

NATIONAL REPORT

THE PRESIDENT

OF THE ENERGY REGULATORY OFFICE

IN POLAND

2008

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Abbreviations

DSO	Distribution System Operator
EMA SA	Energy Market Agency SA
ERO	Energy Regulatory Office
IRiESP	Gride Code
KSE	National Electricity System
LNG	Liquefied Natural Gas
n.a.	not available
OGP Gaz System SA	Operator of Gas Transmission Pipelines Gaz-System SA
PGE SA	Polish Energy Group SA
PGNiG SA	Polish Oil and Gas Company SA
PSE SA	Polish Power Grid Company SA
RES	Renewable Energy Sources
TGE SA	Polish Power Exchange
TPA	Third Party Access
TSO	Transmission System Operator
UCTE	"Union for the Co-ordination of Transmission of Electricity"
EU	European Union
UOKiK	Office of Competition and Consumer Protection (OCCP)

1. FOREWORD

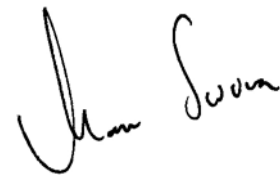
The year 2007 is another year of the Polish Regulator's struggle for a more economical and more friendly energy policy for people and environment. Actions of the President of the Energy Regulatory Office were often jeopardised due to changes in energy law, as well as severe delays in publication of accompanying regulations.

Realistically looking, in general it was the year of consolidation in energy sector and centralisation of trade in gas sector. This year marks also the end of limiting the consumers' freedom of choice. Starting from 1st July all the users acquired the right to select their supplier. This remarkable market opening, however, requires many additional regulations and verified actions are necessary to make them really work in practice.

It was an exceptional year for the Regulator because of personnel changes that took place on the position of the President of the Energy Regulatory Office. The already complex regulatory issues, both because of their legal complexity and difficulty in their application, turned out to be even more demanding due to the necessity of further adaptation changes.

The Report here presented constitutes an analysis of the actions of the President of the Energy Regulatory Office based on application of all the available legal means. The premise of the appropriate regulatory actions is based on the Regulator's knowledge about condition, structure and changes in energy sector, its subsectors and situation on energy markets. This knowledge is based on information, collected and processed by the Energy Regulatory Office, which comes from the statistical data and regular monitoring of functioning of energy systems.

The document presented to the European Commission is the fourth report prepared by the President of the Energy Regulatory Office, who has thus complied with his obligation specified in the Energy Law Act, and in Directives 2003/54/EC and 2003/55/EC.



2. SUMMARY, MAJOR DEVELOPMENTS OF THE LAST YEAR

The Energy Law Act¹⁾ of 10th April 1997 established a new organ of governmental administration – The President of the Energy Regulatory Office, and charged the new body with “tasks based on regulation of fuel and energy sector and promotion of competition”.

2.1. Basic organisational structure and competences of the regulatory agency

Composition of the Board or Commission

The President of the Energy Regulatory Office performs his functions as “a one-person entity” with the assistance of the Energy Regulatory Office (ERO). The President constitutes the central body of the government administration and is appointed – and recalled – by the Prime Minister from among the state administration personnel, upon the motion submitted by the Minister of Economy²⁾. Mariusz Maciej Swora, Ph.D., has been the President of the Energy Regulatory Office since 13th November 2007³⁾.

The Office consists of seven organisational units (departments and bureaus), and nine regional branch offices covering the whole territory of the country. The President of the Energy Regulatory Office summons teams acting as temporary assisting bodies which constitute the horizontal (multi-layer) structure of the ERO.

The employees of the ERO are members of the civil service corps. The duties within the scope of civil service are realised by the General Director of the ERO.

Main statutory objectives

The President of the Energy Regulatory Office performs tasks within the scope of regulation of fuel and energy sector and promotion of competition. The main objective of regulatory actions is to balance the interests of energy consumers and energy companies. The main competencies and duties of the President of the ERO include:

- granting or withdrawing licences for energy activity for undertakings, including gaseous and liquid fuels,
- approval and control of tariffs for electricity, heat and gaseous fuels,
- approval of grid codes within the scope of system balancing and congestion management,
- monitoring of energy and fuel markets,
- realisation of the principle of the Third Party Access (TPA) to transmission and distribution networks,
- agreeing on development plans of network companies,
- appointing transmission and distribution system operators,
- settlement of disputes related to public and legal obligations of energy enterprises,
- cooperation with relevant organs in counteracting practices limiting competition,

¹⁾ The Energy Law Act of 10th April 1997 (Journal of Laws of 2006, Dz. U. No 89, item 625, No 104, item 708, No 158, item 1123 and No 170, item 1217, as well as of 2007, No 21, item 124, No 52, item 343, No 115, item 790 and No 130, item 905), amended many times in the years of 1997-2006 (28 times). Some changes were connected with development of particular sectors and with the necessity of adapting the Regulator’s competencies and responsibilities to the evolving market; some changes resulted from changes in the administration. It was also influenced by the change in the government policy on energy sector. Some amendments were necessary due to the adaptation of the Polish law to the EU Directives on energy sector.

²⁾ The Act on the state administration personnel and high state positions of 24th August 2006 (Journal of Laws of 2006, Dz. U. No 170, item 1217 with subsequent amendments).

³⁾ Till 31st of July 2007 – for the period of tenth years – this position was fulfilled by Leszek Juchniewicz, Ph.D. In the period from 1st August 2007 to 9th November 2007 this function was held by Adam Szafranski, Ph.D.

- carrying out other tasks as specified in the Act and other acts⁴⁾, including monitoring the market of biocomponents and liquid fuels, and realisation of tasks appointed to the President of the ERO with the Act on rules of covering producers' costs due to termination of long-term energy and electricity sale contracts prior to their expiration, of 29th June 2007.

The current scope of competencies of the President of the ERO has resulted from subsequent amendments of the Energy Law Act. Not all the changes introduced proved to be favourable, as some of them contributed to weakening the Regulator's role as the institution entitled to intervene in these market areas in which functioning of competition is either impossible or limited.

Main regulatory tools

Regulator's actions towards the energy undertakings and pursuing entitlements by consumers which create the regulatory process, are normalized not only by the Energy Law but also by the Code of Administrative Proceedings. This is a guarantee of transparency, openness and equal treatment of all subjects taking part in the proceedings. The proceedings initiated before the President of the ERO are finished with the issuing of an administrative decision – it refers to licensing, tariffs, imposed fines and settlement of disputes. A party can revoke from issued decisions to the Regional Court in Warsaw – The Court for Protection of Competition and Consumers.

Other forms of regulatory activity refer to education and control.

The President of the ERO is empowered to carry out control of licensed enterprises, check ledgers, and require information on performed activities and investment projects.

The President of the ERO, through issuing the Bulletin of the ERO and publications in the Regulator's library, a web page and trainings (for instance for local spokesmen of energy consumers) run a wide information campaign promoting knowledge about regulation, promotion of competition and supports actions propagating rational consumption of energy.

Independence and accountability – who does the Regulator report to?

The President of the ERO is obliged to submit an annual report on his activities to the Minister of Economy, including the evaluation of security of gas fuels and electricity supplies, and to present information on his activities whenever requested by the Minister. The ERO's budget constitutes a separate part in the state budget. Its amount is specified by the Parliament (basing on the project by the Minister of Finance). The budget scope is in no way connected with the revenues acquired from regulatory activity.

Decisions of the President of the ERO are not subject to supervision of the Minister of Economy and may only be sued in court.

Information on the existence of overlapping jurisdictions with other governmental agencies/authorities (national and supranational)

Competencies and powers of the President of the ERO were set in the Energy Law Act and do not duplicate competencies of other organs of governmental administration.

⁴⁾ On 1st January 2007 the Act on biocomponents and liquid fuels of 25th August 2006 (Journal of Laws of 2006, Dz. U. No 169, item 1199 with subsequent amendments) came into effect and granted the President of the ERO the competency to issue fines for not submitting by the producer of biocomponents or liquid fuels or liquid biofuels the report, as specified by Article 30, Sections 1 and 2, or for providing false data in the report, as well as issuing fines upon the entity realising the National Index Target in case of not securing by this entity in the given year the minimum required biocomponent, or other renewable fuels participation in the general amount of liquid fuels and liquid biofuels sold, or traded in any other form by this entity, or used by it for its own purposes. Moreover, on 4th August 2007 the Act on rules of covering producers' costs due to termination of long-term energy and electricity sale contracts prior to their expiration, of 29th June 2007, came into effect (Journal of Laws of 2007, Dz. U. No 130, item 905) – excluding Articles 24, 30, 45 and Article 46 of the Act which came into effect on 1st January 2008. This Act provided the President of the ERO with substantial empowerments concerning the process of dissolution of long-term contracts. Legal basis for that and applicable regulations will be discussed further in the following sections of this report.

2.2. Main developments in the gas and electricity markets

Wholesale market

No significant changes took place in the electricity sector in reference to capacity interconnectors. Still the National Electricity System (NES) is rather isolated.

The process of vertical consolidation of the electricity sector in Poland resulted in establishing a limited number of energy sector groups with powerful market capacity. Nearly the whole volume of electricity is sold following bilateral contracts, which limits the wholesale market liquidity.

Transactions on the Day-Ahead Market of the Polish Power Exchange amounted to 2,2% of the total electricity sales to final customers, which shows a low liquidity of the exchange market in Poland. It significantly limits the possibility of recognising the prices defined by the exchange market in Poland as reference prices on the market. The Power Exchange is a statutory place of trading certificates of origin for energy generated in renewable sources (from the end of December 2007 also in cogeneration). It also offers the possibility of CO₂ emission allowance trading.

Also the national natural gas transmission system is relatively separated from other systems, particularly of those of the European Union Member States. What is characteristic, it allows only for one direction gas flows (east-west), with the total reservation of nominations at the "entry" points for PGNiG SA, i.e. the dominant stakeholder on the national market. National companies practically do not participate in trade on regional gas hubs. Similarly, gas trade or exchange trade on the level of the national transmission system do not exist.

This condition of infrastructure of cross-border connections contributes to further limitation of integration possibilities on the market. The state policy aimed only at securing regular supplies caused the competition to develop more slowly, which resulted in maintaining the regulation of gas prices and in lack of alternative suppliers on the market.

Retail market

Since 1st July all customers, including the most numerous group of household customers, have been able to exercise their right to choose their supplier. They are also the only group in reference to which the President of the ERO decided in 2008 to continue with the protection in form of regulation of prices⁵⁾.

Until 2007 electricity and gas prices were regulated for all the customers. The participation of electricity final customers taking advantage of the TPA principle was rather small (63 institutions and 541 household customers at the end of 2007). The reason why few customers were interested in the possibility to switch supplier was insufficient number of competitive energy sale offers. Such a low number resulted mainly from the upheld regulation of electricity prices, wholesale market defects and suppliers not being interested in preparing offers for individual customers, households in particular. Organisational and legal barriers only contributed, e.g. in the first half of 2007 distribution system operators⁶⁾ were not specified, whereas the vertical consolidation of energy companies (production and network activity) was in progress. There also existed obstacles of administrative and technical nature such as not uniform rules and procedures of switching supplier or customers' insufficient knowledge, particularly in case of household customers, about the possibility of switching supplier. For these reasons, the President of the ERO undertook educational actions by providing essential information on the Office's website and by launching the special the ERO Call Centre on the issues connected with switching supplier.

In 2007 none of the entitled gas consumers took advantage of the possibility to change supplier. Alternative gas suppliers are virtually not present on the market. Competition on the gas market practically does not exist mainly due to the historically secured dominant position of the PGNiG SA capital group.

⁵⁾ In December 2007 the President of the ERO released energy companies dealing with electricity trade from the obligation to present tariffs for approval of the President of the ERO for all customers apart from households.

⁶⁾ The legal specification of distribution system operators as of 1st July 2007 removed one of the biggest legal barriers preventing electricity and natural gas suppliers from entering the market.

Infrastructure

In 2007 new electricity DSOs (14 companies) were requested by the President of the ERO to prepare and submit drafts of development plans in providing current electricity demand and in future for the years of 2008-2011. Draft plans were further discussed and processed, which is reflected in decisions approving tariffs for electricity (through costs arising from the justified investments, i.e. amortisation and return on capital). In the newly approved distribution tariffs for 2008 the total planned investment increased and is over 27% higher.

In electricity and gas sectors the energy undertakings were not exempted from providing the TPA services with application of new network infrastructure, following to Article 7 of Regulation 1228/2003 and Article 22 of Directive 2003/55.

Capacity allocation

Providing transmission capacities on connections synchronic with the UCTE system is carried out through tenders coordinated within five transmission systems from the Czech Republic, Germany (two TSOs), Poland and Slovakia. In 2007 the transmission capacity provided by the TSOs lowered, which is directly connected with reduction of transmission capacity in the NES and increase in loop flows from the area of Germany caused by generation of electricity in wind sources. The SwePol interconnector between Poland and Sweden is exploited by a private investor and is not available to other subjects on the basis of the market rules.

Capacity management and allocation rules of interconnectors in case of the gas system are specified in the Transmission Network Code of the OGP Gaz-System SA approved on 21st June 2006 by the President of the ERO.

It is crucial that revenues from transmission capacity allocations should in their bigger part be intended for network investments. Long-lasting and complex procedures of gaining construction permits constitute a significant barrier and thus prolong the investment process and in extreme cases may even make its completion impossible.

Regulation, Unbundling

The fundamental aim of the President of the ERO is to promote a competitive market in the areas in which it is economically justified, and to counteracting negative impacts of monopolistic practices for the sake of durable and sustained energy security, improvement of the economy competitiveness and environment protection against negative impacts of energy-related processes. The Regulator's mission is to balance the interests of energy undertakings and energy consumers.

Basic regulatory tools adopted by the President of the ERO are supported with specified financial sanctions aimed at entrepreneurs disrespecting the applicable regulations.

Being responsible for ensuring the operation of power system, the transmission system operator dispatches of generating units connected to transmission networks and purchases energy from producers in order to balance the current demand with energy production. The TSO also manages the settlement mechanism for unbalanced values, thus specifying the rules of participation in the balancing market and conditions of cooperation between the TSO and market participants. The balancing mechanism run by the operator enables Day-Ahead Market management, as well as intersystem exchange organisation. The scope of information available for the market participants is rather considerable; however, it still needs extending according to the Transparency Report prepared by Regulators of the ERGEG Regional Initiatives.

In the gas system the role of the TSO in physical balancing is to balance the system by means of the accumulative capacity of the transmission system and storage capacity reserved for balancing purposes. Trade balancing is carried out in order to settle unbalanced values attributed to various transmission contracts. System congestion management is performed in the way which prevents newly concluded contracts from adversely affecting the security level of supplies to existing customers. Following that scope of activity, in cases when providing firm transmission services is not possible, the TSOs provides transmission services on the interruptible basis.

In 2007 no significant changes took place in the TSO unbundling. Following the legal regulations, both the electricity and gas TSOs, remained owned by the State Treasury.

On 1st July 2007, in both energy sectors, distribution system operators were legally unbundled. Finally, six distribution companies of the PGNiG SA Capital Group separated their trading activity which was further subject to the integration with the wholesale trade activity of PGNiG SA.

Security of electricity and natural gas supplies

In Poland, a small margin of energy surplus in connection with poor technical conditions of power generating units, threatens a security of supplies. Currently, under construction investment projects covers about 700 MW. Smaller projects are also run in the area of renewable energy sources.

Considering the fact that in future generating units not complying with stricter and stricter environment protection norms, or the worn-out units will be excluded from production process, the currently planned investments may only be evaluated as insufficient to secure of long-term energy supplies in Poland. Current network investments are also unsatisfactory. The current capacities of electricity networks as well as their technical condition are incapable of securing supplies in emergency situations caused for example by severe weather conditions.

The national strategy is aimed at diversification of natural gas sources, i.e. on balancing the supplies from the east with an increased value of gas imported from the north, as well as with further extension of storage capacities and increase in domestic production. The strategy includes the plans of constructing a LNG terminal in Świnoujście and a new connection that will secure access to Norwegian deposits, i.e. participation in the Skanled Consortium and construction of the Baltic Pipe.

PGNiG SA's storage capacities are insufficient. They are capable of providing natural gas reserves only in case of short breaks in gas supply and balancing seasonal swings of consumption. In 2007 the company undertook actions aiming at increasing the working capacity of the Wierzchowice, Mogilno and Strachocina storages. As for increasing the domestic production, one of the most important tasks carried out in 2007 was to manage the Jasionka I natural gas fields (stage I) and to connect OZG Jasionka I Stobiernia-Terliczka with a transmission gas pipeline.

In 2007 no objections were raised in reference to the gas transmission system functionality. The technical condition of transmission gas pipelines can generally be described as good, whereas further extension and the so-called "doubling" of gas supply pipelines allows for fuel transmission to important customers from different transmission system points. However, it needs to be borne in mind that in order to make the system operate more effectively, it is necessary to invest in increasing the system transmission capacities, in the system flexibility and modernisation.

Conclusions

The competencies and powers of the President of the ERO concern a lot of market aspects; yet, they do not always seem sufficient to enable efficient regulation and they do not provide the President with the ability to influence on the market structure. The fact that the Regulator's independence is limited, whereas personnel changes on this position take place subject to political circumstances, is of crucial meaning.

The solutions included in the "Third package" focused on electricity and gas market reforms in general are promoted by the Polish Regulator. It is therefore particularly essential to implement tools securing higher independence of the TSO. Within possible unbundling options the ownership unbundling seems to be the best, as it secures the actual independence of the TSO and equal treatment of all the market participants.

The President of the ERO is in favour of the idea of formalising the cooperation of the Member States' TSOs, and believes that the proposition put forward should be used to prepare a transparent structure that would secure equal treatment for all the operators. Solutions aiming at making access to data more efficient and at increasing transparency of the electricity market are also worth promoting, whereby it is necessary to work on numerous details such as type and extent of data aggregation, who should publish the data, in what form and where it should be stored.

The Polish regulatory body is also in favour of solutions aiming at increasing the electricity market liquidity and transparency. Expectations and abilities of the participants of the energy

markets should be taken into account, particularly of these markets on which regular energy trade is not yet such a common phenomenon.

Since *de facto* one supplier is present on the natural gas market, the implementation of certain market solutions may be subject to delays.

2.3. Major issues dealt with by the regulator

While fulfilling the tasks connected with preparing for the opening of the electricity and natural gas market, the President of the ERO may apply the following statutory tools:

Appointing distribution system operators

Due to the fact that distribution system operators had to comply with their obligation to become legally independent companies, and thus that distribution activity was separated from any other activity (trade, production) of previous distribution companies, since 1st July 2007 on the electricity and gas fuels markets 20 energy companies have been established which deal with electricity or gas fuels distribution only. These companies have been appointed by the President of the ERO as distribution system operators.

Appointing distribution system operators constitutes a regulatory tool which allows the President of the ERO to evaluate whether a given energy company is capable of performing the distributor's activities and whether it performs all its activities correctly and in accordance with applicable rules, including the rule of equal treatment in providing access to the networks to all the market participants.

Approval of grid code in a part pertaining to system balancing and congestion management

The ERO President's approval of changes in grid codes in their parts pertaining to system balancing and congestion management in June 2007, was of crucial meaning for the full opening of the electricity market. These changes contributed to providing a partial solution of problems limiting the possibility to use the right to switch the supplier.

In the TSO's grid code, more detailed provisions were introduced specifying cooperation rules between the transmission system operator and distribution system operators in the area of trade balancing administration, including rules and procedures of exchanging the measurement and settlement data which allow for providing billing settlements for retail consumers basing on standard energy consumption profiles. The changes also concerned the operators' cooperation in the field of configuration of the balancing market subjects in order to provide for trade balancing for the consumers connected to given distribution networks, as well as rules of conduct and procedures in case of a subject responsible for trade balancing for retail consumers withdrawing from the balancing market.

The distribution system operators' codes additionally include consumption profiles as applied in trade balancing in reference to the points of electricity supply to the connected customers of the lowest voltage, i.e. first of all, the household customers.

Retail market monitoring

The President of the ERO monitors the actual use exercising of the consumers' right to purchase electricity from a chosen supplier and the extent to which distribution system operators are truly independent, as well as their compliance with the obligation of equal treatment for all the system users. As results from the analysis of consumers' migration to other electricity suppliers carried out in 2007, users turned out to be more active, though their activity level still remains unsatisfactory.

The purpose of the analysis checking the independence of distribution system operators was to verify whether the specified operators are prepared and capable of performing their activities in the way which guarantees equal treatment for all system users. The analysis was conducted in 2007 and covered the following issues:

- changing the image of energy companies (so that consumers stop associating the operator with the particular trading company),
- process of concluding sale contracts by distribution system operators with suppliers other than the trading companies which were functioning within the vertically integrated structures,
- compatibility programmes and their realisation,
- applying by system operators uniform document templates (contracts and applications), uniform procedures of submitting and handling applications, in particular of those concerning the changing of the energy supplier, and effective dealing with complaints and claims regarding distribution services,
- providing information on the possibility of changing the supplier by system operators on their websites.

The data provided by system operators shows that some of them do not fully comprehend the role that they should play in securing equal treatment for all the system users. The results of the analysis are, however, rather promising, as most of the operators make a lot of effort to gain full independence within the capital group.

Dissemination of knowledge on electricity market liberalization

The President of the ERO runs information campaign for electricity consumers. A website was set up which contains information about the opening of the electricity market and on which consumers may acquire basic knowledge about the procedure of switching supplier and about changes on the electricity market since 1st July 2007.

The ERO Call Centre was established both in the ERO Central Office and local branches where the ERO consultants provide assistance services and offer explanations. Workshops were organised for Regional and Municipal Consumer Ombudsmen and numerous conferences were held on the topic.

Protection of final customers

The task of the President of the ERO is to balance the interests of energy undertakings and energy consumers. The President of the ERO has the power to resolve disputes between the energy undertakings and consumers. Upon the party's (consumers's) request the President of the ERO issue rulings in case of dispute such as among others refusal to conclude the contract on connection to the network, contract on sale of fuels or energy, contract on rendering fuels or energy transmission or distribution services, complex contract, or in case of non-substantiated suspension in gas fuels or energy supplies.

The provisions of the Energy Law Act also protect from non-substantiated suspension of gas fuels or energy supplies, as they oblige energy undertakings to comply with specific procedures and conditions for stopping the supplies. Moreover, they provide energy undertakings with the possibility to install pre-paid measurement units.

Furthermore, the President of the ERO is responsible for controlling and supervising quality standards of services offered by energy undertakings and to control the quality parameters of gas fuels and electricity upon the consumer's request. Acting by the President of the ERO, the Spokesman of Energy and Fuels Consumers disseminates information and offers consulting. Out of his own initiative, the President of the ERO runs a Call Centre for consumers and a website which contains information about the procedure of switching the supplier.

Wholesale market monitoring

As far as the wholesale market is concerned, the President of the ERO is first of all responsible for monitoring of the functioning of the electricity and gas systems, particularly in the following areas:

- rules of managing and dividing capacities of interconnectors, with existing mutual connections, in cooperation with the appropriate bodies of the European Union Member States and the European Free Trade Association Member States, i.e. the parties of the European Economic Area Agreement,

- the balancing mechanisms designed for the gas or electricity system and the congestion management in the national gas and electricity system,
- conditions of connecting various entities to the network, realisation of the connection, servicing and repairs of the network,
- compliance of transmission and distribution system operators with the obligation to publish information on the intersystem connections, the grid use and the distribution of the transmission capacity to the parties of the gaseous fuels or energy transmission or distribution agreement, observing the requirement to treat that information as confidential for commercial reasons,
- conditions of services connected with storing of gas fuels, natural gas liquefying and other services offered by energy undertakings,
- security of supply of gaseous fuels and electricity,
- compliance of transmission and distribution system operators with the tasks they shall be obliged to perform,
- energy undertakings' compliance with the obligation to keep accounting records.

In his Decision of 30th April 2007, the President of the ERO detailed the rules of publishing the information about offered services, conditions and technical specifications necessary to gain effective access to the network by the transmission system operator. In the Decision, the place and way are specified of publishing the following information:

- maximum technical transmission capacity, contracted total and interrupted transmission capacity, available transmission capacity, average annual flow, indexes of maximum and minimum monthly usage of the transmission capacity and forecast of available transmission capacity for subsequent 18 months for particular entry and exit points,
- planned maintenance and repair works, information bulletin and the transmission system.

The OGP Gaz-System SA was obliged to publish the current network plans together with the information about entry and exit points, including the connection points with other operators' systems and information about gas quality and pressure height standards.

The scope of provisions included in the Transmission Network Code of the OGP Gaz-System SA applying to the cooperation between gas system operators, i.e. information exchange as well, is insufficient, and should therefore be further upgraded with detailed definitions of the type of information submitted, category of subjects entitled to obtain such information and technical standards of such information exchange, including requirements of the teletransmission network system and information exchange system. Consequently, the OGP Gaz-System SA was requested to supplement the Instructions with the respective information as specified above. Administration proceedings concerning approval of changes in the Instructions were still in progress in 2007.

Furthermore, the President of the ERO monitors the following markets: production, bilateral contracts, organised markets (the balancing market and the Polish Power Exchange). In reference to the production market, the President of the ERO is responsible for monitoring average prices of electricity sold by producers on the Polish and international markets, as well as producers' market shares in particular electricity market sectors.

Monitoring bilateral contracts enables evaluation of market position of particular trading companies and capital groups, and constitutes the basis for an identification of market power abuse by dominant undertakings.

By monitoring the Balancing Market, the President of the ERO collects information about this market type necessary to identify any possible irregularities as early as possible, to define their origins and promote further development of the energy market rules.

The Polish Power Exchange is monitored in order to provide essential information for analysis of changes of settlement prices and traded volumes in reference to particular products, assessment of the Power Exchange liquidity and reference prices structuring, as well as influence of the Power Exchange transactions on the functioning of the energy market.

Infrastructure

The EC regulations constitute one of the instruments allowing for promoting investments in the network infrastructure (Article 22 of Regulation (EC) No 1775 and Article 7 of Regulation (EC) No 1228). Within the scope of these regulations it is possible to be released from the obligation to

make new interconnectors available to other market participants, according to the TPA principle. Poland has not yet granted such exemptions as in the period from its joining the EU to the end of 2007 no new commercial interconnectors were built.

The scope of the regulated infrastructure investments performed by transmission system operators is included in the development plans of these undertakings. The factual scope of the investment is presented by network operators and it results from inspections and analyses provided by these undertakings. The Regulator is not involved in the factual scope of the investments as presented by the system operators, with the regulation activity limited to inspecting their financial aspects, particularly the methods of remuneration for new investments.

Sanctions

The Energy Law Act contains a closed catalogue which describes activities subject to sanctions in form of fines. The President of the ERO is entitled to impose such fines.

A fine may be imposed after respective administrative proceedings have been carried out in compliance with the Code of Administrative Proceedings. The amount of the fine is subject to the ERO President's decision in every individual case. It is, however, limited, as the President is obliged to take into account the scope of damage, actual responsibility for the incident, previous conduct of the given subject together with its current financial possibilities.

While defining the amount of the fine, the President of the ERO takes into consideration the maximum value possible, as specified in the Act⁷⁾.

Regulations referring to financial sanctions and fines apply to both entrepreneurs and managers of energy undertakings, as the President of the ERO may impose a fine on a manager of a given energy undertaking irrespective of the fine imposed on this company, whereby such fine may not exceed 300% of such manager's monthly remuneration.

The decision about the fine may be appealed in the District Court in Warsaw – the Court for Protection of Competition and Consumers.

Pursuant to the provisions of the Energy Law Act, anyone who disrespects the obligations arising from Regulation 1228/2003 or Regulation 1775/2005, shall be subject to a fine.

The inspection of the activities of the electricity and gas transmission system operators so far proves that the operators comply with the obligations arising from the aforementioned regulations.

The inspection reveals that the obligations connected with dissemination of information in case of the Polish part of the "Yamal-Europe" pipeline are not complied with. The reason for that is that no transmission system operator was appointed for this part of the project, as the owner of the pipeline never submitted the appropriate application.

In view of that, the President of the ERO undertook specific actions to prevent such situations in future. Draft amendments to the Energy Law Act were prepared and submitted to the Minister of Economy, on extending the competencies of the President of the ERO with the right to appoint the system operator *ex-officio*.

Reports on transparency of activities

Every year until 31st March DSOs are to submit to the President of the ERO reports on activities undertaken by them in the previous year with the objective to realise the compliance programmes.

The Energy Law Act does not provide the President of the ERO with legal tools allowing him to have influence on the contents of the programmes and the way of their realisation. Actions were therefore undertaken aiming at strengthening the Regulator's role in this respect. Draft amendments to the Energy Law Act were prepared which among others include extending the competencies of the President of the ERO with the right to approve the compliance programmes prepared by the system operators, with the possibility to impose fines in cases when the operator does not submit their compatibility programme for approval or does not realise the approved programme.

⁷⁾ The fine may not exceed the value of 15% of the given subject's income achieved in the preceding tax year, whereas in case of fines imposed on subjects performing activities subject to a licence, the amount of the fine may not exceed 15% of the given subject's income from the licensed activity and achieved in the preceding tax year.

Others – for example connected with energy efficiency or RES

The following mechanism of support by the State was included in the Energy Law Act to promote renewable sources of energy and cogeneration, based among others on:

1. Guarantee of purchase of (physical) electricity from renewable sources of energy (RES);
2. Guarantee of intake of electricity from cogeneration of high performance (CHP);
3. Introduction of the system of granting and withdrawing certificates of origin for electricity generated by RES also certificates of origin for cogeneration (CHP).

The Polish system specifies two kinds of certificates of origin confirming that electricity comes from cogeneration: 1) certificates of origin for energy generated in gas units or the installed power below 1 MW (the so-called “blue certificates”), and 2) certificates of origin for energy from other cogeneration sources (the so-called “red certificates”).

Producers who acquired their certificates of origin may sell them on the Polish Power Exchange, thus gaining an extra income from the activity based on energy generation.

The obligation to gain and submit for cancellation the certificates of origin, or to make the replacement payment, is imposed on undertakings producing or trading electricity and selling it to final customers⁸⁾. In order to fulfil this obligation undertakings can:

- cancel relevant the certificates of origin,
- make a replacement payment on the account of the National Fund for Environmental Protection and Water Management, which should be intended for advancing renewable sources of energy and CHPs located in Poland.

Following the Act, the President of the ERO is also responsible for controlling whether energy companies complied with the above mentioned obligations. The inspection is carried out at the end of every calendar year (after 31st March). The system of promotion has been “sealed” with the provisions of the Act granting the possibility of imposing a fine on the companies which have not complied with the obligation of cancelling the appropriate number of certificates of origin, or of making the replacement payment.

Regulator’s role and rights in promoting CHP and electricity from renewable sources

Pursuant to the Energy Law Act, every energy company that produces electricity from renewable sources or cogeneration, irrespective of its installed capacity, is obliged to apply to the President of the ERO for a licence for such activity. In order to simplify the process of undertaking the activity connected with electricity production, the Office placed on its website documents which should facilitate making the licensing process more effective⁹⁾.

On the official website of the ERO numerous opinions and notifications might also be found that remind energy companies about the obligations they need to comply with and which clarify any doubts which may arise in reference to their realisation. The website contains examples and templates of applications for certificates of origin and certificates of origin from cogeneration, as well as all the necessary attachments which must be submitted together with the applications in order to be granted a certificate of origin (RES) or certificates of origin from cogeneration (CHP).

⁸⁾ With the Energy Law Act and its stipulations concerning certificates of origin and certificates of origin from cogeneration, the provisions of Directive 2001/77/EC of the European Parliament and of the Council of 27th September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market (Journal of Laws, Dz. U. UE L 283 of 27.10.2001) and Directive 2004/8/EC of the European Parliament and of the Council of 11th February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC (Journal of Laws, Dz. U. UE L 52 of 21.02.2004), were implemented.

⁹⁾ For example: “Information package for companies undertaking economic activity based on electricity production from renewable sources of energy”; “Information package for companies undertaking economic activity based on electricity production from cogeneration”. The packages contain examples of applications for licence and the list of all the required attachments and statements which must be submitted together with the application. Thus, all interested investors have an unlimited access to information about legal and formal prerequisites which must be complied with if they would like to undertake this type of economic activity.

3. REGULATION AND PERFORMANCE OF THE ELECTRICITY MARKET

3.1. Regulatory issues [Article 23(1) except “h”]

3.1.1. General issues

On the 1 July 2007 the last group of energy consumers in Poland obtained access to the network under TPA rules. Therefore about 14,1 million of household customers, in total consuming approximately 30 TWh of energy, joined the group who may freely chose energy suppliers and the level of market openness reached 100%. Such entire opening of the market does not mean that the customers are significantly interested in participation in the market, which is measured by a low number of supplier changes.

3.1.2. Management and allocation of interconnection capacity and mechanisms to deal with congestion

Assessment of congestion

Network congestions occurring in the Polish transmission system are caused by historical conditions of development and operation of network infrastructure (among others using elements of 110 kV network as transmission network) and very uneven location structure of generation sources (generation concentrated in the southern part and lack of it in the north-eastern part of the country). Approximately 5-10% of the energy taken from the National Electricity System (KSE) is used in order to remove network limitations in the Polish transmission system. Among network congestions the main place is taken by congestions forcing work of generation units or groups of them supplying specific nodes in the transmission network. Some of congestions are permanent which forces work of power plants (must run generation) to remove them (Ostrołęka and Dolna Odra power plants). These plants have concluded contracts with transmission system operator for must run generation services forced by network issues. Other congestions are removed by Transmission System Operator (TSO) by means of changing work programs of generation units (re-dispatching) and using offers of generators (counter trading).

High demand for cross-border capacities at synchronic connections of National Electricity System with other systems, exceeding actual technical capacities, causes these congestions to be more structural. Removing transmission congestions at these borders is conducted on market principles – under coordinated auctions¹⁰⁾. In 2007 transmission capacities reserved for the purposes of completion of historical contracts were included in the exception from market rules. This exception was applicable only until 31 December 2007. Structural character of transmission congestions in the cross-border exchange results mainly from permanent high differences of electricity prices on the Polish, German and Czech markets. Change in the balance of electricity generation on the Slovak market are also influential in relation with exclusion of nuclear power plant in this system and increasing import of other European Union countries located in south eastern part of Europe.

PSE-Operator SA granted access to export cross-border capacities at monthly and daily auctions and import capacities – at annual, monthly and daily auctions. Still export auctions gain more attention of the market participants than the import ones. It may be proved by the level of using reserved cross-border capacities which is much higher for export auctions. It is presented on fig. 3.1.2a.

¹⁰⁾ Currently five transmission system operators: VE-T i E.ON (Germany), CEPS (Czech Republic), SEPS (Slovakia), PSE-Operator SA (Poland) participate in coordinated auctions for cross-border transmission capacities.

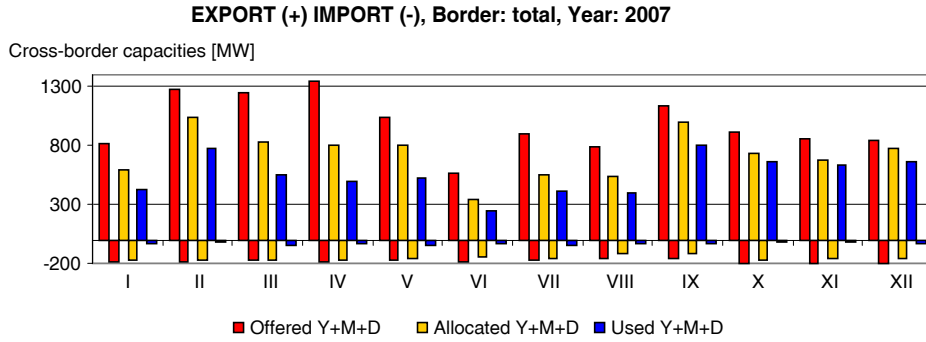


Fig. 3.1.2a. Offered, reserved and used cross-border capacities (Source: ERO on the basis of data from PSE-Operator SA)

In 2007 the majority of export and import cross-border capacities was reserved for Polish-Czech border. Polish-Slovak export had a relatively significant importance, in comparison with the previous year, while the interest in export on the Polish-German border decreased. This situation is presented on fig. 3.1.2b.

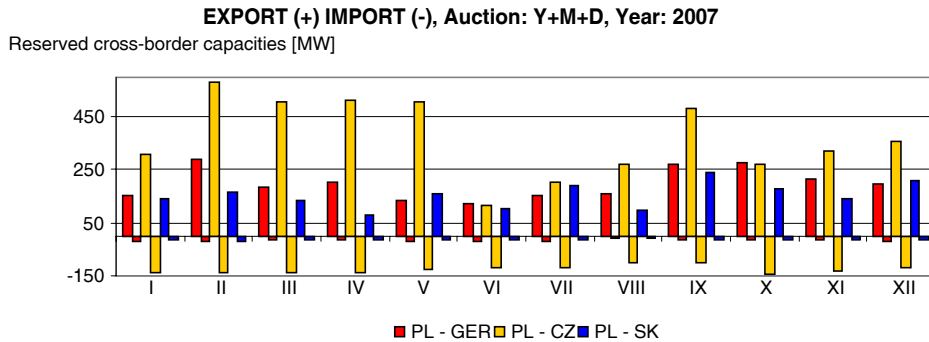


Fig. 3.1.2b. Reservation of cross-border capacities (Source: ERO on the basis of data from PSE-Operator SA)

Principles of congestion management and access to information

Cross-border transmission capacities are accessible only through explicit auctions which in accordance with Regulation 1228/2003 are considered a market method of congestion management. Auctions for cross-border transmission capacities are coordinated between five transmission system operators from the Czech Republic, Germany (two TSOs), Poland and Slovakia. Information concerning access to cross-border transmission capacities are published on the Internet site of the transmission system operator (www.pse-operator.pl). The published information include in particular the principles of coordinated auctions, forecasts of cross-border transmission capacities and offered cross-border transmission capacities. System users may obtain necessary information also in the auction office in Prague (www.e-trace.biz). The scope of available data includes among others:

- principles of auctions for cross-border transmission capacities,
 - participation conditions in auctions for cross-border transmission capacities,
 - forecasted, offered and allocated cross-border transmission capacities,
 - prices for cross-border transmission capacities,
 - analysis of market participants' behavior with respect to filed bids (prices and quantities),
- Information about actual energy flows in cross-border connections are published on the information exchange platform of TSOs associated in ETSO (www.etsovista.org).

Distribution system operators do not grant access to cross-border connections, therefore they do not publish such information.

Information about the operation of the National Electricity System are developed and published by transmission system operator. They include Yearly Coordination Plans (PKR), Monthly Coordi-

nation Plans (PKM) and Daily Coordination Plans (PKD), which present among others data about the national demand for capacity and the sum of generation capacities. After completion monthly and annual reports on functioning of the National Electricity System are published. Information concerning demand for capacity in the National Electricity System and national balance of cross-border exchange are published daily.

Relations between congestion management and wholesale market

Participation in the balancing market is a condition of participation in the cross-border exchange, which means that cross-border exchange is fully integrated with operation of the wholesale market. In accordance with the principles of completing business contracts in the cross-border exchange market participants are obliged to submit their contracts (commercial schedules) resulting from annual and monthly auctions until 7:45 a.m. which enables TSO to estimate unused cross-border capacities and their inclusion in daily auctions (UIOLI procedure – Use It Or Lose It). Offered cross-border transmission capacities in daily auctions are published before 9:45 a.m. and their results are published after 10 a.m. Reservation of cross-border transmission capacities in daily auctions is connected with the obligation to use them. Market participants are obliged to submit trade contracts (commercial schedules) to TSO until noon, that is until the gate closure on the Balancing Market.

Development of congestion management mechanisms in the future

Effective functioning of access to network in the cross-border exchange of electricity – key for establishment of an internal European market – requires application of common rules from all the transmission system operators¹¹⁾. European Union regulations state that the rules of granting cross-border transmission capacities should be coordinated at least on the level of regional markets. Congestion management in cross-border exchange goes therefore over borders, while development and implementation of cross-border capacities access rules takes place within the framework of the ERGEG Regional Initiatives by transmission system operators together. In the framework of Regional Initiatives national Regulators participate, which ensures relevant level of cooperation, supervision and monitoring of these rules.

In 2007 TSOs from the regional market of Central and Eastern Europe (*ERI Central Eastern Europe*¹²⁾) conducted works aimed at preparation of a new method of cross-border congestion management based on physical flows of electricity (flow-based) in networks managed by these operators. The project includes establishment of regional Allocation Office and full coordination of cross-border congestion management at the regional level. As the region of Central and Eastern Europe includes seven member states of the EU (with eight TSOs), it can be stated that it is currently the largest regional project conducted within the framework of regional initiatives. Besides, works in the regional initiatives, including also the Northern region¹³⁾, were focused at providing intra-day markets and coordination of this mechanism on the regional level, as well as issues related to the opening of the direct current cross-border connection SwePol Link for the market participants on TPA basis.

Calculation assessment of cross-border transmission capacities

Within the framework of coordinated mechanism of congestion management PSE-Operator SA calculates Net Transmission Capacity (NTC) and Transmission Reliability Margin (TRM). Cross-border transmission capacities are calculated in the technical profile, that is sum of borders of systems managed by operators from Poland, Germany, the Czech Republic and Slovakia. While calculating avail-

¹¹⁾ Rules concerning access to cross-border capacities which should be based on market methods are specified in the general Regulation 1228/2003 of the European Parliament and Council dated 26 June 2003 on conditions for access to the network for cross-border exchange in electricity.

¹²⁾ Regional market Central Eastern Europe functions within the framework of Regional Initiatives of the ERGEG – European Regulators Group for Electricity and Gas, established by the decision of the European Commission no. 2003/796/EC dated 11 November 2003 as the consulting body of the commission. It covers electricity markets in Poland, Slovakia, the Czech Republic, Germany, Austria, Hungary and Slovenia.

¹³⁾ Northern Region functions within the framework of the ERGEG Regional Initiatives and covers electricity markets in Denmark, Finland, Germany, Norway, Poland and Sweden.

able transmission capacities PSE-Operator SA applies the reliability criterion of “n-1” (switching off one cross-border line, internal transmission line or neighboring transmission system line cannot cause a failure of the system) and takes into account forecasted weather conditions, generation of wind farms in Germany, not agreed balancing flows, behavior of market participants, force majeure, errors in modeling and calculations. Available transmission capacities are calculated for year, month, week and day.

The scheme prepared by TSO enables calculation of total transmission capacities on synchronic connections with Germany, the Czech Republic and Slovakia, that is in total for the technical profile. This solution is a result of significant loop flows occurring in the National Electricity System and related significant codependence of available transmission capacities at specific borders. The applied model also enables maximization of transmission capacities towards the strongest pricing signals and related demand for transmission capacities.

In relation to growing demand for capacity and decreasing level of capacity reserves in the National Electricity System, and also in relation to the increasing level of loop flows connected with wind farms in north-eastern Germany, PSE-Operator SA granted access to zero cross-border transmission capacities in annual export auction. This decision was caused by calculation made in accordance with the method of calculating cross-border transmission capacities agreed on with the President of the Energy Regulatory Office. Increased Transmission Reliability Margin significantly influenced the level of cross-border transmission capacities. Export transmission capacities were available at monthly and daily auctions and reached an average value of 978 MW. Import transmission capacities were offered at annual, monthly and daily auctions and reached an average value of 180 MW.

3.1.3. The regulation of the tasks for transmission and distribution companies

Types of operators

In Poland the National Electricity System is managed by national operators: one transmission system operator (TSO) and 18 distribution system operators (DSOs) operating within the areas set by reach of their networks. Apart from 14 distribution companies there are four other enterprises.

Network length for all TSO and DSOs at the end of 2007 according to the data from the Energy Regulatory Office (the ERO):

TSO = 12 918 km,
DSOs = 729 822 km,
Total 742 740 km.

TSO

Since 1 August 2004 the electricity transmission system operator for the whole area of Poland is PSE-Operator SA¹⁴⁾. Until 31 December 2007 the operator used the transmission assets under lease agreement concluded with PGE Polska Grupa Energetyczna SA. Since 1 January 2008 it is the owner of these assets.

DSO

At the end of 2007 14 large distribution system operators (DSOs) functioned within the territory of Poland, legally separated from the existing distribution companies in June 2007 and four local DSOs. 17 operators own the network assets and one local DSO performs operator’s functions using networks owned by the municipality where it operates.

¹⁴⁾ The President of the ERO, by decision dated 28 July 2004 no. DPE/OSPE/2/4988/W/2/2004/JL, appointed the Company to be an electricity transmission system operator for the period from 1 August 2004 to 30 June 2005.

From 30 June 2005 to 31 January 2006 the company performed the function of electricity transmission system operator under article 7 of the Act dated 4 March 2005 on amending the Energy Law and the Act – Environment Protection Law (Journal of Laws of 2005 no. 62 item 552) later referred to as “amending act”. Article 7 of this Act states that until the moment the President of the ERO appoints operators mentioned in article 9h item 1, however not later than until 31 December 2006, the energy enterprises performing the tasks of system operators before the amending act came into force shall become system operators in the scope they previously performed.

By the decision dated 26 January 2006 no. DPE-47-3(6)/4988/2005/2006/BT the President of the ERO appointed the company to be an electricity transmission system operator for the period from 1 February 2006 to 31 December 2007. Since 1 January 2008 (until the end of the validity of concession for transmitting electricity – that is until 1 July 2014) the company shall perform the function of an operator under decision dated 24 December 2007 no. DPE-47-58(5)/4988/2007/BT.

Besides, in September 2007 the company, which is going to perform the function of DSO using the assets held by another company applied for being appointed to the position of DSO. The procedure is still in course.

Network tariffs

Description of methodology and procedures of setting tariffs

The President of the Energy Regulatory Office, while preparing approval of tariffs in 2007, assumed that a new period of regulation for distribution enterprises shall begin on 1 January 2008. At the same time the Regulator made a decision to continue the present methodology of setting tariffs based on the idea of cap regulation – using benchmarking analysis.

- The period of tariffs for DSOs (for tariffs based on price or revenue cap).

The scope of operation of the President of the Energy Regulatory Office includes approving and controlling of electricity tariffs, as well as analyzing and verifying costs assumed by electricity companies as justified for calculation of prices and fees in tariffs, establishing of correction factors specifying the projected improvement of functioning effectiveness, changing the performance conditions by such companies for a given type of commercial operation and determining the applicable period of tariffs and correction factors.

In order to provide all companies with identical functioning conditions, a **3 years long regulation period** started on 1 January 2008 for distribution companies (14 DSOs).

Prolonging the period to five years, although it could constitute a bigger incentive for effectiveness improvement, could not be implemented because of the transformation process in this sector, which results will be assessed only after the period for which revenue and costs information for full accounting year may be obtained.

- TSO tariff period.

Still there is no justification for establishing a uniform regulation period for DSOs and TSO.

The process of setting tariffs with respect to TSO is conducted on the basis of *cost of service* regulation. Application of benchmarking methods in this case is impossible because there are no other undertakings with similar operation conditions. Therefore the tariff in the scope of electricity transmission, determining the level of costs born by DSOs, was approved for the period of one year starting from 1 January 2008.

- Type of collected information and means of assessment of their reliability.

The basic method of gathering information in the process of setting tariffs for distribution companies (DSOs) and for TSO was an uniform reporting database (DTA (1A) sheets completed by the undertakings in the first and second half of 2007) including data concerning costs, revenues and financial results of companies divided from the point of view of operation. Assessment of their reliability was mainly based on analysis of correctness and compliance with the data included in the generally applicable statistic statements.

Besides, companies were obliged to report costs, revenues and financial results every month dividing them into types of operation and tariff groups. Monitoring is necessary for control of correctness of assumptions in applications for tariff approval, as well as of the present financial situation.

- Tools used for assessment of potential of effectiveness improvement.

In the process of approving tariffs for DSOs for 2008 assessment of justified level of operating costs, network losses and investment outlays – similarly as in the previous years – included benchmarking, using econometric tools and comparative analyses. Together with the new regulation period (since 1 January 2008) a new econometric model was introduced. It enables specification of justified level of operating costs for 14 distribution companies¹⁵⁾. Assessment of operating effectiveness of enterprises used econometric model defining dependence of operating costs on

¹⁵⁾ The necessity to introduce a new econometric model in order to assess operating effectiveness resulted mainly from organizational changes which occurred in the sector. Consolidation of enterprises caused not only decrease of distribution enterprises from 33 to 14, but also increased the differences between smallest and largest entities, which in practice does not allow to apply the existing model.

a number of technical and economic factors determining their level. The model enabled assessment of justified surplus operating costs resulting from ineffective operation and calculation of cost effectiveness ratios constituting a basis for assessment of potential costs reduction level¹⁶⁾.

Assessment of justified level of network losses used linear regression model after minor modifications¹⁷⁾.

As a result of the conducted analyses it has been stated that there is a necessity to reduce costs of enterprises in relation to the level observed in 2006 by 12,5% for operating costs (during three years) and by 0,7% for balance differences volume (for one year).

Also in the case of investment outlays, in order to estimate their reasonable level, an econometric model has been developed. It enables determination of functioning characteristics for particular operators better than the previous model. Its application required collection of relevant data and information from DSOs.

As the costs of modernization and development constitute an element included in the regulated revenues of network enterprises, the scope of project plan arrangement was correlated with the tariff regulation period assumed for this group of network enterprises, covering the years from 2008 to 2010.

In the case of other elements of regulated revenues not covered by assessment using econometric models such as depreciation, taxes and amount of return on capital, a simple benchmarking analysis was used in order to determine their reasonable level.

Taking into account the necessity to provide distribution companies (DSOs) and TSO a return on capital engaged in network operation, the President of the Energy Regulatory Office determines a reasonable amount of return in the subsequent tariffs on the basis of the Regulation Value of Assets (WRA) and costs of capital. The formula of calculating return on capital applied by the Regulator has an incentive character. In the case when the enterprises complete investments exceeding the agreed development plan, financial results of such investments will be included in the next tariffs.

- Engagement of the Regulator in determining an actual structure of tariffs.

Methodology, meaning guidelines within the scope of tariff calculation, used among others for determination of reasonable level of regulated revenues of energy enterprises, is prepared by the Regulator¹⁸⁾. The structure of tariff determined by an enterprise depends on the type of its operation and is directly related to the provisions of law. The role of regulatory body in this scope is to monitor consistence of the tariff's structure with the formal requirements.

The role of the Regulator in the process of assessing the network functioning

Energy enterprises operating within the scope of transmission or distribution of electricity (network enterprises) are responsible for quality of electricity supplied to the customers and quality of services connected with such supplies¹⁹⁾. At the same time they are obliged to minimize outlays and costs so that they do not cause an excessive increase of prices and fees paid by the customers in a short period and so that an enterprise could meet the present and future demand for electricity, at the same time providing continuity and reliability of electricity supplies quality required by the customers in the long run.

The Regulator shall supervise whether distribution enterprises meet quality standards. Energy enterprises are responsible for quality of services, however in practice there is no system which would enable the Regulator to continuously monitor the quality of services. Energy enterprises present qualitative data to the President of the Energy Regulatory Office, but such data is not homogeneous and comparative. During its verification the basic problem is lack of reliability and informative asymmetry between the Regulator and the enterprise.

¹⁶⁾ The analysis was based on the concept of random order models using in their structure a microeconomic theory of the producer and the concept of ineffectiveness of enterprises connected with systematic factors responsible for costs higher than justified in given technical and economic conditions, which occur inside units. Estimation of border cost function for section and time data used the methods of Bayesow application enabling solving of a number of problems occurring in classic econometrics, connected with sensitivity of empirical results, specification of uncertainty (concerning both structural parameters of border model and effectiveness ratios) and enabling direct testing of exogenous factors on the average level of effectiveness of facilities.

¹⁷⁾ The model was previously used while determining a justified level of network losses for tariff year 2002/2003 and for tariff year 2007. The model uses the dependence between balance-sheet difference and technical amounts (for example volume of supplied electricity, power of transformers, length of electricity lines).

¹⁸⁾ Assumptions for tariff calculation in the form of a uniform document (together with necessary attachments) are published on the internet site of the Energy Regulatory Office and additionally send to the enterprises by e-mail.

¹⁹⁾ In accordance with act dated 10 April 1997 – Energy Law (Journal of Laws of 2006 no. 89, item 625 as amended).

Overcoming such limitations should take place after applying an uniform method for assessment of electricity quality using comparative studies (benchmarking). Therefore the Energy Regulatory Office performs the task: “National benchmarking report concerning quality of electricity supplies to customers connected to transmission and distribution networks and preparation of data and information for the European benchmarking report”²⁰⁾.

The results of completed task should enable the Regulator to harmonize methodologies of collecting qualitative data for network enterprises with the best international practices. A well defined and measured level of quality for electricity supplies will show whether investment needs are satisfied in a proper way (feedback), which shall also improve the position of the Regulator. Besides, it can constitute a basis for connecting supplies of electricity to customers, in particular commercial quality, continuity of supplies and quality of voltage with the level of tariffs approved by the Regulator.

An example of such harmonization is provision of information concerning supplies continuity by TSO/DSOs using SAIDI factor, which was collectively determined in the previous years for all interruptions in supplies. Currently, it is specified separately for planned and unplanned interruptions. The value of SAIDI factor specified on this basis in 2007 in minutes for one customer per year amounts to 121,02 for planned interruptions and 409,99 for unplanned interruptions. The changes suggested by the Regulator shall enable removing disaster interruptions from the SAIDI factor for unplanned interruptions²¹⁾.

Information concerning tariffs, conditions and fees for connection to the network given by the system operators to the market participants

DSO tariffs approved by the President of the Energy Regulatory Office are published in the Branch Bulletin “Electricity”, on the website of the Office and on websites of distribution operators. Besides, the operators send tariffs to the biggest customers. On their websites the operators publish not only tariffs, but also calculators enabling the customers to calculate the amount of payments for consumed electricity.

Information concerning current fees for connection and conditions of connection are an integral part of the tariff, which determines tariff groups and specific criteria of qualifying customers to such groups, rates for distribution services, conditions of their application, rates for connecting to IV, V and VI connection groups – for entities connected to the network with rated voltage not higher than 1 kV, method of determining payments for connection to the network, rates of subscription fees, conditions of their application, method of determining discounts for not meeting qualitative parameters of electricity and qualitative standards of providing services to the customers, payments for additional services on request of the customers, method of determination of fees for consumption of reactive power beyond the agreements, exceeding agreed power consumption and illegal consumption of electricity.

Network fees

Table 3.1.3a presents average net network fees (for distribution services) for three groups of customers with a specific characteristics of electricity consumption and for a typical household customer²²⁾. The fees were calculated on the basis of tariffs of 14 distribution enterprises

²⁰⁾ Within the framework of the project Transition Facility PL-2006/018-180.02.04 “Implementation of competitive energy market – component 2” part B. While programming of the task the information obtained during works of Task Force for Electricity Quality of Service (CEER EQS TF) operating within the framework of Electricity Working Group (CEER EWG) of the Council of European Energy Regulators (CEER).

²¹⁾ The suggestion of amending the Economy Minister’s regulation dated 4 May 2007 concerning specific conditions of electricity system functioning (Journal of Laws no. 93, item 623 as amended).

²²⁾ Groups of customers are defined in the following way:

Ig = annual consumption: 24 000 MWh; maximum demand: 4 000 kW,

Ib = annual consumption: 50 MWh; maximum demand: 50 kW,

Dc = annual consumption: 3 500 kWh, 1 300 kWh during the night,

Typical household = supplies of energy (kWh) for households divided by the number of households.

applicable in 2007 and 2008 (14 large DSOs legally separated from the former distribution companies, except four “local” DSOs which are mentioned in footnote 15).

Network fees expressed in EUR include appreciation of PLN which means increased dynamics of changes for these fees.

Table 3.1.3a. Network fees

Customer	Consumption [in kWh/year]	Capacity [in kW]	Average annual network fee in 2007 [in EUR]	Average annual network fee in 2007 [in EUR/MW]	Average annual network fee in 2008 [in EUR]	Average annual network fee in 2008 [in EUR/MW]
Dc	3 500 including 1 300 night	X	169,52	48,43	170,54	48,73
Ib	50	50	3 533,08	70,66	3 786,11	75,72
Ig	24 000	4 000	424 521,11	17,69	369 016,76	15,38
Typical household customer	2 003,08	X	107,08	53,46	125,57	62,69

* Average exchange rate of the National Bank of Poland (NBP): in 2007– 3,7829, in I-V 2008 – 3,5154.

Source: ERO.

Table 3.1.3b presents minimum and maximum network fees for analogical groups of customers. The fees were calculated on the basis of tariffs of 14 largest DSOs approved in 2007 and 2008, legally separated from the existing distribution companies (except four “local” DSOs which are mentioned in footnote 15).

Difference between minimum and maximum level of fees in 2008 increases in relation to the difference between fees in 2007. In percentage for fees in EUR the increase is much higher than in PLN. It is caused by dynamics of currency exchange rate.

Table 3.1.3b. Range of network fees

Customer	Consumption [in kWh/year]	Capacity [in kW]	Min annual network fee in 2007 [in EUR]	Min annual network fee in 2007 [in EUR/MW]	Max annual network fee in 2007 [in EUR]	Max annual network fee in 2007 [in EUR/MW]	Min annual network fee in 2008 [in EUR]	Min annual network fee in 2008 [in EUR/MW]	Max annual network fee in 2008 [in EUR*]	Max annual network fee in 2008 [in EUR/MW]
Dc	3 500 including 1 300 night	X	132,62	37,89	198,67	56,76	132,41	37,83	207,85	59,39
Ib	50	50	2563,71	51,27	4906,16	98,12	2643,23	52,86	5574,71	111,49
Ig	24 000	4 000	306476,80	12,77	565490,67	23,56	260844,10	10,87	518384,85	21,60
Typical household customer	2003,08	X	72,08	35,99	131,15	65,48	97,86	48,85	150,43	75,10

* Average exchange rate of the National Bank of Poland (NBP): in 2007– 3,7829, in I-V 2008 – 3,5154.

Source: ERO.

Balancing

The principles of balancing mechanism and congestion management in the National Electricity System were specified in 2006 and 2007 by system operators and approved by the President of the Energy Regulatory Office as a part of grid code (IRiES)²³⁾. The rights to approve a part of the grid code enable the Regulator to effectively influence the shape of applied mechanisms. The President of the ERO is obliged to monitor functioning of balancing and congestion management mechanisms on the basis of information and periodical reports filed by the operators, as well as observing the market. In the case of any interruptions the Regulator analyses their causes and the results of analyses enable assessment of functioning principles and taking actions aimed at changing these principles. Such legal regulations meet the expectations of the market participants within the scope of state bodies supervising balancing mechanism and management of network congestions. Determination of such principles only by the transmission system operator caused discrimination of some groups of entities on the market and therefore caused opposition.

Transmission system operator (TSO) manages balancing in accordance with the principles included in the separate part of the grid code (IRiESP – Balancing) approved by the decision of the President of the ERO on 10 February 2006, which was subsequently amended. Commercial balancing of market participants takes place beyond areas, which means that each market participant may freely indicate a balance responsible party, regardless of the area managed by a distribution system operator. Such solution harmonizes the principles of functioning of the national market with the principles functioning in other EU countries, in particular from the Central and Eastern Europe, therefore supporting market integration.

Settlements for balancing energy on the balancing market take place on the basis of spread prices. The formula of their determination is based on weighted average prices from increase and reduction offers filed by generators. The formula of weighted average prices enabled decrease of participation costs in the balancing market, which contributed to removing of the basic barrier blocking access to the market, indicated by the market participants, as well as established better conditions for realization of the third party access principle (TPA). In the present situation (mid 2008), when a significant increase of prices has been observed on the wholesale market, these principles are in the course of being changed. It is expected that the suggested settlement formula based on marginal prices should allow for avoiding undesirable behaviors on the competitive market, meaning for example transfer of turnover from the basic sectors to the balancing market. The basic settlement unit for unbalancing is 1 kWh. It enables creating small balancing groups, in particular for small customers and therefore removes another participation barrier for the balancing market indicated by the market participants.

In 2007 the balancing principles specified in grid code (IRiESP) were changed four times. The amendments included:

- modification of algorithm determining the amount of generated energy due to limitations of plants,
- cancelling the annual period of the grid code's application (previously no time limit),
- separating a DSO balancing settlement unit which closes the balance of electricity in the area of its distribution network. In the transition period, that is until the end of 2008 the functions of balancing settlement unit of DSO may be realized within the framework of balancing settlement unit belonging to incumbent supplier (that is a commercial enterprise established as a result of unbundling operation and commercial activity),
- specifying the principles of cooperation between TSO and DSOs within the scope of administration of balancing market, including rules and procedures of measurement and settlement,

²³⁾ Amendment of the Energy Law which came into force on 3 May 2005 charged the President of the Energy Regulatory Office with an obligation of approving grid code for transmission and distribution networks within the scope of balancing mechanism and congestion management. It was a result of transferring the Directive 2003/54/EC to national regulations. TSO was obliged to prepare a separate part of the grid code related to balancing and congestion management and present it to the President of the ERO for approval not later than within six months after the amended act came into force. Within the scope of balancing and congestion management in the distribution system DSOs are bound to prepare them and present to the President of the ERO for approval within 60 days after the decision for TSO. Besides, the principles of balancing and congestion management in the distribution system should include TSO rules.

Detailed conditions of electricity system functioning, including those concerning balancing and congestion management, should be described in the executive ruling to the law (secondary legislation).

- data exchange enabling settlements for retail customers on the basis of standard load profiles, rules and procedures in the case when a party responsible for balancing of retail customers suspends operation on the balancing market,
- adaptation to the guidelines of the European Commission²⁴⁾ and to the Ordinance of the Minister of Economy²⁵⁾. According to these provisions operator is obliged to realize cross-border transmission only on the basis of cross-border capacity reservations made through auctions, therefore there is a necessity to adjust principles of access to cross-border transmission capacity for realization of historical commercial contracts.

In the part concerning balancing of distribution system and congestion management distribution grid code (IRiESD) specify uniform procedures of switching the supplier, requirements concerning metering systems, as well as standards of providing services to customers. They enable balancing settlement of small retail customers on the basis of standard load profiles prepared by DSOs and published in distribution grid codes approved by the President of the Energy Regulatory Office. The grid codes specify the role of DSOs and describe the tasks of metering operators within the scope of access and managing information necessary in the process of balancing. Functions of metering operators are currently performed by DSOs. These grid codes specify also relations between operators and other market participants, as well as their scope.

Introduced changes in grid code are not system changes because such changes could be made only as a result of amending provisions of the applicable law (acts and executive regulations). However, grid codes of system operators (transmission and distribution) precisely regulate functioning of wholesale and retail market within the scope of balancing and management of congestions, that is access to the network. Therefore they provide for independence of activity for electricity system operators, because they limit the possibility of applying unreasonable requirements by network operators. It refers mainly to DSOs, which effectively blocked the process of supplier change in the past. Currently the provisions of law contribute to specifying proper organization framework of exercising the right of third parties access to the network.

The balancing mechanism functioning in Poland is based on TSO using increase and reduction offers filed by the generators, whose generation units are centrally administered by the operator. Other generators i.e. not centrally administered by the TSO, and customers do not participate actively in the balancing market, unless TSO concluded with them separate contracts for system services. In such case the location of electricity gained by the TSO is important, as it enables removing network congestions in the system, especially in emergency situations. Therefore trading companies are not included in the contracts, because the energy available for these enterprises does not hold the feature of specific location in the system. Purchase of balancing energy from other EU membership countries may be done only from another TSO and takes place on the basis of voluntarily concluded bilateral contracts between operators. Supply of such energy may take place only in emergency situations after using all other options in the National Electricity System. Until now there was no integration of balancing markets, so balancing offers may be filed only by entities participating in the balancing market administered by PSE-Operator SA.

Settlements for unbalancing with energy consumers take place using spread prices CROz and CROs, which constitute an incentive mechanism for the most accurate forecasting of demand for electricity. Table 3.1.3c presents the general characteristics of balancing rules.

²⁴⁾ Decision dated 9 November 2006 amending the Annex to the Regulation 1228/2003/WE concerning conditions for access to network for cross-border exchanges in electricity (Journal of Laws EU L 312/59).

²⁵⁾ § 18 of the Ordinance of the Minister of Economy dated 4 May 2007 concerning special conditions of functioning of electricity system (Journal of Laws of 2007 no. 93, item 623).

Table 3.1.3c. Balancing – characteristics

Indicator	Description of functioning
Period	60 min.
Area	One, central – on the level of the transmission grid
Hour of gate closure of the BM for sales offers to the balancing market	12:00
Possibilities of intra-day market and changes of contractual positions	The power exchange offers products in the hourly order, as it is on the balancing market. (now day – ahead market)
Typical payments for balancing services	For customers (nominated for every hour): CROz – settlement unbalancing price of purchase of energy on the balancing market, calculated as an average weighted of all correction prices of contract positions used to settle generation reduction for individual Schedule Generation Units of accounts in h hour, reduced for fixed component ΔK^- . CROs – settlement unbalancing price of purchase of energy on the balancing market, calculated as an average weighted of all correction prices of contract positions used to settle generation increase for individual Schedule Generation Units of accounts in h hour, increased for fixed component ΔK^+ .

Source: ERO.

Process and schedule of settlements for unbalancing is presented in the table below.

Table 3.1.3d. Settlements for unbalancing – process and schedule

Details	Description
Period	Decade, a month is divided into three decades
Forms	Quantity and value
Cycles	Daily – based on hourly settlement volumes, the quantities of balancing electricity are calculated (delivered or received from the balancing market in a day n) as well as payments for its' supplies or collections. Settlement quantities, for day n, are calculated by the TSO in day n+1 as not approved and in day n+4 as approved. Decade – based on daily settlement volumes, balancing energy quantities supplied or received from the balancing market in a given decade are calculated together with payments for supplied or received energy.
Corrections	Executed in monthly cycles, they relate to decade settlements, the term of paying the corrected sum is the last day of the month of the correction.
Invoicing	The period of invoicing liabilities and payments on the balancing market are decades (settlement periods), every invoice must be settled not later than in the period of settlement, i.e. 25th day after last day of settlement period.

Source: ERO.

Information concerning balancing market are published by the transmission system operator on the day d+2 after realization and they include:

- basic cost indicators of functioning of balancing market (amount of free planned balancing energy, planned must-run generation and not planned),
- basic price and cost indicators of functioning of balancing market (weighted average of free planned balancing energy, planned must-run generation and settlement dual imbalance prices, total costs of covering demand on the balancing market divided into the costs of balancing and costs of removing congestions).

Information about the work of the National Electricity System prepared and published by TSO include Yearly Coordination Plans (PKR), Monthly Coordination Plans (PKM) and Daily Coordination Plans (BTHD, WPKD, PKD). Besides an information about planned cross-border exchange on synchronic connections is published. Later monthly and annual reports on functioning of the National Electricity System are published, as well as daily information about capacity and demand balance in morning and evening peak, demand for capacity in the National Electricity System, commercial cross-border exchange with Sweden and actual physical flow of electricity on synchronic borders and direct current connection with Sweden. TSO publishes also the principles of participation in the balancing market (grid code) and standard conditions of contracts. The operator provides also information concerning cross-border exchange such as rules for coordinated auctions, forecasts of cross-border transmission capacities, offered cross-border transmission capacities, consistent with the requirements of national and European Union law.

3.1.4. Effective unbundling

Functional unbundling of vertically integrated technological chain in electricity activity – from generation, through transmission to distribution and trade – is treated as a condition necessary for properly functioning competitive electricity market. The implementation of unbundling was a gradual process. In this process the most important thing is to obtain real independence by network system operators.

The operators on the Polish energy market which are within the structures of vertically integrated enterprises should remain, regarding legal form, organizational and decision making, independent from other form of performed activity not connected with transmission and distribution of electricity (article 9d of the Energy Law). With respect to DSOs the legal unbundling is required since 1 July 2007²⁶⁾. The obligation does not apply to operators if the number of customers connected to their networks is not higher than 100 000 or provide services to electricity systems with annual energy consumption not exceeding 3 TWh in 1996, where less than 5% of annual electricity consumption came from other electricity systems connected to them.

There is one transmission system operator in Poland – PSE-Operator SA. Since 1 January 2007 it is a one-man state owned company and since 1 January 2008 it is also the owner of transmission assets which was previously leased from PGE SA²⁷⁾. PSE-Operator SA conducts transmission activity on the basis of the network assets which, as on 31 December 2007, included the following elements:

- 233 lines with total length of 12 823 km, including:
 - 68 lines with voltage of 400 kV with total length of 5 031 km,
 - 165 lines with voltage of 220 kV with total length of 7 792 km;
- 98 highest voltage stations (EHV).

The operator creates its individual image: in the middle of June 2008 it moved to own headquarters, it runs an Internet site without any references to the enterprises to which it was affiliated before.

There are 18 distribution system operators (DSOs) in Poland, including 14 legally separated from former distribution companies and four local operators. All legally separated DSOs function within the framework of capital groups which are vertically integrated electricity companies. Ownership supervision over DSOs is held mainly by the State Treasury – indirectly through holdings or parent companies which moved their operation activity to the newly established companies. Only in the case of two DSOs the owners are companies with foreign companies as major shareholders. The rule of 100 000 customers has been applied with regard to four local operators, so these enterprises are not legally separated.

The obligation of accounting unbundling for particular types of energy activity can be actually applied only towards DSOs covered by the rule of 100 000 customers, because other DSOs are legally separated and therefore their accounting is separated as well.

²⁶⁾ This operation is described in part 2.2. “Main developments in the gas and electricity markets”.

²⁷⁾ Network assets enabling PSE-Operator SA to perform the function of TSO were used on the basis of “Enterprise Lease Agreement” concluded with PGE Polska Grupa Energetyczna SA (“PGE SA”) on 1 July 2004 which was terminated on 31 December 2007. However, there were actions taken in order to provide TSO after this date with ownership title for tangible and intangible elements of assets necessary for completion of its tasks (item 3.3.2. of the “Program for electricity sector” adopted by the Council of Ministers on 28 March 2006). It was decided to divide the company PGE SA according to article 529 § 1 item 4 of the Code of Commercial Companies and Partnerships (by separation) by means of transferring a part of assets from PGE SA to PSE-Operator SA. In the “separation plan” agreed on by the divided company and the overtaking company it was specified in detail what types of assets are to be transferred to TSO. At the same time it should be noted that it is agreed that the owner of overhead lines at the eastern border of Poland – that is 220 kV lines Roś-Białystok, Dobrotwór-Zamość and 750 kV line Chmielnicka-Rzeszów – is still PGE SA.

On 14 January 2008 PSE-Operator SA informed the President of the ERO about raising of the company's share capital by the amount of 9 356 173 000 PLN as a result of division of PGE SA by means of transferring to the company some tangible and intangible assets of PGE SA, constituting a separate enterprise under article 551 of the Civil Code. The increase of share capital is valid since 31 December 2007.

Table 3.1.4a. Unbundling characteristics, as on 31 December 2007

Details	Number
TSO – ownership unbundling	1*
DSO – ownership unbundling	0
TSO – legal unbundling, ownership of assets (grid)	0
TSO – legal unbundling, no ownership of assets (grid)	1
DSO – legal unbundling, ownership of assets (grid)	14
OSD – legal unbundling, no ownership of assets (grid)	0

* Since 1 January 2007.

Source: ERO.

Polish law, similarly as Directive 2003/54/EC does not charge DSO with an obligation of separation due to the ownership form. Regulations authorize the President of the Energy Regulatory Office only to assess a candidate for TSO or DSO in the course of administrative procedure concerning appointment of system operator. Depending on its results, the Regulator may appoint an operator or reject the application. Competences of the Regulator do not allow enforcement of specific methods of separation process to incumbent suppliers in order to adjust them to the provisions of the Energy Law. Selection of the unbundling model, scope of actions taken and responsibility for actions aimed at reaching the target model defined by law shall be done by bodies of the companies.

While assessing candidates in the procedure concerning appointment of a given entity to perform the function of operator, the President of the ERO analyses the quality of unbundling, that is the level of meeting legal and formal requirements. The Regulator should assess the candidates from the point of view of (article 9h item 2 of the Act):

- consistence with the provisions of law (the Energy Law),
- economic effectiveness, while balancing interests of the parties (article 1 and 23 the Energy Law),
- effectiveness and independence in managing distribution or transmission system.

Moreover, the President of the ERO may apply a sanction (article 56 item 1 point 8 the Energy Law) towards enterprises not meeting the requirements concerning accounting unbundling, in the form of a fine against those who manage accounting inconsistently with the principles specified in article 4 of the act²⁸⁾.

PSE-Operator SA is a legally and administratively independent energy enterprise on the electricity market. Operator holds a name and a logo, an internet site independent from other entities to which it was affiliated. In 2007 it continued construction of independent headquarters of a transmission system operator.

In the case of fourteen DSOs separated from vertically integrated enterprises – division of the distribution system operator headquarters from headquarters of a trade company was made – at the end of 2007 – by nine operators, also nine operators opened their own customer service offices. The operators are in the course of establishing an individual image on the retail market, after being separated from distribution companies they have new names, different from the trade companies. All DSOs prepared their own independent websites. At the same time websites of four operators include links only to parent trade companies and only two of them – to other traders or suppliers.

Reporting

Energy enterprises are obliged to manage accounting so that individual calculation of costs and revenues, profits and losses for each type of their activity is possible, and with regard to groups of customers specified in the tariff. The companies are also bound to prepare and store financial statements including balance-sheet and income statement for accounting periods, according to principles specified in the regulations on accounting.

Failure to meet the above mentioned obligations may result in refusal to approve the tariff or charging with a fine.

²⁸⁾ The provisions of this article oblige the enterprises to manage accounting so that individual calculation of costs and revenues, profits and losses for their activity is possible.

The Energy Law and the act on accounting do not provide the President of the ERO with the right to oblige the enterprises to introduce uniform rules concerning for example allocation of costs. Until the moment of network operators functioning in vertically integrated structures the President of the ERO did not have data concerning proportion of costs division between them and other commercial units of the enterprises or affiliated entities²⁹⁾. Such situation significantly changes after legal separation of DSOs. Selected specific issues are presented in table 3.1.4b.

Table 3.1.4b. Accounting unbundling

Details	Transmission	Distribution
Unbundled accounting and annual reports	yes	yes
Setting by the Regulator detailed principles or guidelines regarding the composition of unbundled accounting together with consequences for infringement	no	no
Are separated ledgers subject to separate audit run by a licensed auditor and to what extent this audit refers to the requirements of the Regulator?	yes	yes
What is the role of a person responsible for conformation of accounting run this way with law?	no reference	no reference
What are the sanctions of the Regulator referring to undertakings abusing the requirements of accounting and managerial unbundling?	Article 56 item 1 point 8 of the Energy Law*	Article 56 item 1 point 8 of the Energy Law*

* A fine shall be charged on entity which manages accounting against the regulations specified in article 44. Provisions of this article oblige entities to manage accounting so that it is possible to individually calculate costs and revenues, profits and losses for the conducted activity.

Source: ERO.

Since legal separation of the operators their statements refer mainly to the concessioned network operation. Audit of financial statements is conducted by independent experts according to the principles specified in the act on accounting. The Regulator does not conduct a separate audit of such statements.

3.2. Competition issues [Article 23(8) and 23(1)(h)]

Functioning of the electricity market in Poland is significantly disturbed because of many existing negative features, such as for example consolidated structure, lack of property differentiation, long-term contracts limiting the volume of liquid energy, regulation of prices. Therefore competition on the electricity market is limited and actions of proper authorities (the President of the Energy Regulatory Office and the President of the Competition and Consumer Protection Office) within the scope of protection and promotion of competition are very important.

3.2.1. Description of the wholesale market

Gross generation of electricity in 2007 in Poland was shaped at the level of 159 453 GWh and was by 1,4% lower than in 2006. With respect to professional power plants a 2-5% decrease of production occurred. Generation by small independent plants increased by about 30% (about 0,6 TWh). Consumption of electricity in Poland tends to increase. However, an increase of the local consumption is satisfied by change of the exchange balance with other countries, which decreased by about 48%.

Table 3.2.1a. Electricity consumption and demand for power

Year	Total gross consumption [in TWh]	Available capacity [in GW]	Pick demand for capacity [in GW]
2006	149,8	32,4	24,6
2007	154,2	32,6	24,6

Source: ERO.

²⁹⁾ The President of the ERO attempted to regulate this issue and applied to the Minister of Finances for exercising the rights (compare with article 83 item 2 point 6 of the Act dated 29 September 1994 on accounting (Journal of Laws of 2002 no. 76 item 694 as amended) in the scope of specifying account plans for energy enterprises under Energy Law. However, this problem was not appreciated by the Ministry of Finances.

The total available capacity of national power plants at the end of 2007 amounted to 32,6 GW and increased by 0,6% in relation to 2006. The peak (maximum) demand for capacity was on the level of 24,6 GW. Currently in Poland the available capacity exceeds the level of peak demand. The situation may change because generation of electricity takes place using the technology of coal burning. In the case of decreasing the number of permissions for emission of CO₂ granted to enterprises it may be necessary to decrease the production in existing sources. Limitations may occur also because of removing old generating equipment – then it will be necessary to create new generation units using other technologies, for example gasification of coal, renewable sources.

Concentration

The subject of trade on the wholesale market is electricity in bands (band is the amount of offered power and sum of hours when it is available). The sum of offered bands fully covers the national demand so there is no need to introduce other products on the market. Therefore there is no trade with electricity divided into production in basis, sub-peak and peak.

In 2007 concentration in the sub-sector of electricity generation increased because of introduction of a government program based on consolidation of the entities from the sector.

The level of concentration of the generation market expressed by the sum of shares of three largest enterprises in 2007 amounts to CR3 = 50,9 (according to the net installed power) and 58,0 (according to net production).

The number of generators holding more than 5% of the shareholding in the market – net installed power – is five and decreased by one in relation to previous year, while the number of generators with shareholding in the market over 5% in net production is the same as in 2006.

HHI ratio³⁰⁾ both within the scope of net production and net installed capacity is still an average level of market concentration and amounts to 1 312,7 for the net installed capacity and 1 710,0 for gross production.

Table 3.2.1b. Market concentration*

Year	Number of generators with market share > 5% in net installed capacities	Number of generators with market share > 5% in net generation volume	Net installed capacities of three biggest generators [in %]	Share of three largest generation companies by net generation volume [in %]	HHI indicators	
					by net installed capacity	by net generation volume
2006	6	5	44,2	52,4	1 002,9	1 366,6
2007	5	5	50,9	58,0	1 312,7	1 710,0

* For all entities in generation sector under statistical obligation.

Source: ERO.

Ancillary services

In the Polish power system the entities providing ancillary services (RUS) are condensing power plants. Measurement factor in the form of revenues of a given power plant for providing such services was used in order to characterize the market situation for RUS. The table 3.2.1c presents data concerning the value of general ancillary services provided by system power plants and the market domination level in 2006-2007.

³⁰⁾ Herfindahl Hirschmann Index is a sum of percentage shares squares in the market: HHI > 5 000 – very high concentration, HHI from 1 800 to 5 000 – high concentration, HHI from 750 to 1 800 – medium concentration (according to “Report on progress in establishing an internal market of electric power and gas”, Brussels 2005).

Table 3.2.1c. Characteristics of regulatory system services market

Year	Revenue from ancillary services [in thou. PLN]	Number of generators with market share > 5% in revenue from ancillary services	Market share of three largest generators by revenue from ancillary services [in %]	HHI indicator by revenue from ancillary services
2006	620 443,2	7	55,3	1 482,4
2007	617 625,8	6	73,0	2 414,6

Source: ERO.

The proceeds of system power plants in 2007 for rendering ancillary services decreased by 2 817 400 PLN, that is 0,5% in relation to the previous year. In 2007 the number of generators holding more than 5% of share in the market decreased by one. The HHI index significantly changed and indicates high level of concentration of the RUS market.

Structure and volume of wholesale

Wholesale with electricity on the Polish energy market in 2007 took place mainly on the basis of non-standardized bilateral contracts (short and medium term) and within the framework of long term contracts. A small number of transactions were concluded on the Energy Stock Exchange and on virtual energy trade platforms.

Table 3.2.1d. Volume of sales (system power plants, in TWh)

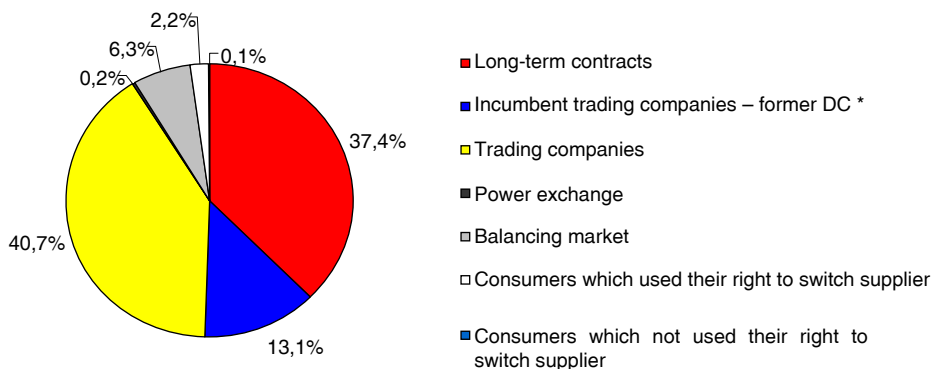
Year	Total	in long term contracts*	in bilateral contracts	at spot market	at balancing market**	at forward market
2006	126,11	47,12	70,78	0,19	7,98	0
2007	123,30	38,88	75,42	0,49	8,51	0

* Regulated segment.

** Including so called forced generation by systems' reasons.

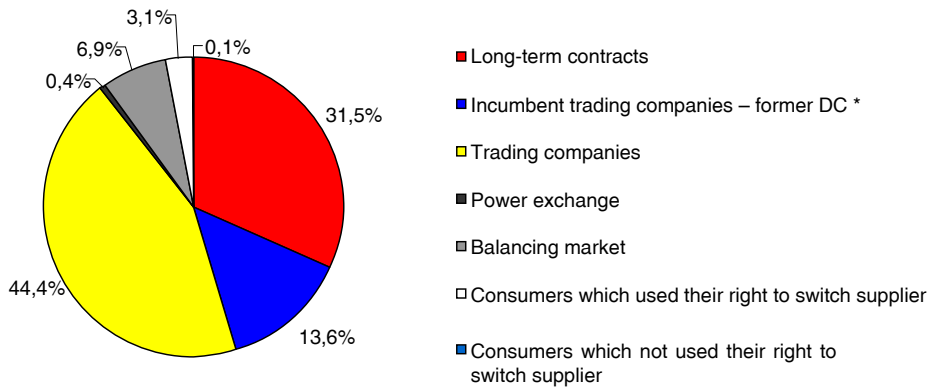
Source: ERO.

In 2007 sale within the framework of long term contracts constituted about 31,5% of the total sale of system producers. In comparison with previous year this amount decreased by 17,5%. The highest share – 44,4% belonged to sale under bilateral contracts (to trade companies). The highest sale dynamics occurred in segments with low market share, that is energy stock exchange – by 157,2% and among customers exercising the right to switch supplier – by 34,3%.



* Up to 30.06.2007 distribution companies, since 1.07.2007 trading companies acting as a last resort supplier.

Fig. 3.2.1a. Sales structure of system generators in 2006 (Source: ERO)

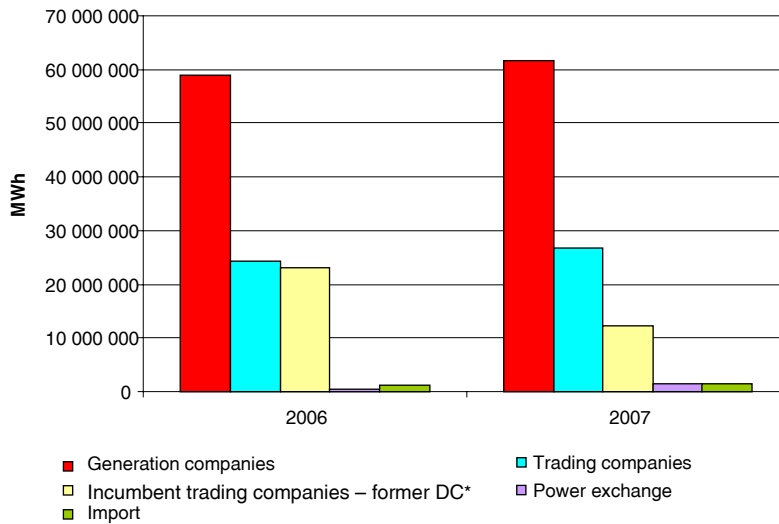


* Up to 30.06.2007 distribution companies, since 1.07.2007 trading companies acting as a last resort supplier.

Fig. 3.2.1b. Sales structure of system manufacturers in 2007 (Source: ERO)

Market of bilateral contracts

In general in 2007 trade companies purchased 7% more electricity than in the previous year³¹⁾. An analysis of energy purchase dynamics indicates that the trade between trade companies increased (by 10% in comparison with the previous year). The volume of energy purchased at the stock exchange increased significantly (by 131%), similarly as the purchase of imported energy (by 40%), although the volume of electric power in these segments is still low. This situation is presented on fig. 3.2.1c.

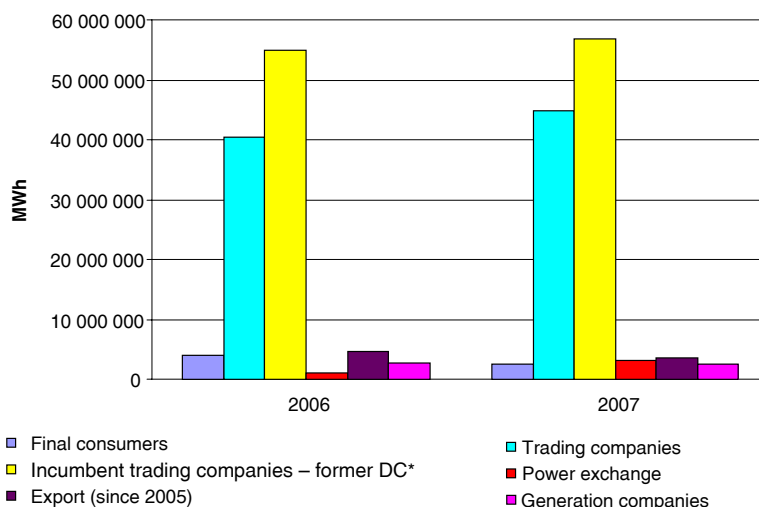


* Up to 30.06.2007 distribution companies, since 1.07.2007 trading companies acting as a last resort supplier.

Fig. 3.2.1c. Sources of electric power purchase for trade companies [in MWh] (Source: ERO)

³¹⁾ For a few years the ERO has been conducting researches concerning functioning of enterprises trading with electric power. In 2007 36 units were examined: three new ones, one of the previously analyzed companies suspended its operation, additionally from 1 July 2007 in the existing distribution companies the operator's activity and trade are divided – therefore 14 additional trade companies were included in the monitoring.

Generally in 2007 the volume of electricity sold by these companies amounted to 116 TWh³²⁾, which means an increase by 7 TWh in comparison to the previous year. Trade companies also resold energy to generators which meet their conventional obligations this way when the cost of generation exceeds the cost of purchase. Besides, such transactions enable “saving” of own permissions for emission of CO₂. Directions of sale of electricity by trade companies are presented on fig. 3.2.1d.



* Up to 30.06.2007 distribution companies, since 1.07.2007 trading companies acting as a last resort supplier.

Fig. 3.2.1d. Structure of electric power sales of trade companies [in MWh] (Source: ERO)

Spot market

Transactions on the Polish Power Exchanges' (TGE SA) Day Ahead Market constituted about 2,2% of the total sale of electricity to the final consumers. At the same time the volume of trade on this market increased by about 47,5% in relation to 2006. There are 32 enterprises trading with energy authorized to conclude transactions on the Polish Power Exchange on the Day Ahead Market. In 2007 transactions in this market segment still had a balancing character (improvement of the situation before closing the balancing market). In the last quarter of 2007 they referred to the peak energy, that is the energy meeting the demand in peak hours of energy consumption. Increased demand for energy in this period, with a rather stable supply, is proved among others by rapid growth of maximum prices at TGE SA, which occur in the peak demand hours.

The major factor influencing low volume of electricity trade at the stock exchange is sale of the majority of energy under bilateral contracts. Market participants may also take advantage of the services of the so called virtual energy trade platforms such as Electric Power Trade Platform, Energy Exchange, eSPOT³³⁾, while participation of such platforms in the general volume of trade with electricity is presently very low. However, it may be compared with trade on the Polish Power Exchange.

³²⁾ It should be noted that partially we encounter a multiple trade with energy, therefore the volume of traded energy cannot be considered with regard to the total consumption of electric power in Poland.

³³⁾ *Internet Platform of Trade with Electric Power* – is a virtual trading place designated for sale/purchase transactions of energy and ownership titles for all manufacturers of power, distribution and trade companies, as well as customers of power using the TPA rule. This platform creates ideal conditions for players who search for really market energy trade rules supported by modern IT technology.

Energy Exchange – is an electronic system of electric power trade in the form of continuous quotes for every 24 hours of supplies “day in advance” in morning session and “two days in advance” in the afternoon session. All sales and purchase transactions concluded by the Participant and JAC EnTra by means of the Participant selecting type and hour of transaction and clicking the price offered by EnTra.

eSPOT – is an electronic platform of trade designated for consolidated groups of electricity plants. Its application allows for minimization of unbalancing of the group and maximize the trade volume. It also enables comfortable and effective conclusion of SPOT transactions. The purpose of eSPOT platform is creation of easy and reliable mechanisms so that the lowest volume is realized outside the group, in relation to more expensive mechanisms such as the Energy Stock Exchange or the Balancing Market. The platform enables also trade with entities outside the consolidation group. Therefore specific electricity generation plants, and later organizations established in their place, may optimize their purchases and sale of energy.

Long term contracts

In 2007 the works on the law containing rules of covering stranded costs arising as a result of terminating long term contracts in electric power were finished and the works on implementation of the law began³⁴⁾.

Besides, the European Commission finished (on 25 September 2007) the procedure on determining whether long term contracts are an illegal public support, process of notification of the law containing a support program for generators who decide to terminate a long term contract and issued an adjudicating decision³⁵⁾.

Basic solutions contained in the resolution concerning covering of stranded costs:

- Voluntary termination of long term contracts by the parties,
- Revenues from stranded costs are not equal to the present revenues from long term contracts,
- The amounts of stranded costs depend on prices of electric power,
- Maximum amounts of stranded costs for all generators who can participate in the program (according to prices as on 1 January 2007) amount to 11 577 430 000 PLN,
- Additional costs for generators of electric power on the basis of natural gas (according to prices as on 1 January 2007) amount to 1 005 280 000 PLN.

Within the framework of implementation works on 13 September 2007 PSE-Operator SA established the company called "Zarządca Rozliczeń SA" (Settlement Manager).

In the law on liquidation of long term contracts the President of the ERO was charged with various tasks. Some of them are single actions (such as forwarding information on signed termination contracts to the Minister of Economy, Zarządca Rozliczeń SA and PSE-Operator SA, stating that a generating entity was put to use). Others are constant and the planned end of the support program should be in 2027.

The most important tasks of the President of the ERO include: calculation of annual amounts of updated stranded costs, forwarding information about amounts of necessary advances, calculation of ratios for transition fees, corrections of payments of stranded costs and monitoring of generators.

The final date for signing termination agreements by parties to the long term contracts for purchase of power and electric power expired on 1 January 2008 and all generators signed them until this date. Termination agreements were forwarded to the President of the ERO by 13 generators using long term contracts for sale of power and electric power. None of these generators resigned from receiving financial support for covering of stranded costs.

The applicable principles of functioning of the market do not systematically regulate the rules of active participation of customers in the wholesale market or in the process of system balancing. System generators are active market participants in this scope. Other generators, enterprises trading with electric power and customers play a passive role on the market unless their participation is necessary for ensuring safety of the system's work and is based on an individually concluded agreement with TSO.

Wholesale and cross-border exchange

In 2007 a significant change of the balance of trade exchange of electric power with other countries could be observed. It means a decrease by over 50%. This situation is a result of decreased export by about 47% and increased import by about 30% in relation to the previous year. At the same time significantly higher flows of energy from Germany and Sweden to Poland occurred. Among the reasons for this situation is a systematically increasing national demand for electricity and periodical low possibility of balancing the national electricity market, in particular in the peak hours of energy demand.

³⁴⁾ Draft of the law was accepted by the Council of Ministers on 11 December 2006 and sent to the Polish Sejm and, by agency of the President of the Competition and Consumer Protection Office, to the European Commission. After considering amendments of the Polish Senate, on 29 June 2007 the Polish Sejm adopted the resolution on principles of covering costs arising at the manufacturers in relation to earlier termination of long term contracts for sale of power and electric power. The President of the Republic of Poland signed the resolution on 16 July 2007 and its text was published on 20 July 2007 (Journal of Laws no. 130, item 905). The Law came into force on 4 August 2007.

³⁵⁾ Decision of the European Commission [K(2007)4319] on state support granted by Poland within the framework of long term contracts for sale of power and electric power and state support, states in particular that long term contracts constitute a state support (article 87 item 1 of the EC Treaty) granted to the manufacturers listed in attachment no. 2 to the law – and such state support is consistent with the common market according to the methodology of stranded costs.

A significant increase of import of electricity from Sweden is a result of intervention supplies in order to balance the northern area of Poland and prevent risks concerning the work of the system. Change of balance of crossborder exchange of electricity was also caused by decreasing export transmission capacities provided by TSO. It is among others a result of constantly growing, unpredictable real flows of electricity from the German system (a result of dynamically developing wind farms in the northern region of this country) and constantly decreasing reserves of power in Polish Power System (PPS) because of rapidly increasing demand for electricity.

Average transmission capacities at synchronic import sections in winter period (January – March and October – December) amounted in 2007 to 189 MW in the summer period (April – September) 172 MW and average – 180 MW. The level of interconnections in 2007 amounted to about 0,6% with available transmission capacities in PPS on 31 December 2007 amounting to about 28 500 MW.

The balance of electricity exchange with neighboring electricity systems and real flows of energy are presented in table 3.2.1e.

Table 3.2.1e. Electric power exchange balance in 2003-2007 [in GWh]*

	2003	2004	2005	2006	2007	Dynamics 2007/2006 [in %]	Dynamics 2007/2003 [in %]
Trade balance	10 161	9 293	11 172	11 014	5 356	48,6	52,7
Export	13 222	12 487	14 290	13 434	8 497	63,2	64,3
Import	3 061	3 194	3 119	2 420	3 140	129,8	102,6
Real flows							
From Poland	15 146	14 605	16 188	16 188	13 110	81,0	86,6
Including to:							
The Czech Republic	9 490	9 156	11 167	10 183	9 232	90,7	97,3
Germany	282	450	1 046	720	48	6,7	17,0
Slovakia	2 728	2 623	2 792	3 373	3 600	106,7	132,0
Sweden	2 646	2 376	1 182	1 498	230	15,4	8,7
To Poland	4 985	5 312	5 002	4 774	7 752	162,4	155,5
Including from:							
Byelorussia	1 226	1 001	874	1 045	0	0,0	0,0
The Czech Republic	57	80	63	44	20	45,5	35,1
Germany	2 761	3 156	2 264	2 546	4 889	192,0	177,1
Slovakia	0	8	0,320	4	0	0,0	0,0
Sweden	11	214	817	264	2 211	837,5	20 100,0
Ukraine	931	853	983	870	631	72,5	67,8

* Showed data include crossborder exchange through 110 kV power lines i.e. Wólka Dobryńska-Brześć, Mnisztwo-Trzyniec-Ustroń, Boguszów-Porici, Kudowa-Nachod, Pogwizdów-Darkov.

Source: ERO.

Price correlations

The volume of trade on the exchange market constitutes, as mentioned before, about 2,2% of sales of electricity to the final consumers. The assessment of price correlations on national markets, with a minimum level of spot market liquidity in Poland, may be unjustified due to a possibility of significant level of error. The level of prices on the Polish market in 2007 was still significantly lower than on the neighboring markets.

Table 3.2.1f presents the level of daily correlations for reference base prices between European spot markets. As the data prove, the level of price correlation on the Polish market – and not only – with prices on the neighboring markets is very low. It proves a low level of integration between the national markets.

Table 3.2.1f. Correlation of daily reference base prices on the spot market in 2006

	AUT	CZE	DNK	ESP	FIN	FRA	GER	ITA	LITHU	NL	NOR	POL	ROM	SWE
AUT	1.00	0.68	0.52	0.50	0.21	0.91	0.87	0.74	-0.14	0.83	0.07	0.35	0.23	0.15
CZE	0.68	1.00	0.40	0.23	0.23	0.57	0.60	0.53	0.05	0.57	0.20	0.42	0.27	0.23
DNK	0.52	0.40	1.00	0.29	0.71	0.37	0.44	0.49	0.29	0.40	0.64	0.45	0.14	0.73
ESP	0.50	0.23	0.29	1.00	0.12	0.53	0.42	0.30	-0.19	0.39	-0.07	0.16	-0.18	0.01
FIN	0.21	0.23	0.71	0.12	1.00	0.08	0.17	0.25	0.58	0.11	0.89	0.30	0.09	0.95
FRA	0.91	0.57	0.37	0.53	0.08	1.00	0.80	0.66	-0.27	0.81	-0.09	0.25	0.15	0.00
GER	0.87	0.60	0.44	0.42	0.17	0.80	1.00	0.60	-0.14	0.74	0.06	0.30	0.19	0.13
ITA	0.74	0.53	0.49	0.30	0.25	0.66	0.60	1.00	0.02	0.59	0.13	0.41	0.43	0.22
LITHU	-0.14	0.05	0.29	-0.19	0.58	-0.27	-0.14	0.02	1.00	-0.24	0.71	-0.02	0.25	0.67
NL	0.83	0.57	0.40	0.39	0.11	0.81	0.74	0.59	-0.24	1.00	-0.01	0.29	0.10	0.06
NOR	0.07	0.20	0.64	-0.07	0.89	-0.09	0.06	0.13	0.71	-0.01	1.00	0.27	0.12	0.97
POL	0.35	0.42	0.45	0.16	0.30	0.25	0.30	0.41	-0.02	0.29	0.27	1.00	0.14	0.30
ROM	0.23	0.27	0.14	-0.18	0.09	0.15	0.19	0.43	0.25	0.10	0.12	0.14	1.00	0.12
SWE	0.15	0.23	0.73	0.01	0.95	0.00	0.13	0.22	0.67	0.06	0.97	0.30	0.12	1.00

Notices:
 - Denmark: average over east and west regions
 - Norway: average over three regions

Source: E-Control.

Ownership changes on the market

In 2007 another consolidation stage has been completed, where in accordance with the governmental document "Program for electric power sector", the following units were established:

- PGE – Polska Grupa Energetyczna SA, which includes: PSE SA (after separation of TSO), BOT SA, Elektrownia Dolna Odra SA and distribution companies: LUBZEL SA, ZEORK SA, Rzeszowski Zakład Energetyczny SA, Łódzki Zakład Energetyczny SA, Zakład Energetyczny Łódź-Teren SA, Zakład Energetyczny Warszawa-Teren SA, Zamojska Korporacja Energetyczna SA, Zakład Energetyczny Białystok SA,
- Tauron Polska Energia SA, which includes: PKE SA, Elektrownia Stalowa Wola SA, Energia-Pro SA, ENION SA,
- ENERGA SA, which includes: Koncern Energetyczny ENERGA SA and Zespół Elektrowni Ostrołęka SA,
- ENEA SA, which includes electric power companies ENEA SA and Elektrownia Kozienice.

The results of monitoring of electricity market conducted by the President of the ERO prove that in the present structure, after establishing four large, vertically integrated energy groups, some events of using the dominating position and unfair competition actions may occur. It refers to the wholesale and the retail sale markets, proper for operation of a specific distribution system operator. A significant weak point of consolidation is that it is introduced without a previous change of the principles of electricity market functioning based on the so called "copper board".

Decisions concerning consolidation led to establishing capital groups which contain both suppliers of electricity and distribution systems operators. Such connections cause a risk of unfair market behaviors of the operators belonging to these groups meaning unfair treatment of the system users.

3.2.2. Description of the retail market

In 2007 the consumption of electricity by about 16 million customers connected to the network of 14 distribution system operators amounted to over 113 600 GWh. Specific data divided into groups of customers according to the criterion of consumption is presented in table 3.2.2a.

Table 3.2.2a. Number of consumers and volume of electricity supplied to final consumers by DSO in 2007

Consumer groups by consumption criterion [in MWh]	Number of consumers in 2007	Electricity supplied to consumers in 2007 [in MWh]
> 2 000	4 351	51 823 358
50 – 2 000	98 664	23 821 974
< 50	15 941 086	37 954 985
Total	16 044 101	113 600 317

Source: ERO.

The largest share in retail market in 2007 belonged to 14 trade companies (so called incumbent – established as a result of separation of DSO³⁶⁾), which sold about 92,2% of electricity to final consumers connected to distribution networks.

Besides, in 2007, 27 active supplying companies operated independently from the network enterprises. 15 of them were affiliated with international enterprises (table 3.2.2a). In 2007 the total volume of energy sold by supplying companies increased by about 13% in comparison to the previous year. Operation of these enterprises was not connected with takeover of existing energy companies – however a part of them is affiliated with generators acquired by foreign companies.

Table 3.2.2b. Characteristics of suppliers on the retail market

Year	Number of suppliers with market share > 5%	Number of suppliers fully independent from net company	Share of three the biggest suppliers in the market of:		
			large industrial consumers [in %]	medium-sized industrial and commercial consumers [in %]	households and small commercial consumers [in %]
2005	6	19	45,9	50,7	48,0
2006	6	21	47,5	51,5	48,2
2007	6	27	41,1	47,1	48,8

Source: ERO.

As the data prove, in 2007 the share of three largest suppliers decreased in sale to large industrial customers by 6,4% and amounted to 41,1% and in sale to medium industrial and commercial customers – by 4,4% and amounted to 47,1%. A small increase of share (by 0,6%) of the largest trade companies occurred in the case of sale to small companies and households.

Comparison of directions of electricity sale of the five largest suppliers is presented in table 3.2.2c below.

Table 3.2.2c. Structure of sales for the largest suppliers (as at the end of 2007)

Suppliers	Share in sale to the final consumers [in %]		
	≥ 2 GWh	50 MWh – 2 GWh	≤ 50 MWh
ENERGA-Obrót SA	14,2	17,3	18,3
ENEA SA	12,4	16,0	15,3
ENION Energia Sp. z o.o.	14,4	13,8	15,1
EnergiaPro Gigawat Sp. z o.o.	8,8	12,5	10,6
Vattenfall Sales Poland Sp. z o.o.	7,4	5,4	7,8

Source: ERO.

³⁶⁾ Since July 1st 2007, as a result of legal unbundling in the Polish power sector, on the market appeared separate energy companies with licenses only for trade with electricity.

Switching of suppliers

The consumer activity meaning exercise of the right to switch a supplier, which is held by all customers since 1 July 2007 is still very low. The share of small and medium industrial entities which switched their suppliers increased slightly. At the end of 2007 also first household customers switched their suppliers, but their share in relation to all households is minimal (0,001%).

The quantitative data included in table 3.2.2d reflect the situation described above concerning switching of suppliers.

Table 3.2.2d. Switch of supplier

Year	Consumers which switched supplier – by number of metering points (1)			Share of consumers which switched supplier – by energy consumption (2)			Number of renegotiated agreements*
	large industrial consumers	medium-sized industrial and commercial consumers	households and small commercial consumers	large industrial consumers	medium-sized industrial and commercial consumers	households and small commercial consumers	
2005	59	89	2	15,16	0,000	0,000	57
2006	82	199	10	15,84	0,012	0,000	47
2007	na**	na**	na**	16,95	0,128	0,001	44

* Renegotiation should be understood as an agreement's conditions switch with previous supplier.

** Data showed in different configuration in table 3.2.2e.

Source: (1) EMA SA, (2) ERO.

Because of the change of reporting method to the Energy Market Agency SA in 2007 the data concerning customers, which changed the supplier are presented according to the criterion of energy consumption, without an information about measurement points (table 3.2.2e). While comparing the data from specific years it should be noted that the values for 2007 refer to the number of customers and in the previous years they referred to the number of measurement points.

Table 3.2.2e. Number of consumers who switched their suppliers (at the end of the year)

Consumer groups by consumption criterion [in MWh]	Number of consumers who switched supplier by energy consumption	
	large and medium industrial consumers and small enterprises	households
> 2 000	40	-
50 – 2 000	16	-
< 50	7	541
Total	63	541

Source: ERO.

The data prove that still only a part of the consumers perceives advantages in exercising the consumer's right, mainly because in 2007 the prices of electricity and gas for all consumers were still regulated. The major reason of small engagement of consumers was therefore a lack of sufficient number of competitive offers for sale of energy. There were also some limitations of legal and organization nature, for example no legal separation (in the first half of 2007) of distribution system operators and vertical consolidation of energy companies (generation and grid operation).

The volume of sale of electricity at suppliers under TPA in 2007 was only by 4,1% higher in relation to 2006 and amounted to 8 815 GWh (7,8% of the total supplies to the final consumers performed by distribution companies).

Table 3.2.2f. Realization of TPA rule

Year	Number of consumers who exercise TPA rule	Electricity supplied to TPA consumers [in GWh]	Share of electricity supplied in TPA in relation to total delivered electricity [in %]
2005	35	7 433	7,0
2006	61	8 469	7,6
2007	604	8 815	7,8

Source: ERO.

In total at the end of 2007 there were 604 consumers, including 541 households, which concluded sales agreements with suppliers different than the trade companies separated from a vertically integrated DSO operating in the region where these consumers are connected to the grid. The major reason for low mobility of the consumers was lack of sufficient number of competitive offers for sales of energy. Such lack of offers was mainly caused by regulation of electricity prices, defects in functioning of the wholesale market, lack of interest of the sellers in preparing offers for small customers, especially in households.

Supplier switching procedure

The procedure of the supplier switching is regulated in the Grid Codes for distribution networks in the part concerning balancing of the system and management of system limitations prepared by the Distribution System Operators and submitted for approval by the President of the ERO.

In 2007 some problems limiting the use of TPA were eliminated. Uniform requirements for measurement and settlement systems were introduced along with an uniform procedure of the supplier switch and standards of customer service. Additionally for consumers who do not have meters with energy consumption per hour reading, it is allowed to use the so called energy consumption profiles, which enable them to use rights held without a necessity to bear additional costs and without unnecessary delay.

The first supplier switch, in accordance with the instruction, should take place within 60 days (except two DSOs where the date of changing the supplier for customers in households was 90 days), each subsequent switch should take place within 30 days. After receiving an information about conclusion of an agreement with a new supplier, the procedure should be conducted by DSO, which is responsible for its timely completion.

Besides, the consumers in households may conclude a complex agreement with an energy supplier or grant a selected supplier an authorization to settle all the issues connected with switching of the supplier. Then the newly selected supplier organizes the whole supplier switch process on behalf of the consumer.

In 2007 a temporary limitation for consumers from tariff groups G and C (households and small businesses) was applicable – they could switch suppliers free of charge only twice every 12 months.

In 2007 procedures concerning approval of the President of the ERO regarding new grid codes for distribution networks were initiated. Until the end of the year the first instruction was approved – the procedure of the supplier switch was shortened to 30 days in the case of the first switch and to 14 days in the case of any subsequent changes. Besides, there are no limitations of the number of supplier switches.

Retail prices for electricity

The prices of electricity for consumers from Dc group and typical households are specified in the tariffs approved by the President of the ERO applicable in 2007 and 2008. For identified consumers Ig and Ib the prices of electricity in 2007 were adopted in accordance with the tariffs approved for 14 distribution companies applicable in 2007, while in 2008 the prices result from the data included in the Energy Market Agency Quarterly Bulletin for the first quarter of 2008.

Table 3.2.2g. Level of retail prices for electricity and their structure

Group* [euro/MWh]	I _g		Dynam- ics [in %]	I _b		Dynam- ics [in %]	D _c		Dynam- ics [in %]	Typical household*****		Dynam- ics [in %]
	2007	2008*		2007	2008*		2007	2008*		2007	2008*	
Electricity price**	37,05	48,55	31,04	38,46	49,97	29,93	40,56	54,65	34,74	40,18	54,53	35,71
Grid charges***	17,69	15,38	-13,06	70,66	75,72	7,16	48,43	48,73	0,62	53,46	62,69	17,27
Taxes****	12,04	14,06	16,78	24,01	27,65	15,16	19,58	22,74	16,14	20,60	25,79	25,19
Other payments												
Total price of electric- ity (sum)	66,78	77,99	16,78	133,13	153,34	15,18	108,57	126,12	16,16	114,24	143,01	25,18

Average exchange rate of NBP: in 2007 – 3,7829; in I-V 2008 – 3,5154.

* Group's features in chapter 3.1.3.

** Electricity price = total electricity price – grid charges – taxes – other payments.

*** Grid charges includes: system operators' costs, transmission and distribution costs as well as costs of congestion management – including margin, excluding taxes.

**** VAT, taxes levied at electricity, local taxes.

***** Household is meant as a house consumer with electricity consumption amounting 2003,08 kWh³⁷⁾.

Source: ERO.

The amounts showed in table 3.2.2g result from the appreciation dynamics of the exchange rate of PLN against EUR.

In 2008 the method of determining prices for the final consumers changed. Since 1 January 2008 the tariffs for largest DSO concerning fees for distribution services came into force, since 1 February 2008 the tariffs approved for 12 trade companies were introduced, containing electricity prices only for consumers from G tariff group.

Temporary obligation of the enterprises performing tasks of a supplier ex officio to present tariffs in trade with electricity for the customers qualified to G tariff groups for approval to the President of the ERO³⁸⁾ should be preceded with implementation of activities ensuring safety of electricity supplies and protection of consumers against excessive risk, including the risk of unjustified increase of electricity prices.

Complaints and inquires

Reactions of energy consumers expressed for example through complaints concerning irregularities in continuity and quality of supplied energy or requests for information constitute a reliable source of information concerning the condition of retail market.

In the Energy Regulatory Office there is a position of the Spokesman for Energy and Fuel Consumers, who is responsible for such issues. Moreover, many of them are filed directly to the branch offices of the ERO.

In 2007 593 complaints and 819 inquiries were filed to the Energy Regulatory Office.

Specific numbers concerning the issues resulting from specific reasons are presented in tables 3.2.2h and 3.2.2i.

³⁷⁾ Determined according to the data for 2007 gathered in the statistic report G-10.4k Section 1 row 8, dividing the amount of energy delivered to the consumers in households by the number of households.

³⁸⁾ Under article 10 item 2 of the act dated 4 March 2005 amending the Energy Law and the act – Environment Protection Law and enterprises mentioned in article 9d item 7 point 1 and 2 of the Energy Law.

Table 3.2.2h. Complaints*

Details	Bills	Meter	Disconnections	Misleading advertisement	Commercial practices	Contracts	Switching	Customer services	Other
Number	50	96	50	0	1	44	2	131	219

* Complaint is meant as an every problem/unpleasantness faced by consumer as well as it is referred to reporting it to the supplier, DSO or other entity (in example to the Regulator, Spokesmen for Energy and Fuel Consumers or different body in charge of dispute settlement).

Source: ERO.

Table 3.2.2i. Inquiries*

Details	Bills	Meter	Disconnections	Misleading advertisement	Commercial practices	Contracts	Switching	Customer services	Other
Number	174	212	20	0	0	61	96	27	229

* Offer inquiry – it is a consumers' request headed to the supplier, DSO or other entity (in example to the Regulator, Spokesmen for Energy and Fuel Consumers, different body in charge of dispute settlement or consumers association).

Source: ERO.

3.2.3. Measures to avoid abuses of dominance

For proper functioning of competition in the electricity subsector the key importance includes conditions of activity, both generators and suppliers, preventing monopoly abuse. The accessibility of information belongs to the most important elements influencing the quality of functioning of competitive markets.

Activity of generators:

- Transparency within the scope of publishing information on available generation capacity, period from placing order to execution, and forecasted level of generation capacity and demand for it.

The principles above are realized within the frames of a demand prognosis for capacity and forecasted generation capacity and its availability. The forecast for capacity in the country is prepared within the frames of coordinating planning. Three – and one – year plans are published on the web page of PSE-Operator SA until the end of November of the preceding year. Monthly plans are transferred to the participants of the market until 26th of the preceding month. Daily plans reach by electronic means the participants of the market until 16.00 the day before the realization of supplies of energy. Plans for a concrete day are send to particular participants of the market always after calculation.

- Conditions ruling energy sales – within the scope of carried out tenders for must – run generation and services connected with proper functioning of the electricity system are known by the participants of the market. This conditions are placed on the web page of the TSO, in the grid code. Energy needed for the balancing purposes of the system is bought within the balancing system, administered by the TSO. The mechanism of purchases is based on one-side auction in which the active parts are generators submitting sales offers. Regulation system services and the service of disposition of generating units are bought within the frames of contracts between the

TSO and market participants. The process of contracting of these services is carried out in the form of public tender procedures³⁹⁾.

- The principles of market supervision: division of competences between different bodies of the governmental administration:
 - 1) the President of the Energy Regulatory Office is a basic organ supervising the electricity sub-sector and fuel market. The President of the ERO realizes tasks related to fuel and energy sectors and promotion of competition,
 - 2) the President of the Office for Competition and Consumer Protection who is responsible referring to the energy and fuel markets i.e. regarding the matters of control of abundance of the act on competition and consumer protection by entrepreneurs, analysis of the level of concentration in the national economy, counteracting monopolistic abuse, and also in the matters related to concentration or division of companies and imposing fines in the cases set by law,
 - 3) the Minister of Economy, who is responsible for general elaboration of long-term policy of energy security,
 - 4) the Minister of State Treasury, who is responsible for ownership supervision and ownership transformations in the electricity subsector,
 - 5) the Financial Supervision Commission, which supervises the electricity subsector in two ways. Firstly, it includes supervision over energy companies (companies quoted on the stock exchange): information duties of the companies, prohibition to manipulate with financial instruments and access to confidential information. Secondly, while introducing to trade derivatives of property rights which price depends directly or indirectly on the price of electric power (basic instrument), the supervision includes the duty to provide the Commission with the so called conditions of emission and trade of a given derivative right.

In order to perform supervision rights, an authorized representative of the Commission has the right to enter headquarters and premises of the companies managing stock exchange or exchange clearing house in order to review books, documents and other data carriers. On request of the Commission or its authorized representatives a company managing stock exchange or exchange clearing house shall immediately prepare and deliver copies of documents and other data carriers.

The basic method of performing supervision rights of the President of the ERO is continuous monitoring of the electric power system and market, as well as taking actions included in the provisions of law, for example stating that a specific segment of the market operates on competitive conditions so the regulation limitations towards undertakings decreases⁴⁰⁾. The President of the ERO performs also a research of sales price level for electric power on the competitive market and publishes the results⁴¹⁾.

- Powers of the President of the Office for Competition and Consumer Protection (OCCP) towards the undertakings.

Powers of the President of the OCCP taken towards undertakings in the electricity subsector, (including generators), mean control over observing the provisions of the act on protection of competition and consumers, in particular preventing practices limiting competition which mean agreements limiting competition and abuse of dominating position, as well as merger control.

In 2007 the President of the OCCP did not issue any decision stating that an undertaking engaged in manufacturing electric power performed practices limiting competition.

One anti-monopolist procedure was instituted with regard to a suspicion that a generating company is using its dominating position on the local market of black coal trade. The enterprise was charged for applying excessively high prices of black coal, limiting production and sale of lignite.

The procedure was discontinued because the enterprise did not hold a dominating position.

³⁹⁾ Appropriate procedures in this scope are specified in the Public Procurement Law dated 29 January 2004 (Journal of Laws of 2004, no. 19, item 177 as amended).

⁴⁰⁾ Taking into account the advanced process of implementing mechanisms of the competitive market in the electric power sector and after a complex analysis of the electric power market dated 1 July 2001 the generators were discharged by the President of the ERO from the duty to present tariffs for approval.

⁴¹⁾ Until 31 March of every year the President of the ERO announces in the ERO Bulletin and on its website an average price of electric power sale on the competitive market in the previous calendar year.

Besides, in 2007 an anti-monopolist procedure was instituted in relation with a suspicion of abusing dominating position meaning preventing development of competition on the domestic generation electric power market by:

- applying inconvenient procedures for connecting of wind farms to the electric power grid, which may hinder and unreasonably prolong obtaining conditions of network connection,
- grave infringement of terms for issuing connection conditions specified by the law, as well as specification of the scope of appraisals concerning influence of designed wind farms on the electric power system.

At the same time in 2007 the President of the OCCP considered 10 applications for consent with respect to concentration of undertakings engaged in generation of electric power.

In the case of 8 applications the President of the OCCP expressed consent for concentration of enterprises, on the basis of article 17 or 18 of the act on protection of competition and consumers, because it assumed that the concentration shall not result in significant limitation of competition, in particular by means of establishing or strengthening a dominating position on the market.

With respect to two applications of concentration the President of the OCCP stated that they may significantly influence limitation of competition. In these cases the consent for concentration under article 17 or 18 of the act on protection of competition and consumers was not granted. At the same time these mergers met the requirements of consent under article 19 item 2 or article 20 item 2 of the act, contributing to ensuring power engineering safety in Poland.

The purpose of action transparency of aforementioned bodies of governmental administration is obtained through the competence separation between them. However, it does not exclude the necessity of cooperation about issues referring to electricity subsector. The cooperation with President of the OCCP is based on the exchange of cases according to the scope of competencies of the offices, informing about cases of law abusing practices, exchange of information, knowledge, and participation in joint trainings. Also the cooperation of the President of the ERO with the Minister of Economy is based on the issuing of opinions on draft acts and ordinances, presenting opinions and conclusions regarding the power sector.

- Functioning of virtual power plants and other forms of trading with available generating capacities.

There are no virtual power plants or other virtual forms of trading with generating capacities in Poland.

Activity of traders:

- The principle of transparency and information access level.

This principle is realized by public information, mostly in the Internet. Web pages of traders running activity in energy trade contain mainly information on a given undertaking. A few of them present additional detailed offer (for instance for wholesale and retail customers separately) and offer of a trade operator. Few web pages contain contact forms. Some traders place on their web pages tariff calculators, which facilitate to compare competitive offers by customers.

The web page of the Association of Energy Trade, an organization associating traders, contains actual quotations on the PX market and balancing market, presents historical aspects of a principle of free choice of supplier of energy and show barriers hindering the functioning of free energy market in Poland.

- Structure of contracts (including acceptability with restrictions or clauses regarded financial fines imposed in connection with premature dissolution).

Traders generally present their offers to final customers in individual mood. The prices and other conditions are negotiated with every customer, and they differ according to the length of the period of supplies, deviations and profile of consumption. Some traders offer assistance in negotiations referred to transmission services.

Contracts between traders and their customers are generally short-term contracts, concluded for the period from one day (Spot) to a few days, months, half a year and a year. Generally they are frame contracts, which covers every transaction. There are also contracts for a sale of quantity of energy set in advance. Most of contracts contain a resolution regulating responsibility of parties

for non-fulfilling or improper fulfilling of the conditions of contracts. Some traders apply standard EFET (*European Federation of Energy Traders*) contractual forms.

The definition of payment forms for electricity takes part every time in the contract. Traders usually apply flexible approach in this matter. The settlement is carried out weekly, in decades, fortnightly and monthly. The payments are realized generally by a bank transfer within the term of 14, 21 or thirty days from the date of invoicing.

Every contract contains conditions of dispute resolution. First of all amicable approach is preferred, eventual proceeding before the arbitrary court, and where the matter is within the competencies of the President of the ERO, an application for starting administrative procedure is submitted.

Distribution companies conclude with final customers contracts for distribution services or sales contracts. Mainly complex service contracts are concluded, joining sales and distribution contracts. Customers are invoiced for supplied energy or distribution services according to prices and fees contained in the proper tariff groups in approved tariffs for electricity. Settlements for sold energy and performed distribution services are settled within the settlement periods, which are fixed in the tariffs of separate suppliers.

Protection and promotion of competition

Referring to unbundling of distribution system operators planned for 1 July 2007 and granting on this date the right to switch supplier to the largest group of customers, the President of the ERO, within his competences, conducted works aimed at establishing competitive market relations and releasing energy prices. As a result of these actions the President of the ERO exempted energy enterprises dealing with electricity trade from the obligation to submit tariffs for approval for non households and in the group of households conducted information and education activities aimed at activating this part of demand side on the electric power market. The basis of activeness of a customers is a reliable information about its position on the free energy market, new relations, rights and obligations. On the website of the Office (www.ure.gov.pl) the President of the ERO launched a "Market Opening Manual", which contains basic information concerning liberalization of the market and rights of the customers. Also the Regulator participated in conferences, publishes information about the free energy market in the generally available press and own publications.

Since 1 July 2007 in the headquarter and later in the branches, the ERO employees provide information through special telephone lines – explanations and advices concerning free energy market and problems related with switching of suppliers. The President of the ERO prepared and introduced the program of local workshops popularizing the knowledge about market among ombudsmen's of energy consumers (October 2007). The purpose of meetings held within the framework of the workshops was not only to spread knowledge and information about liberalized energy market, but also to inform about new types of risks referred to possible unfair practices of the suppliers.

4. REGULATION AND PERFORMANCE OF THE NATURAL GAS MARKET

4.1. Problems of regulation [Article 25(1)]

Regulation of the gas sector, taking into consideration aims and applied tools, is similar the regulation of the electricity sector. The gas sector is fully monopolized. In this situation, even after the separation of distribution system operators, there are no conditions for the appearing on the market real competition.

Realization of centralization of retail trade together with maintaining exploration and production activities within the Capital Group PGNiG SA means the *status quo* on the market. This situation will not contribute to improving operation efficiency of the company and its provide to obtaining unreasonable monopolist benefits.

As the gas market is an international one, significantly depending on import, the issues of security of supplies or diversification of gas sources, as well as access to gas storage, became very important in 2007. Additional regulations were introduced in the gas sector – necessity to maintain compulsory stocks of natural gas by enterprises engaged in import of this fuel. In such situation it was impossible to leave from administrative regulation to market mechanisms.

4.1.1. General issues

In 2007, until 1 July about 58 000 of customers were eligible, that means about 72% of market opening. Since July 1st 2007 all households hold the right to switch their suppliers (table 4.1.1a).

Table 4.1.1a. Eligible customers

Period	Criteria of eligibility	Rate of consumption of eligible customers in total consumption [in %]
until 1 July 2007	all non-household customers	71
from 1 July 2007	all customers	100

Source: ERO.

4.1.2. Management and allocation of interconnection capacities and mechanism to deal with congestion

Current allocation of transmission capacity and transmission congestion management of interconnectors is within the scope of responsibility of the OGP Gaz-System SA, securing the integrity of the system and maintenance of exploitation requirements of the transmission network. These aspects of functioning of the transmission grid were precisely defined in the grid code, approved by the President of the ERO, which, together with the draft transmission contracts, the map and catalogue of entry-exit points is published on the website of the operator.

Table 4.1.2a presents information about system congestions in 2007 and the way of counteracting them.

Table 4.1.2a. System congestion management

Place of occurrence	Characteristics of congestion	Way of prevention	Transmission capacity in place of occurrence of congestion
North-west Poland	Lack of capacity margin in transmission system of High-methane gas	In order to increase transmission capacity in north-west Poland transmission system Goleniów-Nowogard-Ploty-Koszalin is developed, with intention to improve the conditions of supplies of High-methane to a gas-mixing facility at Przymorze region. Additionally in order to increase transmission capacity it is planned to build compressor-station Goleniów	7 417 000 m ³ /day
Area of Częstochowa	Lack of capacity margin in transmission system of High-methane	In order to enable to increase supplies in Częstochowa region a pipeline DN 500 Lubliniec-Częstochowa is built	1 399 000 m ³ /day

Source: OGP Gaz-System SA.

The deficit of capacity in the national system results from the lack of necessary investment in the development of the transmission network. As a result, areas touched by network congestion are characterized by significant number of refusals of connections to transmission and distribution networks. Moreover, in the periods of increased demand for gas there are problems with the securing of supplies for customers already connected to the network.

Table 4.1.2b presents information on the transmission capacities of interconnectors of national transmission system managed by the OGP Gaz-System SA.

Table 4.1.2b. Interconnectors with other system operators

Name of the system operator	Country	Place of connection	Total transmission capacity* [in mcm/year]	Reservation of transmission capacities for long term contracts [in mcm/year]	Used transmission capacities [in mcm/year]	Direction of supplies	Kind of nominations**
ONTRAS	Germany	Lasów	1 072,71	1 072,71	779,20	Poland	a)
ONTRAS	Germany	Gubin	17,52	17,40	3,83	Poland	a)
Severomoravske plynarenske	Czech Republic	Branice	1,40	1,34	0,26	Poland	a)
Severomoravske plynarenske	Czech Republic	Głuchołazy	105,12	30,56	0,02	Poland	a)
Ukrtransgaz	Ukraine	Drozdowicze	5 589,60	5 359,54	3 930,05	Poland	a)
Bieltransgaz	Byelorussia	Tierowka	188,24	188,24	60,35	Poland	a)
Bieltransgaz	Byelorussia	Wysokoje	5 475,00	5 047,96	1 876,75	Poland	a)
EuRoPol GAZ SA	Poland	Włocławek	3 066,00	2 977,30	1 668,77	Poland	a)
EuRoPol GAZ SA	Poland	Lwówek	2 365,20	2 365,07	989,34	Poland	a)
ONTRAS	Germany	Kamminke	87,60	87,60	39,02	Germany	a)

* Maximal firm transmission capacity, which could be offered by transmission system operator to system users, taking into account integrity of the system and requirements pertaining to maintenance of transmission grid.

** Kind of nomination: Daily/hourly.

Source: OGP Gaz-System SA.

Table 4.1.2b presents that on all entries to the national transmission system the share of transmission capacity reserved for a long period of time amounts to nearly 100% in the majority of points. The only reserve of transmission capacity occurs at the connection with the Czech Republic in Głuchołazy. However, due to physical congestions (undeveloped national transmission system in this area) this point is not utilized. Referring to the fact that incumbent undertaking reserved almost total transmission capacities in 2007 there was no trade on the secondary market. Therefore there are no tariff fee rates prepared for the transmission capacities on the secondary market.

The principles of congestion management are subject to Regulator's approval, in the grid code in parts related to balancing and congestion management. The regulations in the code foresee the application of "use it or lose it" principle in removing congestion by the TSO. Facing network congestion the swap transactions were not applied.

Information concerning transmission capacities at these points, required under the Regulation 1775/2005/EC, are published at the website of the OGP Gaz-System SA.

In 2007, the OGP Gaz-System SA carried out intensive works aimed at the establishment of an information platform on its website. The level of fulfilling the information duties imposed on the TSO was subject to ERGEG's evaluation. It was stated that most of the requirements was properly fulfilled by the operator.

The methodology of nomination of maximal technical flow capacity, according to generally abiding forms, was not a subject of a separate regulatory control. The elements of the evaluation should be realized in the case of the analysis of the reasons of refusals for network connections and justifications of new network investment, however there were no such cases in 2007.

There were no separate conditions for concluding transit contracts in Poland, consistent with Article 3(1) of the Directive 91/296. That is why the SGT EuRoPol Gaz SA company, owner of the Polish section of the "Yamal" pipeline renders transmission services only for PGNiG SA and OOO "Gazprom Export", a company owned by OAO "Gazprom". These entities are legal successors of the company's founders, which concluded together with "Gas Trading" SA and SGT EuRoPol Gaz SA "An agreement concerning the rules of disposing transmission capacities of the transit gas pipelines going through the territory of the Republic of Poland". Under this agreement the above mentioned entities hold transmission capacity of transit gas pipeline taking into consideration the stages of its construction. The contract for gas transit through the territory of Poland is valid until the end of 2019. Therefore in 2007 through the Polish section of this pipeline transported the following amounts of gas:

- OOO "Gazprom Export" – 26,057 BCM,
- PGNiG SA – 2, 657 BCM.

4.1.3. The regulation of the tasks of transmission and distribution companies

Management of gas system in Poland is conducted by one transmission system operator (TSO) and six distribution system operators (DSO).

Since July 1st 2005, the TSO on the whole Polish territory is the Operator of Gas Transmission Pipelines Gaz-System SA⁴²⁾. The length of network used by the TSO at the end of 2007 was 13 877 km and in relation with transferring a part of network assets to DSO since January 1st, 2008 – 9 900 km⁴³⁾.

To be fully independent the TSO must possess its own transmission assets. Currently Gaz-System SA purchases from PGNiG SA specific elements of leased transmission system in stages. Transfer of network assets from PGNiG SA to Gaz-System SA takes place gradually as a result of overtaking a non-cash contribution from the State Treasury – the assets transferred by PGNiG SA

⁴²⁾ The company is entirely owned by the State Treasury. As on 31 December 2007 is held about 43% of the transmission assets. The remaining part of these assets – used by it under operating leasing agreement – belonged to PGNiG SA.

⁴³⁾ In accordance with the document adopted by the Council of Ministers on 20 March 2007 entitled "Policy for gas industry" PGNiG SA was bound to exclude from the leasing agreement the assets proper for distribution system and transfer them to the distribution system operators.

within the material dividend from the income. The assets are also increased as a result of investment activities conducted by the operator⁴⁴⁾.

Moreover, at the end of the first half of 2007 distribution system operators were unbundled from six distribution companies of the Capital Group PGNiG SA. PGNiG SA owns 100% of these companies. The total length of distribution networks at the end of 2007 reached 121 406,44 km.

Network tariffs

The method of tariff approval for gaseous fuels⁴⁵⁾ is based on the examination if a given tariff fulfills the requirements of the Energy Law and secondary legislation, i.e. tariff ordinance and the network connection ordinance. According to the regulation a tariff of a company dealing with transmission or distribution should guarantee:

- covering of justified costs of performed activity, that means costs necessary due to technical and organizational or economic reasons, to carry out a given activity, together with justified return on equity,
- covering of justified costs borne by transmission and distribution systems operators connected with the realization of their duties,
- protection of consumers against unjustified rise of charges.

As the regulation of the Minister of Economy and Labor dated 15 December 2004, valid in 2007, concerning the rules of calculation of tariffs and settlements in trade with gas fuels was not adopted to the provisions of the Energy Law in the form introduced by the amendment dated 4 March 2005, as well as the changes which took place on the Polish gas market in 2007 – PGNiG SA, Gaz-System SA and distribution system operators, applied tariffs approved in March 2006 and corrected in December 2006 in the scope of gas prices – the payment fees were group fees. The only enterprise which applied fees different from group fees was the owner of transit pipeline the SGT EuRoPol GAZ SA⁴⁶⁾.

Types of gathered information

Although the ordinance of the Minister of Economy enabling the President of the ERO to approve tariffs for network operators and PGNiG SA was not issued until October 2007, taking into account:

- a significant increase of trade operation costs planned by PGNiG SA since 1 January 1st 2008, resulting from an increase of imported gas purchase costs caused by an increase of prices for petroleum derivatives, which constitute a basis for determination of import prices, and
- that since January 1st 2008 a significant part of assets managed by Gaz-System was excluded and transferred to distribution system operators, which results in decrease of own costs of transmission operator and increase of these costs on the side of distribution operators.

The President of the ERO, hoping that in the course of the administrative procedure – by means of a fast legislative path – a new tariff ordinance will be issued, specified its expectations within the scope of filed tariff applications. The data required from a network company included the following:

- the length of the network, divided into pressure levels,
- number and capacity of reduction stations,
- value of tangible assets, including network assets,
- value of amortization of network assets,
- the level of investment outlays within the period of tariff validity,
- number of connected customers and the level of connection fees,
- number of customers from each tariff group, quantity of gas transported in order to meet their demands and ordered capacity by them,
- balance of gas,
- quantity of gas purchased for covering balance deficit,

⁴⁴⁾ On 1 January 2008 the own assets constituted about 52% of the total assets used by Gaz-System SA. The operator creates its own image – own logo and website.

⁴⁵⁾ According to article 47 of the Energy Law.

⁴⁶⁾ In 2007 SGT EuRoPol GAZ SA applied distance fees.

- quantity of network losses,
- quantity of own costs by kinds of profiles, divided into specific tariff groups,
- quantity of revenues in particular tariff groups.

Data mentioned above was collected for the last reporting year (that means for a year proceeding the year of tariff setting, for which the report was audited in accordance with the accounting regulations) and referred to quantities planned for the year of the validity of a submitted for approval tariff.

As in 2007 the tariff ordinance was not issued, the procedures for approval of tariffs established by the above mentioned companies were not completed.

The way of evaluation of gathered information

Basic guarantee of reliability of data for a reporting year is a statement about their authenticity, subject to a imprisonment of three years in case of submitting untrue information. The persons, authorized to represent a given company in front of the Regulator are subject to sanctions described above. Independently, it is examined if the financial data presented in a tariff application for a given calendar year do not exceed the quantities from financial reports and are compatible with data presented in monitoring run by the regulatory organ each quarter. It should be mentioned, that financial reports for an undertaking (independently from a kind of activity) are subject to verification by licensed auditors.

The main method of the examination of planned financial data is the comparison with the quantities of the last reporting year, or, in case of doubts, with data referring to previous years. The evaluation of other data, needed for tariff calculation, for instance planned quantity of gas supplied to customers and planned quantities of ordered capacity, is carried out both by comparison with data from the reporting year and tendencies from the past. Moreover, mainly in tariff groups with high number of customers (over 100) trends referring to average quantity of transmitted gas for one customer and average quantity of capacity ordered for one customer are analysed. Additionally the compatibility of balances of gas and planned ordered capacity by gas system operators and traders are compared.

Tools of improvement of efficiency evaluation

Main tools of efficiency estimation are comparisons of unit costs (own costs divided into the quantity of transmitted gas, network length, number of reduction stations and their technical condition), and the share of gas dedicated for losses and balance difference in the total quantity of transmitted gas.

Regulatory period

Due to a lack of executive amendments to the Energy Law, and above mentioned changes on the gas market, the basic regulatory period is still a year.

Network fees

Table 4.1.3a compares average payments for the usage of grids for three customer groups with defined characteristics of consumption. It should be also noted that these fees in 2007, agreed in accordance with the provisions of then valid tariff ordinance, covered the costs of transmitting this gas through networks held by the SGT EuRoPol Gaz SA, while the fees agreed under rates introduced since 25 April 2008, according to the new tariff ordinance (which came into force on 20 February 2008) – do not cover these costs. These costs are covered by fees for gas as goods. It should be also emphasized that the basis of calculation for network fees includes costs of gas storage in own facilities of the companies supplying gas through complex agreements. Network fees for gas customers connected to distribution networks cover the costs of transmitting this gas through transmission network of the TSO.

Table 4.1.3a. Fees for network usage for high-methane gas (netto)

Consumer	Consumption [in GJ/year]	Load factor [in h]	Network fee				
			range	in 2007		from 25 April 2008	
				[in euro]	[in euro/GJ]	[in euro]	[in euro/GJ]
I4-1	418 600	4 000	min	408 645,63	0,98	401 774,66	0,96
			max	518 589,69	1,24	649 180,96	1,55
I1	418,6	–	min	1 206,73	2,88	1 587,45	3,79
			max	1 353,84	3,23	1 848,23	4,42
D3	8,37	–	min	239,75	2,86	310,51	3,71
			max	272,25	3,25	367,55	4,39

Average exchange rates of euro of National Bank of Poland in 2007 – 3,7829 PLN,
in May 2008 – 3,4069 PLN.

Source: ERO.

The fees presented in table 4.1.3b for usage of networks are determined on the basis of fees from the approved of the TSO tariff and fees from DSO tariffs (min and max). In practice they are not applicable in relation to particular customers, because currently the only user of transmission network and distribution networks is PGNiG SA. Besides, distribution network operators concluded only operating agreements with the TSO. It means that incumbent company purchases transmission services for the needs of customers connected to the DSO network, what means that payments for using transmission and distribution network cover justified own costs born by network operators, guaranteeing them a return of invested capital.

Table 4.1.3b. Fees for use of grid (netto)

Customer	Consumption [in GJ/year]	Range	2007		from 25 April 2008	
			[in euro]	[in euro/GJ]	[in euro]	[in euro/GJ]
I4-1	418 600,0					
related to transmission			340 851,41	0,81	351 710,63	0,84
related to distribution		min			184 299,77	0,44
		max			343 491,46	0,82
I1	418,6	min			1 050,07	2,51
		max			1 232,08	2,94
D3	83,7	min			213,80	2,55
		max			271,54	3,24

Average exchange rates of euro of National Bank of Poland in 2007 – 3,7829 PLN,
in May 2008 – 3,4069 PLN.

Source: ERO.

In the tariff of PGNiG SA – approved in March 2006 and valid in 2007 – there were fees for storage services, but they actually referred to the gas storage costs in the storage facilities owned by PGNiG SA for the own customers connected to the transmission network.

It should be emphasized that PGNiG SA did not provide (and does not do it now!) storage services, but only used its own storages in order to fully satisfy the needs connected with increase of peak demand.

An average fee for storage (or *de facto* costs of storage in own facilities) in 2007 reached 10,59 PLN/1000 m³. In the PGNiG SA tariff approved in 2008 there were no fees for storage, because in the opinion of the company its storage capacities enable only its utilization for the company's internal needs. The costs of maintaining such storages – in accordance with valid tariff ordinance – constitute a basis for calculation of network fees.

The role of regulatory body in the process of assessing network functioning effectiveness

Due to fact that, the President of the ERO does not approve methodology of tariff setting, his role is limited to the approval of such revenues, which would guarantee the security of supplies and efficiency improvement, evaluated by an average period of brakes in supplies resulting from breakdowns, decrease of network flow capacity, and the decrease of gas for balancing difference.

It should be noted that the evaluation of the functioning of the network is carried out on the stage of agreeing development plans for following years, in which the President of the ERO analyses justification of planned investment outlays for network development and ensuring security of supplies.

The source of financing are justified tariff revenues. The symptom of the efficiency of gaseous fuel supplies to customers is an average period of breaks in supplies. The tariffs of network companies contain conditions related to the size of discounts for non keeping of quality parameters of supplied break and quality of services. It is worth to mention that the discounts regarded incompliance with quality standards are set in the tariff of an enterprise performing a given complex agreement.

Average period of breaks in the supplies in 2007, per one consumer was calculated on the base of information collected from network companies – table 4.1.3c.

Table 4.1.3c. Interruptions in gas supplies

2007	Breaks		
	Period of time [in min.]	Number of customers	Average time [in min./cust.]
Interruptions	46 707 750,0	89 218	523,8
Planned outages	78 061 416,0	153 083	510,0

Source: ERO.

Balancing

Balancing of the gas system⁴⁷⁾ in 2007 was realized by the OGP Gaz-System SA according to the rules specified in the grid code approved by the President of the ERO on June 21st 2006.

In the grid code, the mechanism of balancing foresees physical balancing based on the accumulation of the transmission system and storage capacity reserved for the TSO for balancing. Due to the market structure which results in the lack of competitive offers, the use of market mechanisms of physical balancing was not foreseen. Settlement balancing is based on the settlement by the TSO subjects which have concluded transmission contracts, regarding the accuracy nomination. Nominations are filed for every physical entry and exit point separately (1 365 entry points and 58 exit points).

The grid code foresees a charge for unbalancing, non-compatibility with the nomination and for non keeping of quality parameters of the transmitted fuel. There are two types of charges for unbalancing: daily unbalancing and incremental unbalancing in monthly period. Unbalancing is agreed individually for each entity, taking into account the total area of transmission system, that is the total amount entered to the system and received from the system by transmission service ordering party in a given day/month. In relation to aggregation of unbalancing in the whole area managed by a transmission system operator, connection of unbalanced items may be considered as combination of partial unbalancing of a given entity. Combination of unbalanced items of different entities is not provided for.

Charges for non-compatibility with the nomination are calculated individually for each entity. They are determined separately for each entry and exit point for a given entity for a relevant gas day. Applied fees are calculated as a quotient of the size of the standard deviation, indicator and reference price of gas (CRG), resulting from the purchase price of gas bought by the TSO.

Besides, there are fees for non keeping of quality parameters of the transmitted fuels. The following parameters are assessed: combustion heat, content of hydrogen sulfide, mercury vapors,

⁴⁷⁾ Balancing is conducted in daily and monthly cycles.

integral sulfur and pressure. Fees for non keeping of quality parameters are specified separately for each entry and exit point and for each period of non-keeping the requirements.

The information about balancing mechanism and fees are presented in table 4.1.3d.

Table 4.1.3d. Balancing – characteristics

Indicator	Description
Period	24 hours
Area	One area – on the level of the transmission grid
Gate closure	12:00 day n-1
The dependence of limits on the size of ordered capacity	The criterion $K_m=15\ 000\ m^3/h$ for the setting of permitted limits of unbalancing as sum of capacity ordered on the entry points. The quantities in brackets for K_m respectively over and under $5\ 000\ m^3/h$. The differentiation of the limits is to protect small and new market participants.
Charges: Daily unbalancing	Unbalancing in the gas 24 hours. It is a difference between the quantity designated for transmission and received from the transmission system within one single gas 24 hours. There are two limits of permitted unbalancing: Daily Limit of Unbalancing (5% i 15%) Maximal Daily Limit of Unbalancing (15% i 45%). Their values refer to the quantity transmitted on entries in a given day. The service of unbalancing referring to DLN is included in the transmission fee. The transgression of DLN i GDLN respectively is connected with additional fees.
Maximal incremental unbalanced quantity (MNIN)	Incremental unbalancing it a sum of unbalancing in subsequent gas days. The MNIN value is set for (20% / 40%) of daily average in a given gas moth, calculated on the base of monthly quantities for a given month in Yearly Nomination. In the case of transgression in a given month MNIN additional motivate fee is implemented additionally, to secure the stability of the system.
Fee for not keeping daily nominations over limits	Calculated separately for each entry and exit point in the gas of transgression by 10%.
Fees and discounts for not keeping quality parameters of transmitted fuel	Calculated separately for each entry and exit points in the case of not keeping calorific value or other quality parameters.

Source: ERO.

The calculation of fees for daily unbalancing was calculated on the base of unit storage costs of PMG Mogilno, (injection/withdrawal, capacity and storage capacity orders) and costs of balancing gas transmission in the transmission system (with consideration of penal character of fees in the case of balancing outside nominated limits, described in the table).

The method of calculation of fees for incremental unbalancing (monthly) outside the limit and not keeping nomination on the entry or exit point was set on the base of comparing tariffs of TSOs in the EU, and the smallest fees were accepted. The exchange of trade information between the TSO and entities ordering a transmission service takes place according to principles in the transmission contract and the grid code.

In 2006 the system of electronic information exchange was not implemented which – according to the assumptions – is to be based on the document electronic exchange standard EDI, in the version elaborated for the gas sector, EDID@S. Now basic form of information exchange is in writing. In 2007 the TSO, through its website, published information related to offered services and applied conditions, together with technical information about transmission capacity.

Balancing of the transmission services in the TSO network is conducted in four areas referred with types of gas in the network:

- E gas system is balanced as one area and distribution networks of particular distribution system operators are supplied from this network, there are no balance sub-areas in this area of the network,

- Lw gas system is divided into two sub-areas because of no connections between these networks and independent entry points,
- Ls gas system is balanced as one area supplied from one entry point.

Due to division into areas and gas types there is no possibility of pooling unbalancing from one type of gas to another. There were also no offers from other areas and the EU membership countries.

The largest wholesaler on the gas market – PGNiG SA concluded complex contracts with its customers and contract for providing the service of gas fuel transmission (for all its customers) with the OGP Gaz-System SA. Within the framework of this contract it is possible to exchange unbalancing items of particular customers. Currently the grid code does not contain such possibility within the framework of different transmission contracts.

4.1.4. Market model

In the adopted market model there are no differences in determining the regulated revenue constituting a basis for calculation of tariffs for the TSO and transit company. The valid tariff ordinance provides an energy enterprise with a possibility to select two rates: group and distance. Calculation of transmission rates in accordance with the “entry-exit” model will be possible only after change of the ordinance concerning methodology of tariff calculation.

In order to prevent system congestions, the TSO:

- plans and realizes development of transmission system,
- concludes agreements on the services of gas fuel transmission including provisions concerning the method of proceeding in the case of not using the whole reserved capacity,
- uses the transmission system and manages its traffic so that the probability of system congestions is decreased,
- monitors technical and quality parameters of the transmitted gas fuel,
- plans works in the system so that there are no congestions, but if occurrence of congestions in relation to the works conducted is necessary, uses all efforts in order to make the results of congestions caused by planned works as small as possible,
- prepares procedures of operation in the case of a failure in the transmission system,
- introduces additional payments,
- manages a secondary market of transmission capacities.

The secondary market of transmission capacities is supported by the TSO, which through of its website enables exchange of information between shippers holding unused transmission capacities and these interested in their purchase. The platform of information exchange was implemented by the TSO in 2007.

Powers in the transmission system are allocated in accordance with the rule “first come first served” which means allocation of transmission capacities using the order of applications. In order to prevent physical system congestions the operator plans and realized development of the transmission system. Until now there were no legal acts issued, which would specify tools to be used by the operator in order to reliably specify the demand for transmission capacities. The “Open season” procedures and long term planning may be used but they are not enforced by present regulations.

There are also no regulations allowing the possibility of tender organization in the situation when an operator does not want to invest. There are no regulations concerning specific initial criteria conditioning beginning of investments. Such mechanisms as: minimum duration of the contracts, guaranteed return on the investments through tariffs, gas suppliers obligations including “take or pay” clause and deposits may be applicable in individual cases, after arrangements between the operator and the shipper interested in purchasing a transmission service, if their use is not against the provisions of law.

4.1.5. Effective unbundling

Since 2005 the only activity of the TSO⁴⁸⁾ is the function of operator. As an independent company the OGP Gaz-System SA holds separate headquarter, while the National Gas Dispatch Center is located in a separate part of the building occupied by the PGNiG SA.

At the end of June 2007 there was a separation of trade and distribution activities in distribution companies of the capital group PGNiG SA⁴⁹⁾. Since then distribution operators which are totally owned by the PGNiG SA operate only within the scope of gas fuels distribution. The enterprises which are not included by the obligation to separate the operator's function are bound to divide the accounting with respect to different type of operation (article 44 of the Energy Law).

Financial statements of gas enterprises are subject to audit performed by certified auditors. The analyses of financial statements conducted until now prove that the audit was conducted by various entities for various enterprises. Financial statements of the operators containing balance-sheet, income statement and additional information are published in the Polish Monitor B, which is an official journal of the Republic of Poland.

As on December 31st 2007 the number of employees working (calculated into full time) for the TSO reached 1 995. Employment structure change after January 1st 2008 (the number of employees decreased to 1 844) was referred to the DSO overtaking a part of the network assets (increase of the number of employees from 13 455 to 13 606). In other gas companies, which do not have unbundling obligations, the number of employees in distribution activity reached 219.

4.2. Competition issues [Article 25(1)(h)]

4.2.1. Description of the wholesale market⁵⁰⁾

In 2007 total gas consumption in Poland reached 152,3 TWh/year, including 30,8% from national sources with total extraction capacities amounting to 47,2 TWh/year⁵¹⁾. National extraction was supplemented by import supplies amounting to 102 TWh/year. Transit of gas fuel transported by the Polish section of the "Yamal" gas pipeline amounted to 285,8 TWh/year.

Comparing to 2006 total gas consumption decreased by 0,1%, import by 7,4% and national production by 0,02%.

Technical capacities of the Polish gas system are presented in table 4.2.1a.

Table 4.2.1a. Import, export and national production capacities in 2007

Import capacity [in TWh/h]	Import capacity [in TWh/y]	Export capacity [in TWh/h]	Export capacity [in TWh/y]	Available import capacity [in TWh/h]	National production capacity [in TWh/day]
0,023	201,48	0,00011	0,964	0,001218	0,135

Source: ERO based on data OGP Gaz-System SA and PGNiG SA.

In 2007 foreign supplies meant import from Russia, Ukraine and the countries of Central Asia, as well as trade exchange with neighboring countries (Germany and Czech Republic) within the framework of medium term contracts. Supplies from Russia within the framework of long term contract concluded by PGNiG SA and Gazprom Export constituted the largest part of import. In 2007 6 219,2 mcm of gas was purchased on the basis of this contract, which constitutes nearly 67% of the total gas import into the territory of Poland. The total amount of supplies realized under medium term contracts amounted to 3 067,4 mcm which constituted 33% of the total gas import into the territory of Poland.

⁴⁸⁾ The TSO uses also its own logo, website – www.gaz-system.pl. The employees have their own e-mail addresses with the name of the company.

⁴⁹⁾ Distribution System Operators belonging to the capital group PGNiG SA use the same logo as their parent company engaged in excavation and trade with gas (PGNiG SA). Each of the companies has its own Internet site and the employees have their own e-mail addresser with the name of the enterprise.

⁵⁰⁾ Defined as place of transaction conclusion by market participants different from the final customers.

⁵¹⁾ About 98% of the exploration activity is realized by PGNiG SA.

Structure of gas supplies in 2007 is presented on fig. 4.2.1a.

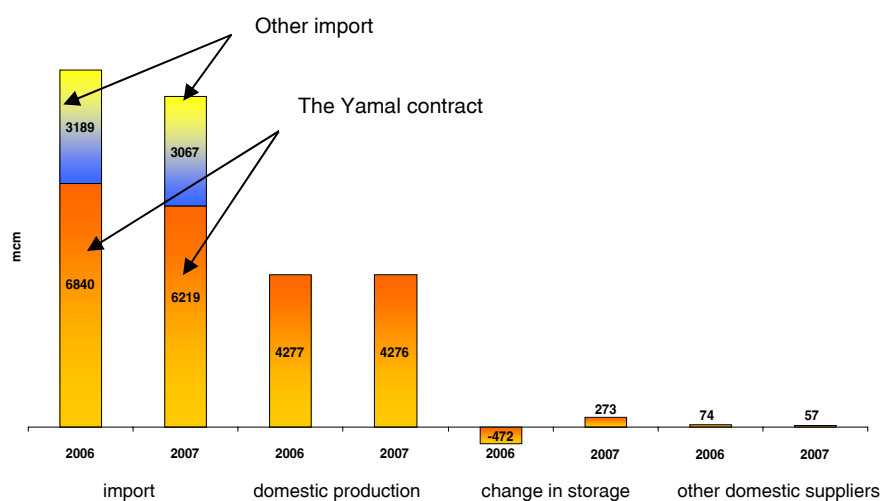


Fig. 4.2.1a. The sources of natural gas in Poland 2006-2007 (Source: ERO based on data PGNiG SA)

100% of underground gas storage capacity is held by PGNiG SA (table 4.2.1b). Within the framework of bilateral contract the company provides 50 mcm to OGP Gaz-System SA in relation to the transmission system operator function performed by this company. The remaining capacity is used for internal purposes of the enterprise.

Table 4.2.1b. Underground gas storages

	Storage name	Type	Working capacity [in mcm]	Deliverability [in mcm]	Level of gas injected to storages [in mcm]	Level of gas on 31.12.2007 [in mcm]
1	Wierzchowice	depleted natural gas field	575,00	542,10	500,72	374,99
2	Brzeźnica	depleted natural gas field	65,00	76,87	47,31	32,44
3	Strachocina	depleted natural gas field	150,00	153,91	101,51	80,24
4	Swarzów	depleted natural gas field	90,00	65,23	37,01	53,76
5	Husów	depleted natural gas field	400,00	416,94	327,58	284,53
6	Mogilno	salt cavern	380,17	260,38	229,02	340,18
	Total		1 660,17	1 515,42	1 243,15	1 166,14

Source: PGNiG SA.

The Polish gas market – for the last few years – is characterized by high level of concentration. The participation of active independent market participants – 12 enterprises holding licenses for gas trade – is low and does not exceed 2% (table 4.2.1c).

Table 4.2.1c. Numbers and market shares of the largest enterprises in 2007

No of companies >= 5% available gas	Share of three largest com- panies by available gas [in %]	Share of three largest whole- salers [in %]	No of foreign com- panies active on the market (including EU and outside EU)	Share of foreign com- panies (including EU and outside EU) [in %]
1	100	97,4	12	1,34

Source: ERO.

Trade of gas is realized only within the contracts with fixed-price formulas. Transactions are usually identical with physical flows of gas in the system. There is no gas exchange or trade in gas hubs. Besides, low amounts of LNG are sold – about 21 500 m³, while storage capacities amount to about 180 tons.

The total transmission capacities of three connections with the German operator amount only to 1 177,83 mcm. The whole reservation of nominations at “entry” points is held by PGNiG SA. Import transmission capacities were used in 63,68%, which means that there are possibilities of gas import by new market participants outside the capital group PGNiG SA.

Regional cooperation of OGP Gaz-System SA takes place on the basis of concluded operator arrangements, that is between the Ukrainian “Ukrtransgaz”, German Ontras-VNG Gastransport GmbH and Byelorussian “Bieltransgaz”

In 2007 there were no mergers or takeovers in the Polish gas sector.

Wholesale tariffs

The wholesale market of natural gas, because of its structure composed of practically one supplier, cannot be considered a competitive market, so the prices are shaped by tariff decisions of the President of the Energy Regulatory Office⁵²⁾. The national monopolist within the scope of extraction, import and trade with gas, that is PGNiG SA, in 2007 applied a tariff approved in March 2006 and corrected from the point of view of gas fuel prices from 1 January 2007 by 9,9%.

Increase of high-methane natural gas price (gross calorific value 39,5 MJ/m³)⁵³⁾ resulted only from an increase – in relation to the prices used as basis for calculation of tariff applicable from 31 December 2006 – of import prices of this gas and the necessity of including costs resulting from the obligation to maintain a storages reserve of 3% of imported gas, which costs were not included in the tariff calculation until now. Increase of import prices was mainly caused by change of price formulas, which serve as a base for settlement of gas coming from the “Yamal” contract and the so called “spot” purchases. Increase of prices for nitrated gas (gross calorific value 32,8 and 28,9 MJ/m³) coming from local sources resulted from the necessity to maintain good relations between heat unit obtained from combustion of these gases and heat unit obtained from combustion of high-methane gas. Such method of price determination balances the interests of customers supplied with gas coming only from cheap local sources with interests of customers supplied with gas from local sources and from import, at the same time results in lower increase of high-methane gas prices than the one which would be connected with increase of its purchase costs and the necessity to maintain storage reserve.

The remaining elements constituting the average price for supply from transmission network of gas fuel, that is including the payments for services of: transmission, storage, odoring did not change. Therefore average prices of high-methane natural gas in 2007 in relation to average prices from 31 December 2006 increased from 8,0 to 8,8% (the fastest increase concerned the largest customers that is nitrogen plants and large power plants, for which payments for gas as goods are much higher than for transmission services. Increase of nitrated gas resulted in an increase of average supplies from 7,5 to 8,8%.

⁵²⁾ The tariffs approved by the President of the ERO specify only prices for gas fuels, which are delivered to the customers through transmission or distribution network. The fuels sold directly from the sources or delivered by means of direct gas pipeline are specified in the agreements between the parties. It is provided for in the Energy Law.

⁵³⁾ The prices of a given type of natural gas (high-methane) with GCV 39,5 MJ/m³ and two types of nitrated gas with GCV 32 and 28,8 MJ/m³ for all customers receiving this gas from the transmission network (not only wholesalers) are identical.

4.2.2. Description of retail market

The dominant position in the sector still belongs to the Polish Oil and Gas Company Capital Group (GK PGNiG SA), consisting of Polish Oil and Gas Company and six regional distribution operators which are responsible for distributing gas to households, industrial and wholesale customers, and also in the range of exploitation, repairing and development of distribution system.

As a result of legal unbundling of gas distribution from trade operation since 1 July, gas companies were transformed into DSO and trade activity was integrated in PGNiG SA.

In 2007 the most numerous group of customers was the group of individual customers (households) – 99,6% of the customers of PGNiG SA. Their share in the volume of sales reached 26,3%. The highest share in the sale of natural gas belonged to industrial customers (61,5%), the major were nitrogen plants, refinery and petrochemical companies. Moreover, PGNiG SA sells gas to the OGP Gaz-System SA and to distribution system operators of PGNiG SA – for internal and system balancing needs. In 2007 technological demand (losses and own consumption) of the OGP Gaz-System SA and distribution system operators of the capital group PGNiG SA reached 264,77 mcm.

Table 4.2.2a. Volume and structure of sales to final customers

Details	Sale total		Including:			
	Volume [in TWh]	[in %]	Sales directly from the transmission system or deposits		Sales by daughter companies of the PGNiG SA	
			volume [in TWh]	[in %]	volume [in TWh]	[in %]
Total Capital Group PGNiG SA (1-6)	147,06	98,66	103,11	69,17	43,95	29,49
1. Industry, including:	91,74	61,55	75,65	50,75	16,09	10,79
Nitrogen plants	26,06	17,48	26,06	17,48	0,00	0,00
CHPs	10,99	7,37	10,77	7,22	0,22	0,15
Heat stations	2,59	1,74	1,32	0,89	1,27	0,85
Other small customers (consumption up to 10 970 000 kWh/y)	8,92	5,98	4,28	2,87	4,63	3,11
Mid-size customers (consumption above 10 970 000 kWh/y to 274 250 000 kWh/y)	20,09	13,48	12,79	8,58	7,29	4,89
Large Customers (consumption above 274 250 000 kWh/y)	23,10	15,50	20,43	13,71	2,67	1,79
2. Trade and services	14,12	9,48	6,52	4,37	7,60	5,10
Small customers (consumption up to 10 970 000 kWh/y)	12,59	8,45	5,68	3,81	6,92	4,64
Mid-size customers (consumption above 10 970 000 kWh/y to 274 250 000 kWh/y)	1,53	1,03	0,84	0,57	0,69	0,46
Large Customers (consumption above 274 250 000 kWh/y)	0,00	0,00	0,00	0,00	0,00	0,00
3. Households	39,30	26,37	19,33	12,97	19,97	13,40
4. OGP Gaz-System	0,75	0,50	0,75	0,50	0,00	0,00
5. DSO	0,85	0,57	0,85	0,57	0,00	0,00
6. Other customers	0,29	0,19	0,00	0,00	0,29	0,19
Other companies sale	2,00	1,34	-	-	-	-

Source: ERO.

Besides the Capital Group of the PGNiG SA, there are only small local gas companies active on the market engaged in selling the natural gas purchased from PGNiG SA to final customers, through their own and local distribution networks.

These entities are local monopolies inside own networks managed by themselves, combining distribution and trade operation. The largest enterprises here are among others: ENESTA SA, G.EN. Gaz Energia SA, Media Odra Warta Sp. z o.o., KRI SA and EWE energia Sp. z o.o.

Table 4.2.2b. Share in retail market

Year	Number of independent traders **	Number of companies with marketshare 5% or more in the retail market of eligible customers **	Total of biggest supplied to:			
			Gas power stations [in %]	Large industrial enterprises [in %]	Medium customers Industrial and commercial [in %]	Small enterprises and households [in %]
2007	76***	1	100	100	100	100
2008*	72***	1	100	100	100	100

* Most actual data.

** Final retail market divided into eligible and not eligible customers, and the shares were calculated on the base of consumption by eligible customers.

*** Number of issued licenses for trade in gas, besides licenses for companies belonging to the GK PGNiG SA.

Source: ERO.

Retail market in Poland is strongly concentrated. Integration of retail trade and at the same maintaining searching and extraction activity within PGNiG SA means maintaining the *status quo* and the monopolist obtaining unreasonable benefits. This is why it is difficult to speak about the possibilities of switching.

Table 4.2.2c. Switching supplier

Year	Number of customers who switched [%]								The share of renegotiated contracts** [in %]
	According to measurement points				According to energy consumption				
	Gas power stations	Big industrial enterprises	Medium industrial and commercial	Small enterprises and households	Gas power station	Big industrial enterprises	Medium industrial and commercial	Small enterprises and households	
2007	0	0	0	0	0	0	0	0	0
2008*	0	0	0	0	0	0	0	0	0

* The most actual data.

** Renegotiation of a contract means the change of conditions of a contract with hitherto supplier.

Source: ERO.

Retail tariffs

A single change of prices for gas fuels on the retail market took place on the 1 January 2007. Similarly as in the case of transmission rates, the distribution rates also remained on the same level. Therefore the increase of average prices for supplies of natural gas for customers connected to the distribution network varied from 4,0% to 8,8%. The smallest change of prices referred to the tariff groups for households.

Table 4.2.2d. Structure of average unitary fees for supply of high-methane natural gas [in euro/GJ]

	Range	I4-1		I1		D3		Typical household	
		2007	2008 *	2007	2008 *	2007	2008*	2007	2008*
Price for gas***	min	5,21	6,68	5,37	6,96	5,54	7,15	6,31	7,99
	max	5,29	6,68	5,56	6,96	5,76	7,15	6,48	7,99
Network fees****	min	0,98	0,96	2,88	3,79	2,87	3,71	3,30	4,53
	max	1,24	1,55	3,23	4,41	3,25	4,39	3,77	5,02
Taxes*****	min	1,36	1,68	1,82	2,36	1,85	2,39	2,12	2,75
	max	1,44	1,81	1,93	2,50	1,98	2,54	2,26	2,86
Other fees*****	-	-	-	-	-	-	-	-	-
Total price	min	7,55	9,32	10,07	13,11	10,26	13,25	11,73	15,27
	max	7,97	10,04	10,73	13,87	10,99	14,08	12,51	15,87

Calorific value	2007	39,5000
	2008*	39,5000
Storage fees*****	2007	0,0700
	2008	-
Average exchange rate of the NBP	2007	3,7829
	2008*	3,4069

* Binding since 25 April 2008.

** Customer groups are defined as follows:

I4 = yearly consumption 418,6 TJ,

I1 = yearly consumption 0,4186 TJ,

D3 = yearly consumption 83,7 GJ.

Typical household = gas supplies (m³) for households divided into the number of households in 2007.

Typical household (defined according to the definition) used up 548 m³ high-methane natural gas, so their annual consumption reached 21,646 GJ.

*** Cost of gas = total price – network fees – taxes – other charges.

**** Network fees contain costs of measurement, do not contain taxes, public and legal charges.

***** VAT, gas taxes, local taxes.

***** Public and legal charges, obligatory non taxation charges paid by customers or suppliers.

***** Average value for the country (total cost of used storages in the country divided into total consumption).

Source: ERO.

Gas prices presented in table 4.2.2d originate from regulated tariffs. In 2007 the supplies to 31 006 customers were cut due to non payments.

Complaints and inquires

Complaints and inquiries from gas customers presented in tables 4.2.2e-f are directed to the Spokesman for Fuels and Energy Customers included in the structure of the Energy Regulatory Office or to regional branches of the ERO. The problems of gas customers are considered in the same way as of the electricity consumers. The mode is described in detail in chapter 3.2.2.

Specific numbers of cases caused by various reasons are presented in tables 4.2.2e-f.

Table 4.2.2e. Complaints

Details	Bills	Meter	Dis-connections	Mis-leading advertisement	Com-mercial practices	Con-tract terms	Switch-ing	Cus-tomer service	Other
Number	29	3	7	0	0	9	0	7	996

Source: ERO.

Table 4.2.2f. Inquiries

Details	Bills	Meter	Dis-connections	Mis-leading advertisement	Commercial practices	Contract terms	Switching	Customer service	Other
Number	100	4	0	0	0	14	2	17	29

Source: ERO.

In the lists of cases special attention should be paid to a large number of cases in the item "Other". A large number of refusals to connect to gas networks takes place in the areas without sufficiently developed distribution networks. The item "Invoices" includes cases concerning correctness of issued invoices, applied rates and prices, applicable tariff regulations. The item "Customer service" includes cases concerning bad customer service and non keeping the quality parameters of the supplied gas.

4.2.3. Measures to avoid abuses of dominance

Current situation on the Polish gas market is a result of a practically untouched dominant position of the PGNiG SA and the condition of gas infrastructure which requires changes: not only significant development of the network changing the outflows of gas, but mainly installation of proper measuring facilities in the whole system. High concentration of supply on the local gas market results also from limited access to other gas sources than PGNiG SA for the customers. Therefore the conditions, which would limit the position of the PGNiG SA on the market are very important.

Production companies and importers:

- Principles of transparency within the scope of publishing information concerning available production capacities, period from placing order to execution, and forecasted level of production capacities and demand for it.

The PGNiG SA is a public company quoted on the Warsaw Stock Exchange. This fact means some information obligations under the provisions of the laws regulating the financial market, that is obligation to publish periodical statements (quarterly, half-year and annual) including report on the companies' activity and financial data. Besides, PGNiG SA is also obliged to immediately publish its current reports which should include production information.

Supervision over performance of information obligations by all public companies is held by the Polish Financial Supervision Authority.

- Availability of gas for non incumbents, new entrants and access to SWAP transactions.

Due to the fact that about 98% of extraction operation is performed by PGNiG SA, the assumed rules of tariff calculation for gas fuels (weighted average of imported gas purchase costs and costs of domestic extraction), character of import agreements, which PGNiG SA concluded with Gazprom – availability of gas for new undertakings or new entities on the wholesale market is significantly limited. SWAP transactions are also not used in practice.

- The principles of market supervision: division of competences between different bodies of the government administration:
 1. The President of the ERO is a basic organ supervising the energy and fuel market. The President of the ERO realizes tasks related to fuel and energy sectors and promotion of competition.
 2. The President of the Office for Competition and Consumer Protection, who is responsible referring to the energy and fuel markets i.e. regarding the matters of control of abundance of the act on competition and consumer protection by entrepreneurs, analysis of the level of concentration in the national economy, counteracting monopolistic abuse, and also in the matters related to concentration or division of companies, and imposing fines in the cases set by law.

3. The Minister of Economy, who is responsible for general elaboration of long-term state energy policy of energy security.
4. The Minister of State Treasury, responsible for ownership supervision and ownership transformation in the gas sector.

Divisibility of competences between the government administration bodies listed above serves transparency of the operation of particular bodies. However, it does not exclude the necessity of cooperation about issues referring to gas sector. The cooperation with the President of the OCCP is based on the exchange of cases according to the scope of competencies of the offices, informing about cases of law abusing practices, exchange of information and knowledge, participation in joint trainings. Similarly, the cooperation of the President of the ERO with the Minister of Economy is based on the issuing of opinions on draft acts and ordinances, suggesting changes in the applicable law, taking into account the need to develop market mechanisms.

Activities of the President of the ERO

The basic method of exercising supervisory competences of the President of the ERO is to constantly monitor functioning of the gas system and gas market and applying the measures provided by the law.

Among administrative and legal activities of the President of the ERO the following were particularly important for development of competition in 2007:

- appointing distribution network operators which ended the process of legal unbundling of network and distribution operation from trade and liquidated one of the barriers in applying the TPA rule,
- beginning the process of changing the Grid codes of the TSO, initiating introduction of mechanisms beneficial from the point of view of market development, more information in this scope is included in the part devoted to grid code.

In the areas not regulated by the administrative law the President of the ERO in 2007 many times suggested a change of the regulation for the benefit of competition development in the gas industry and presented positive aspects of competition development. There were some claims concerning the areas considered by the President of the ERO to be especially important for the development of competition, that is:

- appointing transmission, distribution and storage system operators, introducing obligatory operating function and sanctions, introducing rights for the President of the ERO to appoint operators in the situation when a relevant entity did not file an application, possibility to charge a fine in such situation,
- taking actions in order to establish a market of gas storage services, separation of storage operation and appointing storage operator,
- the necessity to issue regulation specifying detailed conditions of gas system functioning, official delegation to its issue is included in article 9 item 1 of the Energy Law, specification of all mechanisms deciding about the gas market functioning model in this regulation,
- the necessity to implement the solutions resulting from the Regulation 1775/2005/EC, in particular balancing of the transmission system in energy units,
- necessity to ensure conditions for supplier switching for all customers, which are entitled to switch their suppliers since 1 July 2007,
- a need to change the storage act, in order to eliminate the solutions negatively influencing development of competition and possibility to develop the gas infrastructure, including cross-border connections; implementation of the storage act presented problems connected with availability of storage capacity connected with the undertakings' access to the local gas market.

The actions falling within the scope of competition promotion in the gas industry require significant improvement. Among others the project financed by the transition means of the European Union realized by the President of the ERO entitled "Implementation of the competitive energy market" serves this purpose. It covers among others completion of activities connected with opening of the gas market which took place on 1 July 2007. Within the planned component the following developments are to be realized, which should result increased number of entities taking advantage of the possibility to select gas fuel supplier:

- assessment of criteria, instructions and rules of realization of the program liberalizing the gas market,
- economic analysis of potential diversification options for gas supplies, including assessment of feasibility of building a liquefied natural gas (LNG) terminal,
- analysis of initial conditions removing the obligation of approving tariffs in gas trade,
- analysis of possibilities to implement virtual trade with gas in the Polish gas system,
- analysis of possibilities for competition to exist on the gas sale market,
- preparation of methodology of non-balancing settlement for small customers,
- preparation of measurement and data transmission standards supporting effective switch of the suppliers,
- estimation of supplier switch costs which will be born by the distribution system operators,
- Analysis of competition on the gas trade market.

The works on preparing tender documentation for all components lasted until the end of 2007.

Actions of the President of the OCCP

In 2007 the President of the OCCP conducted one proceeding concerning practices limiting competition. The decision ending this procedure stated that the abuse of dominating position on the local market of transmission, distribution and trade with gas fuels was deemed to be a practice limiting competition. This practice meant that the enterprise established difficult conditions for its customers who wanted to assert their rights by means of applying a procedure settling the complaint for correct work of gas meter, which stated that the consumers have to pay a deposit in the amount of measurement control costs before performing the control. At the same time the decision stated that the undertaking abandoned the practice.

No decision concerning concentration with participation of undertakings operating on the natural gas market was issued.

In the accounting period there were 8 explanatory proceedings conducted, which referred to enterprises from the gas sector, including 4 concerning infringement of the collective interests of consumers. None of these proceedings provided a basis for instituting an anti-monopolist proceeding.

* * * * *

Poland has no experience in implementing the “gas release program from the long term contracts”. The President of the ERO and the President of the OCCP do not hold the rights to issue an administrative decision and charge this measure on any energy enterprise.

Supplies of gas fuel (including long term contracts charged with restrictions or clauses concerning fines)

The present structure of the Polish gas market determines also the types of contracts concluded by PGNiG SA with its final customers. Therefore the so called “complex agreements” are dominating, which include provisions of sales contract, rendering transmission and distribution services and the services of storage. They include among others the obligations of suppliers and customers of gas fuel, methods of settlement and mode of filing financial complaints.

For small customers the conditions of contracts are a standard. Only contracts with large customers of gas contain provisions after negotiations. All customers, for supplied gas fuel, transmission and distribution services, are settled according to prices and rates proper for tariff groups included in the tariffs approved for gas fuels.

Complex agreements are usually long term contracts with three years termination period.

Conclusions and availability of information

In 2007 there was no significant progress within the scope of liberalization of the gas market. The following factors influenced this situation:

- no executive regulations to the Energy Law within the scope of tariffs and gas system functioning; provisions of such regulations should finally decide about the model of gas market in Poland, their lack negatively influenced the implementation of the competition development solutions in 2007,

- introduction of the act dated 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, which charged the undertakings importing gas from abroad the duty to maintain stocks of gas fuels in storages located within the territory of Poland; in relation to the deficit of storage capacities and lack of access to storage services, charging the importing undertaking with a duty of maintaining gas fuel stocks blocked the possibility of new suppliers entering the market,
- implementation of the restructuring program for the capital group PGNiG SA which in July 2007, together with division of distribution and trade activity for six distribution companies, integrated trade in the capital group; as a result of such actions even the potential possibility of competition between the companies of the capital group PGNiG SA was eliminated; this program was an internal document of the undertaking and was not approved by administrative bodies, therefore the President of the ERO could not comment on it,
- the Council of Ministers adopted the document dated 20 March 2007 “The policy for the natural gas industry” indicating that the first necessary condition for market facilitation of the Polish gas sector is diversification of gas sources in accordance with the previous resolutions of the Council of Ministers; until the moment the decision from these resolutions is executed, which refer to construction of LNG terminal in Poland and supplying gas from other sources to Poland, development of gas storage facilities, establishing interconnectors would be against this policy.

The document “The policy for the natural gas industry” adopted on 20 March 2007 by the government indicated changes in the Polish sector, emphasizing the necessity of gas supplies diversification and therefore prolonging the period of market liberalization.

5. SECURITY OF SUPPLIES

Security of supplies is the main pillar of energy security. This security has been defined in the document “Energy Policy of Poland until 2025”⁵⁴⁾ as the state of economy that enables to cover current and future demand of customers for fuels and energy in a technically and economically justified way while minimizing adverse effects of the energy sector on the environment and living conditions of the society.

The level of energy security depends on many factors. Their significance for balancing demand and supply of energy and fuels depends both on internal factors in a given country and on the situation on international markets. An important element is the diversification of the structure of energy carriers that national energy balance, the level of diversification of sources of supplies, technical state and efficiency of transmission and distribution equipment and installations.

The basic supervision on the security of the supplies of electricity is performed by the Minister of Economy while the President of the ERO monitors the electricity system⁵⁵⁾.

5.1. Electric energy [Article 4]⁵⁶⁾

Characteristics of the market in the context of guarantying security of supplies.

Energy security depends, first of all, on the capability to meet peak demand for energy and capacity, as well as current and future structure of fuel mix in the process of energy generation. Obviously, all these elements are subject to the monitoring of security of energy and gas supplies in its broad sense that is a precondition for undertaking proper regulatory actions.

The situation on the electricity market and development for capacity forecasted by TSO is shown in the table 5.1.a.

Table 5.1a. Peak demand and available disposal generation capacities in 2000-2009

Year	Peak demand [in GW]	Available capacity (disposal) [in GW]
2000	22,29	26,64
2001	22,87	26,32
2002	23,21	26,87
2003	23,29	27,59
2004	23,11	27,98
2005	23,47	27,80
2006	24,64	27,13
2007	24,61	26,90
2008*	25,70	31,12
2009*	26,90	30,88

* Forecast.

Source: PSE-Operator SA.

In accordance with the data of the Ministry of Economy the level of installed generating capacities in the system shall amount to 36 684 MW in 2010 and 38 973 MW in 2015.

The data presented in the table above prove that in 2007 the difference between available disposal generating capacities and the peak demand decreased. This tendency was also visible in the first quarter of 2008. It should be noted that the problems arising in relation with:

- consolidation of entities in power engineering groups,

⁵⁴⁾ “Energy policy for Poland until 2025” – document adopted by the Council of Minister on 4 January 2005.

⁵⁵⁾ According to article 23 item 2 point 20f of the Energy Law.

⁵⁶⁾ This chapter may contain references to the relevant market projections of TSO.

- low level of coal reserves,
 - limitations in allowed emission of CO₂, NO_x, SO_x and dusts,
- in the next few years shall increase lack of manufacture powers available on the market, contributing therefore to a decrease of supply reliability and safety.

In 2007 the following production investments were continued:

- New block for hard coal with 460 MW – Elektrownia Łagisza II. The investment will be realized at TAURON Polska Energia SA by Południowy Koncern Energetyczny SA owned by the enterprise. Trial launching is planned for December 2008 and the unit shall be put to use on 31 March 2009,
- New block for lignite with 833 MW capacity (estimated even 850 MW) – Elektrownia Bełchatów II. The investment will be realized by an enterprise from the capital group PGE SA – BOT Górnictwo i Energetyka SA. The investment was began in 2006. It will be the most modern and largest power plant in Poland. Synchronization of the block with the National Energy System is planned for February 2010.

The first synchronization with power engineering network and receipt tests of the block with power 464 MW in Elektrownia Pątnów II SA took place on 23 November 2007. This investment was performed by strategic investor. The facility is equipped with the most modern installations of atmosphere protection, including wet desulfuring exhaust gases and shall be characterized by high efficiency of energy generation.

In 2007 PSE-Operator SA concluded an agreement with Megawatt Polska Sp. z o.o. on connection to the transmission network of wind farm plants Kukowo-Dargoleza with 240 MW power. Besides, in 2007 TSO specified the conditions for connection to the transmission network for the following generation powers:

- 1) wind farm Osieki with capacity of 42 MW (Elektrownia Wiatrowa Gniewino Sp. z o.o.),
- 2) wind farm Zbiornik Górny with capacity of 48 MW (Elektrownia Wiatrowa Gniewino Sp. z o.o.),
- 3) wind farm Chwiram with capacity of 120 MW (Windpol Sp. z o.o.).

Additionally in 2007, PSE-Operator SA agreed the conditions of connection for generation units from Ośrodek Centralny PMG “Wierzchowice” – steam and gas power plant with underground gas warehouse in Wierzchowice with capacity of 15 MW in the summer and 38 MW in the winter (facility connected to the network of EnergiaPro Koncern Energetyczny SA).

Subsequent agreements referred to the connection of wind farms connected to the network with voltage of 110 kV for the total capacity of 1 751,1 MW.

The investments mentioned above – with the total capacity of 3 958 MW, which constitutes about 14,7% of the disposal powers in 2007 – are insufficient for long term power engineering safety of Poland because of the future exclusions of generation blocks from utilization, which do not meet increasingly strict environment protection regulations and blocks excluded because of their wear and tear. According to the Energy Market Agency SA in the years 2006-2030 generation powers of about 15 000 MW will be excluded due to the above mentioned reasons.

According to the information obtained from TSO in 2007 only turbine set no. 3 with capacity of 32 MW in Elektrociepłownia Czechnica supplied with hard coal was removed from utilization. Besides, on 1 January 2008 two generation, condensation units with capacity of 120 WM each in Elektrociepłownia Konin (supplied with lignite) were removed from utilization.

Electricity generation is based mainly on hard coal and lignite (table 5.1b) and in accordance with the assumptions of the energy policy it shall not change in the next few years.

Table 5.1b. Structure of fuel mix by source in power generation sector in 2007

Fuel	Share in generation [in %]
Hard coal	63,13
lignite	32,63
Natural gas	3,02
Biomass i biogas	1,22

Source: EMA SA.

With respect to new capacities installed in renewable sources it should be noted that in 2007 their level increased by about 42 MW in relation to 2006 (table 5.1.c). The highest increase of new capacities was recorded in wind farms. In 2007 there was no case of removing renewable sources from utilization.

Table 5.1c. Installed capacities in RES

Type of RES	2006	2007	2008*
	Installed capacity [in MW]	Installed capacity [in MW]	Installed capacity [in MW]
Biogas power plants	42,986	45,699	50,12
Biomass power plants	264,790	255,390	257,49
Wind power plants	239,510	287,909	338,74
Water power plants (pumped-storage included)	934,031	934,779	935,12
Total	1 481,317	1 523,777	1 581,475

* Position at the May 30th 2008.

Source: ERO.

Investments in the new network infrastructure

An important element of security of electricity supplies is the flow capacity of the grid and their technical condition. Therefore investments realized by the transmission system operator are very important. Investment activities performed by TSO within the scope of the local transmission network serve two basic purposes: ensuring security of electricity supplies and increasing the freedom in trade with electric power also on the joint market (intersystem connections). TSO makes investment decisions on the basis of regular analyses and technical criteria assessments concerning mainly reliability and quality of suppliers and effectiveness assessment of the planned undertakings.

Investment tasks are included in the development plan for the national transmission network. The development plan draft prepared by TSO for the years 2006-2020 on the basis of the analyses shall be agreed on with the President of the ERO. The costs resulting from investments presented in the agreed plan draft constitute a basis to take them into account as an element of justified costs accepted to the transmission tariff calculation of TSO.

The **investment tasks** included in the development draft plan of PSE-Operator SA for the years 2006-2020 are presented below.

Investments completed in 2007:

- 1) modernization of 220 kV line connecting Łagisza, Halemba and Byczyna stations together with adaptation of one track for work in star connection,
- 2) connection of 220/110 kV Biskupice station to the transmission network,
- 3) modernization of the station 220/110 kV Gdańsk I,
- 4) modernization of the station 220/110 kV Chełm,
- 5) installation of an additional ATR in the station 220/110 kV Wanda (małopolskie province).

Planned and started investments:

- I. Investments aimed at improvement of supply reliability and therefore improving reliability, safety of work and reduction of power losses in the KSP realized in the years 2007-2010:
 - 1) Installation of compensation chokes in the system (completion period: 2008-2010),
 - 2) Installation of third ATR 220/110 kV in the Pabianice station (completion period: 2010),
 - 3) Construction of 400 kV line from Ostrów station to Rogowiec-Trębaczew station, introduction of 400 kV line to Trębaczew station (completion period: 2004-2008),
 - 4) Construction of 400 kV line Pasikowice-Wrocław Południe-Świebodzice using passage of existing line 220 kV Świebodzice-Klecina (completion period: 2006-2011),
 - 5) Construction of switchboard 400 kV in Morzyczan station, introducing 400 kV line Krajnik-Dunowo, installation of ATR 400/220 kV (completion period: 2006-2009),
 - 6) Installation of a second ATR 220/110 kV in Lubocza station (completion period: 2009),
 - 7) Including 220/110 kV station Towarowa in the line 220 kV Miłosna-Mory (completion period: 2010),
 - 8) Construction of two track line 400 kV from Pątnów to Grudziądz with one track working temporarily with voltage 220 kV (completion period: 2008-2015),

- 9) Construction of two track line 400 kV Plewiska-Piła-Krzewina-Dunowo with one track working temporarily with voltage 220 kV, construction of switchboard 400 kV in Piła Krzewina station (completion period: 2009-2015),
 - 10) Construction of 400 kV line Kozienice-Siedlce-Miłosna, construction of 400/110 kV station in Siedlce (completion period: 2007-2015),
 - 11) Construction of line 400 kV Rogowiec-Pabianice-Pątnów, construction of switchboard 400 kV in Pabianice station (completion period: 2007-2015),
 - 12) Construction of 400/110 kV station in Wołomin (completion period: 2009-2015),
 - 13) Construction of line 400 kV Rogowiec-Ołtarzew, construction of switchboard 400 kV in Janów station (completion period: 2009-2015).
- II. Investments in the years 2007-2009 serving among others leading the power from two New blocks in Pątnów and Łagisza power plants:
- 1) Construction of switchboard 400 kV in Pątnów station, installation of ATR 400/220 kV (completion period: 2008),
 - 2) Construction of line 400 kV Kromolice-Pątnów, construction of 400/110 kV station in Kromolice (completion period: 2006-2009),
 - 3) Development and modernization of the Łagisza node together with connection of Łagisza power plant block with 400 kV to KSP (completion period: 2007-2009).
- III. Investments serving among others cooperation with the electric power system in Slovakia and liquidation of barriers for free electric power trade on the internal and international markets – after completion of the investments of Poland – Lithuania convention:
- 1) Construction of switchboard 400 kV in Byczyna station, introduction of line 400 kV Tarnów-Tuczna, installation of ATR 400/220 kV (completion period: 2006-2009) – Slovakia,
 - 2) Construction of two track line 400 kV Ostrołęka-Miłosna and switchboard 400 kV in the Ostrołęka station (completion period: 2007-2015) – Lithuania.
- IV. Investments for the needs of wind farms:
- 1) Installation of the second ATR 400/110 kV in the Słupsk station (completion period: 2010),
 - 2) Construction of station 400/110 kV Dargoleza with ATR 400/110 kV, introduction of line 400 kV Słupsk-Żarnowiec (completion period: 2009-2010),
 - 3) Construction of line 220 kV Glinki-Reclaw-Morzyczyn construction of switchboard 220 kV in Reclaw station (completion period: 2008-2013),
 - 4) Installation of the second ATR 400/110 kV in Dunowo station (completion period: 2010),
 - 5) Installation of ATR 400/110 kV in Krajnik station (completion period: 2010).
- V. Liquidation of barriers for free trade with electric power by means of improving the condition of power supply to the network:
- 1) Installation of 12 additional ATR NN/110 in KSP (completion period: 2007-2010),
 - 2) Construction of station 400/110 kV Skawina (completion period 2007-2015).
- VI. Investments connected with development of intersystem connections:
- 1) Investments connected with exchange of power between Poland and Germany:
 - Installation of phase changers in Krajniki station at the two track line 220 kV Krajnik-Vierraden;
 - Construction of two track line 400 kV Krajnik-Morzyczan with one track temporarily working with voltage 220 kV;
 - Modernization of line system 400 kV Krajnik-Morzyczan-Dunowo;
 - Switching two track line Krajnik-Vierraden into 400 kV;
 - Installation of phase changers in the Krajniki station at the two track line 400 kV Krajnik-Vierraden;
 - Construction of switchboard 400 kV in Baczyna station;
 - Construction of two track line 400 kV Krajnik-Baczyna with one track temporarily working with voltage 220 kV;
 - Introduction of line 400 kV Krajnik-Plewiska to the Baczyna station;
 - Construction of two track line 400 kV (with one suspended track) Baczyna-Piła Krzewina;
 - Construction of two track line 400 kV Baczyna-border of Poland;
 - Construction of two track line 400 kV Żydowo-Gdańsk Błonia with one track temporarily working with voltage 220 kV,
 - 2) Investments connected with Exchange of power between Poland and Slovakia:
 - Introduction of the existing line 400 kV Tuczna-Rzeszów to Byczyna station;

- Modernization of line 400 kV Łagisza-Tuczna and both tracks of the line 400 kV Tuczna-Byczyna;
 - Modernization of line 220 kV Moszczenica-Wielopole, Podborze-Moszczenia;
 - Construction of two track intersystem line 400 kV Byczyna-Varin,
- 3) Investments connected with exchange of power between Poland and Ukraine:
- Construction of direct current insert 2 x 600 MW Rzeszów station;
 - Modernization of line 750 kV Rzeszów-Chmielnicka,
- 4) Investments connected with exchange of power between Poland and Lithuania:
- I. PL variant:
Development of transmission network in the north-eastern region of Poland – local needs:
- Construction of power station 400/110 kV Stanisławów on the route of the line 400 kV Miłosna-Narew;
 - Development of switchboard 400 kV in Narew station;
 - Development of Ostrołęka station by switchboard 400 kV;
 - Development of one track line 400 kV Narew-Ostrołęka;
 - Construction of two track line 400 kV Stanisławów-Ostrołęka;
- II. PL-LT variant:
Development of transmission network in the north-eastern region of Poland – connection Poland – Lithuania:
- Development of Elk station by switchboard 400 kV;
 - Construction of power station 400/110 kV located between the stations Ostrołęka-Narew;
 - Construction of two track line 400 kV from Elk station to a new station;
 - Construction of two track crossborder line 400 kV from Elk station to the boarder of Poland (towards Alytus station, Lithuania) and converter station.

Supervision over energy security

Supervision over the security of electricity supplies and over functioning of the national energy systems in the scope specified in Energy Act is one of the tasks of the Minister of Economy. The President of the ERO shall monitor the power system functioning within the scope of security of electricity supplies. The President of the ERO performs its tasks among others on the basis of information prepared and forwarded by the transmission system operator, including medium and long term assessments of the safety of National Power System work. On the basis of the information concerning security of electric power supplies the Minister of Economy prepares energy policy for the state, aimed at ensuring energy safety of the country, increase of competition and its effectiveness, as well as environment protection.

The role of regulatory bodies in the process of investment and support of new capacities construction

The President of the ERO grants licenses (licenses promises) for generation of energy, which contains an obligation to inform about a change of the scope and conditions of the operation, which as a result requires a change of the license.

The present legislation provides for application of support system only in the case of a possibility of generation capacities deficit in Poland. In accordance with article 16a of Energy Act, if the minister in charge for the cases of managing the possibilities of insufficiency in the scope of satisfying a long term demand for electric power, the President of the ERO announces, organizes and manages tenders for construction of new generation capacities. The types of economic and financial tools, enabling construction of new generation powers shall be specified in separate regulations. The following items are listed in the act as the criteria of bids assessment for construction of new generation capacities⁵⁷⁾:

⁵⁷⁾ A regulation of the Minister of Economy concerning tender for construction of new generation capacities or for realization of energy efficiency undertakings, is currently under preparation. It should contain specific regulations in this scope.

- Energy Policy of the state,
- Security of the power system,
- Requirements concerning health and environment protection and public security,
- Energy and economic effectiveness of the undertaking,
- Location of new generation capacities for electricity,
- Types of fuels designated for use in the new generation capacities of electricity.

Currently, there are no formalized mechanisms supporting construction of new generation capacities in Poland, which would support making investment decisions. An exception here is preferential rules of connecting renewable energy sources and CHP plants, which means 50% participation in investment outlays by DSO or TSO. Other generators incur expenses calculated on the basis of 100% outlays. In order to realize the investments an energy enterprise has to obtain necessary permissions connected with construction of a generation unit, and in the case of large generation units – perform an assessment of such generation plant influence on the natural environment. Besides, it is necessary to obtain a license for generation of electric power, often preceded by a license promise.

Cooperation with third countries

In 2007 crossborder exchange with third countries were performed only on interconnections with Ukraine and amounted to 631 GWh. This amount refers to import of electricity and includes also supplies by the line 110 kV Zamość – Dobrotwór. Interconnections with third countries are not accessible for market participants under market rules, the amount of import from third countries constituted about 0,4% of the total local gross consumption of electricity. In relation with low electricity import from third countries it has small social and environmental consequences.

5.2. Gas [Article 5] and 2004/67/EC [Article 5]

Forecasts for gas consumption

In 2007 the share of natural gas in the balance of primary fuels in Poland constituted about 13% of the total energy consumption, which remains below the European Union average which amounts to about 25%. However, it is forecasted that the role of natural gas in the Polish energy balance is going to increase together with economic development of the country. Increase of natural gas consumption as an alternative energy source for coal is considered to be an important element of the plan assumed by Poland aimed at meeting the obligations under the European Union regulations concerning energy sources use and protection of the natural environment.

In accordance with the document prepared by the Energy Market Agency entitled “Update of long term forecasts for demand for fuels and energy and determination of the level of energy demands of the economy until 2030 – basic variant” the assumed annual increase of demand amounts to 1,92% in the years 2006-2010, 1,55% in the years 2011-2015 and 1,16% in the years 2016-2020. As a result it is assumed that the demand for natural gas in the next years shall reach the amounts presented in table 5.2a.

Table 5.2a. Forecast for gas consumption in Poland in years 2008-2017

Unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
BCM	14,45	14,73	15,01	15,24	15,48	15,72	15,96	16,21	16,40	16,59
Mtoe	13,63	13,89	14,16	14,38	14,60	14,83	15,06	15,29	15,47	15,65

Natural gas – high-methane gas or nitrated gas calculated to high-methane gas on calorific value 39,5 MJ/m³.
nm³ (normal cubic meter) – unit of natural gas (15°C).

Source: EMA SA.

The anticipated increase of gas fuels transmission in the transmission system until the end of 2010 will be covered only by supplies from the existing input points to the local system. In 2011 there will be an increase of transmission capacities of the existing point in Lasów. Launching of new entry points to the gas system is connected with construction of the LNG terminal and the undersea gas pipeline "Baltic Pipe" (2012-2013).

Balancing of the gas fuels in the system and gas outflows

Because of an irregularity of demand for gas characteristic for the gas system, resulting mainly from the variability of balance and share of gas used for heating purposes, it is necessary to apply regulation measures enabling to meet the demand for gas in every period. In the Polish gas system the most effective are: underground gas storage in Mogilno and linepack of the system. Application of other regulation measures is less effective and leads to an increase of costs for utilization of the whole system.

Gas from domestic sources and from import is generally supplied regularly during the whole year, which results in surplus of gas in the spring and summer periods. This gas is transported to the underground gas storages and serves as an additional source for the peak demand in the autumn and winter period.

Because of rather high temperatures in the autumn and winter period of 2006/2007 there was no increased demand for gas fuel and there were no cases of interrupting the supplies and difficulties in supplying the gas to the customers. On the 1 January 2007 all underground storages of gas had a maximum capacity and daily power of supplies at their disposal. Only at the end of January there was a period of lower temperatures and therefore the demand for gas increased. The peak demand for gas occurred on 24 February 2007 and amounted to 54,2 mcm/day.

Prospects for increasing domestic extraction

The update forecast of PGNiG SA assumes the maintenance of national extraction on the level of 4,5 bcm in 2008. In 2007 the management of the natural gas deposit in Jasionka (stage I) was finished and the deposits Jasionka I Stobierna-Terliczka were connected by a transmission gas pipeline. Extraction of high-methane gas from this deposit reached 150 mcm. The end of investment is planned for 2009 together with management of Jasionka I deposit (stage II). In 2009 it is forecasted that the deposits Cierpisz, Luchów, Wola Różaniecka, Kaleje and Sędziszów will be exploited. A very important investment task is to manage natural gas deposits Lubiatów-Miedzychód-Grotów until 2012. Besides, until 2009 it is planned to finish the management of deposits Rudka, Sarzyna, Jeżowa, Zalesie and Pantalowice, for which investment documentation or construction and assembly works are presently prepared.

Investments increasing security of supplies

The Capital Group PGNiG SA is planning to increase until 2012 their storage capacity by 1,15 bcm, reaching 2,81 bcm. One of the elements of this plan is to increase the capacity of the only gas storage in Poland, placed in salt caverns in Mogilno. After the construction of two more caverns the active capacity of the Mogilno storage will increase by approximately 100 mcm (in normal conditions). Besides, the enterprise is planning to construct two underground storages of nitrated gas in Daszewo and Bonikowo. Therefore it will allow to optimize supplies in the system of nitrated gas and to cover increased demand for nitrated gas in these regions.

The decision by the Capital Group PGNiG SA taken in December 2006 on the construction of an LNG terminal at the Polish sea coast in the area of Świnoujście will increase the energy security of the country via diversification of gas supplies. According to the assumptions made by the company the initial capacity of the terminal will reach 2,5 bcm per year and depending on the demand the annual capacity shall be increased up to 5,0 bcm. The target reloading capacity of the terminal shall amount to 7,5 bcm. The first supplies of LNG are planned for 2012.

Currently there are two investment projects of PGNiG SA in planning and financial modelling phase: "Skanled" project which contains construction of gas pipeline from the gas terminal in Kar-

sto (Norway) to Sweden and Denmark and a related project "Baltic Pipe" which means construction of gas pipeline connecting Danish and Polish gas systems. The gas pipeline shall be put to use at the beginning of 2013 with a possibility to transmission 3 bcm of gas per year.

A completion of these infrastructure projects was finishing in 2007 the purchase process for 15% of shares in three concession areas for Skarv and Snadd deposits at the Norwegian continental shelf. The size of these deposits – together with Idun deposit – is approximately 37,9 bcm of natural gas.

Investments in progress and planned – gas pipelines of the Polish transmission system

The majority of projects is included in the document "The Operational Program Infrastructure and Environment – National Coherence 2007-2013"⁵⁸⁾. The connections will facilitate the termination of congestion and, in the future, will facilitate the transmission of gas from the planned import LNG terminal. The co-financing of the investments is to be provided from the EU funds.

The grid investments are as follows:

- 1) accomplishment of the gas pipeline Włocławek-Gdynia (finished until 2010/2011),
- 2) the gas pipeline Szczecin-Gdańsk (the construction of northern pipeline – finished until 2011),
- 3) the gas pipeline KPMG Mogilno-Odolanów (finished until 2011/2014),
- 4) the gas pipeline Gustorzyn-Rembelszczyzna (finished until 2011/2020),
- 5) the gas pipeline Szczecin-Lwówek (node in Goleniów – finished until 2012/2014),
- 6) the gas pipeline Świnoujście-Szczecin (finished until 2011).

Standards security of supplies

In accordance with the act on natural gas inventory and the principles of proceeding in circumstances of a threat for security of supply⁵⁹⁾ trade enterprises and importers are obliged to maintain stock of gas fuels within the territory of Poland in the amount equal to 30 days of natural gas transport in the period of 12 months counted from 1 April of the previous year until 31 March of a given year. The amount of stocks is reviewed by the President of the ERO on the basis of transport forecast for the nearest year. Besides, these enterprises are obliged to prepare relevant procedures in the case of threat for continuity of supplies and early notification of TSO.

There are three phases of operation in the case of serious threat for supply continuity:

- First stage – reactions of companies trading with natural gas with abroad, entities transporting natural gas to Poland and gas system operators,
- Second stage – if the means of the first stage are insufficient, the membership countries should take measures aimed at decreasing the effects of such irregularities. The competence of a minister in charge for launching of compulsory stocks and applying to the Council of Ministers for introducing limitations in the consumption of natural gas which may be launched together or in sequences shall also serve this purpose. The types of entities included in the limitations of natural gas consumption have also been determined. The criterion here is the amount of conventional power, therefore the possibility of including households, small and medium companies in the limitation is excluded,
- Third stage – European Community measures.

The act specifies rules and mode for launching of compulsory stocks of natural gas, tasks of the enterprises in this scope and the principles of settlements. It also introduces reporting obligations concerning notification of the administrative bodies about the level of maintained compulsory stocks of natural gas and the rights to conduct control and verification of the stocks.

In the opinion of the President of the ERO introduction of the obligation to maintain compulsory stocks omitted the issue of storage capacity deficit in the national gas system in relation to the

⁵⁸⁾ Document approved by the Government on November 29th, 2006 – Operational Program Infrastructure and Environment for 2007-2013, which according to the National Strategic Reference Frames for 2007-2013, is one of the operational programs used for the absorption of the Coherence Fund and the European Fund of Regional Development.

⁵⁹⁾ The act 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 – dated 16 February 2007 (Journal of Laws of 2007 r. no. 53, item 343).

needs enforced by the act. Also the possibility of releasing from the duty to maintain compulsory stocks in the case of beginning operation in the scope of gas transport is not included. An enterprise already operating may apply for such release but it has to meet two requirements: the number of its customers cannot exceed 100 000 and the annual sale of natural gas cannot exceed 50 mcm.

Such legal solution negatively influences the possibility of beginning and developing operation in the scope of gas trade and therefore development of competition. In 2007 the President of the ERO informed the Minister of Economy about the implications and presented a suggestion of amendments for the act.

Storage capacities

Storage capacities currently held by PGNiG SA enable ensuring natural gas reserves for short interruptions in supplies and for balancing a seasonable irregularities in the consumption. However, in order to fully satisfy the needs connected with untypical increase of peak demand it is necessary to develop storage capacities. Technical possibilities of the functioning storages are presented in table 5.2b.

Table 5.2b. Storage capacities

Storage points							
	Wierz- chowice	Brzeźnica	Stracho- cina	Swarzędów	Husów	Mogilno	All
Level of storage capacity [in mcm]	575,000	65,000	150,000	90,000	400,000	380,170	1 660,170
Level of working gas on 01.10.2007 [in mcm]	575,000	65,000	149,987	90,000	400,001	380,170	1 660,158
Level of working gas on 28.02.2008 [in mcm]	203,050	7,838	46,512	13,694	158,396	298,331	727,821
Level of withdrawal capacity [in mcm per day]	4,8 – 0,42	0,84 – 0,22	1,24 – 0,76	1,0 – 0,3	5,76 – 0,8	20,64 – 1,0	

Source: PGNiG SA.

The scope of long term contracts

At the moment PGNiG SA imports gas within the frames of agreements and contracts mentioned below, i.e. long-term import contract from Russia and three medium-term contracts for supplies – from Germany and Central Asia:

- many-year contract for supplies of Russian gas with OOO “Gazprom Eksport” dated September 25th 1996, and valid until December 31st 2022. In 2007 the annual contract amount of gas according to GOST was 7 810 mcm (7 273,5 mcm according to PN),
- agreement for gas import with VNG-Verbundnetz Gas AG, dated August 17th 2006 and valid until October 1st 2016. During the first two years the supplies will reach 500 mcm per year, in the period from October 1st 2008 until October 1st 2016 the level of supplies will reach 400 mcm per year,
- contract signed with ROSUKRENERGO AG for the import of Central Asia. The supplies began from January 1st 2007, reaching 2,5 bcm (according to GOST) and will be continued until January 1st 2010 with possible prolongation for the next 3 years.

Besides, within the framework of supplies for the region of Hrubieszów, PGNiG SA imports gas on the basis of a long-term contract dated October 26th 2004 with NAK “Naftogaz Ukraine” valid until 2020. In 2007 the annual contract amount according to GOST was up to 9,00 mcm (8,3 mcm according to PN).

Incentives to make new investments

National regulations include a relevant set of actions (incentives) for new investments. The Energy Law contains a mechanism enabling the President of the ERO to discharge enterprises from

the obligation to provide services on the basis of TPA and present tariffs for approval. The discharge refers to services rendered on the basis of new infrastructure and is granted after meeting the requirements listed in the act.

The definition of incentive to make new investments includes also co-financing using support schemes from the European Union. By the decision dated 7 December 2007 the European Commission approved the Operating Program Infrastructure and Environment for the years 2007-2013. The EU measures engaged in performance of this program amount to nearly 28 billion EUR. There will be 15 priorities realized within the program. Two of them refer to the gas sector: priority IX – Energy infrastructure friendly for the environment and energy efficiency – 1 403,0 million EUR and priority X – Energy security, including diversification of energy sources – 1 693,2 million EUR.

A different mechanism is included in the act on natural gas stocks maintenance, which enables to cover reasonable costs within the framework of construction, development or modernization of gas fuels storages together with a justified return on capital engaged in such activity in the amount not lower than return rate at the level of 6%.

However, in the opinion of the President of the ERO the scale of difficulties in completion of new investments exceeds the number of incentives. The existing barriers increase the costs – in the end transferred to the final receivers – prolong the duration of investments or may lead to their abandonment.

An example here may be the method of calculating real-estate tax. It is charged on the initial value of investment and not the level of its utilization. As a result the investors have to pay significant amounts, regardless of the amounts of gas transported by a given network section. There are also some hindrances in the act on public roads. There are high fees for placing technical infrastructure elements in the grounds and for using a road lane for the duration of construction. There is also a prohibition of locating construction facilities in road lanes, as well as placing equipment not connected with road management and traffic requirements. Consent of the road management is granted in specially justified cases. There are also some hindrances in the investment process itself, related to many location procedures for one investment in the case of constructing transmission line going through a few regions and municipalities.

The President of the ERO constantly undertakes actions aimed at gradual elimination of the barriers mentioned above, among others by informing administrative bodies responsible for specific areas.

National regulations on the so called “new infrastructure”

Energy undertakings dealing with transmission, distribution and storage of gaseous fuels are obliged to offer to all customers (since July 1st 2007 also to household customers) or to the companies dealing with trade in gas, according to the principle of equal treatment, provision of transmission, distribution and storage services. However, the regulations allow, under special circumstances, for obtaining a release from the duty. According to article 4i of the Energy Law, the President of the ERO, can, on the justified request of an energy enterprise, release a given company from the obligation to perform services within the defined scope and to submit tariffs for his approval in case the services are provided with the use of “new infrastructure”, i.e. elements of the gas system or gas installations the construction of which was not finished until August 4th 2003 or started after that day

The President of the ERO can approve the application for release when all conditions listed below are fulfilled:

- new infrastructure enhances competitiveness in the supplies of gaseous fuels or the security of supplies;
- due to the risk connected with the construction of the infrastructure, the construction would never be launched without the release;
- the new infrastructure is/will be the property of an independent entity, which is, at least in the legal aspect, independent from the TSO of the gas system in which the infrastructure was/will be built;
- the users of the new infrastructure are charged with the fees for the usage of infrastructure;
- the release will not worsen the conditions of competition and efficiency of the functioning of the gaseous fuels’ sector or the gas system, in which the new infrastructure was/will be built.

The President of the ERO⁶⁰⁾ grants licenses for the gas storage economic activity in storage installations and appoints⁶¹⁾, on the request of the owner of a gas storage installation, a gas storage system operator. An energy undertaking, dealing with storage of gaseous fuels, is obliged⁶²⁾, according to article 4c of the Energy Law, to guarantee for customers, on the principle of equal treatment, performance of gaseous fuels storage services in storage installations. However the assumptions of the Energy Law (Article 4h pos. 1 of the Energy Law) foresee the situation in which an energy company dealing with natural gas storage can be released from a duty to perform such service or temporarily limitation of performing this service can be applied. Such a decision can be taken by the President of the ERO on the justified application of an energy undertaking interested in it, after conducting a separate proceeding, described in article 4h pos. 2-8 of the Energy Law. On February 1st 2006 the President of the ERO issued a decision about the granting to PGNiG SA a license for storage of gaseous fuels, but the company did not submit to the President of the ERO the application for the appointment of the operator of the system of storage of gaseous fuels.

Conclusions

The picture of situation in the gas sector proves that the level of security of supplies can be characterized as “satisfactory”.

Analysis of the financial standing of gas companies proved that there was an increase of revenues. In the case of transmission and sale the financial results improved in comparison to the previous years. In the case of distribution the financial results decreased because of changing the accounting rules. In the opinion of the Regulator the economic situation of this sector enables the possibility of financing planned investments. Some actions aimed at obtaining the EU support schemes for the investments were also noted.

A very significant role in the security of the gas supplies is played by transmission, distribution and storage infrastructure. In 2007 the efficiency of this system was not questioned, however it must be taken into consideration that further improvement of the transmission system functioning should be supported by completion of a number of investments aimed at liquidation of system congestions, in particular in the north western regions of Poland. Besides, the actions aimed at the increasing of storage capacities are necessary.

⁶⁰⁾ According to article 32 item 1 point 2 of the Energy Law.

⁶¹⁾ According to article 9h of the Energy Law.

⁶²⁾ According to article 4c of the Energy Law.

6. PUBLIC SERVICE ISSUES [ARTICLE 3(9) FOR ELECTRICITY AND ARTICLE 3(6) FOR GAS]

Public services include public goods with respect which should be accessible for everybody. These are goods which should have expected quality – regardless of the number of consumers, (every new consumer does not abuse the rights of other customers).

Performing public services – legal status

The issues connected with public service obligations and consumer protection (i.e. guarantee of security of supplies, regularity, quality and price of supplies, as well as raw materials, respecting environmental protection and improvement of effectiveness for the enterprises) were regulated both in the Energy Law⁶³⁾ and, additionally, in the regulations referring to consumer protection⁶⁴⁾.

The Minister of Economy, the President of the ERO, and, to a certain extent, the President of antimonopoly body monitor proper execution and obedience of regulations mentioned above.

Realization of duties referring to public service obligations – chosen aspects

Perfect management of public services requires the increase of common accessibility and better quality of services. Common accessibility and the improvement of quality is the result of many actions undertaken by the President of the ERO. Significant meaning can be attributed to i.e. regulations imposing transparency of activity of energy undertakings, and individual interventions related to concrete companies, caused by complaints and interventions of customers:

- Certification of primary sources of electric energy.

All renewable sources of energy are obliged to possess a license for electricity generation (independently from the size of installed capacity). The credibility of energy origin from a renewable source is confirmed by the President of the ERO, by issued certificates of origin of electricity. The system of issuing and revoking of certificates of origin is based on regulations contained in the Energy Law and has been functioning since the beginning of 2005 (articles 9a and 9e of the Energy Law).

The system of certificates of origin is a regulation which facilitates marking of energy from renewable sources with the division into the following technologies of generation:

- 1) From hydro and wind power stations;
- 2) From sources using biogas and biomass;
- 3) From solar photovoltaic cells;
- 4) From co-firing of solid fuels and biomass or biogas.

⁶³⁾ Implementation of requirements in this scope to the Polish legal system (also the criteria of Annex A to directives 2003/54/EC and 2003/55/EC) took place in 2005 by the Act dated 4 March 2005 amending the Energy Law and Environment Protection Law (Journal of Laws of 2006 no. 62, item 552). In the State Report of the President of the ERO of 2005 it is presented in detail. The report was published in *The State of competition on electricity market and gas market: benchmarking reports of the European Commission*, the President of the Energy Regulatory Office – Regulator's Library, Warsaw, January 2006.

⁶⁴⁾ On 21 April 2007 the act of 16 February 2007 on protection of competition and consumers came into force (Journal of Laws of 2007 no. 50 item 331 as amended), which replaces the act with the same name dated 15 December 2000. Mutual relations of the provisions of the Energy Law and the act on protection of competition and consumers were not changed. Provisions of the act, because of their general character and therefore a classification in the system of legal acts as *lex generalis*, are applicable only in the scope of protection of a receiver in a given situation which cannot be realized by means of applying specific sector regulations, that is the provisions of the Energy Law and executive provisions to it – for example such situation occurs in accordance with the judgments of the Highest Court among others in the case of energy enterprises using illegal contract provisions in the already concluded agreements (monopolist practices) which are prevented by the President of the OCCP of the antimonopoly body by means of its resolutions.

In the national energy system licensing of renewable energy sources and certificates of energy origin from renewable sources are equivalent of „green certificates” and unequivocally identify the origin of energy both for own consumption of generators and transmitted into the national electricity system.

The certificates of origin are issued by the President of the ERO on the motion of a generator (license holder) confirmed by the operator of the electricity system within the scope the quantity of energy generated in a given period⁶⁵⁾.

- Criteria of Annex A of directives/54/EC and 2003/55/EC.

Most of criteria placed in the Annexes were implemented as legislative solutions. However detailed form of these solutions creates the situation, when effective implementation by energy undertakings will be possible after the implementation of proper regulations to the secondary legislation related to the Energy Law

In 2006 legislative works on proper ordinances were carried out, aimed at introducing more detailed description of obligations of energy companies versus consumers, within the scope of public service obligations (article 9 of the Energy Law). The President of the ERO actively participated in these works. As a result among others the regulation of the Minister of Economy dated 15 January 2007 was adopted concerning detailed conditions for functioning of heating systems (Journal of Laws of 2007 no. 16 item 92)⁶⁶⁾ and the regulation dated 4 May 2007 on detailed conditions for functioning of electric power system (Journal of Laws of 2007 no. 93 item 623 as amended)⁶⁷⁾. The indicated legal acts precisely define such issues as qualitative parameters of electricity and heat carriers, qualitative standards of customer service and the method of handling complaints, specify the types of allowed breaks in supply of electricity, announcing the ratios concerning breaks in delivery of electricity or heat, periods of such breaks and dates for informing the customers, receiving complaints from customers concerning delivery of electricity from the network, granting discounts in the amounts specified in the tariff for not keeping the quality requirements of electricity, control of proper functioning of settlement and measurement systems.

- Situation of vulnerable customers.

These matters are not regulated in the Polish Energy Law, the regulations of the EL do not contain the definition of „vulnerable customers” (including economically weak customers). Besides general rules, regarding social assistance, there are no detailed regulations regarding tariff mechanisms. There is no doubt that this matter must be resolved, due to high number of disconnections caused by non – payments. The situation in 2007 improved comparing to previous years however it should be noted that this problem is a subject of intensive works started by the President of the ERO in 2008. These works will be certainly continued by means of adequate legislative changes. It should be also noted that there is a working group operating under the Regulation no. 01/08 of the President of the Steering Team for the implementation of “Program for electric power sector” dated 15 February 2008. Its major purpose is preparation of legal acts providing economically weak customers with a relevant level of protection on the electricity market, as well as equipping the President of the ERO with proper regulative tools on such market⁶⁸⁾ – this group will be engaged in preparing changes to the Energy Law, drawing up justifications for draft regulations and assessing results of such regulations.

⁶⁵⁾ For the needs of issuing of certificates of origins, data referring to the quantity of energy covered by the certificates of origin, measured on the line terminals of generators (photovoltaic cell, fuel cell) or nominated according to a special algorithm (precedure of settlement) in the case of electricity coming from co – firing of fossil fuels with biomass or biogas.

⁶⁶⁾ This regulation came into force on 16 February 2007.

⁶⁷⁾ This regulation came into force on 16 June 2007, except § 23, which came into force on 1 January 2008.

⁶⁸⁾ This regulation was issued on the basis of § 6 item 2 of the Regulation no. 55 of the President of the Council of Ministers dated 13 April 2006 concerning the Steering Team for completion of the “Program for electric power sector”.

Number of disconnections

Table 6a. Number of disconnections

Year	Electricity		
	number of disconnections	number of total customers	[in %]
2004	236 012	15 661 600	1,5
2005	239 289	15 761 619	1,5
2006	190 936	15 817 289	1,2
2007	165 984	16 064 750	1,0

Source: ERO.

Prices of energy for final customers

In 2007 there were two methods of setting prices for final customers:

- 1) regulated tariffs, approved by the President of the ERO for 14 distribution companies. Approved tariffs consisted of energy trade prices and charges for supplies in the distribution part,
- 2) energy prices offered on the competitive market to eligible consumers who executed the TPA rights. These customers were authorized „to return” to regulated tariffs in the trade part of the purchase of energy.

Table 6b. Sale prices of energy in distribution companies for tariff customers

Details	2007		
	Average sales price Including: payment for electricity transmission fee		
	[in euro/MWh]		
Consumers total	74,24	38,96	35,25
including: high voltage consumers (groups A)	53,57	36,83	16,75
Medium voltage consumers (groups B)	62,08	37,45	24,63
Low voltage consumers (groups C)	89,63	39,42	50,21
Consumers groups G	90,22	41,86	48,36
incl: households and farms	90,28	41,82	48,46

Prices for 2007 calculated according to average yearly exchange rate for 2007, announced by the National Bank of Poland: 1 euro = 3,7829 zł.

Source: EMA SA.

After July 1st 2007 all customers have the right of choice of a supplier. Those who will not use this right will be authorized to use last resort supplier.

In 2008 the method of setting prices for the final customers was changed. Since January 1st 2008 the tariffs for 14 distribution system operators comprised only of distribution fee, and since February 1st 2008 approved tariffs for 12 trade companies were introduced including the prices for electric power for tariff group G consumers.

Average prices for electricity for the final customers in G groups together with distribution group since February 1st 2008 increased in average by 11,6%. This increase in particular companies differs in the scope from 9,2% to 15,1%.

Prices of energy in trade increased in average by 23,1%, ranging from 19,5% to 29,7%. It should be noted that in accordance with § 5 item 3 and 4 of the ordinance of the Minister of Economy dated July 2nd 2007 on specific rules of setting and calculation of tariffs and settlement in trade with electricity (Journal of Laws no. 128 item 895 as amended), since 2008 the subscription rate is assigned to distribution activity, but there is no such rate in the trade company tariffs (until now subscription rate was assigned to trade activity). In relation with the above the assessment of increase of trade costs is a result of comparison of costs resulting from energy prices approved for 2008 and energy prices valid in 2007.

Procedure of verifying and updating price level in relation to market prices

Change of approved prices or fees may be done on request of an enterprise or automatically in case of changing external conditions which means a necessity to increase them. A factor influencing a change of costs may be for example an increase of energy prices on the wholesale market.

Table 6c. Regulation of prices for final customers

Details	Electricity			Natural Gas			
	The biggest customers according to quantity of electricity supply	Small and medium enterprises	Very small enterprises and households	combined heat and power stations and gas fired power stations	The biggest customers	Medium consumers and distribution companies	Very small enterprises and households
Tariff regulation (Y/N)	Y	Y	Y	Y	Y	Y	Y
% of tariff customers	85	100	100	100	100	100	100
Possibility of return to regulated tariffs	Y	Y	Y	Y	Y	Y	Y

Source: ERO.

In the tables below energy prices are shown separately for eligible and non-eligible customers. The evaluation of information value of comparable data in 2005-2007 is problematic due to high volatility of currency exchange rates. Only comparisons between different groups within a given year are valuable.

Table 6d. Sale prices for energy in distribution companies for tariff customers

Details	Year					
	2005			2006		
	Average sales price	including:		Average sales price	including:	
		payment for electricity	transmission fee		payment for electricity	transmission fee
[in euro/MWh]						
Consumers total	67,77	33,07	34,69	71,70	34,53	37,17
including: high voltage consumers (groups A)	48,26	30,05	18,21	51,16	32,06	19,09
Medium voltage consumers (groups B)	56,48	31,26	25,22	59,49	32,78	26,70
Low voltage consumers (groups C)	84,03	34,37	49,65	87,68	35,20	52,49
Consumers group G	79,65	35,85	43,80	85,62	37,42	48,20
Incl: households and farms	79,65	35,80	43,84	85,73	37,48	48,26

Prices for 2005 calculated according to average yearly exchange rate for 2005, announced by the National Bank of Poland: 1 euro = 4,02 zł.

Prices for 2006 calculated according to average yearly exchange rate for 2006, announced by the National Bank of Poland: 1 euro = 3,8951zł.

Source: EMA SA.

Table 6e. Purchase of electricity by TPA customers

Year	Customers characteristics	Quantity of energy bought by TPA customers [in MWh]	Average price of energy for TPA customers [in euro/MWh]	Average price of energy according to the regulated tariffs [in euro/MWh]
2005	high voltage consumers	4 184 775,00	29,61	30,05
2006	high voltage consumers	2 90 3488,00	32,12	35,77
2007	high voltage consumers	3 74 4574,00	36,64	36,83

Prices for 2005 calculated according to average yearly exchange rate for 2005, announced by the National Bank of Poland: 1 euro = 4,02 zł.

Prices for 2006 calculated according to average yearly exchange rate for 2006, announced by the National Bank of Poland: 1 euro = 3,8951 zł.

Prices for 2007 calculated according to average yearly exchange rate for 2007, announced by the National Bank of Poland: 1 euro = 3,7829 zł.

Source: EMA SA.

According to the Energy Law generation of gaseous fuels does not require a license. Since the day of coming into force the amended Energy Law these undertakings are not obliged to submit their tariffs for the regulatory approval, what is directly connected with free market shaping prices of this raw material. In other scope prices of gaseous fuels, subject to regulation, are listed below.

Table 6f. Supply prices of 1m³ of natural gas [euro/m³]

Details		2005	2006	2007
Price – total supplies	Transmission grid*	0,15	0,20	0,23
	Distribution grid**, including:	0,22	0,29	0,33
	Consumers under 10 m ³ /h	0,24	0,32	0,37
	Consumers over 10 m ³ /h	0,20	0,26	0,29
Trade price	Transmission grid*	0,12	0,18	0,21
	Distribution grid**, including:	0,13	0,19	0,23
	Consumers under 10 m ³ /h	0,14	0,21	0,24
	Consumers over 10 m ³ /h	0,12	0,18	0,21
Transmission charge	Transmission grid*	0,02	0,03	0,03
	Distribution grid**, including:	0,09	0,10	0,10
	Consumers under 10 m ³ /h	0,10	0,12	0,13
	Consumers over 10 m ³ /h	0,08	0,08	0,08

* Pressure over 0,5 MPa – according to classification in force since 3 may 2005.

** Pressure not higher than 0,5 MPa.

Net prices for 2005, according to average yearly exchange rate, announced by the National Bank of Poland: 1 euro = 4,02 zł.

Net prices for 2006, according to average yearly exchange rate, announced by the National Bank of Poland: 1 euro = 3,8951 zł.

Net prices for 2007 according to average yearly exchange rate, announced by the National Bank of Poland: 1 euro = 3,7829 zł.

Source: ERO.

Regulator's initiatives aimed at the securing of transparency of supply contracts, with regard to the share of responsibility between the Government, the Regulator and public institutions.

The realization of requirements regarding transparency of energy supply contracts is carried out on the level of:

- legislative actions by the organs of the state empowered with legislative initiative (the Government, Parliament and the President of the State: the President of the ERO participated in the legislative process, however he is not empowered with the right of final shaping the regulations),
- the application of law (specially the President of the ERO, the President of the OCCP, the Court for Protection of Competition and consumers).

Law

The text of agreements for energy supplies and gas are determined by the regulations of the Energy Law and secondary legislation – ordinances. In 2007 the President of the ERO did not take any specific actions connected with the issue of contract transparency. It is mainly caused by the fact that the Polish legislation contains quite high level of protection. Some legal regulations in this regard are contained in the act dated 16 February 2007 on protection of competition and consumers which contains among others a prohibition of using onerous or irregular contract conditions in agreements with third parties, prohibition of making conclusion of agreement dependent on accepting or completing a benefit by a third party having no material or generic relation to the subject of agreement, enforcing onerous contract conditions by enterprises resulting in unreasonable benefits for them, prohibition of direct or indirect contract provisions, including prolonged payment terms or other conditions for sale and purchase of goods. The control over transparency of agreements in this scope is held by the President of the OCCP. Infringement of the above prohibitions may be qualified as abuse of dominating position on the market or as an action limiting competition. General provisions of contract obligations, including contract specimens are also included in the Civil Code (from article 384 to article 396). They regulate the issues of agreements and contract specimens. These regulations contain among others that provisions of agreements with consumers not individually agreed are not binding for the consumers if they shape their rights and obligations against good practice, significantly infringe their interests (illegal contract provisions). This does not refer to provisions specifying major services of the parties if they are formulated unambiguously. The court having jurisdiction for solving disputes in this field is the common court.

Application of Law

The Energy Law did not empowered the President of the ERO with competence tools facilitating direct impact on the text of contracts for energy or gas supplies, for instance by approval of contractual forms or by an obligation of energy undertakings to the implementation of proper regulations to contracts, such as regulations which do not come from the regulations contained in legal acts but resulting from good practices. Consequently the principle in force means that the undertakings are obliged to actions resulting from legal regulations.

In case of disputes (article 8 item 1 of the Energy Law), the President of the ERO can shape contracts between an energy undertaking and a consumer, but always within the frames of the application for the dispute settlement. The obligations of an energy company takes place within the frames of the Energy Law and secondary legislation. The application of so called “good practice” would require the introduction of changes to contracts, exceeding the regulations originating directly from the Energy Law. In 2007 the President of the ERO settled 62 disputes related to energy supplies.

It should be clarified that the criteria of contractual transparency, aimed at granting to customers proper knowledge referring to prices, conditions and service quality or changes of these conditions are realized by the energy undertakings voluntary, or indirectly, by the President of the ERO – by properly shaped tariffs or license conditions⁶⁹⁾.

Moreover, in 2007 there were 23 Communicates and Statements of the President of the ERO published. By publishing its statements the President of the ERO attempted to influence the behavior of entities functioning on the energy market, often initiated required actions or indicated which ones are considered undesired. The statements usually served forwarding information important for all energy market participants. Many of them informed about changes of prices and rates for specific energy carriers. The official website of the Office was in 2007 and remains until now an important tool of communication, where other information connected with regulation of the energy sector in Poland are published. It contributed to the transparency for all actions taken by the President of the ERO and also led to popularization of the knowledge about energy market and its principles among individual customers. It also reflected protection for customers, as regards defending their rights in the process of concluding contracts with energy companies. These actions were appreciated both by large energy companies and individual energy consumers.

On 2 July 2007 the ERO launched a “Call Centre” managed by the employees of the Office. Its main purpose is to provide the customers with professional and reliable information on issues related with process of liberalization of the energy market, and in particular with the problem of switching the supplier.

⁶⁹⁾ The regulation on the need of earlier information about changes of prices by energy undertaking, whose tariffs are subject to the approval by the President of the ERO, are placed in the tariffs of these companies.