of ERO, where customers can obtain information and advice regarding their rights (by phone, in writing, as well as electronically). Detailed information on the activity of the Point as well as contact data are posted on the ERO website.

In addition, the President of ERO in cooperation with the President of UOKiK drafted a set of energy consumer rights based on the guidelines of the European Commission. The document contains practical information on the rights of electricity and gaseous fuels consumer. Pursuant to the obligation imposed by the Energy Law Act, suppliers of gaseous fuels or electricity shall provide household consumers with copies of the Set of Energy Consumer Rights and ensure public access to this document.

Public service obligations

As a result of unbundling of distributions system operators from the biggest vertically integrated undertakings that took place on 1 July 2007, energy undertakings involved solely in distribution of electricity or gas, as well as gas or electricity trading companies appeared on the electricity and gas markets.

Distribution undertakings unbundled from the biggest incumbent companies have been designated distribution system operators by the President of ERO. Currently, there are five big electricity DSOs whose networks are connected to the transmission grid, and one big gas DSO. Trading companies

(“incumbent suppliers”) have been obliged under the Energy Law Act to carry out the tasks of default suppliers for consumers who did not decide to switch to a new supplier.

Incumbent suppliers act as default suppliers until the designation of these suppliers following a tender or under decision of the President of ERO. No tender procedure has been held until the end of 2015. The vast majority of household consumers have concluded the so-called common service agreements with default suppliers; such agreement comprises terms and conditions of both sales and transmission or distribution service agreements. The default supplier is in addition obliged to ensure the provision of complex service, and to conclude common service agreement on the basis of the equal treatment rule with a household consumer who does not exercise his right to switch supplier and is connected to the network of an energy undertaking indicated in the default supplier’s licence. It shall be underlined that household consumer who terminates a common service agreement within the notice period provided for in the agreement cannot be charged by the default supplier with any additional costs other than those specified in the agreement.

Vulnerable consumer protection

Novelisation of the Energy Law Act which came into force in September 2013 introduced the definition of vulnerable consumer of electricity and vulnerable consumer of gaseous fuels, and established system of financial support for these customers. Definitions of vulnerable consumers refer to the law on housing allowances. 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 (gaseous fuels consumers) and who are, respectively, a party to the common service agreement or supply agreement of electricity or gas, and reside in the place of supplying this energy or fuels. Furthermore, a fixed annual limit of electricity consumption has been set. It amounts to 900 kWh for a single-person household, 1 250 kWh for a household consisting of 2 to 4 persons and 1 500 kWh for household comprising at least 5 people. At the same time municipalities have been provided with funds for payment of the aforesaid allowances. These funds will come from the designated subsidy of the state budget. Minister responsible for economy announces, by 30 April each year, the amount of the energy allowance for the next 12 months. At the end of 2015, the amount of the energy allowance for household amounted to 11.09 PLN, 15.40 PLN or 18.48 PLN per month, depending whether the household consisted of 1, 2-4, or at least 5 persons, respectively.

Consumers can also turn to energy undertakings for help in order to take advantage of the programs implemented within the framework of corporate social responsibility (CSR).

Ensuring access to consumption data

Pursuant to Article 5 (6c) of the Energy Law Act, electricity suppliers are obliged to inform their customers about the volume of electricity consumed by these customers in the previous calendar year, about the place where information on average electricity consumption for a given energy group of connected customers is provided, as well as on the measures to improve energy efficiency and technical characteristics of energy efficient devices.

In addition, an undertaking providing energy distribution service or an energy supplier who provides the complex service shall, when issuing an invoice for the consumer, in a settlement attached to the invoice provide information on, inter alia:

- the volume of electricity consumption in the settlement period, which was a basis for the calculation of due amount,
- the manner of conducting the metering and billing system reading - whether it was a physical or remote reading made by an authorised representative of the energy undertaking, or a reading made and reported by the consumer,
- the method of determining the value of electricity consumption in a situation when the settlement period is longer than one month and the first or the last day of the settlement period does not coincide with the dates of the metering and billing system readings, or if during the course of the settlement period there was a change in prices or fees, or about the place where such information is available.

In the case of gaseous fuels, undertakings conducting settlements of the off-taken gaseous fuels or services related to their supply provide customers with the following information, depending on the type of settlements:

- readings of the metering and billing system at the beginning and the end of the settlement period, expressed in [cubic metres],
- value of the conversion factor (for converting from [cubic metres] to [kWh]),
- consumption of gaseous fuels in the settlement period, expressed in [kWh],
- whether the indicated consumption is the actual or forecasted consumption.

5.2. Dispute resolution

The President of ERO carries out his tasks in the scope of dispute settlement provided for in Article 37 (1) of Directive 2009/72/EC and Article 41 (11) of Directive 2009/73/EC pursuant to Article 8 (1) of the Energy Law Act. According to the aforesaid provision, the President of ERO, upon a request of a party, shall settle disputes concerning the refusal to conclude network connection agreement, sales agreement, contract for the provision of transmission or distribution services of fuels or energy, agreement for the provision of transport services of natural gas, agreement for the provision of natural gas storage services, agreement for the provision of liquefaction services of natural gas, agreement for making available of a part of gas storage installation to the gas transmission operator for remuneration, common service agreement, as well as unjustified stoppage in the supply of gaseous fuels or electricity.

Issues related to the network connection refusal concerning renewable energy sources are of the highest gravity as regards dispute settlement under Article 8 (1) of the Energy Law Act. Legal basis for the public-law obligation to conclude a network connection agreement imposed on energy undertaking is stipulated in Article 7 (1) of the Energy Law Act, pursuant to which an energy undertaking involved in transmission or distribution of gaseous fuels or electricity is obliged to conclude network connection agreement with every entity that applies for network connection, taking account of the equal treatment rule and priority connection of RES installations, provided that there are technical and economic conditions for network connection and supply of these fuels or energy, and the applying party complies with the conditions for connection and off-take. The public-law obligation does not apply to the situation when the party applying for connection does not have a legal title to use a property, an object or a premise to which gaseous fuels or energy are to be supplied.

The data on disputes concerning refusals to connect RES to the electricity grid settled by the President of ERO in 2015 are presented in the table below.

Table 17. Statistical data - disputes concerning refusals to connect renewable energy sources to the electricity grid in 2015

2015	Number of settled cases	Number of decisions stating that there is no legal obligation to conclude network connection agreement	Number of decisions stating that there is legal obligation to conclude network connection agreement	Number of decisions to discontinue the proceeding	Number of administrative settlements
	30	13	0	14	3

Source: ERO

It should be noted that renewable energy sources of a total capacity of 153.5 MW were connected to the network as a result of settlements reached under dispute resolution proceedings carried out by the President of ERO to agree the content of RES network connection agreements between the parties, and in connection with judgment of the Regional Court in Warsaw of 14 December 2015, file ref. XVII AmE 3/15, which confirmed the decisions of the President of URE as final. The aforesaid data concern the activities of the President of ERO which fall within the scope of tasks stipulated in the *Energy Policy of Poland until 2030* (point 5.1. *Development objectives of using renewable energy sources*) aimed at an increase of the RES share in the final energy consumption in 2020 to the level of 15% at the minimum. It should be added that issuing decisions to discontinue some of the aforesaid proceedings resulted from the fact that the parties have reached agreement as a result of conciliation undertaken by the President of ERO and, already after submitting an application to resolve a dispute, concluded

a network connection agreement without the need to issue an administrative decision on the merits of the dispute (5 cases), or an applicant withdrew the application for dispute resolution by the President of ERO (9 cases).

In 2015 the President of ERO settled also other disputes which considered i.a. stoppages of electricity supply. Pursuant to Article 6b (1) of the Energy Law Act, energy undertaking conducting business activity in the scope of transmission or distribution of gaseous fuels or energy may stop the supply of gaseous fuels or energy with the exception of Article 6c, if a conducted inspection showed that there was an illegal off-take of fuels or energy, or the supplied party has been in default with payment for the services provided for at least 30 days after expiration of the payment date. Pursuant to Article 6b (4) of this Act, energy undertaking is obliged to stop the supply of gaseous fuels, energy or heat, if a conducted inspection showed that the recipient's installations poses a direct threat to life, health or environment. Actions of the relevant operators as regards stoppages of supply are controlled by the regulatory authority.

It should also be reminded that the President of ERO lacks competence to settle disputes concerning the already concluded agreements. Nevertheless, a significant number of disputes between customers or producers and energy undertakings arise with regard to the agreements concluded between these entities. In such a situation a general court is the competent authority to resolve a dispute.