

The President of the Energy Regulatory Office

**Annual Report
To the European Commission**

29th July 2005

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1. Foreword

Making the power sector market-oriented started in Poland the 90-ties together with the system transformation from the command economy to the market economy. The sector was decentralized and the independence of the undertakings increased.

The adoption of the Energy Law by the Polish Parliament in 1997 was a crucial step in this process. Also works on the accession to the European Union significantly affected the shape of the market. The accession to the European Union in May 2004 started real integration of the Polish energy market with the Internal Energy Market. The implementation of Directives 2003/54/EC and 2003/55/EC fastened this process and at the same time changed the competencies of the Polish Regulator.

He influences now these areas which functioned until now according to principles established by the strongest market participants. The relations between the energy enterprises and final consumers also have been changed. The implementation of the market directives to the Polish law did not introduce basic changes in the functioning of the market.

The results of these changes will be seen in the longer time horizon. Not all the problems which have appeared since the liberalization could be solved by the President of Energy Regulatory Office.

The responsibilities for the market structure lies not only in the hands of the legislative power or the regulatory bodies but also in the hands of the entities operating on this markets.

This report presents the liberalization of the electric power and gas markets after the implementation of the directives mentioned above. It is simultaneously the eighth year of the realization of this mission.

Abbreviations used in the text

- **AEM** – Agency of the Energy Market
- **Dz. U.** – Dziennik Ustaw
- **ERO** - the Energy Regulatory Office
- **EL** - the Energy Law
- **NEPS** - National Electric Power System
- **PPGC** – Polish Power Grid Company
- **POGC** – Polish Oil and Gas Company
- **The President of ERO** - The President of the Energy Regulatory Office
- **TSO** – Transmission System Operator

2. Summary

A basic legal act, which regulates the functioning of the energy market, competencies and duties of the regulator – the President of the Energy Regulatory Office (the President of ERO) and relations between the regulator, the companies of the sector and customers is the act of 10th of April 1997 – The Energy Law¹ (EL). In May 2004, together with the accession to the European Union, Poland assumed an obligation to apply *aquis communautaire* in the whole range. It meant in the power sector a necessity to adjust the Energy Law to obligatory EU regulations, where two so called “market directives” play an essential role. The works lasted for the whole year 2004 and were finished at the moment of adoption of the “amending” act of March 4th 2005, however the secondary legislation has not been approved so far².

2.1. Basic organisational structure of the regulatory agency

Management - type or council - type structure. The regulator is a one - man position, who fulfils his duties with the assistance of the Energy Regulatory Office, consisting of seven organisational units (departments and bureaus) and 9 regional branches, covering the whole area of the country. The employees of the ERO are mostly members of the Civil Service Corps. The duties related to civil service functioning are fulfilled by the General Director of Energy Regulatory Office.

Dr. Leszek Juchniewicz has been the president of the ERO since June 23rd 1997. He has been fulfilling his duties for the second term

Main statutory duties. The president of ERO realises the duties referring to regulatory matters in the fuel and energy subsectors and promoting competition. His range of competencies and duties includes i.e.:

- carrying out tenders for last resort suppliers and construction of new capacities
- approval of grid codes, with reference to balancing the system and congestion management
- monitoring energy and fuel markets and realisation of the Third Party Access principle
- appointing operators of transmission and distribution systems
- granting and withdrawal of licenses for economic activities in the power sector, including liquid and gaseous fuels
- approval and control of tariffs for electricity, heat and gaseous fuels
- agreeing development plans of network power sector undertakings
- co-operation with appropriate bodies in counteracting competition limiting practices
- resolution of disputes connected with public obligations of power sector undertakings
- control of activities of licensed power sector undertakings
- imposing fines on power undertakings failing to fulfil their legal obligations
- information, promotion and education

Main tools of regulatory activities. (Decisions, dispositions, licenses) The activities of the regulator towards energy undertakings and customers willing to execute their rights are the core of regulatory proceedings, standardised not only by the Energy Law but also by the Civil Code, what guarantees fairness, transparency and equal rights to parties taking part in

¹ The law of April 10th 1997 – The Energy Law (Dz.U. of 2003 No. 153, position 1504, No. 203 pos.1966 of 2004, No. 29 pos. 257, No. 34 pos.293, No.91, pos.875, Nr.96 pos.959 and Nr.173, pos.1808 and 2005, No.62 pos.552.

² The last alteration of the EL, introduced by the law of March 4th, 2005, about the amendment of the act – The Energy Law and the act – The Environmental Protection Law (Dz.U. No 62 pos.552 introduced the regulations of Directive 2003/54/EC referring to common principles of the internal electricity market, lifting Directive 96/92 EC (Official Journal of the EU L 176 of 15th July 2003).

proceedings. Proceedings instituted before the President of the ERO are ended by issuing administrative decisions. They refer to licenses, tariffs, imposing fines, and settlements of disputes. The parts of proceedings can appeal to the Regional Court in Warsaw – The Court for Protection of Competition and Customers.

Another form of regulatory activities is a duty of electric power and gas network undertakings to agree with the President of ERO development plans within the scope of satisfying present and future demand for gaseous fuels, electric energy and heat.

Due to his powers the President of ERO can monitor activities of energy undertakings and developments on the energy markets. The President of ERO is entitled to monitor activities of licensed undertakings, to review ledgers of these undertakings, to require information related to activities performed by them and investment plans. He is also empowered to impose fines in cases of breaking law by licensed companies. The fines can be imposed on a given undertaking or its management.

The President of ERO carries out wide promotional and information campaign referred to regulatory process through periodic publication of The Bulletin of ERO and publications in the Regulatory Library. He also supports the promotion of energy efficiency and training of local spokesmen for energy consumers.

Independence and responsibility. Who does the regulator report to? The President of ERO is a central administrative body of the governmental administration, appointed by the Prime Minister, upon a motion of the Minister of Economy, for a term of five years. He submits a report on his activities to the Minister of Economy every year. He is also obliged, on request of the Minister of Economy, to submit information about his activities. The President of ERO can be dismissed before the end of his term only in the case of serious violation of his duties, a serious illness which would not let him to perform his functions, and perpetration of an offence confirmed by a valid adjudication of a court.

Information about other governmental institutions (national and supranational) exercising regulatory jurisdiction. The Energy Regulatory Authority co-operates with the Office for Protection of Competition and Customers (OPCC), especially at elaborating reports on abusing of dominating position by energy undertakings, and also at proceedings carried out by OPCC, referred to violations of consumer rights by energy undertakings.

2.2. Main developments in the gas and electricity markets

The accession to the European Community resulting in emerging possibilities to act on the Internal Energy Market forces the energy undertakings to cope with international competition by reducing costs and rational prices of energy, first of all, electricity. Modest prices encourage customers to increase consumption, thus growing sales.

The Polish power sector, compared with the old EC member countries is different in system functioning and asset characteristics. First of all the Polish power sector covers wider, then in most EC member countries, area of the economy, besides the electricity and gas subsectors, a significant role is played by district heating. Also the structure of primary fuels and general efficiency of their consumption are different. Poland possesses significant resources of solid fuels, but the resources of hydrocarbon fuels are lower. Despite structural changes in the consumption of primary energy, coal still remains the main carrier of energy in the Polish economy. The domination of coal in the national fuel mix keeps the energy security on a high level. The next issue is the structure of the market which does not meet the requirements of the development of competition. In this context the activities aimed at structural changes of the Polish electricity subsector: progressing consolidation of distribution companies and their vertical integration with generation may distort competition. The situation in the gas subsector is ever further from required – the restructuring of the national monopoly is significantly delayed.

Another barrier for entries of new investors (connections of new sources) is insufficiently developed network infrastructure, especially system interconnectors.

In the year 2004 the works on the introduction of competition into the electricity and gas markets were continued. The main problem was the question of appointing transmission system operators in gas and electricity. The appointment of distribution system operators will also have the same importance. The key issue is to create non-discriminatory access to networks and balancing services, because any limitations of access are the main obstacle for the development of competition.

The next issue which hinders proper functioning of the electricity market is the problem of long term power purchase agreements (LT PPAs)³. A project of an act which would let to liquidate the LT PPAs according to the EC law on public help has been elaborated with the co-operation of the European Commission.

Last year positive tendencies were slowed down: the standing of energy undertakings was worsen, profitability ratio, gross and net, decreased. The main reason was higher costs, which reflect both objective circumstances (past-through costs) and ineffective management. The growth of electricity prices exceeding the inflation indicator arises from growing tax burden. Additional factor which determines the level of prices and fees in the energy undertakings' tariffs was gradual introduction of return on equity engaged in network activities. The growth of gas prices exceeding the inflation level was due to the necessity to cover growing costs of supplies. The most important factor related to this growth was the increase of purchasing costs of high-methane imported gas, brought about by growing import prices, and lately, higher exchange rate of the dollar. Higher increase of gas prices for household consumers than industrial is brought about by the necessity to eliminate cross subsidies between the groups of customers.

2.3. Major issues dealt with by the regulator

Major issues facing the regulator are; implementation and monitoring of the energy market liberalisation process for counteracting negative monopolistic practices thus supporting constant energy security, improvement of economic competitiveness and environmental protection against negative aspects of energy processes. The regulator fulfils his mission by regulating activities of energy undertakings according to the law and energy policy of the state, aiming at balancing of interests of energy undertakings and customers.

3. Regulation and Performance of the Electricity Market

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

The shaping of the electricity market through legal acts is only one of many elements which influence the character and performance of this market. Other activities taken up by different bodies of the state administration (for instance referred to ownership policy directed to undertakings acting on the energy market), processes taking place on the markets of neighbouring member states, the development of infrastructure (trans-border connections, construction of new transmission and distribution capacities) are also significant. All these factors affect the activities of market participants.

Tasks and duties imposed on the President of ERO make him responsible for proper, and pursuant to the provisions of law functioning of the market. The President of ERO is to strive to attain balance between market participants, to prevent abuses, protects the weakest groups of customers and also to have regard to security and quality of supplies.

3.1.1. General

Granting to particular groups of customers the right to choose a supplier is seen as the most important factor of the liberalisation of the market. However the level of execution of this right is a real indicator of the market opening. The activities taken up by the President of ERO such as the review of complaints, settlement of disputes, approving and controlling of transparency of tariffs, influence on the relations between market participants (specially on the rules of balancing), and congestion management, affect possibilities of choosing a supplier. Not all identified barriers in the execution of the TPA principle can be removed by the regulator.

Table 3.1.1. shows subsequent stages of the electricity market opening in Poland. According to the act – The Energy Law, full market opening will take place on July 1st 2007.

Table 3.1.1. Electricity Market Opening

Year	Threshold GWh/year	% Market Open
1995	n.d.	n.d.
1997	n.d.	n.d.
1999	> 100	22
2001	> 40	30
2003	> 10	37
2005	All customers excluding household	80
2007	All customers	100

n.d. – no data

Source: ERO

Theoretically the electricity market was open in 80% in 2004. In practise the share of electric energy sold to eligible customers by distribution companies reached 10% of their total sales³.

³ based on the data supplied by distribution companies

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

The National Electric Power System owns the following system interconnectors (voltage 220 kV):

1. on the northern border
 - 450 kV direct current Poland – Sweden, direction Słupsk – Stomo.
2. on the eastern border
 - a) with Byelorussia
 - 220kV line Białystok – Roś (since July 1st 2004 due to bad technical conditions disconnected, under voltage on the Polish side).
 - b) with Ukraine
 - 220kV line Zamość – Dobrotwór,
 - 750 kV line Rzeszów – Chmielnicka (disconnected).
3. on the southern border:
 - a) with Slovakia
 - two – oath 400 kV line Krosno – Lemesany,
 - b) with the Czech Republic:
 - 220 kV line Bujaków – Liskovec,
 - 220 kV line Kopanina – Liskovec,
 - 400 kV line Wielopole – Nosovice,
 - 400 kV line Wielopole – Albrechtice,
4. on the western border:
 - 400 kV line Mikułowa – Kiesdorf,
 - two – path 220 kV line Krajnik – Vierraden.

Taking into consideration transborder exchange of energy on technical profile including borders with Germany, the Czech Republic and Slovakia⁴, the system congestion is of structural character. The president of ERO initiated a meeting of regulators from the Czech Republic, Germany, Poland and Slovakia which was aimed at a discussion on the implementation of co-ordinated transmission capacity allocation procedures, in the transborder exchange. The meeting took place in Warsaw on October 14th 2004 with the participation of TSO representatives from interested parties. Co-ordinated auctions for transmission capacity were introduced since January 2005 referring to yearly and monthly auctions. (In April 2005 daily auctions – day ahead market, were introduced) From May 1st to December 31st 2004 one – sided auctions with neighbouring TSOs were carried out. Transmission capacity offered on co-ordinated auction for 2005 is shown below. In the intersystem exchange on the technical profile including borders with Germany, the Czech Republic and Slovakia, available transmission capacity (ATC) is decreased by quantities of reserved transmission capacity to perform historical contracts (AAC) which totally can, in certain hours, reach maximally 1102MW.

Table 3.1.2 Transmission capacity for 2005 offered on co-ordinated auction

Direction (Technical Profile)	Transmission capacity offered (import) [MW]	Transmission capacity offered (export) [MW]
CEPS – PSE-O	100	800
CEPS – VE-T	400	1100
PSE-O – (CEPS+VE-T+SEPS)	100	500
VE-T – (CEPS+PSE-O)	800	500
SEPS – PSE-O	450	750

Source: ERO based on data from POGC – Operator and CEPS

In the table below trade balance of electric energy in 2002 – 2004 and real flows of energy between Poland and neighbouring countries is presented.

⁴ The Slovak regulator did not participate in the meeting.

Table 3.1.2a Balance of exchange of electricity [GWh] (2002-2004)

	2002	2003	2004	Dynamics 2003/2002	Dynamics 2004/2003
Balance of exchange	7069	10161	9293	43,7%	-8,5%
Export	9678	13222	12487	36,6%	-5,6%
Import	2609	3061	3194	17,3%	4,3%
Real flows					
Outflow from Poland	11538	15146	14605	31,3%	-3,6%
To:					
The Czech Republic	8442	9490	9156	12,4%	-3,5%
Germany	606	282	450	-53,5%	59,6%
Slovakia	2294	2728	2623	18,9%	-3,8%
Sweden	196	2646	2376	1250%	-10,2%
Inflow to Poland	4469	4985	5312	11,5%	6,6%
From :					
Byelorussia	799	1226	1001	53,4%	-18,4%
The Czech Republic	86	57	80	-33,7%	40,4%
Germany	1871	2761	3156	47,6%	14,3%
Slovakia	1	0	8	*	*
Sweden	1124	11	214	-99,0%	1845,5%
Ukraine	588	931	853	58,3%	-8,4%

Source: The Polish Power Grid Company – Operator S.A.

The balance of electric energy exchange with other countries reached in 2004 9293 GWh, 868 GWh (8,5%) less than in 2003. Slight decrease of export and growth of import resulted mainly from the changes in the situation on the Nordic market, where, after refilling retention water reservoirs prices of energy fell. Following this situation the flow of electric power by undersea direct current cable increased.

In the case of national network congestion a co-ordinating plan is being elaborated and problem of congestion management is being solved by the “counter –trading method” Taking into consideration priority of stability of work of the National Electric Power System and securing proper parameters of the quality of voltage in particular crucial points of the system congestion management is a significant problem and periodically it can touch about 30% of energy transmitted within the system. Referring to identification of system constraints the following procedure covering national and inter – system aspects has been implemented:

Table 3.1.2b Procedure of identification of system congestion

Action	Description
Term of procedure realisation	From 16:30 day <i>n-1</i> to 24:00 day <i>n</i>
Initial Program of the NEPS	Modified within the frames of identification procedure of the state of lines, model NEPS for characteristic hours of day and night with estimator of the state of the DYSTER system
Model modifications	Realised cuts of grid elements, actual departures from work schedules of power stations, updated plan of international exchange
Analytical tools	Outflow programs of the DYSTER system
Results	Propositions of changes of plans of working generation or distribution units or division of load between generation units taking into consideration balancing offers and power stations' constraints

Source: PPGC – Operator S.A.

TSO implemented principles and rules according to the Regulation 1228/2003/2003 and Directive 2003/54/EC. They are contained in the Grid Code and published on the web page of TSO ⁵.

Table 3.1.2c. Implemented solutions in the intersystem exchange

Implemented solutions	Description
Market congestion management mechanism	Co-ordinated auctions type "explicit", participating countries Germany (VE-T), the Czech Republic (CEPS), Poland (PPGC – Operator)
Mechanism of cost compensation resulting from congestion in available transmission capacity.	In the domestic context a cost compensation mechanism was implemented, which includes cost compensation only in the case of force major and when the security of work of the National Electric Power System is threatened. In the international context TSO has joined the CBT mechanism.
Method of estimating transmission capacity	Elaborated and approved by the President of ERO compliant with the principle of maximal access to transmission capacity.
Principles connected with allocation of unused transmission capacity	Unused transmission capacities are allocated to member participants on day and night auctions.
Spending of incomes from auctions	Constantly monitored by the regulator a scheme of spending, approved by the regulator in the TSO tariff
Transparency	Within the scope of intersystem exchange TSO publishes the following information: TTC estimated, NTC, ATC relating to yearly, monthly and daily auctions, offered and allocated transmission capacities, prices, number of participants, number of offers.

Source: PPGC

Taking into consideration the level of coherence of congestion management with the performance of the wholesale market a schedule of submitting offers in intersystem exchange on the Power Exchange and Balancing Market has been presented below.

Table 3.1.2d The level of integration between the wholesale market and intersystem exchange

Action	CB exchange	Balancing market	Power exchange
Opening a gate – monthly mode	Friday. 00:00 week $t-2$	-	Day- ahead market (hourly spot prices) Closing gate at 9.50
Closing a gate – monthly mode	Thursday. 12:00, week $t-1$	-	
Opening a gate - day-ahead	2:00, day $d-2$	8:00, day $d-1$	
Closing a gate - day-ahead	7:45 day $d-1$	12:00, day $d-1$	
Opening of additional mode – day and night mode	10:00, day $d-1$	-	
Closing of additional mode – day and night mode day-ahead	12:00, day $d-1$	-	

Source: ERO based on data from PPGC – Operator S.A. and the Power Exchange S.A.

Taking into consideration the method of nominating transmission capacities in the intersystem exchange the procedure implemented by TSO has been characterised below.

⁵ www.pse-operator.pl

Table 3.1.2e Procedures of nominating transmission capacities in intersystem exchange

Item	Description
Rules and principles	According to Regulation 1228/2003
Basic quantities	TTC – Total Transfer Capacity TRM – Transmission Reliability Margin NTC – Net Transmission Capacity AAC – Already Allocated Capacity ATC – Available Transfer Capacity
Profile of intersystem exchange for which transmission capacities are nominated	Technical profile – total border section of transmission systems operated by TSOs from Germany, the Czech Republic and Slovakia, nominating quantities TTC, NTC, ATC for technical profile
Criterion of reliability	Criterion <i>n-1</i> : a line of intersystem exchange, a line of Polish electric power system, or a line of a neighbouring power system
Nominating TTC	Based on accessible data for a given period of connected mathematical systems
Criteria taken into consideration when estimating TRM	Weather conditions (temperature), generation of wind power stations in Germany, not co-ordinated balancing flows, acts of God, mistakes at modelling and calculations
Time horizon for calculations	Yearly, monthly and daily plans TTC, NTC i ATC
Available transmission capacity	Capacity band for particular border sections, when - a sum of available capacity cannot exceed ATC for a given technical profile - they cannot restrain Long Term Power Purchase Agreements - they should take into considerations congestion declared by neighbouring TSOs

Source: ERO

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

Types of Transmission System Operators and Distribution System Operators

The transmission system operators and distribution system operators are appointed by the President of ERO upon a motion of the owners of transmission or distribution grids.

A joint – stock company PPG – Operator S.A. started to fulfil the functions of the TSO since July 1st 2004. It is part of capital group Polish Power Grid Company Ltd., a property of the State Treasury. PPGC – Operator leases network assets from the owner – PPGC. Electric power is transmitted with 220kV and 400 kV lines and partly 110 kV lines.

According to the act amending the Energy Law, the distribution companies which performed this function before May 3rd 2005, are fulfilling this duty now, not later than the day of appointment of DSO by the President of ERO, 31st December 2006. These companies are also engaged in the energy trade. The Energy Law introduces the principles of organisational and legal unbundling. Legal unbundling of DSOs should have been executed until July 1st 2007. Now 14 distribution and trade undertakings play an important role in the distribution subsector. Distribution companies are the owners of 110 kV lines, which are operated by TSO.

Tariff Approval

Data gathered and the process of verification. At the beginning, in 1999, energy reports of public statistics, prepared by energy undertakings, so – called G 10, were used in the tariff approval procedure. ERO introduced its own energy report forms of distribution companies, DTA-1, which are fulfilled twice a year. When there any doubts about DTA-1, the data can be verified by using G 10 reports.

The tools of the evaluation of efficiency growth potential and benchmarking analyses. Since 2002 in the tariff approval procedure the method of revenue cap has been used. The essence of this approach is that the president of ERO approves an amount of revenues for a given year of regulation which is a base for fixing prices and fees in undertaking's tariffs. The cap revenue method releases the president of ERO from being involved in micromanagement, which takes place when the cost of service method is applied. The role of the president of ERO is not to show unjustified expenses, but to approve justified level of revenues (covering the costs), proportionately to the scale and conditions of activities of a given company.

Setting of justified level of revenues was preceded by evaluation of cost efficiency of a given company, against the background of other companies operating in similar conditions. In 2002 a benchmarking analyses of costs was applied to 33 distribution companies. Only the costs which depended on a given company's performance were compared, that means operating costs - OPEX, (without depreciation and taxes) and costs of grid losses. Simple comparison of costs borne by a given company without taking into consideration specific environment and size of activities does not give reason to produce conclusions about cost efficiency of a given company. This is the reason why it was necessary to build a statistical model, which would liquidate the influence of different conditions on the level of operating costs.

A model of Principal Component Regression – (PCR), which lets to build one synthetic variable (for instance t) which is a linear combination of many original characteristic variables, describing a given undertaking (for instance a number of customers on medium voltage or the length of high voltage grid) The ERPO model uses 27 variables, describing technical and trade aspects, chosen from 56, and can be characterised by a very high correlation level $-0,95$. The method used in this model – method of principal components – lets to build an artificial variable, which is a linear combination of many original variables characterising grid companies – for instance the length of grids, capacity of transformers, number of customers, the size of supplies, etc .In this model average justified quantity of a given parameter is prepared (for instance operating costs), based on the comparison of average quantity of this parameter in other undertakings from an analysed group, with taking into consideration differences in conditions of activities. Costs which are approved as justified are hypothetical costs of a “model of individual undertaking” – an efficient company, bearing only justified costs and acting in the same conditions as a company which is being analysed. Another model of linear regression was applied to verify justified level of grid losses and it confirmed the results obtained by the PCR method.

In order to set justified level of operating costs and balance differences as independent variable real values of own costs of transmission, distribution and trade in electricity (excluding depreciation and taxes) and technical values of losses for 2001, shown in ERO's report form were adopted. Next a “individual model company” was set, another words an efficient company regarding operating costs and network losses. A difference between costs and levels of losses between the real company and its model company shows the scale of inefficiency. In the case of operating costs according to adopted assumptions, the most effective company is when a percentage deviation of model costs from real costs is the biggest. It was assumed, that regulated revenues cover only model costs, and an undertaking must achieve necessary reduction of costs within a three-year regulatory period, set for 2006. In 2002 and 2003 several undertakings took advantage of the possibility to

operate within many-year tariffs – the length of a regulatory period always depended on the application of an undertaking and lasts 3, 4 or 5 years.

The acts of the president of ERO in setting factual structure of tariffs .A structure of a tariff depends on the kind of energy activities run by a given company and comes out directly from the regulations of law. The role of the regulatory body concentrates on monitoring the compliance of the structure of tariffs with formal requirements.

The role of the President of ERO in the process of the functioning of grids both referring to creation of connections, repairing and continuity of supplies. The President of ERO executing his competencies to agree development plans of undertakings operating in transmission or distribution evaluates elaborated by them investment plans for subsequent years. During evaluation procedure the President of ERO analyses purposefulness of planned expenses regarding the development of networks and security of supplies. Financing investment approved as justified can find its source of capital in the level of tariff revenues, approved for every individual undertaking.

The President of ERO does not run systematic monitoring of the quality of supplies, but intervenes in every case, when there are reliable signals of infringement. Reporting about data referred to an average length of breaks (emergency and planned) in supplies per one customer per year requires earlier commitment of undertakings to run standardised records of data necessary to calculate this indicator.

Average length of breaks was calculated according to the following algorithm:

$$\sum_{i=1}^n t_i L_i / \text{sum } L$$

where:

i – next break

n – number of brakes

t_i – length of an i break (planned or emergency)

L_i – number of customers touched by this break

sum L – total number of customers supplied by a given company

Analytical data, supplied by 14 distribution companies covering the whole area of the country, (in some cases estimated) showing an average length of a break in minutes per one customer are presented in table 3.1.3a.

Referring to the quality of functioning of the network it is necessary to state that certain issues, for instance technical parameters of electric power for grids functioning without failures, acceptable lengths of breaks or rebates resulting from breaking standards are regulated in secondary legislation following the Energy Law⁶. *Information supplied by the system operators on tariffs, conditions and fees of connections*. The tariffs of operators containing i.e. fees for transmission services, connections to networks and conditions of their operational use approved by the President of ERO are published in the “Branch Bulletin” of ERO⁷ Moreover the operators inform customers by placing tariffs on their web pages, press advertising and present in service centres The conditions of connections should fulfil

⁶ The Ordinance of the Minister of Economy and Labour of December 20th, 2004, on detailed conditions of connections of entities to electric energy networks, flows and exploitation of these grids (Dz.U. of 2005, No.2 position 6) and Ordinance of the Minister of Economy and Labour of April 23rd on detailed rules of setting and calculation of tariffs and settlements in trade in electricity (Dz.U. of 2004, No.105, position 1114).

⁷ „Branch Bulletin of the ERO” is on the web page of the office, www.ure.gov.pl

requirements of secondary legislation following the Energy Law. Each operator is obliged to present to customers a form of application for conditions of connection.

Network fees. A table shown below presents average net grid charges (for transmission services) of customers with a priori estimated profile of consumption. The payments were calculated on the base of tariffs, obligatory for distribution companies since January 1st as a quotient of sales of service revenues and the quantity of energy. It must be underlined that the characteristic of input of energy forced by Eurostat does not fit to the parameters of a typical household or a small industrial customer⁸.

Table 3.1.3a. Regulating activities of network companies

	Number of regulated companies	Access network fee (estimated) [Euro/MWh]			Breaks in energy supplies (in minutes per one customer per year)
		lg	lb	Dc	
Trans-mission	1	15,1			
Distribution	14	12,9-25,8	48,3-88,0	36,6-50,4	Average 419,4 minutes after rejection of extreme values 296,4 minutes

Estimated access network fee – Estimated fees for transmission and distribution services. Prices according to average weighted exchange rate for the first half of 2005, announced by the National Bank of Poland – 4,08 Zloty/Euro

Source: ERO

Balancing

Functioning in Poland balancing mechanism is based on making use by the TSO of incremental and reduction offers, notified by generators, applying mechanism of marginal prices. The consumers of energy are settled for imbalancing with the use of a motivation mechanism including imbalance prices CROz and CROs. Balancing mechanisms functioning now were implemented by the TSO through the procedure of a resolution of the Management Board of the PPGC – Operator S.A., after consultations with market participants. Binding since May 3rd, 2005, amended Energy Law delegated the President of ERO to approve mechanisms of electricity system balancing and congestion management in the National Electric Power System. Now consultations on the modification of balancing mechanism which will be approved by the president of ERO are being carried out.

A table showing actually functioning balancing mechanism is presented below.

⁸ Moreover, 182 undertakings possess licenses for transmission and distribution.

Table 3.1.3b. Balancing mechanism

Indicator	Description
Balancing period	1 hour
Description of the area of balancing	Balancing takes place in one area – on the level of transmission services with one TSO
Interaction between areas	Not applied
Hour of closing a gate	12.00
Possibility of implementation of real time market and changing a contractual position	Referring to the balancing market now non-existent, the :Power Exchange offers now products in hourly mode, as it is on the balancing market. (now next day market)
Typical fees for balancing service	For customers (fixed for every hour) CRO – uniformed imbalance settlement price, calculated as a quotient of minimal costs of changes of verified quantities of supplied energy of active Scheme Unites securing balancing of demand for energy on the balancing market CROz – settlement price of imbalance of energy purchase on the balancing market, calculated as a weighted average from band prices of reduction balancing offers used in a given hour. CROs – settlement price of imbalance of sales of energy from balancing market, calculated as a weighted average from band prices of incremental balancing offers used in a given hour.

Source: PPGC – Operator S.A.

Taking into consideration process and schedule of settlements for imbalancing, this mechanism can be described the following way:

Table 3.1.3c. Process and schedule of settlements for imbalancing

Issue	Description
Settlement period	A decade, one month is three decades
Form of settlement	Quantitative and qualitative
Settlement cycles	Daily – based on hourly settlement quantities, the quantities of balancing energy supplied or taken out from the balancing market on day n and payments for supply or purchase of balancing energy ; settlement quantities for day n are nominated by TSO on day n+1 as unauthorised and of day n+4 as authorised are calculated.. Decade – based on daily quantities of settlements the quantity of balancing energy, supplied and received from the balancing market in a given decade and payments for supplies or receiving energy are calculated
Phases of hourly settlement	Phase 1: settlement for balancing of unplanned energy, which is a difference between declared and verified quantity of supplies Phase 2: settlement for planned energy, which is a difference between verified and corrected quantity of supplies. Phase 3: settlement for unplanned balancing energy, which is a difference between corrected and real quantity of supplies
Correction of settlements	Made in monthly cycles, referring to decade settlements, the length of corrected period is no longer than 4 months, preceding a month when a correction was made: after the expiry of the corrected period, the settlements are approved as final and their corrections are not introduced., term of payment of correction quantities is the last day of a moth of correction
Invoicing	The expiry term of invoicing of dues and liabilities on the balancing market are decades (settlement periods) Every invoice must be settled not later then on the day of maturity

Source: PPGC – Operator S.A.

The exchange of trade information between TSO and participants of the balancing market is carried out with the help of the system “Exchange of information about the Energy Market” The exchange of technical information with the generators with the aim to run grid flows is carried out with “The system of Operative Co-operation with power stations” Also the TSO publishes rules of participation in the balancing market, standards of contracts, prices CRO, CROs, CROz, and volumes of energy on the balancing market in hourly – daily cycles.

3.1.4. Effective unbundling

One of the most characteristic features of the Polish electric power sector is significant concentration of assets in the hands of the State Treasury. The Minister of the State Treasury carrying out ownership supervision on state undertakings concentrated his activities in 2004 on the “Program of realisation ownership policy of the Minister of State Treasury referring to the electric power sector” The program contained three phases of proceedings, i.e. consolidation of the sector entities, restructuring of consolidated entities, and privatisation.

The program of consolidation was carried out separately in the generation and distribution subsectors. In the subsector of distribution it involved in 2004 five groupings, and two other groupings are being subject to consolidation processes now.

Referring to generation undertakings a holding structure involving three power stations and two lignite mines, called BOT Mining and Power Sector Ltd. with headquarters in Lodz, central Poland has been established. This entity has been created by contributing shares belonging to the State Treasury to the newly created joint-stock company. Then these assets were contributed as a donation to the State Treasury – establishing a one – person joint stock company of the State Treasury.

Privatisation of undertakings of the electric energy sector in 2004 and the choice of a proper way of privatisation (public offer, invitation for negotiations) were in each case subjected to individual analyses, depending on actual market conditions. In the 2004 shares of three CHPs and a trench of shares of one distribution company were sold. At the moment the State Treasury possesses 25% + 1 share of this undertaking.

The restructurisation processes are also aimed at the isolation of the functions and assets of the TSO as a one-person State Treasury joint-stock company. The Minister of the State Treasury executes, completely or partly, his ownership rights referring to the following entities of the electric power sector, carried out their activities as system undertakings:

- *Distribution companies*– 14 joint-stock companies, including 12 State treasury one-person joint-stock companies and 2 partly owned by the State Treasury joint-stock companies.
- *System Power Stations* – 10 joint-stock companies, including 7 one-person joint-stock companies of the State Treasury and 3 joint-stock companies with partial ownership of the State Treasury.
- *Combined Heat and Power Stations and heat systems* – 30 stock companies, including 11 one-person stock State Treasury companies and 19 companies with partial ownership of the State Treasury.
- *A Transmission company* – One-person joint-stock company of the State Treasury.
- *Lignite mines* – 2 one-person joint-stock companies of the State Treasury and 2 joint stock companies with partial ownership of the state treasury.
- *Hard coal mine* – 1 joint-stock company with partial ownership of the State Treasury.

Others:

- Power Exchange – a joint-stock company with partial ownership of the State Treasury runs a power exchange dealing with trade in electric energy, liquid and gaseous fuels.
- Agency of the Energy Market – a joint-stock company with partial ownership of the State Treasury runs statistical services connected with functioning of undertakings from energy and fuel markets.

The restructurisation processes are aimed at the unbundling of the functions and assets of the TSO as a one-person joint-stock company of the State Treasury.

TSO. In the case of TSO (PPGC – Operator S.A.) legal unbundling has been implemented. The new entity has been created by the restructurisation of the Polish Power Grid Company (PPGC). The aim of the restructurisation was the implementation of art. 10 of the Directive 2003/54/EC because the PPGC was a vertically consolidated undertaking. The TSO has elaborated and implemented “The Program of compliance” containing the rules of performance of the PPGC staff to eliminate discriminatory behaviour. Actually the PPGC owns 100% of shares of the PPGC – Operator S.A. Referring to additional means strengthening functional unbundling it has to be stated that the PPGC – Operator S.A. operates its own web page without links to connected companies. Its headquarters is now in the same building as the PPGC but the TSO is constructing a new separate head office.

DSO The Energy Law imposes a legal duty to isolate DSO since July 1st, 2007, and similarly to Directive 2003/54 does not impose on DSO a duty to implement ownership separation. However the energy companies are obliged to run accounting in a way which would let to calculate cost and revenues, profits and losses separately for every kind of energy activities, in the scope of supplying gaseous fuels or energy to customers, who are eligible, and customers who are not. The entrepreneurs are obliged to elaborate and store financial reports, containing balance sheets and loss and profit statements for reporting periods, based on principles and proceedings of accounting regulations.

To default of the duties listed above may result in a refusal to approve a tariff or imposing a financial fine, described in article 56 of the Energy Law.

The analysis of the above and hitherto eight – year experience of the President of ERO in the scope of regulation of energy undertakings has confirmed that the requirements of the legislative power are to be met and uniformed principles of accounting for regulated energy enterprises should be introduced. The President of ERO undertook a step to solve this problem and moved forthwith to the Minister of Finance asking him to execute his authority within the scope of establishing charts of accounts for energy enterprises according to the Energy Law. However this motion was not supported by the Ministry of Finance.

It must be underlined that neither the Energy Law nor the law on accounting do not give the President of ERO any rights to impose an obligation on energy undertakings to implement uniformed principles referred to the allocation of costs. This question requires further parliamentary action.

The President of ERO does not possess data referring to the proportions of cost allocation between grid operators and other business entities of undertakings or dependent entities.

Sanctions that can be applied by the President of ERO against companies which do not observe regulations connected with accounting and managerial unbundling. The President of ERO in the case when running accounting is not compliant with the principles contained in the Energy Law is authorised not to approve a tariff of this undertakings. Moreover, in the case when book – keeping violates principles given by regulations (It is too general in EROs opinion) the President may impose a financial fine on an undertaking or on its manager.

Table 3.1.4. gives a synthetic summary of the process of effective unbundling.

Table 3.1.4. Main information about the level of unbundling in the electricity sector

	Transmission	Distribution
Legal unbundling (Yes/No)	Y	N
Organisational unbundling (Y/N)	Y	N
Accounting unbundling (Y/N)	Y	N
Separate auditing (Y/N)	Y	N
An obligation to publish financial reports (Y/N)	Y	N
Managerial unbundling (Y/N)	Y	N

Source: ERO

3.2. Issues related to the protection and promotion of competition [art. 23(8) and 23(1) (h)] – electric power market

The structure of the Polish electric power market is of a specific nature – even after consolidation in the generation subsector there is no dominant generator on the market – however the situation is more complicated if we take into consideration the ownership structure. There is excess of installed capacity but the development of the market play is significantly limited by existing obligations to buy or purchases (green energy and energy from cogeneration) and limitations of supplies of energy designated for market play by the existence of Long Term Power Purchase Agreements with fixed price formula (between the generators and the PPGC). Also the introduction of competition is hindered by the attitude of many undertakings (mainly distribution companies) which defend their positions and privileges. The liberalization of the energy market is also constrained by poor economic and technical standing of many customers, specially big.

3.2.1. Wholesale market characteristics

The generation of electricity reached 154,125 TWh and was by 2% bigger comparing to 2003. Total energy consumption reached almost 145 TWh (growth about 2,5% comparing to 2003) Poland is a net exporter of electric power.

Basic data characterising the generation subsector are given in table 3.2.1.

Table 3.2.1. Development of the wholesale market

Year	Demand		Installed capacity [GW]	Number of generators with market share over 5% (pull out capacity)	Market share of three biggest generators (pull out capacity) [%]	HHI Indicator	
	Total [TWh]	Peak [GW]				Power Stations Installed capacity)	Power Stations (generation)
2001	138,9	22,9	34,7	8	35,50	836,6	926,50
2002	137,1	23,2	34,9	7	36,20	842,4	898,00
2003	141,5	22,5	35,4	8	35,60	822,8	861,30
2004	144,8	22,1	35,2	7	45,10	1106,8	1419,30

Source: ERO, based on data from the Energy Market Agency

Significant increase of the HHI indicator in 2004 was due to the creation of a new holding structure in the generation subsector.

Peak demand for capacity reached about 22 GW. A short description of possible scenarios of the development of the demand for electricity depending on the forecasted economic growth is presented in point 5.1. of this report.

Total installed capacity of the Polish power stations reached 35,2 GW at the end of 2004, 0,55% less than in 2003.

Now in Poland excess capacity related to peak demand is significant, but this situation can be reverse after entering into force new emission limits. It is also worth to underline that since 2002 there has been systematic growth of the ratio of available capacity to pull out capacity, what means the increase of efficiency of national generators.

Growing market activity of generators, looking for more profitable conditions of energy sales was also observed in 2004 (the growth of sales to traders took place – reaching about 20% of energy sold), the share of energy sold to distribution companies decreased reaching slightly over 20%. The customers executing their TPA rights bought in 2004 around 4,8% of energy.

Data on the volume of energy sales on the specific markets are presented in table 3.2.1a.

Table 3.2.1a. Quantity of electric energy on the market (TWh)

Year	Total	Spot market	Futures market	Bilateral contracts
2002	114,4	0,27	0	43,2
2003	119,0	0,73	0	49,0
2004	120,9	1,10	0	53,8

Source: ERO

The sales of energy by generators are mainly run within the frames of Long Term Power Purchase Agreements and bilateral contracts (short and medium term). The sales of energy on the Power Exchange has not been developed well in Poland., and, for the time being, reaches not more than 1,5% of the total volume of energy sales.

The Pumped Storage Power Plants S.A., a company of majority ownership of PPGC, plays a regulatory role in the national electric power system. The PSPP S.A. consist of 23 power plants, several of them small flow power station and bigger pumped storage power plants : Żarnowiec Power Plant (capacity 716 MW) Porąbka – Żar (500 MW) Solina Power Station (200 MW) . Total capacity of undertaking belonging to PSPP S.A. is estimated at 1500 MW.

In the Polish national electric power system regulatory system services are performed by condensing power stations. The revenues obtained from sales of these services reached in 2004 approximately about 175 million Euro. The information about the value and market share of these services performed by particular power stations is given below.

Table 3.2.1b. The structure of the market of system regulatory services in 2004 r.

	Name of a company	Revenues from SRS (in thousand Zloty)	Market share of revenues from SRS [%]
1	Suthern Energy Concern SA	150 468,7	20,7
2	BOT SA	142 822,8	19,6
3	Dolna Odra Power Stations	127 124,5	17,5
4	Kozienice Power Station S.A.	103 531,6	14,2
5	Kościuszko Power Station S.A. in Połaniec	71 383,8	9,8
6	Rybnik Powe Station S.A.	35 733,4	4,9
7	PAK Power Station S.A.	35 615,0	4,9
8	Stalowa Wola Power Station S.A.	22 442,0	3,1
9	Ostrołęka Power Station S.A.	21 819,4	3,0
10	Skawina Power Station S.A.	16 857,4	2,3
Total		727 798,6	
HHI Indicator (2004)			1 488,1

Source: ERO

According to actual regulations consumers participating in the balancing market are not authorised to submit balancing offers (mainly distribution companies).

Due to incomparability of energy markets and inaccessible information to proper data it is impossible to calculate the indicator of price correlation between energy markets in Poland and neighbouring countries. However it is possible to estimate significant correlation between prices in Poland and the Scandinavian power exchange Nord Pool.

3.2.2. Characteristics of the retail market

Actually in Poland distribution companies dominate retail trading. However it is possible for several years to observe growing trade activity of traders. (at the end of 2004 386 companies possesses license for trade, about 20 ran significant activity in this field. At the beginning they bought energy mostly from generating undertakings, but later established trade links between themselves and also with distribution companies. Since July 1st 2007, when the distribution system operators are to be separated, the supplies to final customers should be totally in the hands of already existing traders and new entities, for instance separated from distribution companies.

Table 3.2.2. Development of retail market

Year	Total [TWh]	Number of suppliers with market share over 5%	Number of fully independent suppliers	Market share of three biggest companies			Percentage of customers who switched		
				Big and very big industrial customers	Small and medium business	Very small business and household	Big and very big industrial customers	Small and medium business	Very small business and household
2001	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2002	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2003	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2004	98,4	6	20*	50,40	47,60	46,80	19,18	0,16	0,00

n.d. – no data

* Number of traders active on the Polish market

Source: ERO

The volume of energy sold to TPA customers by distribution and trade companies is shown below:

Table 3.2.2a. Volume of energy sold to TPA customers in 2004

Name of supplier	Volume of energy sold to TPA customers [MWh]	Market share [%]
Upper Silesian Power Company SA	2 804 000	28,5
ENION SA	2 520 418	25,6
EnergiaPro Energy Concern SA	1 089 720	11,1
PSE – ELECTRA	1 033 357	10,5
ENERGA S.A. Energy Concern	998 505	10,1
EVEREN SA	536 801	5,4
ELNORD SA	194 145	2,0
Zamość Power Corporation SA	150 369	1,5
STOEN SA	135 339	1,4
Electrabel Poland	103 565	1,1
Others	285 270	2,9
Total	9 851 489	100,0

Source: ERO

Part of energy generators possesses capital links with traders. Generally these links are characteristic for companies owned by big private corporations (for instance Electrabel, EDF,

EnBw) The level of market integration between generators and suppliers of energy is shown below.

Table 3.2.2b. The level of market integration between generators and suppliers of energy

	Generator	Supplier	Dependence
1	Połaniec Power Station S.A.	Electrabel Polska	CG*
2	Kozienice Power Station S.A.	No separation	-
3	Rybnik Power Station S.A.	Everen SA	CG
4	Skawina Power Station S.A.	No separation	-
5	Stalowa Wola Power Station S.A.	No separation	-
6	Southern Energy Concern S.A.	Polish Energy – The First Trade Company	CG
7	Dolna Odra Power Stations	No separation	-
8	Ostrołęka S.A. Power Stations	No separation	-
9	P.A.K.S.A. Power Stations	Elektrim Volt SA	CG
10	BOT GIE SA	No separation	CG

* CG – one capital group

Source: ERO

Distribution companies do not apply uniformed detailed procedure of switching a supplier. The beginning of the process of switching are negotiations between a customer and a new supplier about conditions of a supply contract. After fixing the conditions of mentioned above negotiations about the conditions of transmission or distribution contracts follow and notices of termination of heretofore in force contracts are submitted, than conclusions of new contracts take place. When difficulties in reaching an agreement in negotiations about transmission services appear the sides are eligible to propose a motion to the President of ERO to begin dispute settlement procedures.

Time frames of switching suppliers processes depend on detailed conditions of particular sales, transmission and distribution contracts. A customer who changes a supplier and observes forecasted in regulations time frames of terminations does not bear any additional costs.

In practise barriers imposed by distribution companies resulting from their strategy significantly limit the possibilities of switching.

They can be defined as:

- no separation of distribution and trade,
- very high costs connected with modernisation of measuring equipment, preparing of data transmission system to a distribution system operator and development of IT systems supporting market activities,
- Principles of notification schedules of demand for energy established by distribution companies (including exactness of orders),
- No real price competition in generation, little interest of generators in selling directly to customers,
- Other reasons, for instance bad financial standing of many eligible customers, who would be interested in switching but new suppliers are not ready to bear the risk of supplies to entities which have problems with financial liquidity.

Table 3.2.2c. shows actual structure of energy payments referring to three groups of customers.

Table 3.2.2c. Structure of energy prices (for July 1st, 2005)

	Ig	Ib	Dc
Network fees (excluding public legal expenses))	18,4	67,7	44,5
Public legal expenses	0	0	0
Cost of generation and margin of a supplier	30,2	34,8	35,5
Taxes	10,7	22,5	17,6
Total price Euro/ MWh	59,3	125,0	97,6

Prices according to average weighted exchange rate of Euro for the first half of 2005, announced by the National Bank of Poland – 4,08 Zloty/Euro

Source: ERO

3.2.3. Measures preventing monopolistic abuse

Proper functioning of competition significantly depends on the access to information. In the case of electricity, knowledge of rules of **wholesale electricity market** also has its significance and covers:

- *rules of transparency within the scope of published information on accessible generation capacity, period from placing of an order to its realisation, and forecasted level of generation capacity and the demand for it.*

Above principles are realised within the frames of elaborating a forecast of the demand for capacity and within the frames of forecasted level of generation capacity and accessible generation potential. The forecast of the demand for capacity in the whole country are prepared within the frames of co-ordinating planning. Three – year plans and yearly plans are published on the web page of PPGC – Operator S.A. until the end of November of a previous year. Monthly plans are supplied to the participants of the market until the 26th of the previous month. Daily plans are supplied by electronic media until 4 p.m. on a day preceding the day of supplies. Plans for a given day are sent to participants every time after calculations.

The participants of the market generally know conditions of running tenders for must – run energy and ancillary services. These conditions are given in the grid code and are published on the web page of the transmission system operator.

- *principles of sales activities of generation undertakings*

On July 1st 2001 the generators were exempted by the President of ERO from obligatory tariff approval. The generation market was recognised to be competitive. However the President of ERO does not monitor the structure of concluded contracts but only the level of prices of electricity on the competitive market (however he announces every year, until March 31st, average sale price of electric energy on the competitive market in a previous year) Competition on the electric power market is hindered by Long Term Power Purchase Agreements, which covered 45,5% of electricity sales in 2004.

Electric energy needed for balancing the system is bought within the balancing mechanism, administered by the TSO. The mechanism is based on one – sided auction, in which active part is played by the generators, who notify sales offers. Regulatory system services and load dispatch services of generators are bought within the frames of contracts concluded between the TSO and market participants. The process of contracting these services is conducted in the form of public procurement⁹.

- *rules of market monitoring*

The scope of market monitoring was divided between the following bodies of the governmental administration:

⁹ Procedures applied are given by the act of January 29th 2004 – Public Procurement Law.(Dz.U of 2004, No 19 pos.177 with further amendments.

1. The President of ERO, who is the main body monitoring the energy and fuel market. The President of ERO fulfils duties covering the functioning of the energy and fuel sector and promoting competition.
2. The President of The Consumer and Competition Protection Office appropriate in matters referring to the energy and fuel market i.e. in cases related to control of observing the Act on Consumer and Competition Protection, monitoring of the concentration of the economy, market behaviour of entrepreneurs, counteracting monopolistic practises, concentration or division of undertakings, and also imposing fines in cases listed by the Act.
3. The Minister of Economy and Labour appropriate within the scope of competence referring to general elaboration of many-year energy security policy of the country.
4. The Minister of State Treasury within his scope of competence regarding ownership supervision and ownership transformation in the electric power sector.

– *functioning of virtual power exchanges and other forms of trade in accessible generation capacities*

1. Power Exchange

The first contracts were concluded in the year 2000. Since October 1st2005 the Power Exchange will start trading in ownership certificates, resulted from certificates of origin, issued by the President of ERO for generators producing energy from renewable sources.

2. Virtual Power Exchanges

- a) Electric Power Trade Platform – possible purchases and sales of energy for a period of the nearest two years. Within this time frame trade in energy can be carried out for 1 hour, 1 day, 1, 2, 3, 6 and 12 month period, and also for weeks and days. The platform organises 2 kinds of tenders: 24 hour – three times a day, and weekly – twice a week.
- b) Energy Cantor – run by a trader of a company fulfilling the function of a Trade Operator in the balancing market. It is an electronic system of energy trade in the form of permanent quotations for every 24 hours with the “day – ahead” formula.
- c) e-SPOT – electronic trade platform for consolidated groups of distribution companies, which lets to minimise group imbalancing and maximise the volume of trade: convenient tool for efficient conclusion of contracts on the spot market.

The share of energy sold through the platforms mentioned above is not statistically significant, not published in official statistics.

The most important principles referred to **sales activities** significant for proper functioning of competition, are:

– *the principle of transparency and the level of access to information.*

This principle is implemented by the publication of information, most frequently in Internet

a) web pages of traders

Web pages of traders in energy contain mainly information about a given company. Several of them publish additionally detailed offers, for instance separately for wholesale and retail customers and an offer of trade operator services. Few web pages contain ready contract forms.

Web pages of the Society of Trade in Energy, an organisation of traders, contains actual quoting on the power exchange and balancing markets, presents the principle of a free choice of a supplier in historical aspects, and shows today's barriers of functioning of free market of energy in Poland.

b) Web pages of distribution companies

Network companies which deal with energy trade most frequently do not possess web pages dedicated to free energy market. The undertakings which trade in energy within the frames of

an entity dealing with transmission or distribution on their web pages concentrate on servicing tariff customers.

- *structure of contracts (possibilities of long term power purchase agreements with restrictions or clauses referring to fines imposed for premature termination)*

Generally traders prepare individual offers to final consumers. Prices and other conditions are negotiated with every customer, depending on the timing of supplies, deviations and profiles of intake. Some distribution companies offer also their assistance in negotiating transmission services.

Traders generally conclude short term contracts, mainly for one day (SPOT contracts), several days, month, half a year, the longest up to one year. Most frequently in the form of a framework contract, containing concluded transaction agreement, sometimes a contract for a purchase of a fixed quantity of energy. Most contracts contain rules regulating responsibilities of the parties for non – performance or unsatisfactory performance. Some companies use standard contracts of EFET (European Federation of Energy Traders).

Forms of payments are usually contained in a contract. Traders are generally flexible. Settlements usually cover a week, decade, half a month and month of supplies. Payments are made in the form of a bank transfer, within 14, 21 or 30 days after the date of issuing an invoice.

Traders generally answer enquires, present their offers on web pages, participate in symposia and fairs, and sometimes advertise their services in the media. The most popular form of approaching a potential customer is an individual offer.

The majority of traders does not implement any special procedure of settling complains and requests. Customers' opinions are analysed individually, some undertakings prefer direct contacts and solving disputes on the spot. Every contract contains procedures of dealing with complains. Amicable solutions are preferred, then proceedings before the arbitrage court, and, when a case belongs to competencies of the President of ERO, an application for administrative procedure is started.

Also the activities of the President of the Consumer and Competition Protection Office have significant impact on the functioning of the retail and wholesale markets.

In practise, taking into consideration specific conditions in the electricity market, mainly the existence of a natural monopoly in grid related activities, great majority of antimonopoly procedures refers to monopolistic abuse. When a practice of this kind is proved, the President takes a decision on:

- the recognition that a given practice limits competition and issuing an order about stopping it (4 decisions in 2004),
- the recognition that a practice limited competition but it was stopped (1 decision),
- the recognition that a given practise did not limit competition (1 decision).

Three decisions recognising the abuse of a dominant position were related with the lack of realisation by distribution companies regulations of Par.17 item 4 of connection ordinance¹⁰, which says that if within five years after building a connection new entities will be connected to it, an energy undertaking is obliged to estimate costs of building of joint objects or development of a network for these entities and elaborate a new calculation of a connection fee, and when a surplus in the connection fee of the first customer appears an energy undertaking is obliged to return this surplus. The fourth decision concerned a fine imposed on an energy company for not fulfilling a decision of the President of OCCP and partial settlement of expenses for acquired cable line.

One of the proceedings run by the President of OCCP referred to the implementation by an energy company disadvantageous rules of scheduling Minimal Intake of Energy and fixing adverse prices on the balancing market giving it unjustified profits. The President confirmed

¹⁰ The Ordinance of the Minister of Economy of October 21st 1998 on detailed conditions of connections of entities to electric networks covering the costs of connections, trade in energy, performing transmission services, network flows and exploitation and quality standards for customers (Dz.U. of 1998, No 135, pos.881).

these practises and, simultaneously, confirmed the omission of these practises, due to actions taken by the undertaking.

The President of OCCP did not confirmed the application of monopolistic practices by a distribution company which liquidated its Customer Service Office, because in his judgement this step did not impede conditions of asserting consumer rights – consumers could get necessary information from a Call Centre.

In 2004 the President of OCCP conducted a proceeding on the concentration of companies.

In a proceeding referring to the intent of concentration the President of OCCP can issue the following decisions:

- approval for concentration – if this action does not hinder competition significantly
- conditional approval – certain conditions must be fulfilled
- disapproval on concentration– when it would significantly hinder competition, specially by creating or strengthening a dominant power on the market
- approval of concentration which would significantly limit competition, but would let to:
 - a) economic or technological development,
 - b) would have positive impact on the national economy .

In 2004 the President of OCCP issued 11 individual administrative decisions, approving the implementation of concentration, based on mergers of energy undertakings¹¹.

¹¹ Moreover, the President of OCCP ran antimonopoly proceedings related to initial findings, if a lack of consent of a distribution company for outsourcing maintenance of municipal lighting and undue invoicing of customers for admonitions concerning outstanding receivables are a practice limiting competition.

4. Regulation and the performance of the Natural Gas Market

4.1. Regulatory issues [article 25(1)]

4.1.1. General

With a view to implement the provisions of the Directive 2003/55/EC on July 1st, 2004, legal separation of a company which in the future would fulfil duties of the TSO was accomplished.

Table 4.1.1. Gas Market Opening

Year	Threshold GWh/year	% Market Open
1995	Not related	
1997	Not related	
1999	Not related	
2001	> 25	34
2004	> 15	31,9
2005	All excluding household customers	72
2007	all	100*

*since July 1st, 2007

Source: Polish Oil and Gas Company

In the year 2004 57 865 customers were eligible. In practise only one company moved forthwith to TSO with a network access request. The request was rejected due to article 4 part 1 of the Energy Law. The energy undertaking approved this decision and did not apply to the President of ERO for his intervention.

There were significant barriers in TPA execution:

1. Monopoly structure of the sector
2. Long term gas import contracts
3. Inappropriate gas infrastructure, lack of metering, unsatisfactory level of interconnections, lack of IT systems
4. congestion in intersystem connections.

Liquidation of barriers mentioned above is to be implemented by the following actions:

- implementing measurement of the system, development, within a needed scope, gas network capacity, interconnectors and nomination of gas hubs.
- Elaborating a grid code, elaborating uniformed telemetric and IT standards for efficient data transmission to market participants, elaborating by POGC a system of market information exchange, analysing of concluded supply contracts with a view on making them more flexible (especially renegotiations of “take or pay” clauses and re-export ban principle)
- Elimination of cross subsidies within the tariff approval process.

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

In 2004 management and nomination of interconnector capacities belonged to POGC, duties. In 2005, after the separation, GAZ – System Ltd. Company from the structure of POGC it was appointed as a TSO and this company has overtaken the function mentioned above Due to the lack of the Grid Code these regulations were based on internal instructions of POGC.

Transmission capacities of the national system and intersystem exchange. The transmission system is managed by Gaz – System Ltd. Interconnectors are characterised by one – way transmission. All nominations are reserved by POGC.

Table 4.1.2. Unilateral interconnectors owned by POGC and managed by Gaz- System Ltd.

Country of Operator	Name of operator of interconnected system	Place of connection	Capacity [mcm/24 hours]	Direction of supply	Kind of nomination declared
Ukraine	Naftohaz-Ukraina (NAK)	Drozdowicze – Hermanowice	14,5	to Poland	Monthly and weekly nominations in weekly cycle
Byelorussia	Bieltransgaz	Wysokoje-Hołowczyce	15,0	to Poland	Monthly and weekly nominations in weekly cycle
Byelorussia	Bieltransgaz	Tietierowka – Bobrowniki	0,4	to Poland	Monthly and weekly nominations in weekly cycle
Germany	VNG AG	Lasów	2,9	to Poland	Monthly and weekly nominations in weekly cycle
Germany	VNG AG	Kaminke	0,3	to Germany	
Poland	EuRoPol GAZ SA	Włocławek	8,4	to Poland	Monthly and weekly nominations in weekly cycle
Poland	EuRoPol GAZ SA	Lwówek	3,6	to Poland	Monthly and weekly nominations in weekly cycle

Source: Polish Oil and Gas Company

About 65% of domestic gas consumption is imported, the rest 35,2% is covered by domestic supplies (from output and domestic storage) Transmission import capacity is exploited only in 17,9%.

Nominating of intersystem transmission capacities. Nominations for gas supplies in the points of intersystem exchange are now placed by OGP Gaz - System Ltd on behalf of POGC, within the frames of a contract about managing of the transmission system. After beginning the realisation of a contract on performing transmission service, the nominations will be placed by POGC, and OGP Gaz – System will control compliance of quantities of supplies received from POGC and other companies with nominated quantities in the systems and stores of neighbouring countries.

Network congestion management.(system) In 2004 POGC managed network congestion. Since July 1st 2005 the function was taken over by Gaz – System Ltd. as a TSO. Congestion management will be conducted according to internal instructions of the operator until the moment of the approval of the Grid Code by the President of ERO.

Table 4.1.2a. System Congestion Management

Place	Scale of congestion	Prevention
Western Pomerania	Physical flow of gas in the periods of increased demand for gas (winter) stops new connections – estimated deficit about 0,3 mcm / 24 hours	Within the frames of congestion management the starting in summer of interruptible supplies for industrial consumers is being forecasted when periodically there is excess transmission capacity
Interconnector Drozdowicze	Possibilities of transmission finished	Within the frames of system congestion management next applicants will be offered to use in winter the Wysokoje interconnector

Source: POGC

The transmission system operator is planning the introduction, after approval of the President of ERO, a separate part of the grid code which is being prepared now, according to described below principles related to congestion management.

Information referred to the transmission system will be accessible to system users on the website of TSO. The scheme of network with nominated points of entry and exit is being elaborated now. According to the project of the resolution of the European Parliament and Council on the access to gas networks also tools which will let to publish wider scope of information on free capacities in chosen points of the system are being prepared. Final shape and range of information will be set forth after the announcement of the final version of this act.

In the case of swap operations a contract between POGC and the German Vverbundentz Gas A.G. for trade of 40 mcm of gas is being realised now. The supplies from Germany reach Poland through Lasów and Gubin but the transmission of gas to Germany takes place through Kominke, Germany. The gas transit agreement through the Polish territory is binding until 2019 and is operated by EuRoPol Gaz S.A. company. In 2004 19,2 bcm of gas were transported in transit to Germany, plans for 2005 estimate this value for 22,1 bcm.

Principles of congestion management. In case of congestion management the national TSO applies the following principles:

- analysis of possibilities of new contract realisations, in the manner preventing decreasing of security of supplies and quality of gas supplied to original customers,
- If there are possibilities of performing a transmission service, TSO offers accessible capacity, with priority for already existing customers for transmission services, and in the case of customers ordering a new service “first comes first served” rule applies when a given application for service is completed,
- In the case when fixed service cannot be realised TSO offers, if it is possible, an interruptible service,
- When a service cannot be realised, TSO, on the motion of a customer, can prepare an information about necessary scope of network and other infrastructure elements development, necessary with a view to realise a requested service.

Other activities run by TSO, aimed at preventing congestion, concern the planning of development strategy of the transmission system with a view to liquidate constraints in capacity giving way to conclusions of transmission contracts when there are unused capacities Moreover TSO is obliged to exploit the transmission system and manage the flows in a way decreasing possibilities of congestion, to monitor technical and quality parameters of transmitted gas, and to elaborate procedures containing emergency actions in the system. An important element of this strategy is the introduction of additional charges on these customers who supply or take out gas from the system contrary to approved nominations or induce imbalancing.

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

Since July 1st 2005 the Operator of the Gas Transmission Pipelines Gaz – System Ltd. has performed duties of TSO. The company from July 1st to 2004 to June 30th 2005 supervised the exploitation of the transmission system, based on “The agreement about Management of the Transmission System” concluded with the owner – POGC. Actually OGP Gaz – System Ltd. is operating transmission assets on the base of a “Leasing Agreement of Transmission Network”, concluded with POGC.

Until the moment of the appointment of DSOs by the President of ERO, but not longer then until December 31st, 2006, their duties will be fulfilled by companies, which performed them before May 3rd, 2005. They are vertically integrated undertakings.

Tariff approval

The procedure of tariff approval is specified in art.47 of the Energy Law and requires to check if a given tariff fulfils the requirements of the Energy Law and secondary legislation, that means the tariff ordinance and connection ordinance. According to the regulations in force in 2004 a tariff of a transmission or distribution company should guarantee:

- covering justified costs of performed activities, that means costs necessary from technical, organisational or economic reasons to run activities,
- profit, necessary for realisation of investment plans contained in development plans agreed with the President of ERO,
- Protection of consumers against unjustified rise of prices.

In the case of undertakings dealing with transmission and distribution, justified costs are costs of purchase of transmission services from other network companies, justified own operating costs¹², and also depreciation calculated from so called “regulatory asset base” and taxes.

Types of verification means of reliability of gathered information. Data required for the approval of tariffs of a network company:

- the length of networks, divided into pressure categories,
- number and capacity reducers,
- value of capital assets, including network assets,
- value of depreciation of network assets,
- level of investment expenditures within the period of validity of a tariff,
- number of connected entities and the quantity of connection fees,
- balance of gas,
- quantity of gas for covering imbalancing,
- size of network losses.

A basic guarantee of data reliability on which tariffs were based is a company's statement about their truthfulness, punishable by deprivation of liberty for a period of three years in case when false information is given. The sanctions mentioned above can be imposed on the persons who are authorised to represent the company before the regulator. Financial data of a whole company (independently from a kind of activities) are subject to verification by an independent auditor.

Tools of assessment and analysis of potential efficiency growth. Referring to gas tariffs no assessment of efficiency has been applied, due to lack of possibilities to benchmark financial result of newly created distribution companies.

Regulatory period for tariffs based on the price cap principle or return on equity. On January 1st, 2003, 6 distribution companies, differing in the size, value of assets, and number of customers were separated from POGC, which, until then, enjoyed almost 100 % market share. The first tariffs for these companies came into force on October 1st 2003, for a period of one year. Due to amendment works related to the Energy Law this period was prolonged until the end of 2004.

The regulatory body has significant impact on the level of transmission services, for instance by approving the level of profits which an undertaking can record in regulated revenues. The regulatory body did not intervene in the choice of criteria deciding about the division of customers into tariff groups that means that the regulator did not interfere into the structure of tariffs.

Maximal and minimal levels of network charges for a statistical customer, according to Eurostat classification, are given below.

¹² Without depreciation.

Table 4.1.3. Maximal and minimal level of network charges for a statistical consumer

Consumption [MWh]	Load factor	Network payments [Euro/MWh]	
		max	min
116 300	250 days, 4000 h	5,85	3,07
116,3	2 760	9,95	8,70
23,260	Not defined	9,56	9,11

Prices according to average weighted exchange rate of Euro for the first half of 2005, announced by the National Bank of Poland

Source: ERO

In 2004 62 undertakings possessed licenses for distribution of gaseous fuels, 51 out of them ran licensed activity based on approved tariffs. Only 6 out of the undertakings mentioned above served over 100 000 customers and yearly sales exceeded 100 mcm. Accession network fee was not applied because a system of group fees is obligatory, Also there are no statistics of breaks in gas supplies. The table 4.1.3a was not fulfilled due to the lack of data.

Table 4.1.3a. Regulation of network companies

	Number of regulated companies	Approx. Network access charge [euro/m ³]			Breaks in gas supplies (min/customer/year)
		I4	I1	D3	
Transmission	2	Charges not applied	Charges not applied	Charges not applied	n.a.
Distribution	62	Charges not applied	Charges not applied	Charges not applied	n.a.

Source: ERO

Balancing

In 2004 balancing took place within the POGC structure and was based on declared demand of transmission system users. It included:

- demand for gas declared by distribution companies : Gas Companies of POGC capital group and other distribution companies,
- demand for gas of big consumers supplied directly from the high pressure network, operated by TSO,
- requirements of gas storage and development of underground gas storage,
- own needs of TSO,
- export contracts.

The regulator did not approve methodology of balancing, due to lack of Grid Code and not finished restructurisation process of POGC.

4.1.4. Access to storage, line pack and other ancillary services

In 2004 POGC did not offer separate storage services for customers. Sales gas contracts involve sales of gas with other services (transmission, storage) in a package. Moreover POGC did not elaborate standard contracts for storage services and storage code. No consultations with chosen customers or open consultations were organised.

Storage of gas is closely connected with extraction¹³. Information related to storage is prepared by exploitation personnel (which supervises process of oil and gas extraction in POGC. The personnel which deals with storage is not located in different buildings than personnel dealing with gas extraction).

¹³ In connection with regulations of geological and mining laws referring to the use of underground storage, there are necessary authorisations as in the gas extraction.

In 2004 POGC did not operate separate data base and IT systems for gas storage. Management of information related to gas storage is regulated by the law referring to closed information, and internal regulations secrecy of the company. Rules of dealing with closed information, covering secrets of a company, were prepared by Protection Officer and implemented by resolutions of the management board.

Table 4.1.4. Gas storages co-operating with the transmission system

Lp.	Name	Type	Storage capacity [mcm]
1	PMG Husów	storage in an exhausted gas deposit	400
2	PMG Wierzchowice	storage in an exhausted gas deposit	500
3	KPMG Mogilno ¹⁴	storage in a salt deposit (under construction)	413
4	PMG Swarzędz	storage in an exhausted gas deposit	90
5	PMG Brzeźnica	storage in an exhausted gas deposit	65
6	PMG Strachocina	storage in an exhausted gas deposit	125
Total			1 593

Source: Gaz – System Ltd

4.1.5. Effective unbundling

One of the key elements of the process of market restructurisation of the gas subsector is an obligation of legal and organisational unbundling of TSO (since July 1st 2004) and DSO (since July 1st 2007), being within the structure of a vertically integrated undertaking. Since April 28th 2005 the only one shareholder of OGP Gaz – System Ltd. is the State Treasury. This joint – stock company is not a part of a vertically integrated undertaking and this guarantees its independence from undertakings dealing with gas extraction and trade. The headquarters of the company is located in a separate building, only Gas National Dispatching Centre is located in a separated part of a building, occupied by an undertaking which deals with extraction and trade in gas (POGC).

Actually there are in Poland 6 big distribution companies of crucial importance for the gas system. DSOs will be separated on the base of these companies. The Energy Law, and similarly Directive 2003/55/EC do not impose on DSO an obligation of separation related to the form of ownership. It is possible to assume that DSOs will function within the structures of vertically integrated companies.

The requirements on restructurisation of transmission companies and the level of their implementation:

- The President of ERO does not publish instruction on the preparation of separate financial reports and principles of imposing fines for non- compliance,
- Legal regulations obligatory in 2004 did not impose on energy undertakings a duty to prepare financial reports related to different economic activities in gaseous fuels supplies. This is why only full financial reports of energy undertakings were audited. This situation will change this year, due to the introduction of this obligation by the amended Energy Law,
- Explanations contained in chart 3.1.4. of this report will apply to the matter of setting by the President of ERO detailed rules or guidelines related to running separate accounting.

Table 4.1.5. shows synthetic approach to the question of effective restructurisation development.

¹⁴ Only for balancing purposes.

Table 4.1.5. Summary information on unbundling

Item	Trans- mission	Distribution
Separate Headquarters (Y/N)	Y	N
Separate corporate presentation (Y/N)	Y	N
Unbundled regulatory accounts with guidelines (Y/N)	Y	N
Audit of unbundled accounts (Y/N)	Y	N
Publication of unbundled accounts (Y/N)	Y	N
Separate board of directors without directors from other group companies(Y/N)	Y	N

Source: ERO

4.2. Competition Issues [art. 25(1)(h)]

The liberalisation of the Polish gas sector, is delayed (similarly in other EC countries) comparing to electric energy subsector. In 2002 actions aimed at making Polish gas subsector market – oriented were undertaken – the restructurisation of the biggest Polish gas company enjoying a monopoly position – POGC, began. In 2003, within the holding structure of POGC, 6 distribution undertakings were separated. Also to fulfil by Poland accession obligations an independent TSO was separated and started its activities a year later. Due to the existing structure of the polish gas market all data related to retail and wholesale markets refer to the POGC capital group.

4.2.1. Description of the wholesale market

In 2004 the structure of the Polish gas marker was as follows:

- POGC capital group, running extraction, trade, transmission, distribution and storage activities covered about 98% of the market,
- other entities – about 2% of the market.

Gas sold in Poland comes from domestic sources, denitrogenizing, and, mainly from import. The suppliers of gas are: Russia, Germany, Norway and Central Asian countries. The majority of import is covered by a long - term contract with Russia – in 2004 according to this contract about 5,8 bcm were bought, constituting about 62% of total import volume. Replenishing supplies were realised by smaller medium - term or short - term contracts. For the time being there is no trade in hubs. Since 1992 bilateral border exchange has been run with Germany, reaching about 40 mln. cubic meters per year.

In 2004 main supplies came from:

- a) the Jamal contract – 42,5%,
- b) domestic sources – 22%,
- c) other import contracts (Germany, Norway, Uzbekistan, Central Asian countries, the Czech Republic) – 26,1%,
- d) gas storage – 9,4%.

Trade is managed by bilateral or three - party contracts, it is impossible to buy gas on the stock exchange. Taking into consideration a small number of Polish companies on the gas market, it cannot be called a fully – fledged liquid market.

Tabela 4.2.1. Consumption of natural gas in 2004, actual generation, and import transmission capacities in Poland (bcm)

Total natural gas consumption in 2004 <i>Included:</i>	13,6
- domestic supplies	4,3
- import	9,3
Total generation capacity (bcm/year)	4,3
Import transmission capacity (mcm/year)	16,4
Sales for wholesale customers	7,7

Source: POGC

The wholesale market is serviced by one supplier – POGC. Domestic supplies and domestic demand for gas have been growing since 2001. Transit services were not performed for third parties, because main shareholders of Europol S.A. - pipeline owners (POGC, Gazprom) - reserved total capacity. The table below presents the development of the wholesale market referring to demand, extraction and import.

Table 4.2.1a. Development of wholesale market⁵

Year	Demand		Production (bcm)	Import capacity (bcm/year)				Number of companies with >5% Production and import capacity	Number of companies with >5% Available gas	Share of three largest gas wholesalers [%]
	Total(bcm)	Peak (bcm)		Total	Reserved transit [%]	Reserved other LT	unreserved			
2001	7011,0	56,6	3973,6	n.a.	n.a.	n.a.	n.a.	1	1	100
2002	6986,2	58,6	4035,6	n.a.	n.a.	n.a.	n.a.	1	1	100
2003	7648,9	61,0	4058,5	n.a.	n.a.	n.a.	n.a.	1	1	100
2004	7714,2	58,3	4326,8	44,8	73,2	73,2	26,8	1	1	100

No data is collected about peak demand and import capacity.

Source: Gaz-System Ltd.

There was no institutional gas exchange in the market structure in 2004. The TSO is planning to open it in the future, after confirming transmission possibilities of agreed quantities of gas.

Table 4.2.1b. Volume of gas traded (mcm)

Year	Total consumption	Traded in spot hub market	Traded in forward hub market	Bilateral OTC trading
2002	12,25	0	0	n.a.
2003	13,50	0	0	n.a.
2004	13,60	0	0	n.a.

Source: ERO

The integration of the Polish gas market with neighbouring EC member countries is shown in table 4.2.1.c. The share of EU neighbouring countries I gas import by POGC in 2004 reached 4,51% . The prices in international trade are negotiated between interested parties.

Table 4.2.1c Connections with neighboring EC member countries

Country	Number of connections	Purchased by Poland (bcm)	Border exchange (bcm)
Slovakia	0	-	-
The Czech Republic	3	0,0003	-
Germany	3	0,9	0,04

Source: POGC

4.2.2. Description of the retail market

About 69% of gas sales to big consumers is realised directly from domestic transmission system or from domestic sources, the rest is sold from the distribution system through distribution companies, belonging to POGC capital group. The sales of gas to individual customers were performed from a distribution system, run wholly by depended distribution companies. The structure of gas sales on the retail market is shown below.

Table 4.2.2. Structure of gas sales on the retail market in 2004. (mcm)

Detailed	Sales of POGC capital group	Including:	
		Sales from the system and directly from sources	Sales of gas companies
Total	12 881,8	5 453,6	7 428,2
1. Industry:	7 689,7	5 288,0	2 401,7
Nitrogen plants	2 353,5	2 352,3	1,2
Power stations and CHPs	1 026,2	1 008,7	17,5
Heating plants	279,5	43,6	235,9
2. Trade and services	1 425,2	26,0	1 399,2
3. Household consumers	3 626,3	0,0	3 626,3
4. Wholesale customers	96,5	95,5	1,0
5. Export	44,1	44,1	0,0
% of sales	100,0	42,3	57,7
1. Industry:	59,7	41,1	18,6
Nitrogen plants	18,3	18,3	0,0
Power stations and CHPs	8,0	7,9	0,1
Heating plants	2,2	0,3	1,9
2. Trade and services	11,1	0,2	10,9
3. Household consumers	28,2	0,0	28,2
4. Wholesale customers	0,7	0,7	0,0
5. Export	0,3	0,3	0,0

Source: POGC

Gas sales to big and very big industrial customers, supplied from the transmission system, or directly from sources, consuming over 25 MCM per year reached 4,7 bcm in 2004.

Total gas consumption on the retail market has been increasing – since 2001 the growth has reached around 13%. The biggest market share belongs industrial customers and distribution companies, however the smallest share belongs to CHPs and gas power stations is constantly growing. Table 4.2.2a. illustrates described tendencies.

Table 4.2.2a. Development of retail market

Year	Total consumption (mcm)	Number of companies with > 5% of the retail market	Number of fully independent suppliers (1)	Market share of three largest companies				Cumulative % of customers having changed supplier (by volume)			
				Power plants	Large and very large industrial	Small-medium Industrial and business	Very small business and household	Power plants	Large and very large industrial	Small – medium Industrial and business	Very small business and household
2001	11323,6	1	0	100*	100*	100*	100*	0	0	0	0
2002	11156,5	1	0	100*	100*	100*	100*	0	0	0	0
2003	12287,7	7	0	100	n.a.	n.a.	n.a.	0	0	0	0
2004	12881,8	7	0	100	n.a.	n.a.	n.a.	0	0	0	0

(1) Fully independent from network companies

Source: POGC

Table 4.2.2b. presents the structure of payments, paid by a statistical customer from a given group, evaluated on the base of prices and charges included in tariffs of companies belonging to POGC capital group, in force since January 1st, 2004.

Table 4.2.2b. Breakdown of currently prevailing price levels

	Unit	I4-1	I4-2	I1	D3
Network charges (and levies)	euro/GJ	1,30	1,10	3,15	3,13
Levies included in network charges	%	22	22	22	22
Energy costs and supply margin	euro/GJ	3,77	3,77	4,01	4,20
Taxes	%	22	22	22	22
Total (including all taxes)	euro/GJ	5,07	4,87	7,17	7,33

Prices according to average weighted Euro exchange rate for the first half of 2005, announced by the National Bank of Poland – 4,08 zloty/euro.

D3 – customer from tariff group W-3 (capacity to 10 m³/h, yearly consumption from 1 200 to 8 000 m³) 6 distribution companies

I1 – customer from tariff group W-4 (capacity to 10 m³/h, yearly consumption over 8 000 m³) from 6 distribution companies

I4-1 – customer from tariff group W-8 (capacity from 0 to 3 000 m³/h) 3 distribution companies (GSG, KSG i PSG) and group E-2 (capacity from 1 500 to 3 000 m³/h).

I4-2 – customer from tariff group W-8 (capacity from 0 to 3 000 m³/h) 3 distribution companies (GSG, KSG i PSG) and group E-1 (capacity from 0 to 1 500 m³/h).

Source: ERO

Transmission charges for tariff groups for customers with total capacity over than 10 mcm(I4-1 i I4-2) are different a year span– higher in winter (01.10 – 31.03) and lower in summer (01.04 – 30.09).

On July 1st, 2005 the prices of gas for all tariff groups rose by around 6,5%.

5. Security of Supply

The level of energy security depends on many factors. Their meaning for balancing demand and supply depends on domestic situation in a given country and developments on the world market. The key elements are: differentiated structure of energy carriers in the domestic balance of energy, the level of diversification of sources of supplies, technical conditions and reliability of installations of the transmission and distribution systems of energy and fuel. Basic supervision over security of supplies in gaseous fuels and electric energy is performed by the Minister of Economy, and monitoring is run by the President of ERO.

5.1. Electricity [Article 4]

Characteristics of the market in the context of security of supplies. Security of electric energy supplies depends mainly on the possibilities of fulfilling peak demand for energy and capacity and on the actual and future structure of the fuel mix in the electricity generation. It is obvious why all these aspects of the security of gas and electricity supply must be monitored, creating a base for regulatory actions.

The situation on the electricity market in 2003 and forecasted by TSO the growth of energy demand has been presented in Table 5.1.

Table 5.1 Demand for capacity and electric energy

Scenarios*	2003	2005	2010	2015
	TWh			
Adaptation	140,6	148,5	159,9	172,4
Integration		144,9	153,0	164,1
Reference		141,3	147,0	156,1
	MW			
Adaptation	23 288	24 565	26 100	28 135
Integration		23 815	25 400	27 230
Reference		23 570	24 490	26 340

*scenarios:

The first, most dynamic, describes the demand for electric energy in a case of development acceleration of the country and faster achievement of the average EU economic development level. The second takes into consideration the conditions of the Polish accession. The third with assumed economic stagnation is a bottom for future demand for electricity..

Assumed average yearly GDP growth in the given scenarios:

-scenario "adaptation" – 6,0 %,

-scenario „integration" – 4,9 %,

-scenario „reference" – 3,2 %/.

Source: PPGC

The document "Energy Policy of Poland until 2025"¹⁵ assumes the growth of the demand for energy until 2025 around 80 – 93% (depending on the scenario of development) that means about 3% of growth per year.

Current generation structure is shown in table 5.1a.

¹⁵ Adopted by the Council of Ministers on January 4th, 2005

Table 5.1a Current generation structure in 2004

Source	GWh	Structure
Domestic generation total	154 125	100,00
Coal power stations	66 070	42,87
Lignite power stations	52 159	33,84
Coal CHPs	21 687	14,07
Other CHPs	2 235	1,45
Hydro power station	3 688	2,39
Industrial power station	7 530	4,89
Renewables (including industrials)	756	0,49

Source: ARO based on AEM

The fuel mix in the system power stations is based on coal and lignite. Gaseous fuels do not play an important role in generating electric energy. The fuel mix in the system power generators is shown below.

Table 5.1b Fuel mix in professional power stations in 2004

Fuel	Share [%]
Coal	62,28
Lignite	34,69
Gas	3,03

Source: AEM

Due to large resources of solid fuels the energy policy¹⁶ assumes moderate growth of natural gas consumption in electricity generation, simultaneously the share of solid fuels in the fuel mix would remain the same. According to indicative targets contained in the secondary legislation to the Energy Law the growth of share of renewable energy in the total electric energy sales is forecasted.

To preserve the level of security of supplies the following investment in new capacities is being realised:

- Pątnów II Power station(464 MW),
- Łagisza II Power Station(470 MW),
- Bełchatów II Power Station(830 MW),
- Żarnowiec Gas Power Station (250 MW)¹⁷.

A synthetic picture showing different aspects of security of supplies is given in table 5.1c.

¹⁶ ibidem

¹⁷ There is no separation in statistics for investment being realised and investment approved.

Tabela 5.1c Security of supply evolution

Year	Peak electricity demand (GW)	Available capacity (GW)	Forthcoming new plant (GW)		Plant completed minus plant closed in the year (GW)				
			Authorised	under construction	coal and oil	Gas	RES	CHP	nuclear
2000	22,29	26,64	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0
2001	22,87	26,32	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0
2002	23,21	26,87	n.a.	n.a.	0,2374	0	0,0545	0,3041	0
2003	23,29	27,59	n.a.	n.a.	0,1180	0,3619	0,3939	-0,1616	0
2004	23,11	27,98	n.a.	n.a.	-0,0662	0,0078	0,0199	0,1258	0
2005	n.a.	n.a.	n.a.	n.a.					
2006*	n.a.	n.a.	n.a.	n.a.					
2008*	n.a.	n.a.	n.a.	n.a.					
2010*	n.a.	n.a.	n.a.	n.a.					

* Prognosis

Source: ERO based on "Report on the activities of the National Electric Power System (technical information) in 2002", PPGC, Warsaw, April 2002, and "Statistical information about electric power", AEM

The role of the regulator in the process of authorisation of new capacities – mechanism of securing return on investment in new capacities. The president of ERO issues licenses (promises of licenses) for generation of energy which contains an obligation to inform about the scope and conditions of performed activities, what, subsequently, requires amendments of licenses. According to the amended Energy Law when the Minister of Economy states a possibility of shortage of energy in the long run, the President of ERO announces, organises, and performs a tender for new generation capacities. Separate regulation will define economic and financial measures needed to build new generation capacities. The following criteria of evaluation of offers will be applied:

- State energy policy,
- Security of the electric power system,
- Environmental protection, public health and safety requirements,
- Energy and economic efficiency,
- Location of construction of new capacities,
- Fuels planned to be used in new generation units.

There are no formal mechanisms in Poland supporting investment decisions to build new capacities.

Investments connected with the development of intersystem connectors:

- connection 400 kV Tarnów – Krosno (under construction until 2006),
- connection 400 kV Poland – Lithuania (forecasted commissioning until 2009).

In the investment plan of the TSO for the years 2005 – 2009 financial means for an investment connecting the electric power systems of Poland and Lithuania were allocated.

The Poland – Lithuania connection (requiring the development of domestic systems in both countries and intersystem connection with Germany is aimed at:

- Strengthening and developing of bordering electric power system of both countries,
- Opening the way to development of energy trade,
- Liquidating barriers in energy exchange around the Baltic Sea – in the area of so called „The Baltic Ring”,
- Creating conditions for East –West energy transit through the Polish system.

The implementation of the project mentioned above will positively affect the security of energy supplies in Germany, Poland and Lithuania. Special importance of this project for the Lithuanian power system is unquestionable, taking into consideration the liquidation of the basic source of energy in the Lithuanian system - the power station in Ignalina. The first block of this power station has already been decommissioned.

Due to the necessity to enable electric power market participants to possess wider access to transmission capacity auctions related to interconnections with UCTE member

countries, the steps to develop these connections are undertaken. Polish – German studies run by POGC – Operator and Varentfall – Europe Transmission are aimed at the finding of the best solutions, additionally taking into consideration the development of wind generation in both countries.

Investment playing the system role from the point of energy security of the country, (that means aimed at transmission of capacity from new thermal power stations, increasing transmission capacity north – south and east – west) which will be realised or realisation started in 2005 – 2009:

- A. A construction of a two – path 400kV line Pałnów – Plewiska with utilisation of already existing channels of 220kV line Pałnów – Konin and Konin – Plewiska (Kromolice). The commissioning of this line will increase (together with Ostrów transmission system) domestic transmission capacity between east and west, thus increasing possibilities of trans – border exchange of capacity with neighbouring system of the same synchronous zone, first of all with the German system (specially when a new third 400kV is build – at the highway from Plewiska to Germany).
- B. A construction of a 400kV power switchgear in Byczyna station with autotransformer 400/220 kV of capacity 500 MVA and connection of a two – path 400kV line Tarnów – Tuczawa. This investment will create possibilities to widen co-operation of National Electric Power System with the Slovak system, for instance by a construction of a two – path 400 kV line Byczyna – Varin.
- C. Change – over of a 110 kV line Kozienice – Siedlce for nominal voltage 220kV, construction of a one – path 400 kV line Miłosna – Siedlce, working temporarily on the voltage 220 Kv and the construction of a 220KV switchgear of H3 system in Siedlce station from ATR 220/110 kV, of capacity 160 MVA. This investment will increase reliability of supplies in Warsaw agglomeration and in the areas of Siedlce and Biała Podlaska.
- D. The construction of a two – path 400kV line Pałnów – Grudziądz with utilisation of already existing corridors 220 kV line Pałnów – Jasiniec and Jasiniec – Grudziądz. This investment will increase transmission capacities between northern and southern part of the national system, needed due to the development of wind power generation in the northern part of the system and better exploitation of direct current connection with the Swedish system.
- E. The construction of a two – path 400kV line Dunowo – Żydowo – Piła Krzewina – Plewiska with the use of already existing corridor 220kV in the same direction and the construction of a 400kV switchgear in stations: Piła Krzewina – Żydowo with transformations 400/110kV. This investment is closely connected with the transmission of capacity from wind farms located mainly in northern (seaside) part of Poland. The beginning of this investment is planned for 2009.

Grid congestion. Basing on the analysis of the reliability the National Electric Power System performance, the TSO defines requirements related to generation in given points of the grid (this minimal or maximal generation is allowed for a given group of generation units or allowed quantity of trade on intersystem connections).

The reason of grid congestion can be:

- Insufficient thermal capacity of the grid, surpassing of allowed slacks and vertical differences,
- surpassing / not abiding allowed level of voltage,
- surpassing short circuit strength of grid elements,
- surpassing nominal parameters of connection equipment,
- insufficient reserves of static and dynamic balance in some system power stations.

According to TSO the most frequent reason of grid congestion is, first of all, insufficient thermal strength of 220 kV lines and voltage requirements. Consequently, cases of grid

congestion in summer are due to excessive stretching of cables in high temperature. As a result allowed level of slacks are surpassed and congestion appears. Identification of network congestion is one of the basic duties of TSO. Changing conditions of work of the national system force TSO to perform this duty constantly.

In connection with planned overhauls and releasing of transmission capacity for intersystem exchange, necessary network constraints are defined in a cycle of co-ordinating planning (yearly, monthly and daily plans).

Identification of network congestion is a foundation for elaboration of development plan of national transmission grid guaranteeing decrease or liquidation of congestion.

The development plan of the transmission grid, elaborated by TSO on the base of carried out analyses, is subject to agreeing with the president of ERO. The costs of investment presented in an agreed development plan are a base to classify them as an element of justified costs, accepted for a calculation of a transmission tariff of TSO.

Summary. Dominating share of coal in the national fuel mix of Poland maintains energy security on a high and stable level. Taking into consideration quickly growing prices of oil and gas in the world it can be attractive for the competitiveness of the Polish economy, even if a necessity arises to invest into environmentally friendly coal consumption technologies. The level of security of electric power supplies can be characterised as good. According to official data from the public statistics at the end of 2003 installed capacity in the Polish electric power system reached over 35 GW, including 34,2 GW of pull – out capacity. Peak demand for capacity in 2003, a relatively cold year, was on January 8th and reached 22,29 GW. That means in a relatively cold year maximal utilisation of installed capacity reached less than 64% and pull – out capacity 65%. However technical condition of the grid, specially in the countryside, is weak and needs improvement. Additional factor which can decrease the level of security of electric power supplies and force the construction of new generation sources is the necessity to fulfil requirements of environmental regulations of the European Community and conditions of the Accession Treaty – referring specially to years 2008-2016, resulting mostly in decommissioning of blocks not fulfilling related regulations. In this context it is necessary to change and build new generation capacities using highly efficient clean coal technologies.

5.2. Gas [Article 5]

Market characteristic – security of supplies. The main direction of gas supplies to the transmission system is the import from Russia. The evaluation of possibilities of diversification of directions of supplies is based on information involving:

- the ordinance of the Council of Ministers of October 24th on minimal level of diversification and gas supplies from abroad. (Dz. U. No 95, pos. 1042),
- quantity schedule of gas supplies from possible directions of import,
- location of entry – exit points and level of pressure in these points,
- Physical -chemical properties of natural gas imported from particular directions of import,
- Characteristics of irregularity of gas supplies in a year's time to particular entry – exit points.

Renegotiations of the Yamal contract with Gazprom mean the decrease of supplies and prolonged time of its realisation by two years, that is until 2022. Flexibility of receipt of gas and establishing quotas of supplies for subsequent years has been preserved. It creates real possibilities to conclude short and medium term contracts. POGC currently fulfils all contractual obligations. High demand for gas connected with decreased obligation of receipt let to realise spot contracts. The biggest problem of the domestic gas market is still limited number of trans - border connections (and no prospects for development) not only does not secure effective functioning of the gas market but also reduces possibilities of generating gains on transit through the Polish territory.

Table 5.2 shows synthetic aspects of present and future security of gas supplies.

Tablica 5.2 Security of supply evolution (gas)

	Total gas demand (bcm)	Production capacity (bcm)	Pipeline import capacity (bcm)	Import LNG (mld ³)	Forthcoming new capacity (bcm)	
					authorised	under construction
2000	11,2	3,5	7,6	-	n.a.	n.a.
2005	14,1	4,5	9,6	-	n.a.	n.a.
2006 est.	14,7	5,5	9,2	-	n.a.	n.a.
2008 est.	16,0	5,9	10,0	-	n.a.	n.a.
2010 est.	17,4	6,1	11,3	-	n.a.	n.a.

Source: POGC

It is obvious that assurance of long term security and continuity of gas supplies is closely connected with intensive activities of the state on diversification of gas supplies for domestic consumers. Simultaneously development of new technologies will require the construction of proper technical infrastructure, facilitating import of LNG and CNG, also by sea, from sources not accessible by land pipelines.

Referring to transmission network the most important investments regarding security of supplies are:

- a) Police - state border pipeline - connection of the Polish and German transmission systems (improved security of supplies),
- b) Włocławek - Gdynia pipeline (under construction) – this investment will increase capacity of the transmission system supplying the Gdańsk agglomeration,
- c) Czeszów - Wrocław pipeline – this investment will diversify supplies in Lower Silesia which is from technical point of view supplied almost completely with Koszalin - its realisation will increase possibilities of supplies in gas from connections with German networks in Lasowo,
- d) Nowogard – Płoty – Karlino - Western Pomerania,
- e) Lubliniec-Częstochowa pipeline – it will enable to bring gas to Częstochowa area from main transmission pipelines (actually this area is supplied by old pipelines with low capacity which used to transmit coke gas).

The role of the regulator in:

- *Institution of the last resort supplier.* The procedure of appointing this body will be started on July 1st, 2007, that means of the first day of full eligibility of all customers.¹⁸ Until then public service obligations will be guaranteed by conditions of running activities in a license, with simultaneous preserving hitherto obligatory tariffs for gaseous fuels.
- *Investment incentives.* The Energy Law contains certain investment incentives, which are based on a possibility to release new gas investment not completed until August 4th, 2003 pr started after that date from obligatory tariff approval and duty to offer TPA. Objective exclusions cover the following elements of gas system or gas installations which fulfill the following conditions:
 - a) new infrastructure influences the development of competitiveness of gas supplies and security of supplies;
 - b) due to high risk connected with building new infrastructure, the investment would not be started without granted permission;

¹⁸ The choice of the last resort supplier will be carried out by a tender procedure, organised by the President of ERO.

- c) new infrastructure is or will be a property of an independent subject, at least legally separated from the operator of the gas system, in which a new infrastructure has been or will be built;
- d) fees for using are imposed on customers of a new infrastructure;
- e) a release will not worsen the conditions of competition.

- *Gas storage services.* Gas storage services have not been offered until now to customers outside the POGC structure. In connection with the beginning of the restructurisation process of this undertaking functional separation of storage services aimed at offering these services to third parties. Now an administrative proceeding is pending before the president of ERO on the matter of granting a license on services mentioned above for POGC. Simultaneously monitoring of standards of services of this type is being performed.

The role of the regulator – monitoring network related to security of supplies. Taking into consideration guaranteeing security of gas supplies, a very important question is the approval by the President of ERO a tariff for operator of gas transit transmission pipelines, EuRoPol GAZ company.

III tariff of EuRoPol was approved in the middle of December 2004 r. for one year, however on the level proposed by the undertaking, but lower by 4% than in 2004 and lower than the level agreed in the Additional Protocol to the Agreement between The Government of the Polish Republic and the Government of the Russian Federation about the construction of gas pipelines systems. This tariff contains distance transmission charges for three exit points: Włocławek, Lwówek and Mallnow, divided into two periods of a tariff year. Setting of two different tariffs for above mentioned period - charge for the first part of the year is by 34% higher than for the second half - was due to basically different costs of performing transmission services, which the company has to bear in the first and the second half of 2005 and different quantities of capacities and gas covered by these services in above mentioned periods. Elaborating of an average charge for the whole year would lead to the lack of revenues in the first half of 2005 and could lead to the loss of company's liquidity.

The base of transmission charges of EuRoPol Gaz (a sum of operating costs, credit interest rates, capital instalments, and investment costs decreased by depreciation) is for the first half of 2005 by 6,6% higher than for the second half. The reason is higher costs of debt and higher investment expenditures, which the company will have to bear to cover the costs of finishing the construction of the first pipeline of the Polish part of the Yamal gas pipeline. Ordered capacities and quantities of transmitted gas will be lower in the first part of 2005 by 25,7% than in the second half.

Summary. Comparing to other European countries the security of gas supplies in Poland is on a good level. The main reason is relatively high share of supplies from domestic sources and accessibility of underground gas storage.

Gas supplies from domestic sources basically cover total demand for gas for household customers. Moreover guaranteeing security of supplies in the peak demand is possible due to using of storage installations and strategic reserves. The increase of the import of gas from Germany is also feasible, for instance reverse supplies from the Yamal pipeline, but it would require investment connected with modernisation of already existing pipelines.

6. Public Service Issues [Article 3(9) electricity and 3(6) gas]

Public service issues – public and legal obligations of the participants of the market. Amended Energy Law fully reflect measures for customer protection mentioned in Annex A to Directives 2003/54/EC and 2003/55/EC.

The regulations conveying the provisions of this annex were placed in at. 5 and 5a of the Energy Law.

Annex A	The Energy Law
a	Art. 5 item 2 and art. 7 item 2
b	Art. 5 item 5 and 6
c	Partly art. 5 item 5 i 6
d	Art. 5 item 2 (method of settlement))
e	Art. 5a item 4
f	Art. 5 item 2 i art. 8
g	Art. 5a

It is necessary to point out that the Energy Law does not contain the definition of vulnerable customers. The president of ERO, when settling, according to Article 8 of the Energy Law, disputes related i.e. to refusals of concluding a sales contract, transmission or distribution contracts for fuels or energy, and also disputes referred to unjustified cuts of gaseous fuels and energy supplies, takes into consideration all aspects of a given case, heading to balancing of interests of customers and energy undertakings.

The Minister of Economy monitors correct performing and observing public service obligations, grounded on guarantees of security of supplies, regularity, quality and prices of supplies of energy and fuels, including environmental obligations and improved energy efficiency of energy undertakings. The President of ERO, and, the President of OCCP are also active in this field. Consequently, questions connected with consumer protection are regulated both in the Energy law, and, to a certain extent, in the consumer protection regulations¹⁹.

Realising the obligations mentioned above the Energy Law imposes on the energy undertakings defined obligations, including:

1) Defines:

- *essentialia negotii* i.e. sales contracts, transmission or distribution of fuels and energy contracts, also *essentialia negotii* that is contacts for storage of gaseous fuels.

2) Defines in details:

- reasons justifying cutting the supplies of gaseous fuels, electric power or heat to customers - when a control carried out by authorised representatives of energy undertakings states:
 - a) Illegal consumption of gaseous fuels, electric energy or heat,
 - b) Direct threat to life, health or environment by an installation at a consumer's site.

3) Anticipates:

¹⁹ Law of December 15th 2000, on the competition and consumer protection (Dz. U. Of 2003 No 86, pos. 804 with further amendments.) – antimonopoly act. Taking into consideration a general nature of the provisions of the law on competition and consumer protection and its classification in the legal system as *lex generalis* they are applied in a given situation only within the scope not covered by application of detailed sector regulations that means the provisions of many times cited The Energy Law and secondary legislation – for instance this situation takes place, according to jurisprudence of the Highest Court, when an energy company applies not allowed contractual conditions in contracts already concluded (monopoly practises), counteracted by the president of the OCCP.

- a possibility of cutting supplies when a consumer, is late, at least one month after the due date with payments for consumed gaseous fuels, electric energy or heat or performed services – the cutting of supplies is possible only after realisation of beforehand written notification about the cancellation of a contract and determining an additional period of two weeks for paying current and outstanding liabilities.

When the reasons of cutting supplies cease to exist an energy undertaking is obliged to resume supplies at once.

Moreover, the Energy Law:

4) *Guarantees:*

- correct functioning of the gas system, the power system, and the district heating system- taking into account security and reliability of functioning of these systems, equal treatment of gas and energy users and heat consumers, environmental requirements, construction and exploitation of equipment, installations and networks.

5) *Obligates, i.e. operators of transmission and distribution systems, to:*

- guaranteeing of security of supplies of gaseous fuels and electric power by guaranteeing the security of functioning of the gas and energy systems and realisation of contracts with the users of these systems and by guaranteeing proper transmission capacity in the electric power transmission system.
- carrying out network operations in a co-ordinated and effective way, with preserving reliability and quality of supplied gaseous fuels and electric power.
- submission, until March 31st every year, by the operators of transmission systems, according to their range of activities, information on realisation of targets related to security of functioning of the gas and electric power systems in the previous year to the minister of economy.

6) *Guarantees:*

- that users of the transmission and distribution systems have a possibility to notify remarks on the projects of the grid code of transmission and distribution networks remarks about projects of their changes – the operators are obliged to submit to the regulator an information on these remarks and their acceptance.

7) *Obligates the President of ERO to:*

- collect and process information related to energy undertakings, including calculation and announcing, until March 31st every year, average selling price of co - generated electric power, and average price of electric power on the competitive market,
- publish information increasing efficiency of fuel and energy consumption,
- co-operation with proper administrative bodies in counteracting monopoly practices,
- set up methods of control and undertaking activities aimed at improving energy efficiency.

Number of disconnections caused directly by non-payments for energy. The President of ERO does not carry out monitoring on the number of disconnections for non – payments. According to the data collected from 14 electric energy distribution companies the number of disconnections reached in 2004 236 012, 1,5% of the total number of customers. In the case of gaseous fuels number of customers disconnected for non-payments reached 46 451, 0,8% of total number of customers.

The activity of the last resort supplier (compensation of expenses connected with performing such a function) and proportion of customers using services of the last resort supplier. The institution of the last resort supplier, implemented according to the directives, will function from July 1st 2007.

The level of prices – classification of consumer groups. According to the regulations of the Energy Law in force, the energy undertakings set off tariffs for gaseous fuels or energy according to the scope of performed activities.

Tabela 6 Regulation of end user prices

	Electricity			Gas			
	large and very large	medium industrial and commercial	small commercial and household	power plants	large and very large	medium industrial and commercial	small commercial and household
Existence of regulated tariff (Y/N)	Y	Y	Y	Y	Y	Y	Y
% customers still on tariff	60%	100%	100%	100%	100%	100%	100%
possibility to switch back to regulated tariff (Y/N)	Y	Y	Y	Y	Y	Y	Y
Number of suppliers covered by the obligation to supply at tariff (could be all suppliers)	14*)	14	14	1**)	1 (POGC)	7 (POGC + big suppliers)	51

*) 14 big suppliers sell most of electric energy to 182 small companies (also obliged to submit tariffs for approval) possessing licenses for transmission and distribution of electric energy, supplying mostly medium and small customers.

**) 64 companies are obliged to submit tariffs for approval, 2 out of them possess licenses for gas transmission, and other 62 for distribution of gas. According to the state of December 31st, 2004, 51 companies carried out activities, among them 6 large suppliers.

Source: ERO

From July 1st, 2001, the president of ERO released energy undertakings possessing licenses for generation or trade in electric energy, from a duty to submit tariffs for approval. The prices of other energy activities (transmission charges) remain regulated. Tables 6a and 6b present level of prices separately for consumers executing TPA right and those not.

Table 6a Prices of electric power in distribution companies for customers not executing TPA rights

Details	1 st quarter						Indexes of dynamics of average sale price
	2004			2005			
	Average sale price	including		Average sale price	including		
		Payment for energy	Transmissi on charge		Payment for energy	Transmissi on charge	
Euro/MWh						%	
Customers total	65,67	32,94	32,72	67,17	33,13	34,03	102.25
HV customers*) (group A)	47,77	30,62	17,14	48,86	30,71	18,14	102.25
MV customers**) (group B)	55,67	31,92	23,75	56,88	31,96	24,91	102.13
LV customers***) (group C)	80,57	33,98	46,58	81,58	34,06	47,51	101.22
Customers group G	74,87	34,47	40,39	76,67	34,86	41,80	102.38
Including: household and farms	75.52	34.63	40.89	76.65	34.85	41.79	101.45

*) HV – high voltage

**) MV – medium voltage

***) LV – low voltage

G – household

Net prices according to average weighted exchange rate of Euro for the first half of 2005, announced by the National Bank of Poland 4.08 zł/Euro.

Source: AEM

Table 6b Prices of electric power for consumers executing TPA rights

Details	1 st quarter				Indexes of dynamics	
	2004 r.		2005 r.			
	quantity	Av. price	quantity	Av. price	quantity	Av. price
	MWh	Euro/MWh	MWh	Euro/MWh	%	%
Customers executing TPA rights	1476604	28.49	1049823	29.43	71.1	103.3
-LV	1476604	28.49	1049823	29.43	71.1	103.3
-MV	n.a.	n.a.	n.a.	n.a.	x	X

Net prices according to average weighted exchange rate of Euro for the first half of 2005, announced by the National Bank of Poland 4.08 zł/Euro.

Source: AEM

According to the art.32 item 1 of the Energy Law in force now, generation of gaseous fuels does not require obtaining of a license. Thus energy companies are not obliged to submit to the regulator tariffs for generation of gas for approval, what is obviously closely connected with market (competitive) pricing of this raw material. Tariffs for other gas activities are regulated. They are presented below.

Table 6c Supply prices of 1 m³ of natural gas, separated into industrial and distribution customers

		2004 r.	I kwartał 2005 r.
		Euro/m ³	Euro/m ³
Price - Supplies total	Transmission network*)	0.14	0.15
	Distribution network **) including:	0.22	0.22
	Customers of capacity 10 m ³ /h	0.24	0.24
	Customers of capacity over 10 m ³ /h	0.20	0.20
Trade price	Transmission network*)	0.11	0.12
	Distribution network **) including:	0.13	0.13
	Customers of capacity 10 m ³ /h	0.14	0.14
	Customers of capacity over 10 m ³ /h	0.12	0.12
Transmission charge	Transmission network*)	0.02	0.02
	Distribution network **) including:	0.09	0.09
	Customers of capacity 10 m ³ /h	0.10	0.10
	Customers of capacity over 10 m ³ /h	0.08	0.08

*) pressure over 0.5 MPa – according to the division valid until May 3rd, 2005.

**) pressure not higher than 0.5 MPa

Net prices according to average weighted exchange rate of Euro for the first half of 2005, announced by the National Bank of Poland 4.08 zł/Euro.

Source: ERO