

The President of the Energy Regulatory Office

**Annual Report  
to the European Commission  
2006**

31<sup>st</sup> of July 2006

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# 1. Introduction

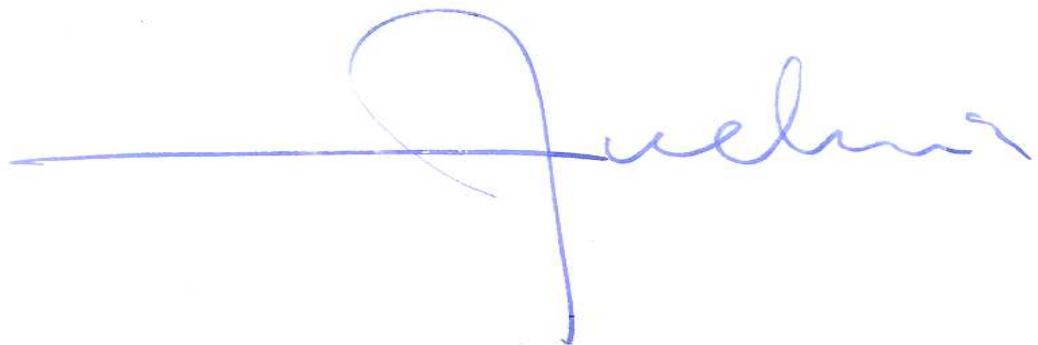
The document presented below is the second report submitted by the President of the Energy Regulatory Office to the European Commission, fulfilling the duty contained in the Energy Law and Directives 2003/54/EC and 2003/55/EC.

According to the agreement between the Council of European Energy Regulators (CEER) and the European Commission the report contains data and evaluation of events which took place in 2005 in the electricity and gas markets. A part of presented information (data from the first half of 2005) were shown in the Country Report of 2005..

In this report special attention was paid to events which were not presented in the former one.

The provisions of the Energy Law which implemented Directives 2003/54/EC and 2003/55/EC have been in force since May 2005. Thus the evaluation of introduced regulations and their influence on the functioning of the market in the previous report was not full. The present report contains both the evaluation of Regulator's competencies and his possibilities to shape the market and functioning of energy undertakings in the new legal system, aimed at making competition possible.

The creation of competitive market in 2005 took place in two dimensions: domestic and European. According to the European Commission and the Regulators simultaneous integration of national markets into one common electricity and gas market is not possible. The solution are regional initiatives and gradual unification of national markets. The report first time deals with this problem and contains data which show the level of integration of particular regions (more in chapter 3). The lecture of the report can create the impression that the advance in the liberalisation of the domestic market and the integration of the national markets seems to be unsatisfactory, but it must be remembered that the market is shaped not only by Regulator's decisions.

A handwritten signature in blue ink, appearing to read 'J. Uchman', is written across the page. The signature is fluid and cursive, with a long horizontal line extending to the left.

## **2. Summary / Main achievements of 2005.**

Directives 2003/54/EC and 2003/55/EC were implemented by the Act of March 4, 2005, about the amendment of the Energy Law and the Environmental Protection Act., which entered into force in May 2005 (Law Journal No.62 position 552).The new provisions of the Energy Law influenced the performance of part of market players. New duties, connected with the regulation of tender procedures for new capacities being a part of the principles of functioning of transmission system operators and distribution system operators, were imposed on the President of the Energy Regulatory Office. All competencies and of the President of the ERO and the structure of the office were presented in the Annual Report of 2005.

The President of the ERO fulfilled his duties based on the amended act for eighth months of 2005.However this period was relatively short comparing to the regulatory mission which has been carried out since 1997, it can be a base for initial evaluation of the functioning of the Regulator and the market in the new legal environment. This evaluation is presented below. It refers also to competencies of the President of the ERO which have been applied since 1997.

### **2.1. Basic organisational structure of the office.**

*Management-type or council type structure.*

The President of the Energy Regulatory Office fulfils his duties imposed by law with the assistance of the Energy Regulatory Office, divided into departments, bureaus and regional branch offices.

Taking into consideration relatively big area of the Polish territory, the scope of Regulator's activities, including licensing, tariff approval procedures of heat companies and settlement of local disputes between energy undertakings and customers, this structure facilitates good contacts between market players and the employees of the office. It seems that it makes monitoring of the market more effective.

*The realisation of main statutory duties..*

The President of the ERO realises duties regarding the regulation of fuel and energy subsectors and promoting competition. His range of competencies and duties includes, i .e:

#### **– Promoting competition on the electricity and gas markets.**

Opening in 2005 the electricity and gas markets for non-household customers did not increase the activities of the customers. The data from 2004 and 2005 show that the number of customers willing to switch a supplier decreased. The reason of the lack of customers' initiative lies not only in the structure of distribution companies (no effective unbundling) or limitations resulting from the blocking of part of energy in long – term power purchase agreements, but also in the lack of regulations of switching procedures. The President of ERO is not empowered independently to settle the rules of switching. However certain activities aimed at increasing knowledge of the idea among customers are carried out, practically it is impossible to present procedures of switching and resulting advantages.

#### **– Unbundling and nomination of transmission and distribution system operators.**

However the Energy Law imposes on the President of the ERO a duty to promote competition, the legislative power did not foresee effective tools for him, regarding obtaining proper information and imposing influence on the changes in the ownership structure of energy undertakings active on the energy market, also including a set of possible actions

aimed at securing satisfactory diversity of market players. In the decision making process regarding, for instance, the model of unbundling or the consolidation of the energy market the Regulator participates only when he is invited, empowered with consultative competence.

The matters of nominating system operators, both in electricity and gas, are regulated by art.9<sup>th</sup> of the Energy Law. According to section 1 of this regulation, the President of the ERO, on the motion of the owner of a transmission or distribution grid, storage installation of gaseous fuels, or liquefaction installation, nominates, by his decision, an operator for a defined period of time. That means that the President of the ERO can not nominate an operator ex officio, but only on the motion of an owner of electricity or gas infrastructure. These regulations do not impose on the energy enterprise a duty to submit an application for nominating a system operator – according to the scope of carried out licensed activity. The President of the ERO is not empowered to call a given subject to submit such an application. It is worth to remark that neither in the Energy Law nor in the other governmental documents the date of separation of the gas storage system operator – a key element of creating a gas market – has been given. However the President of the ERO undertook an action forcing the owner of all gas storages on the Polish territory – the Polish Oil and Gas Company - to separate storage activity. According to the President's of the ERO decision of February 1<sup>st</sup>, 2006, on the granting a license for gas fuels storages, the Polish Oil and Gas Company can carry out storage services. So there is a legal and formal base for the Polish Oil and Gas Company to apply for nominating it a storage system operator.

- **Approval of the grid code in the part related to balancing and congestion management.**

The President of the ERO possesses limited legal competencies regarding the setting of standards of energy undertakings' activities – a big step forward was granting him in May 2005 the right to approve grid codes. This competence is effective at the promotion of competition, because in the process of the grid code approval the Regulator is empowered to demand to introduce regulations fostering competition. Due to limited period of validity of the approved electricity grid code (in force since June 1<sup>st</sup> 2006), it is difficult to evaluate its effectiveness. The instruction for the gas system operator will come into force on August 1<sup>st</sup>, 2006.

- **Approval and monitoring electricity, heat and gaseous fuels tariffs.**

One of the main obstacles in effective regulation in this field is the lack of legal regulations regarding a special status of a regulated company. The managements of energy undertakings are obliged to maximise profits (according to the commercial joint stock companies code). A special status should take into consideration demands imposed on regulated companies, often different from applied to companies carrying out activities on competitive (not regulated) markets. It is necessary to introduce the principles of so called "regulatory accounting". (Specific conditions of regulated activities make the application of standard accounting difficult).

Another problem are changes in the fiscal policy increasing taxes paid by energy undertakings. These actions generally increase prices paid by final customers. Considering long – term investment cycle in this sector of the economy it is necessary to set required from the economic point of view level of fiscal charges and their stability.

- **Agreeing development plans of network energy undertakings, granting permissions for constructions of pipelines or direct connections.**

The President of the ERO, after analysing data from documents given above elaborates a view on technical conditions of reliability of energy supplies and examines arguments for approval of a given level of investment as justified. Next, in the process of tariff approval for network operators, it is a premise to approve by the Regulator means necessary for

development and maintenance of a given network, thus increasing security of electricity supplies. The President of the ERO is empowered to carry out necessary action at his discretion – he is responsible for the preparation of complicated procedures (for instance elaboration of evaluation models).

The President of the ERO was also involved in the investment process aimed at the construction of direct gas pipelines or grids. His permission must be granted before issuing a construction permission. Initial experience does not show any significant difficulties in the realisation of this duty.

- **Dispute settlement regarding the execution of TPA to transmission and distribution networks, monitoring performance of electricity and gas markets.**

The Regulator when monitoring processes taking place on the energy markets and during meeting with representatives of power undertakings often receives information on negative developments. He is not legally empowered to evaluate and to fight these practises ex officio. Specially it can be observed regarding TPA rule, when the President of the ERO is not empowered to settle disputes –to start any action he must wait for a motion of a customer, who often is afraid to begin any dispute with his supplier (distributor). This competence is practically insignificant and the settlements are issued for individual cases, thus they do not create general standards. This is why empowering the Regulator with the right to undertake proper action ex officio, not only on the motion of a part of the proceedings and issuing general standards based on individual solutions seem the only one effective solution of the problem.

- **Granting and withdrawal of licenses for energy activities of undertakings, including liquid and gaseous fuels.**

Our experience supports the opinion that a license did not become a tool hindering or blocking market access. The licensing process is carried out with full equality of subjects submitting for licenses and does not discriminate any undertaking. Elaborated and implemented procedures of licensing let energy undertakings run unlimited and effective activity in the power sector. The problem is licensing of companies dealing with trade in liquid fuels. Existing regulations concerning granting and withdrawal of tariffs are not effective regarding these entrepreneurs who, with full consciousness, abuse the law. Regulations contained in the Energy Law appeared to be ineffective regarding liquid fuels the subsector of liquid fuels.

- **Imposing fines on energy undertakings for abusing legal obligations.**

A fine can be imposed both on an energy undertaking or on his manager. Until now all fines have been imposed on undertakings. The President of the ERO, when imposing a fine on a given enterprise assumes that it will act as an educational measure, the abuses will not be repeated in the future, and also will have a preventive meaning – the other energy companies will run their activities according to the requirements of the law.

- **Issuing and revoking of certificates of origin.**

The system of certificates of origin of electric energy from renewable sources is an equivalent of „green certificates” and strictly identifies the origin of energy, used both by generators and transmitted to the national electricity system. The experience, gathered during almost two years of functioning of the system of certificates of origin leads to the conclusion that it must be adopted to actual achievements of IT technology, what would lower the costs and improve the standards of functioning.. Simultaneously it is possible to

say that the system enables full certification and support of renewable sources, but has not significantly contributed to development and construction of new sources. The process of issuing and revoking of certificates of origin is carried out without any complications.

## ***2.2. The situation on the gas and electricity market.***

### **The gas market**

The year 2005 was a period of continued changes in the process of a market oriented restructuring of the Polish gas market.

The biggest changes touched the organisation of the sector. From the structure of a dominant undertaking – the Polish Oil and Gas Company – an undertaking - the Operator of Gas Transmission Pipelines Gas System Ltd., belonging in 100% to the State Treasury was separated and started its activity as the transmission system operator. Then, due to public emission of shares of the Polish Oil and Gas Company, carried out in September 2005 on the Warsaw Stock Exchange, the company accumulated about 2,7 bln PLN. According to the strategy adopted by the company these means are to be designated for the realisation of strategic projects – the increase of domestic extraction, the development of capacity of gas storage installations, and diversification of sources of gas supplies to Poland, resulting in building an import LNG terminal.

The activities of 6 distribution companies were also reorganised mainly through the accounting separation of units dealing with network activity. The regulatory action aimed at the establishment of the storage system operator who will be obliged to offer access to his capacities to all participants of the market. The works on the approval of the grid code were also started. The code is to contain the rules of functioning of undertakings on the liberalised gas market, helpful in giving them non-discriminatory access to transmission lines.

These necessary changes are not enough to undermine the monopolistic structure of the sector. This situation, strengthened by structural conditions was the reason that not much changed in the TPA execution. None of over 57 thousand eligible customers executed his rights to switch. The process of eliminating access barriers to the transmission grid was also carried out slowly. All plans referring to the development of measuring telemetric system aimed at improving the quality of services was also at the initial stage.

Due to very fast rise of oil prices and following gas prices on the world market in 2005 the President of the ERO three times agreed to increase gas tariffs for customers. However the rises were by almost 14% lower than in the tariff applications. The increases did not slow down the rise of the demand for gas, specially among industrial customers (growth of sales 4,5%), small industrial customers (1,3%) and households (2,9%)

In 2005 the exploratory works for gas sources were carried out on the Carpathian Foothills and the Polish Plain. Domestic extraction, reaching 4,3 bcm fulfilled about 31% of the customers' demand. No major changes in the structure of suppliers to Poland were observed. Russia still remains the biggest supplier (65,4%). The share of central Asian republics increased to 26,2% (3,4 bcm).

### **The electricity market**

In the year 2005 installed capacity of domestic power stations reached 34 673 MW., including 32 120 MW in professional sources and 2 553 in industrial sources. There were about 120 licensed generators, including 12 power stations or groups of power stations and 18 combined heat and power stations or their groups. Peak demand reached 23 480 MW and was slightly higher than in 2004. Accessible capacity reached 27,80GW and was slightly lower than in the previous year. In 2005 14 distribution companies (or their groups) of natural local monopolistic grid position operated on the market.

In 2005 the level of customers executing the right to switch a supplier did not change comparing to 2004<sup>1</sup> The quantity of energy supplied in 2005 by distribution companies within the frames of TPA reached 7 433 GWh, about 7% of total energy supplies to final customers, realised by energy suppliers last year. Additionally, 2 694 GWh (3% of total supplies) was electricity bought on market conditions, that means at negotiated prices, by a joint stock company of four industrial undertakings from a distribution company connected to them.

Because the operator of the transmission grid, does not, as a rule, perform trade activity, all customers connected to the transmission network buy energy from suppliers. chosen by them. The quantity of electricity delivered to them in 2005 reached 2 106 GWh.

Total sales of electric energy sold to final customers on market conditions reached 12 233 GWh (11,4% of total energy supplied to final customers)

Low level of executing the right to switch a supplier was caused by unsatisfactory functioning of the wholesale market in 2005.(Mainly due to the lack of competitive offers of trade companies), introducing discounts by distribution companies and the existence of administrative and technical barriers, such as:

- the lack of unified procedure of switching
- unprofitable rules of balancing
- to high requirements referring to measuring and settlements systems implemented by distribution companies.

The year 2005 did not bring fundamental changes on the Polish electric energy market. The government did not manage to solve the problem of long term power purchase agreements. and to outline the strategy for the sector for the nearest years. Also the program of privatisation of the electricity subsector was not fulfilled.

Main activity was directed at the consolidation of the sector. In the generation subsector the growth of concentration could be observed. In the generation subsector three biggest generators possessed 62,6% of the market. The distribution subsector is driving towards horizontal integration. In 2005 six distribution companies from eastern Poland were consolidated into Eastern Energy Group with head office in Lublin.

### ***2.3 Main competencies of the Regulator.***

Basic matters in the Regulator's activities are: implementation and monitoring the process of market liberalisation for counteracting monopolistic practises, in the interest of constant security of supplies, increased competitiveness of the economy and environmental protection against negative impact of energy processes on the environment. The Regulator fulfils his mission regulating activities of power companies in accordance with law and energy policy assumptions of the state, aiming at balancing the interest of energy undertakings and energy customers.

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<sup>1</sup> In 2005 only households were not eligible customers.



### 3. Regulation and performance of the electricity market.

#### 3.1. Regulatory issues [Article 23(1) except "h"]

However the Regulator is always seen as a body responsible for the shape and functioning of the electric energy market, the situation on this market depends on actions of many independent subjects. The most important of them are: the Parliament (the Energy Law and its amendments), the government (elaborating policy for the sector), issuing secondary legislation to the acts, carrying out ownership policy by the Minister of Treasury, the Minister of Finance responsible for taxes, organs of central administration (the President of the Office for Consumer and Competition Protection), courts settling revocations from Regulator's decisions, market players and consumers. The impact of international situation on the Polish energy market is constantly growing (increased consumption of energy, growing dependence from imported sources of primary energy carriers) and actions undertaken to create Internal Energy Market (construction of cross-border connections).

Due to integration with neighbouring markets – the creation of regional markets (which are to be the first step towards pan – European Internal Energy Market) the area of Regulator's activities significantly widens. This is a new challenge facing the Regulator.

The next part of the report describes the situation on the electricity market in 2005 and changes comparing to 2004.

##### 3.1.1. General

The Polish accession to the European Community forced Poland to implement into the national legal system EU legislation, including a part related to the electricity subsector. Referring to the electricity market special attention must be paid to Directive 2003/54/EC which is extremely important for full liberalization of the market and implementation of the right to switch a supplier. An amendment of the Energy Law aimed at the implementation of obligations entered into force on May 3<sup>rd</sup> 2005. imposed by this Directive.

Firstly the amendment formally opened the electricity market - that means the right to choose a supplier for all customers excluding households. Household customers, according to regulations of Directive 2003/54/EC will obtain this right on July 1<sup>st</sup> 2007. This regulation changes a schedule of market opening adopted in 2003. The Polish legislator abandoned the idea of nominating an eligible customer according to the size of energy consumption because of specific features of Polish regulations regarding running economic activity (consumption of electricity by small enterprises can be compared with electricity consumption by household). Table 3.1.1. presents stages of electricity market opening in Poland.

Table 3.1.1. Electricity market opening

Year	Eligibility threshold [GWh/year]	% of market opening
1999	> 100	22
2001	> 40	30
2003	> 10	37
2005	All customers excluding households	80
2007	All customers	100*

\*Since July 1st 2007

Source: ERO

The introduction of regulations making possible the execution of TPA rights, that means the right to choose a supplier does not automatically successfully introduce competitive market. It is necessary to liquidate a number of barriers, such as the lack of separation in distribution companies distribution of energy from trade or the lack of regulations describing mutual duties of companies when a customer changes a supplier. These shortages effectively block customers and don't let to use options offered by implemented competition. There were 1 650 000 eligible customers in 2005 and only 35 of them executed the possibility to choose a supplier, however these customers bought about 7% of energy sold in 2005.

Detailed data on the execution of the right to choose a supplier are presented in chart 3.2 and 6.

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

Cross border exchange of electricity from national electric energy system mainly takes place on the South – West border (The Czech Republic, Slovakia, Germany) and on the North (Sweden). Cross border flows of energy from Ukraine and Byelorussia were also observed. Due to the lack of interconnectors there is no exchange of energy with Lithuania.

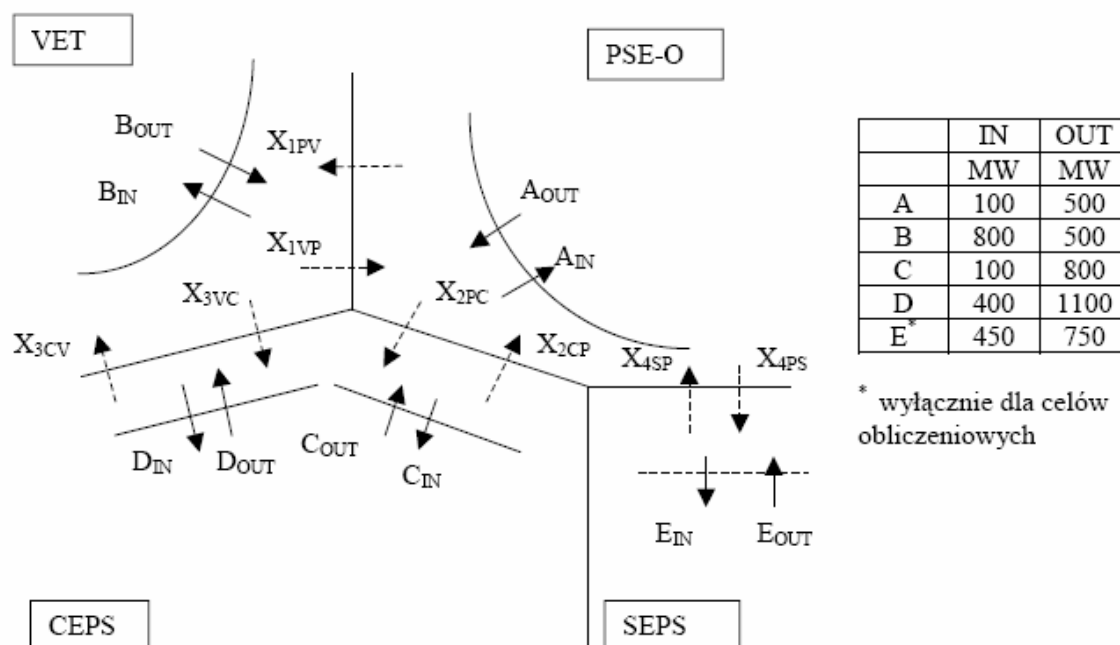
In 2005 system congestion of structural character, similarly to 2004, appeared at the borders with Germany, the Czech Republic and Slovakia. The transmission infrastructure was not being developed at that time, however works were started on the modernisation of the electricity power station 400/220/110 kV Mikułowa and on the part of 400 kV line Krosno – Lemesany. The construction of 400kV line Tarnów – Krosno – Iskrzynia will also influence the size of cross border exchange. For better management of cross border exchange of electricity co-ordinated auctions for transmission capacities concerning annual and monthly periods were introduced since January 2005, since April 2005 – daily auctions for the day – ahead market. Table 3.1.2a. presents transmission capacities offered on the co-ordinated auctions. In the intersystem exchange, covering borders with Germany, the Czech Republic and Slovakia available transmission capacity (ATC) is reduced by the quantity of already allocated capacity (AAC), which at the end of 2005 reached in certain hours maximum 700 MW.

Table 3.1.2a. Offered transmission capacities on the co-ordinated auctions.

<b>Direction Technical profile</b>	<b>Offered transmission capacity (direction IMPORT) [MW]</b>	<b>Offered transmission capacity (direction EXPORT) [MW]</b>
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 PPGC-Operator (in table PSE-O) and CEPS.

**Scheme of transmission capacity in the Intersystem Exchange offered by CEPS, Polish Power Grid Company – Operator (PPGC-Operator = PSE-O) and VE-T.**



Source: PPGC - Operator

Table 3.1.2b. presents balance of trade in electricity and real flows of electricity between Poland and neighbouring countries.

**Table 3.1.2b. Balance of electricity exchange in the years 2003 – 2005 (in GWh))**

	2003	2004	2005	Dynamics 2004/2003 [%]	Dynamics 2005/2004 [%]
<b>Exchange account balance</b>	<b>10 161</b>	<b>9 293</b>	<b>11 172</b>	<b>-8,5</b>	<b>20,2</b>
<b>Export</b>	13 222	12 487	14 290	-5,6	14,4
<b>Import</b>	3 061	3 194	3 119	4,3	-2,3
<b>Real flows</b>					
<b>Outflow</b>	<b>15 146</b>	<b>14 605</b>	<b>16 188</b>	<b>-3,6</b>	<b>10,8</b>
<i>Including:</i>					
The Czech Republic	9 490	9 156	11 167	-3,5	22
Germany	282	450	1 046	59,6	132,4
Slovakia	2 728	2 623	2 792	-3,8	6,4
Sweden	2 646	2 376	1 182	-10,2	-50,3
<b>Inflow</b>	<b>4 985</b>	<b>5 312</b>	<b>5 002</b>	<b>6,6</b>	<b>-5,9</b>
<i>Including</i>					
Byelorussia	1 226	1 001	874	-18,4	-12,7
the Czech Republic	57	80	63	40,4	-21,3
Germany	2 761	3 156	2 264	14,3	-28,3
Slovakia	0	8	0	800	-800
Sweden	11	214	817	1845,5	281,8
Ukraine	931	853	983	-8,4	15,2

Source: PPGC – Operator

In 2005 balance of electricity exchange with other countries was 20,2% higher than in 2004. The growth of export was significantly connected with beginning of described earlier co-ordinated auctions for transmission capacities. The change of the situation on the Nordic market was also important, where, after refilling water reservoirs prices of electric energy fell. Due to this development the size of electricity transmitted from Sweden by direct current undersea cable increased.

The activity of the national electricity system is carried out according to elaborated co-ordinated plan, and congestion management is run according counter – trading method. Congestion management taking into consideration priority of stability of the system and securing proper quality parameters of voltage in particular centres of the system is a significant problem which periodically can concern about 30% of total energy transmitted in the system. There were no changes in 2005 referred to the method of congestion management on the national electricity system<sup>2</sup> comparing to 2004.

The principles and rules of congestion management in the intersystem exchange the Transmission System Operator implemented in accordance with Regulation 1228/2003 and Directive 2003/54/EC. There are contained in the Grid Code and are published on the web page of the TSO<sup>3</sup>. Minor changes were implemented in 2005. The solutions are presented in table 3.1.2 c).

**Table 3.1.2c. Implemented solutions in the intersystem exchange.**

Implemented solution	Description
Market mechanism of congestion management	Co-ordinated auctions type <i>explicit</i> , engaged: Germany (VE-T), the Czech Republic (CEPS), Poland (PPGC-Operator).
Compensation mechanism of costs caused by transmission congestion.	In the national context a compensation mechanism which excludes the compensation only in the case of force major act and when the security of work of the national system is threatened. In the international context the TSO joined mechanism ITC.
Evaluation method of transmission capacity	Elaborated and approved by the President of the ERO, compatible with maximalization of transmission capacity principle
Principles connected with offering unused transmission capacity	Unused transmission capacity is offered to market players adequately in monthly and daily auctions.
Expending incomes from auctions	Scheme of expending monitored and evaluated by the President of the ERO concerning compatibility with Regulation 1228/2003
Transparency of information	Referring to intersystem exchange the TSO publishes the following information: estimated TTC, NTC, ATC concerning yearly, monthly and daily auctions, offered and allocated transmission capacity, offered and allocated prices, number of participants , number of offers.

Source: PPGC – Operator

The level of coherence of congestion management with the functioning of wholesale electricity market is presented in table 3.1.2d in a shape of a schedule of submitted offers in the intersystem exchange on the Power Exchange and balancing market.

<sup>2</sup> Annual Report to the European Commission 2005, Table 3.1.2b *Procedure of identification of system congestion*

<sup>3</sup> [www.pse-operator.pl](http://www.pse-operator.pl)

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

Action	Intersystem exchange	Balancing market	Power Exchange
Opening gate – monthly mode	Friday, 00.00 hour, week t -2	-	Day-ahead market ( <i>hourly spot prices</i> ). Closing gate at 10.20
Closing gate – monthly mode	Thursday 12.00 hour, week t - 1	-	
Opening gate <i>day-ahead</i>	Hour 2.00, day d-2	Hour 8.00, day d-1	
Closing gate <i>day-ahead</i>	Hour 7.45, day d-1	Hour 12.00, day d-1	
Additional mode opening – <i>day-ahead</i>	Hour 10.00, day d-1	-	
Closing additional mode – <i>day-ahead</i>	Hour 12.00, day d-1	-	

Source: ERO based on data of PPGC – Operator and Power Exchange

The procedure implemented by the TSO was characterized with taking into consideration transmission capacity of intersystem exchange.

**Table 3.1.2e. Procedure of nominating transmission capacity in the intersystem exchange.**

Details	Description
Rules and principles	According to Regulation 1228/2003
Base quantities	TTC – Total Transmission Capacity TRM – Transmission Reliability Margin NTC – Net Transfer Capacity AAC – Already Allocated Capacity ATC – Available Transmission Capacity
Profile of intersystem exchange for which transmission capacities are nominated	Technical Profile – total border cut of profiles managed by TSOs of Germany, the Czech Republic, and Slovakia, nomination of quantities TTC, NTC, and ATC for technical profile
Criteria of reliability	Criterion <i>n-1</i> : line of intersystem exchange, line of Polish electricity system, line of neighboring electricity system
Nomination of TTC	Based on accessible for a given period mathematical models of connected systems
Criteria taken into consideration at the nomination of TRM	Weather conditions (temperature), generation of wind power plants in Germany, not agreed balancing flows, behaviour of market participants, accidents, model and calculation mistakes.
Time span of calculations	Yearly, monthly and daily plans for TTC, NTC i ATC
Available Transmission Capacity	Capacity band for particular border cuts, and: – a sum of available transmission capacity can not be higher for a given technical profile – limitations announced by neighboring TSOs must be taken into consideration

Source: PPGC – Operator

A standard method, elaborated by the European Transmission System Operators (ETSO) is used for the calculation of transmission capacity. It is based on calculation of transmission capacity inside every national system, and bilateral agreeing of offered capacities by operators at every border. Available transmission capacity, both in export and import are calculated jointly on three Polish borders – with Slovakia, the Czech Republic and Germany. The reason of this situation are difficulties in separate treatment at every border due to the appearance of loop flows of electricity in the region, difficult to foresee because of the lack of regional model of transmission grids, with necessary parameters of these grids. This is why the operators of transmission systems operating within the frames of one

regional market started co-operation on the elaboration of a method taking into consideration physical flows of electricity in the grids (*flow based method*), which will remove the barriers.

It must be underlined that within the scope of congestion management no significant changes took place in the national system.

### 3.1.3. Regulation of the tasks of transmission and distribution companies.

#### The types of operators

The management of the electricity system in Poland is realized by one transmission system operator and 14 distribution system operators, carrying out activities on their respective areas set by the range of their networks

**Table 3.1.3a. Regulated companies, TSO and DSO**

	Number of regulated companies	
	2004	2005
Transmission	1	1
Distribution	14 big DSO	14 big DSO

Source: ERO

#### TSO

Since August 1<sup>st</sup> 2004 the operator of the transmission system on the territory of Poland is PPGC – Operator. The undertaking operates within the structure of a vertically integrated undertaking - the Polish Power Grid Company (PPGC) and leases grid assets from the mother company. According to the Energy Law (Article 9k) the TSO should operate as a joint stock company, with 100% ownership of the State Treasury. To fulfil this requirement the owner of the TSO elaborated the idea transformation in the sector, which contains a method of assignment of the TSO to the State Treasury. The appropriate project was submitted to the Ministry of the State Treasury and the Ministry of the Economy on December 15<sup>th</sup> 2005. Proper legal steps were undertaken after.

#### DSO

Operators of the distribution system will be appointed by the President of the ERO on the motion of the owner of a distribution network by a decision setting period and area of designated economic activity. Until the moment the nomination of DSOs by the President of the ERO, but not later than until December 31<sup>st</sup> 2006, the energy undertakings performing the duties of system operators become operators of the system in the range of functions performed before. Since May 3<sup>rd</sup> 2005 (new Energy Law came into force) the duties of DSOs are performed basically by vertically integrated undertakings, that means distribution companies, running also trade activity. Until December 31<sup>st</sup> 2006 distribution companies are to be divided organisationally, but until July 1<sup>st</sup> 2007 legally.

In 2005 the President of the ERO received one application asking for the appointment of the distribution system operator. The borough of Kleszew as an owner of a distribution network asked to nominate ENERGOSERVICE KLESZOW Ltd in Rogowiec as a distribution electricity system operator, acting on the area of Kleszew borough.

#### Network tariffs

The President of the ERO approved tariffs according to unchanged principles, referring to the method of collecting information , evaluation of reliability of collected data, catalogue of applied tools, the evaluation of the efficiency growth and applied benchmarking analyses.

The period of validity of tariffs based on price caps or revenue caps and the impact of the President of the ERO on the final structure of the tariffs did not change.

All these questions were regulated by the Energy Law and secondary legislation.

Analyses of information, necessary in the process of verification of tariffs submitted by the system operators, data referring to tariffs, conditions and fees for connection also did not change comparing to 2004.

*The role of the President of the ERO in the process of evaluation the functioning of grids ( in the context of tariff methodology approval) and categories of regulatory quality.*

The President of the ERO evaluates investment plans of undertakings dealing with transmission and distribution of electricity on the stage of agreeing development plans of the undertakings for next years. During this evaluation the President of the ERO analyses purposefulness of investment expenditures within the context of network development, security of supplies. The investment expenditures are financed by justified tariff revenues, set separately for individual companies.

The President of the ERO does not monitor systematically the quality of network functioning, but reacts in every case, when he receives reliable information on this matter.

*Network fees.*

Table 3.1.3b. presents average net network payments (for network services) for three groups of customers with set characteristics of energy consumption. The payments were calculated based on valid tariffs for distribution companies in 2005.

The fact that characteristics of customers' groups elaborated by Eurostat (Dc, Ib, Ig) is not compatible with a consumption profile of a typical Polish household customer or small industrial customer.

**Table 3.1.3b. Average yearly fees for network services in 2005.**

Customer	Consumption	Capacity	Average yearly fee for network service
	MWh	kW	Euro/MWh
<b>Dc</b>	3,5	X	45,16
<b>Ib</b>	50	50	68,71
<b>Ig</b>	24 000	4000	18,67

Source: ERO, fees for 2005 were calculated according to average Euro exchange rate announced by the National Bank of Poland, 1 Euro = 4,02 PLN.

*Interruptions in supplies of electricity.*

Tariffs of distribution companies contain regulations referring to the amount of discounts resulting from interruptions of energy supplies.

Additionally it must be underlined that certain questions, referred to the quality of network functioning, for instance technical parameters for network functioning without disturbances, or permitted periods of interruptions in supplies and discounts resulting from not maintaining quality standards were regulated in the secondary legislation concerning the Energy Law<sup>4</sup>.

Average time of breaks in supplies in 2005 per one customer was calculated on the base of reports fulfilled by 14 distribution companies, covered by the program of public statistical

<sup>4</sup> The Ordinance of the Minister of Economy and Labour of December 20<sup>th</sup>, 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 23<sup>rd</sup> on detailed rules of setting and calculation of tariffs and settlements in trade in electricity (Dz.U. of 2004, No.105, position 1114).

researches about the state of electric appliances. According to the description of the report the indicator was calculated the following way:

$$T_a = \frac{\sum_{i=1}^n T_{pi} * L_{owi}}{L_o}$$

$T_a$  – period of breaks in supplies per one customer

$T_{pi}$  – period of breaks in supplies during „i” outage (in hours)

$L_{owi}$  – Number of customers cut during „i” outage. For medium voltage all customers on medium and low voltage cut must be considered. For low voltage all customers on low voltage cut must be considered.

$L_o$  – Total number of customers serviced by an undertaking fulfilling a report.

**Table 3.1.3c. Breaks in energy supplies in minutes per one customer annually.**

Year	Breaks in supplies
2004	419,4
2005	429,0

Source: ERO

### Balancing

A balancing mechanism functioning in Poland in 2005 was based on using by the TSO incremental and reduction offers submitted by generators with the application of marginal price criterion. In financial settlement of customers for imbalance an incentive mechanism was applied, with diversified prices CROz and CROs. In 2005 the customers were grouped within the frames of a schedule group of a distribution company. The customers executing the right to choose a supplier in most cases were charged individually for the cost of balancing – the same as paid by customers on the wholesale market.

Rules and mechanisms of balancing in force were introduced by the operators individually - by decisions of management, after consultation with market participants. After amendments in the law since May 2005, the principles of balancing of the electric power system and congestion management in the national electricity system are subject to Regulator’s approval, what opens the way to real and effective Regulator’s influence on the shape of applied mechanisms. Operator of the transmission system – PPGC Operator elaborated a grid code and on November 3<sup>rd</sup> 2005 submitted it for Regulator’s approval. Until the end of 2005 proceedings referred to the approval of the code were not finished. The operators of distribution system will elaborate their codes and submit them for approval after the approval of the TSO’s grid code. These codes will set rules of participation in the balancing process for customers connected to the grid of a given undertaking, including small customers.

Basic information about balancing mechanism in force in 2005 is given below.

**Table 3.1.3d. Balancing mechanism.**

Indicator	Description
Balancing period	1 hour
Description of balancing areas	Balancing takes place on 1 area – on the level of the transmission network one TSO operates.
Influence between areas	-
Gate closing hour	12.00



Possibilities of real time market and changes of contractual positions	No relations to the balancing market, referring to the Power Exchange it offers products in hourly mode , as it takes place on the balancing market.( Now the day ahead market)
Typical payments for balancing services	For customers (nominated for every hour) CRO – unified price of settling imbalance , calculated as a quotient of minimal costs of changes of verified quantities of supplied energy. From active Schedule Units securing balancing of the demand for energy within the field of the balancing market.. CROz – Settlement imbalancing price of purchase of energy on the balancing market, calculated as an average weighted price of prices reduction bands of balancing offers used in a given hour. CROs – Settlement imbalancing price of sales of energy from the balancing market calculated as an average weighted price of prices coming from incremental bands of balancing offers used in a given hour.

Source: PPGC –Operator

Table 3.1.3e. contains significant information relating to organisation of settlements for non-balancing, including time of realisation of particular stages of this process.

**Table 3.1.3e. Process and settlement schedule for non - balancing**

Details	Description
Description period	Decade, a month is divided into three decades
Form of settlement	Quantity and value
Settlement cycles	Daily – based on hourly settlement quantities of electric energy are delivered or received from the balancing market are set for a day n and payments for supplies or intake of balancing energy are calculated . Settlement quantities are calculated by the TSO in day n+ 1 as not approved, in day n+4 as approved. Decade - based on daily settlement quantities , balancing energy quantities supplied or received from the balancing market in a given decade are calculated together with payments for supplied or received energy.
Phases of hourly settlement	Stage 1 Settlement for unplanned balancing energy being a difference between declared and verified quantity of supplies Stage 2: settlement for planned energy being a difference between verified and correlated quantity of supplies. Stage 3: settlement for balancing unplanned balancing energy, being a difference between correlated and real quantities of supplies.
Corrections of settlements	Executed in monthly cycles, they relate to decade settlements, the length of corrected period is no longer than 4 moths, before the months in which a correction is made, after the correction period the settlements are treated as final and their corrections are not realised., the term of paying the corrected sum is the last day of the month of the correction.
Invoicing	The period of invoicing liabilities and payments on the balancing market are decades ( settlement periods), every invoice must be settled not later than in the period of settlement.

Source: PPGC-Operator

The exchange of trade data between the TSO and the participants of the balancing market is carried out with the system called Exchange of Information on the Energy Market. The exchange of technical information with the generators aimed at the facilitating grid operation is carried out with the system called Operative Exchange with the Power Plants. Moreover, in 2005 the TSO published on its web page principles of participation on the balancing market<sup>5</sup>, standard contracts, settlement prices and volumes of energy on the balancing marker in the hourly – daily cycle.

<sup>5</sup> There are included in Grid Code of PPGC-Operator

### 3.1.4. Effective unbundling.

The amendment of the Energy Law implemented into the Polish legal system regulations of Directive 2003/54/EC obliging to separate legally, organisationally and in accounting TSO and DSO remaining in the structure of vertically integrated undertaking. Legal separation of the DSO is required from July 1<sup>st</sup> 2007. The DSOs with less than 100 000 customers connected to their grids with annual consumption not exceeding 3 TWh in 1996, where less than 5% of annual electricity consumption comes from other connected electric energy system are excluded from this duty.

All energy undertakings are obliged to accounting and organisational separation of DSOs at the latest until December 31<sup>st</sup>, 2006.

**Table 3.1.4.a Main information about unbundling in the electricity subsector.**

Specification	Transmission	Distribution
Legal unbundling (Y/N)	Y	N
Organisational unbundling (Y/N)	Y	N
Accounting unbundling (Y/N)	Y	N
Separate auditing (Y/N)	Y	N
An obligation to publish a financial report (Y/N)	Y	N
Managements of undertakings without members from the management of other undertakings (managerial unbundling). (Y/N)	Y	N

Source: ERO

#### TSO

PPGC – Operator is a separated legal entity, functioning within the frames of a capital group PPGC. However the mother company possesses 100% of shares of the operator the operation of transferring the shares to the State Treasury is being planned, creating a joint – stock entity), what will fulfil the requirements of the Energy Law. Making the State Treasury the owner of the TSO will, as a result, introduce ownership separation of network activities from other energy activities. Referring to other means strengthening functional separation it must be said that the TSO runs its own web page not linked to daughter companies. Also new head office of the PPGC – Operator is being built.

**Table 3.1.4.b Transmission System Operator**

Year	Number of operators in the country	Number of operators with ownership separation
2004	1	0
2005	1	0

Source: ERO

#### DSO

14 big distribution companies run distribution of energy on the Polish territory, fulfilling the function of DSOs until the moment of their nomination. 2 of them are subject to the ownership supervision by the State Treasury (there are one – man joint stock companies of the State Treasury and 2 companies with partial ownership of the State Treasury. They perform network service and paralelly trade in electricity.

According to the Energy Law the process of legal separation must be finished until July 1<sup>st</sup> 2007. The Energy Law does not impose, according to Directive 2003/54/EC, a duty to implement ownership separation. It can be foreseen that distribution companies will operate within the frames of vertically integrated undertakings.

**Table 3.1.4.c Electricity distribution companies**

Year	Number of distribution companies	Number of DSOs	Number of DSOs with ownership unbundling
2004	197	14	0
2005	200	14	0

Source: ERO

Setting principles of the activities of the DSOs the Polish legislator decided to use possibilities resulting from Directive 2003/54/EC (for instance the exclusion of DSO servicing less than 100 000 customers from a separation requirements). However the number of distribution companies is relatively high, only 14 of them operate as DSOs.

The table below shows the situation of undertakings acting as DSOs and information about the principle of effective unbundling.

**Table 3.1.4d Distribution system operators in electricity**

Year	2004	2005
Number of DSOs in Poland	14	14
Number of DSOs legally unbundled	0	0
Principle of 100 000 customers (yes/no)	yes	yes
Number of OSDs servicing less than 100 000 customers	0	0
Number of legally separated DSOs with network assets	0	0
Number of legally separated DSOs without network assets	0	0
Affiliated services		
Share of affiliated services (in %) <sup>1</sup>	n.a.	n.a.
Employees of DSO performing services for other entities of the capital group (in %) <sup>2</sup>	n.a.	n.a.

Remarks: (1) Total cost of affiliated services divided into total network costs of a given DSO. (2) Employees performing their services for other undertakings from the same capital group as a percentage of all employees in network companies. (Denominator contains the share of affiliated employees + exclusive employees of network companies).

Source: ERO

**Table 3.1.4e The share of employees in network companies (TSO + DSO)**

Year	Share of employees in network companies (%)
2004	51,2
2005	52,0

Source: ERO

### **3.2. Competition Issues [Article 23(8) and 23(1) (h)]**

The structure of the electricity market in Poland was not significantly changed in 2005. In the generation subsector 10 undertakings still dominated the market. In the system there is significant excess installed capacity but the development of the market is limited due to obligatory purchases (green energy and co-generated energy) and limitations of the supply of accessible electricity offered on market conditions due to the existence of Long Term

Power Purchase Agreements with the fixed price formula ( between the generators and the PPGC Ltd) A big obstacle in the introduction of competition is the lack of necessary secondary legislation. Moreover the State Treasury share of the assets reaches about 75% in generation and 85% in distribution, what significantly hinders liberalization.

The Polish power sector is characterised by big accumulation of ownership shares in the State Treasury. The Minister of the State Treasury performs supervisory functions over majority of the energy undertakings in the form of joint stock companies of the commercial law. The ownership policy is realised following *the Program of the realisation of ownership policy of the Minister of the State Treasury referring to electricity sector*, adopted in January 2003 and the *Actualisation of the Program of Realisation of the ownership policy of the state treasury referring to the electicity sector*, adopted in June 2005.

These programs assume restructurisation, including vertical and horizontal integration of generation and distribution undertakings and privatisation of the power sector.

According to these assumptions six distribution companies from eastern Poland were consolidated into Eastern Energy Group with the head office in Lublin. The shares of this company were transferred to the State Treasury.

The process of consolidation of Rzeszów Energy Company Ltd. and Stalowa Wola Power Station was started within the frames of the idea of creating the Subcarpathian Power Company Ltd. The process of privatisation of Lower Oder Power Station was started in 2005 but stopped in 2006.

Simultaneously with the realization of programs listed above consolidation processes of electric energy companies started earlier were continued.

At the beginning of 2006 the government announced new policy program referred to the power sector. The program for the electric energy sector was announced on the 28<sup>th</sup> of March, which assumes vertical consolidation and the creation of several energy groups consisting of generation and distribution companies.

### 3.2.1. Description of the wholesale market.

The generation of electricity in 2005 reached 156,9 TWh and was by 1,8% higher comparing to 2004. Total electricity consumption reached 145,7TWh (0,6% growth comparing to 2004) Poland is a significant exporter of electric energy.

Basic data characterising the generation subsector are given below.

**Table 3.2.1a. Development of the wholesale market**

Year	Generation of electricity [TWh]	Total demand for electricity [TWh]	Installed capacity [GW]	Peak demand for capacity [GW]
2004	154,2	144,9	35,2	23,11
2005	156,9	145,7	35,4	23,48

Source: ERO based on data from The Agency of the Energy Market and PPGC – Operator Ltd

Total installed capacity in domestic power stations at the end of 2005 reached 35,4GWh – a small growth of 0,4% comparing to 2004.

Peak demand for capacity reached almost 23,5 GW.

Poland possesses significant excess of available capacity comparing to peak demand – but this situation can change after the entering into force new emission limits for the years 2008 – 2012.

**Table 3.2.1b. Characteristics of the market for 10 most important generators**

Year	Number of generators with market share over 5% (according to available capacity)	Market share of 3 biggest generators (according to available capacity) [%]	HHI Indicator	
			Power stations according to available capacity (by capacity)	Power stations according to factual generation (by volume)
2004	7	62,1	1748,6	2138,7
2005	7	62,6	1781,8	2246,1

Source: ERO based on the Agency of Energy Market

In 2005 the number of generators with the market share over 5% and the HHI indicator remained on the level closed to 2004. The HHI indicator for generation means high market concentration and for available capacity – average. This analyses was carried out for the 10 biggest domestic energy generators (almost 80% of domestic generation) without separation of other – smaller generation undertakings.

In 2005 over double growth of energy produced by generators and sold to traders was observed, reaching almost 40% of total electricity sold. The share of energy sold to distribution companies decreased – reaching slightly over 14%.

Data on the volume of energy trade on particular markets are presented below.

**Table 3.2.1c. Directions of electricity sales by the biggest 10 generators. (w TWh)**

Year	Total	LT PPAs*	Bilateral contracts	Power Exchange	Balancing market **	Futures market
2004	120,52	54,48	53,81	1,10	11,13	0
2005	124,43	39,45	71,93	1,05	12,00	0

\* regulated part

\*\* together with so called „forced” generation.

Source: ERO

Wholesale trade in electric energy is carried out on the Polish market in the form of non-standardised bilateral contracts (short and medium term) and within the frames of Long Term Power Purchase Agreements. Comparing to previous year, the sale of energy in Long Term Power Purchase Agreements decreased in 2005 by 27,6%, reaching about 31,7% of total sales of system generators. The reason is the termination of several contracts. The Power Exchange trades in relatively small quantities of energy and on virtual platforms of trade.

In the Polish electric power system regulatory system services are performed by condensation power stations. The quantity of regulatory system services are characterised by revenues for performing these services. Table 3.2.1d. presents data on the indicator of concentration value of system services performed by the system power stations in 2004 – 2005.

**Tabela 3.2.1d. Structure of system services for 10 system generators.**

Year	Revenues of ancillary services (in thousand Euro)	Number of generators with market participation >5% (according to revenues of the ancillary services)	Market share of 3 biggest generators (according to revenues of ancillary services) [%]	HHI indicator (according to revenues of ancillary services)
2004	160 661,942	5	57,8	1 488,1
2005	161 145,497	7	56,7	1 443,0

Prices calculated according to average yearly exchange rate, announced by the National Bank of Poland

2004 – 1 Euro = 4,53 PLN

2005 – 1 Euro = 4,02 PLN

Source: ERO

*The revenues of system power stations from regulatory system services (ancillary services) reached 160 661,942 thousand Euro (727 798,6 thousand PLN). In fact in PLN revenues of generators decreased by 79 993,7 thousand PLN, that means about 11% comparing to 2004 (in PLN). It is not seen in the table because of difference in the exchange rate in 2004 and 2005. The number of generators with market share over 5% increased to 7, and HHI index did not change significantly, reflecting average level of market concentration.*

The regulatory role in the Polish electricity system is performed by the Pumped Peak Storage Power Stations Ltd. , where majority shareholder in the PPGC Ltd. The company consists of 25 power stations including several flow power station and biggest pumped peak storage power stations: Zarnowiec Power Station (714MW) Porąbka – Zar Power Station (500 MW) Solina Power Station (200 MW). Total available capacity of the PPSPS reaches about 1558 MW.

*The level of integration with neighbouring countries.*

The size of cross border exchange is only one of many indicators of integration of domestic markets into one common market (data on this matter presents chapter 3.1.2) Wholesale prices on the integrated market should show similarity in the neighbouring countries. Among a lot of data which could comparatively characterise the advance in the creation of the common market the following figures were chosen for this Report: total gross cross border exchange, prices shaped on the power exchanges: mean price – average base load price day ahead at power exchanges in the region, median price – median base load price day ahead at power exchanges in the region. Other indicators are: standard deviation of prices of day ahead base load prices at power exchanges in the region (it shows us differences in price oscillation that means market risk), correlation of prices and auction results of congestion (the result is an average price resulting from congestion management „to” and „from” the country in a yearly period)

The activity of the European Commission aimed at the creation of the common market through gradual integration of national markets in particular regions and geographical location of Poland brought about the situation when Poland is active both on the regional market of Central Eastern Europe Countries and regional market of Northern Europe.

Table 3.2.1d presents indicators of the level of integration of Central and Eastern European markets in 2005.

**Table 3.2.1 d The level of integration of Central and Eastern European markets in 2005.**

	unit	Austria	The Czech Republic	Germany	Hungary	Poland	Slovakia	Slovenia
Gross transborder exchange	MWh/year	48 510 000	30 601 245	17 785 599*	17 625 344	17 409 000	21 608 885	5 365 506

Average price	Euro/MWh	46,57	32,15	45,97	N/A.	28,74	N/A.	47,85
Price - median	Euro/MWh	42,72	32,60	42,47	N/A.	28,61	N/A.	N/A..
Standard deviation	Euro/MWh	18,33	18,00	18,44	N/A.	3,14	N/A.	N/A.
Price correlation	0-1	AT-CZ 0,545 AT-GER 0,94	CZ-AT 0,545 CZ-GER 0,544	GER-AT 0,94 GER-CZ 0,544	N/A.	N/A.	N/A.	N/A.

\*a given quantity refers to trade exchange only with listed countries of Central and Eastern Europe.  
N/A. – not available

Source: E-Control based on the data supplied by the Regulators

The level of prices noticed on the Polish Power Exchange is relatively lower than the prices on the Power Exchanges of neighbouring countries. There is certain similarity in the case of Poland and the Czech Republic. Prices are similar also on the Power Exchanges of Austria, Germany and Slovenia. The difference between these two groups of countries are significant.

In the case of Poland the correlation of prices was not presented , because only 1,05% of generated energy is traded on the Power Exchange.

Table 3.2.1e shows the results of co-ordinated auctions for transmission capacity in the international trade in the region of Central and Eastern Europe.

**Table 3.2.1. e Auction results of congestion in 2005 ( in Euro/MWh) – Central and Eastern European Market**

Austria	The Czech Republic	Germany	Hungary	Poland	Slovakia	Slovenia					
CZ->AT	5,78	CZ->SK	0,19	8,89*	H->AT	1,5	From Poland	9,25	SK->H	**6,00	1,22
AT->CZ	N.A.	SK->CZ	0,04		AT->H	0,4	To Poland	0,70	H->SK	***0,05	
H->AT	1,50	CZ->PL	1,02		H->SK	0,051			SK->PL	0,77	
AT->H	0,40	PL->CZ	11,55		SK->H	6,01			PL->SK	N.A.	
AT->SLO	1,22	CZ->AT	5,78						SK->CZ	0,09	
SLO->AT	N.A.	AT->CZ	N.A.						CZ->SK	0,13	
		CZ->GER (E.On)	6,698								
		GER (E.On) ->CZ	0,0017								
		CZ->GER(VE-T)	6,08								
		GER(VE-T)->CZ	N.A.								

\*based on the data referring to import from Poland and the Czech Republic

\*\*50 % of capacity

\*\*\* 50% of capacity

Abbreviations:

AT- Austria

CZ – The Czech Republic

GER – Germany

H – Hungary

PL – Poland

SK – Slovakia

SLO – Slovenia

Source: E-Control based on the data supplied by the Regulators

Poland is also a participant of Northern regional market. Tables 3.2.1f, 3.2.1g, and 3.2.1h present data characterising the development Northern European Regional Market.

**Table 3.2.1 f Gross cross border exchange (in GWh) in 2005 r.**

To From	Germany	Poland	Sweden	Finland	Norway	Danmark
Germany		1	417			641
Poland	5898		1188			
Sweden	3411	822		6210	1859	7682
Finland			792		131	
Norway			9657	164		4626
Denmark	10282		722		452	
Russia				11312	215	

Source: Energitilsynet (the Danish Regulator) based on data from NordPool – spot contracts, ERO

The analysis of data given above brings about the conclusion that the most important for Poland is the exchange with Sweden. The exchange of energy is carried out by the SwePol link.

***Estimated calculations of tariffs for the SwePol connection.***

The results of auctions for transmission capacities through the SwePol connection are not available now..

It is possible to rent 1/12 of transmission capacity on the Swedish – Polish connection. Maximal transmission capacity of this connection is 600 MW, so 1/12 of this quantity equals 50 MW.

The tariff consists of fixed and variable charges Fixed charge for one year rent equals 14 387 750 SEK plus 1 689 047 PLN. Variable charge is applied to the part of energy exceeding 75 000MWh and equals 6,56 SEK plus 10,03 PLN (www.swepollink.com)

Taking into consideration maximal use (50MW\* 8760 hours) and currency exchange rate EUR/SEK = 9,21, EUR/PLN = 4,09 average yearly tariff would reach( for both directions) 7,13 EUR/MWh.

Real flows in 2005 reached 229MW/hour. It was brought out by transmission congestion, both on the Swedish and Polish sides. Now maximal capacity reaches 500 MW , but often it falls to 300 MW. If this last figure (300 MW) were use as a base for a calculation, 1/12 of available transmission capacity would reach 25 MW and average yearly tariff 11,10 EUR/MWh.

Table 3.2.1g presents data from the power exchanges of regional market of Northern Europe. Due to the SwePol connection it is possible to observe growing integration of Norwegian – Swedish and the Polish market. The level of prices on the German PX is decisively different than on the NordPool and the Polish power exchange.



**Table 3.2.1 g The level of integration of Northern European markets.**

	unit	Germany (EEX)	Norway (NordPool)	Poland (TGE SA)
Average price	euro/MWh	45,81	29,32	28,74
Median price		40,33	29,50	28,61
Standard deviation		26,86	4,56	3,14
Price co-ordination for EEX/NordPool Spot		0,45		-

Source: Energitilsynet (Danish Regulator) based on data from: ERO, Noregs vassdrags- og energidirektorat (NVE – Norwegian regulator), Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen (German regulator)

Table 3.2.1h presents the results of co-ordinated auctions for transmission capacity in international trade in northern European countries.

**Table 3.2.1 h Auction result of congestion in the market of Northern Europe, in 2005 (Euro/MWh).**

To	Germany	Poland	Sweden	Finland	Norway	Denmark
From						
Germany		0,7	5,34 – 11,77			0,36
Poland	9,25		11,10			
Sweden	8,56-15,00	11,10				
Finland						
Norway						
Denmark	4,43					

Source: Energitilsynet based on the data from national regulators

### 3.2.2. Description of the retail market.

In 2005, similarly to previous years, the biggest share in energy sold to final customers belonged to distribution companies (Integrated companies), which sold about 93% of energy to final customers, connected to distribution grids. In 2005 the number of active traders on the market, independent from distribution companies, remained on the same level, similar to 2004. (table 3.2.2b), However sales of these companies, grew by 92% comparing to 2004, its share remained on relatively low level of about a few percent.

**Table 3.2.2a. Distribution companies with the biggest share of energy sales to final customers**

Sales entities	Share of energy sales to final customers [%]		
	≥ 2 GWh	50 MWh – 2 GWh	≤ 50 MWh
Energy Concern ENERGA SA	15,9	18,9	18,1
ENION SA	15,5	13,4	14,6
EnergiaPro Energy Concern Ltd	14,5	10,1	9,3
ENE SA	14,4	18,4	15,3
Vattenfall Distribution Poland GZE Ltd	9,6	4,5	7,8

Source: ERO

The structure of the market described above influences its development and activity of customers. According to data from table 3.2.2b the biggest companies possess about 50% of shares practically in all segments of the market. Besides the segment of big and very big customers the share in this segment of small, medium customers and households increased significantly, even comparing to 2004.

**Table 3.2.2b. Development of the retail market.**

Year	Number of companies with > 5% market share of retail	Number of suppliers fully independent from grid companies	Market share of three largest companies			Percent of customers who switched		
			Big and very big industrial customers	Medium industrial customers	Very small industrial customers and households	Big and very big industrial customers	Medium industrial customers	Very small industrial customers and households
2004	6	20*	50,40	47,60	46,80	19,18	0,16	0,00
2005	6	19	45,90	50,70	48,0	15,16	0,00	0,00

\* number of traders active on the domestic market

Source: ERO

In 2005 capital links between generators and traders were similar to 2004. Out of 19 active traders in 2005, 7 were connected with international concerns. The beginning of activities was not connected the acquisition of existing power undertakings – some of them are only connected with generators bought by foreign companies.

There were no significant changes in switching procedures in 2005 comparing to 2004. Still there is a lack of secondary legislation to the Energy Law which would regulate this question. Grid distribution codes so far in force do not contain the procedure of switching, so the procedure obligatory in 2005 was presented in the previous report. The number of customers who changed a supplier decreased.

**Table 3.2.2c. The realisation of TPA in 2004 – 2005.**

Year	Number of customers using TPA		Energy supplied to TPA customers who switched	Percentage share of electricity supplied within the frames of TPA
	Change of supplier	Negotiated tariffs with so far supplies		
2004	78	around 49*	10 215	10
2005	35	57	7 433	7

\*ERO estimations (This question was not investigated in details in 2004 – approximate data)

Source: ERO based on the data from distribution companies

Low level of switching in electricity in 2005 was caused by the existence of several barriers, appearing also in the previous years., for instance:

- imperfection of functioning of the wholesale market, what resulted in the lack of competitive offers from traders. The sales of energy by traders to final customers was only a small part of their total sales (only 4% in 2005) and reflected not lack of interest of final customers but lack of possibilities to compete with distribution companies.
- unsolved problem of long term power purchase agreements. Despite the fact that the quantity of electric energy sold within the frames of long term power purchase agreements significantly fell comparing to 2004. (to 31,7% in 2005) nevertheless the existence of these contracts still significantly hinders the access to energy for independent suppliers. Successive problem is bias of price signals (prices and the way of indexation were set at the end of the nineties) and financing of purchase of energy

- by including in the tariff equalisation fee – system fee, which implements the lack of transparency in shaping and average price of purchase
- the lack of separation of grid activity from trade and using discounts by distribution companies ( cross subsidies)
  - barriers of administrative and technical nature, such as:
    - shortage of uniformed procedure of switching , prolonging and using by distribution companies unclear principles at changing a supplier by a customer
      - disadvantageous principles of balancing
      - introducing by distribution companies excess requirements referring to metering and settlement systems. This action resulted in significant increase of costs imposed on customers willing to switch., what simultaneously reduced savings from purchases of cheaper energy. Due to this fact changing of a supplier, specially in the case of customers with small or medium consumption was unprofitable. In 2005 , like in the previous years, only consumers with high consumption decided to switch.

Table 3.2.2c. presents the structure of electricity payments for three groups of customers. They come from approved tariffs for final customers.

**Table 3.2.2c. Structure of energy prices in 2005 (in Euro/MWh)**

	Ig	I	Dc	Typical household*
<b>Network fees excluding public legal fees.</b>	18,67	68,71	45,16	46,69
<b>Levies</b>	0	0	0	0
<b>Cost of generation + margin of a supplier</b>	30,65	35,31	36,02	36,92
<b>Taxes</b>	10,85	22,8	17,86	18,39
<b>Total price Euro/MWh</b>	60,1	126,8	99,05	102,00

Prices according to average exchange rate of Euro for 2005 announced by the National Bank of Poland 4,02 PLN = 1 Euro.

*\*Category of a typical household is artificially created for comparative needs – average consumption of a typical household was calculated as a quotient of energy sold to all households and their number*

Source: ERO

**Table 3.2.2d. Consumption of energy in a typical household (in kWh)**

Year	2004	2005
Typical household*	1948,9	1986,4

\* explanations see below table 3.2.2c.

Source: ERO

### 3.2.3 Measures to avoid abuses of dominance

The conditions needed for proper functioning of competition is the access to information and transparency of information.

The principles ruling the activities of generators on the wholesale market, including principles of transparency within the scope of publishing information on available generation capacity, period from placing an order to its realisation and forecasted level of generation capacity and

demand for it, did not change comparing to year 2004. All information given in the National Report of the President of the ERO still remain actual.

Also the principles of operations of the generating undertakings remain unchanged comparing to 2004. In 2005 the President of the ERO did not examine the structure of concluded contracts, but only the level of sales prices of electricity on the competitive market<sup>6</sup>. Competition was also hindered by the existence of Long Term Power Purchase Agreements. The sale of energy covered by these contracts reached 31,7% of total sales (in the year 2004 it was 44,5%)

The principles of purchase of energy for system balancing purposes (one – sided auction) also did not change. Regulatory system services (ancillary services) and availability service of generation units are bought within the frames of contracts concluded between the TSO and market participants. The process of contracting these services, similarly to the proceedings in 2004, was carried out in the way of public procurements<sup>7</sup>.

The structure of market supervision remained as it was in 2004. It is performed by the following organs of the state administration:

1. The President of the Energy Regulatory Office – basic organ supervising the electricity and liquid fuels' market. The president of ERO fulfils duties within the scope of fuel and energy economy and promoting competition.
2. The President of the Office for Protection Competition and Consumers – proper body in relation to the fuel and energy market within the scope of control of observing by entrepreneurs the regulations of the act about the protection of competition and consumers, monitoring the level of concentration and market behaviour of entrepreneurs, counteracting practises hindering competition and monopoly abuse, and also in the matters of concentration and division of companies, together with imposing fines in cases foreseen by law.
3. The Minister of the Economy – proper within the scope of elaboration of general directions of many-year policy of energy security of the country.
4. The Minister of the State Treasury – proper within the scope of ownership supervision and ownership transformation in the energy sector.

*Functioning of virtual energy trade platforms or other forms of trade in available generation capacity.*

1. Power Exchange

The first trade transactions were concluded on June 30<sup>th</sup>, 2000. Since October 1<sup>st</sup> 2005 the trade in ownership certificates resulting from certificates of origin issued by the President of the ERO for the producers of energy in renewable sources has been carried out.

2. Virtual energy trade platforms

- a) Platform for Electric Energy Trade – facilitates purchase and sales of energy within the time span of the nearest two years. Energy can be purchased and sold for the period of 1 day, 1 week, 1 month, 3 months, 6 months and 12 months. It is also possible to fulfil own portfolio by contracts for every hour of a day. The platform facilitates purchase and sale of conventional energy, co-generated energy and ownership rights resulting from certificates of origin of renewable energy.
- b) Cantor of Energy – run by a trader in energy, fulfilling the function of Trade Operator within the structure of balancing market, it is an electronic system of energy trade in the form of continuous quotations for every 24 hours of supplies for „the day ahead” or „two days ahead”.

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<sup>6</sup> The President of the ERO announces the information on average prices of sale of electricity on the competitive market – in the preceding calendar year by 31 March each year.

<sup>7</sup> Procedures applied are given by the act of January 29<sup>th</sup> 2004 – Public Procurement Law.(Dz.U of 2004, No 19 pos.177 with further amendments.

- c) e-SPOT – electronic platform of trade designated for consolidated groups of energy undertakings, which lets to minimise unbalancing of the group and maximises the volume of trade. It facilitates convenient and effective conclusions of contracts on the spot market.

The share of energy sold on these platform is within the range of a statistical mistake is not given in official statistics.

Referring to the **activities of traders** the following conditions for proper functioning of competition must be observed:

- *the principle of transparency and available information*

This principle is realised through published information, mainly in Internet

- a) web pages of traders

Web pages of traders dealing with trade in electricity contain general information about the undertaking. Some of them also contain detailed offers , for instance divided into wholesale and retail segments, offer of trade operator. Very few web pages contain forms facilitating contacts.

Web page of The Society for Turnover of Energy, an organisation associating traders, contains actual quotations on the Power Exchange market and balancing market, presents the principle of the choice of energy supplier in historical aspect and barriers hindering functioning of competitive energy market in Poland..

- b) web pages of distribution companies.

Network companies, dealing also with energy trade, often do not possess web pages dedicated to the free energy market. Undertakings which run trade activity within the structure of the same entity dealing with distribution, concentrate on their web pages on the servicing of tariff customers

- *the structure of contracts (including permissibility of long term contracts contained restrictions or clauses referring to financial fines imposed in case of anticipatory termination)*

Trade undertakings present their offers to final customers individually, based on actual market situation. These offers contain standard products and are build for periods of time required by trade partners.

Very few traders, not connected to distribution companies, supply electricity to final customers It is due to limited possibilities of competing with distribution companies and the lack of unified procedure of switching. Prices and other conditions of contracts are always negotiated with a partner and very in timing of supplies, deviations, profile of intake, actual prices on wholesale and power exchange markets, credibility of a customer, and experiences resulted from co-operation with this customer.

The contracts between traders and their clients are generally short – term contracts concluded for a period of one day (SPOT contracts) several days, one month, half a year or for undefined period of time. **Generally they are in the form of a frame contract**, always including transaction agreement, however there are also contracts containing description of defined quantity of energy. Most of contracts contains conditions regulating responsibility of parts for not fulfilling or unsatisfactory fulfilling the contract. Contractual fines applied in frame contracts secure both parts of the contract. A period pf termination in the case of longer frame contracts is generally 3 months. There are also possibilities of earlier termination in case when one of the parts abuses the conditions of the contract or in the cases strictly defined in the contractual conditions. Some companies use standard contracts of the European Federation of Energy Traders. Applied contractual fines resulting from premature termination of a contract by one of the parties are to compensate losses incurred by conclusion of a new contract. A contractual fine is paid by the part which obtains a profit to the part which losses as a result of this operation.

Setting of payment forms for energy is always regulated in a contract. Generally the traders are flexible in this matter. Settlement of invoices is generally executed in weekly,

decade, two weeks, month or individually fixed terms with trade partners. Payments are generally made in the form of a bank transfer, 14, 21 or 30 days from the day of issuing an invoice.

Trading companies generally answer for enquires, present their offer on web pages, participate in conferences, fairs, sometimes present their offers in other media. The most popular form of advertising are offers submitted to individual customers.

Most of traders does not intend to introduce a procedure to settle complaints and conclusions. Customer's remarks are analysed individually, and some companies apply individual approach, letting to solve a dispute on the spot. Every contract contains provisions on dispute settlement. Amicable methods of settlement are preferred, eventually proceeding at the arbitrary court, and, when a case belongs the competencies of the President of the ERO – an application for beginning of administrative procedure is placed. 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
- the recognition that a practice limited competition but it was stopped
- the recognition that a given practise did not limit competition

In 2005 the President of the Consumer and Competition Protection Office carried out 13 antimonopoly proceedings against energy undertakings in the matters of practises limiting competition.

In the power sector, due to specific characteristics of the market, especially the existence of natural monopolies in the network activity, significantly most of antimonopoly proceedings refers to monopoly abuse.

7 decisions, recognising the abuse of article 8 of the Law on Competition and Consumer Protection were issued, through abuse of a dominant position, and financial fines were imposed on these companies. In three cases it was recognised that these practises were omitted.

Two decisions, besides seven described above, contained, except statements about abuse of dominating position, two settlements, in which the abuse competition was not confirmed.

Abusing dominating position was caused by the refusal of performing the service of gas transmission, refusal or limitation of access to road lighting, on imposing unfavourable contractual conditions of natural gas supplies, on the linking conclusion of a connection contract with fulfilling additional services, imposing of unjustified prices and charges on the electricity market..

In five cases, after antimonopoly proceeding, The President of the OCCP issued decision recognised non-existence of applying antimonopoly practices.

In 2005 only one proceeding referring to conclusion of anti-competitive agreement, that means abusing art.5 of the Law on competition. Competition and Consumer Protection. The proceeding did not support the application of practices limiting competition.

In the proceedings related to announced intention of consolidation, The President of OCCP can issue the following decisions:

- the permission for consolidation – if, as a result, competition would not be limited
- conditional permission – if, after fulfilling certain conditions the requirements given above will be observed
- a ban on consolidation – if, as a result, competition would be significantly limited, specially by the emerging or strengthening a dominant position on the market.

- The permission for consolidation, significantly limiting competition, but if, as a result :
  - a) consolidation will make significant contribution for economic or technical development
  - b) consolidation can positively affect the national economy

In 2005 14 applications for issuing a permission for consolidation with the participation of energy undertakings were submitted.

In all the cases, the President of OCCP, according to art.17 of the Law on Competition and Consumer Protection , agreed for consolidation , recognising that it will not bring limitation of competition specially by emerging or strengthening a monopolistic position.

## 4. Regulation and functioning of the gas market.

### 4.1. Regulatory issues [article 25(1)]

The regulation of the gas market contains other challenges facing the President of the ERO than regulation of companies operating on the electricity market. The gas market is of international character, due to import dependence the questions of security of supplies are of special importance, including the diversification of sources. Another significant problem is storage of gas.

In the case of gas the ownership policy carried out by the Minister of the State Treasury and general policy directions elaborated by the government are also important.

#### 4.1.1. General

In 2005 the works on the changes in the sector were continued, according to Gas Directive 2003/55/EC.

On July 1<sup>st</sup> 2005 total unbundling of transmission services was implemented through the separation of the entity – Gas Transmission Operator – Gaz –System Ltd. (GTO Gaz-System), which started operations as the Transmission System Operator (TSO), based on the decision of the President of the ERO of July 1<sup>st</sup>, 2005. The GTO Gaz-System initially belonged to the Polish Oil and Gas Company (POGC), but the General Assembly of shareholders decide on April 28<sup>th</sup> 2005 about the transfer, as a grant, all shares in TGPO to the State Treasury. Since October 5<sup>th</sup> 2005, GTO Gas-System has been a one – man joint stock company of the State Treasury.

In the distribution subsector, that means in 6 distribution companies of the capital group POGC, a significant reorganisational scheme was implemented, introducing accounting separation of distribution departments.

Storage activity was also separated, remaining in the POGC structure. In the second half of 2005 POGC was called to present all storage capacities at the disposal of the holding and to submit an application for the license for gas storage services. All these steps were undertaken to establish storage system operator , what was achieved in 2006.

In 2005 the TSO started work on the grid code. This document is to define new principles of functioning of an undertaking on a liberalised gas market and to contribute to undertake by them more independent operations, for instance by concluding more profitable contracts for gas supplies. Until the end of 2005 the grid code was not approved, due to agreeing procedure carried out by the Regulator and Transmission System Operator.

In 2005, 57 865 undertakings, covering 72% of the market, were eligible to use TPA principle (see table 4.1.1). Due to still existing barriers, e.g. monopolistic structure of the sector, the lack of measuring equipment, shortage of intersystem connections, the lack of IT systems, and congestion on interconnectors, no one of eligible customers used TPA principle.

**Table 3.1.1. Gas market opening**

Year	Criterion of opening (mcm/year)	% of market opening
2004	> 15	31,9
2005	All excluding household customers	72
2007	All	100*

\*Since July 1<sup>st</sup>

Source: ERO, POGC



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

Since July 1<sup>st</sup> 2005, after the separation from the POGC a company GTO Gaz-System and appointing it for the function of the transmission system operator, this company was managing and nominating<sup>8</sup> interconnectors' capacities. Due to the lack of the Grid Code the base of these activities were bilateral contracts between POGC and GTO Gaz – System.

Interconnectors were characterised by unidirectional transmission (from East to West). All nominations were reserved by the POGC.

**Table 4.1.2a. Interconnectors with other Transmission System Operators.**

Name of the system operator	Country	Place of connection	Total transmission capacity *) [mcm/year]	Reservation of transmission capacities for long term contracts [mcm/year]	Direction of supplies	Kind of submitted nominations**)
Naftohaz	Ukraine	Drozdowicze	4 800	4 580	Poland	a)
Bieltransgaz	Belarus	Wysokoje	5 000	2 020	Poland	a)
		Tietierowka	100	60	Poland	a)
VNG AG	Germany	Lasów	1 000	950	Poland	a)
		Kaminke	90	44	Germany	b)
EuRoPol Gaz	Poland	Włocławek	2 800	1 580	Poland	a)
		Lwówek	1 100	1 100	Poland	a)

\*) Maximal continuous transmission capacity which can be offered by a transmission system operator to network users, taking into consideration integrity of the system and exploitation requirements of transmission lines.

\*\*\*) Kinds of nomination:

a) monthly and daily in a weekly cycle, b) daily in weekly cycle.

Source: GTO Gaz – System.

Until June 30th congestion management was carried out by the POGC. Since July 1<sup>st</sup> 2005 this function has been performed by the GTO Gaz – System. Congestion management was run according to internal instructions of the operator.

Due to the lack of the Grid Code, the transmission system operator in the case of system congestion was obliged to observe the following rules:

- realisation of new contracts should not lower level of security of supplies and quality of gas supplied to up to now customers.
- Offering available capacity according to succession of receiving a complete application for transmission service, with preserving priority principle for entities which have used already transmission capacity.

<sup>8</sup> Nomination – declaration of Transmission System User (TSU) concerning projected gas volumes to be delivered by TSU during a certain time period to the transmission system at the entry point and oftaken by TSU from the transmission system at the exit points

- Not realised services on fixed principles should be offer, if possible on interruptible principle
- In the case of the lack of possibilities to realise a contract, offering to a customer (on his motion) preparation of information about necessary scope of network development and other elements of the system aimed at the realisation of a given service.

Table 4.1.2.b presents information referring to cases of system congestion and preventive measures in 2005.

**Table 4.1.2b. Physical system congestion management.**

Place	Scale of congestion	Preventive measures
Western Pomerania	No capacity and connected with it lack of possibilities to connect new exit points and to increase capacity existing exit points on the line Piła – Słupsk – Koszalin and in the system supplying blending installations of E and Ln groups, producing for Pomerania (Koszalin, Kołobrzeg) nitrogen gas of Group Ls (pipeline Goleniów – Nowogard – Gorzysław). On the area of the lack of capacity Piła – Koszalin – Słupsk was estimated at the level 5 – 8 cubic meters / hour.	Planned development of the Goleniów – Nowogard – Gorzysław transmission system giving possibilities to increase the supplies of gas and development of Włocławek – Gdańsk gas pipeline. Industrial customers were offered interruptible services, (available capacity dependable from the situation in the transmission system).

Source: GTO Gaz – System

On the intersystem connections no system congestion took place. No swap contracts were also concluded.

The contract for gas transmission through the Polish territory is valid until the end of 2019 and is carried out by the operator of gas transit pipeline, the EuRoPol Gaz undertaking. In the year 2005 reserved transmission capacity reached 26,8 bcm of gas.

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

##### **Transmission System Operator**

Since July 1<sup>st</sup> 2005 the transmission system operator on the area of Poland is the GTO Gaz–System. As it has been said earlier the company described above is the property of the State Treasury (Article 9k of the Energy Law) The owners of transmission assets are both the TSO and POGC – estimated at 4,5 bln PLN – for July 7<sup>th</sup> 2005 (estimation according the Regulated Asset Base method ) on the base of an operational leasing contract. The equity of the TSO is estimated – for July 7<sup>th</sup> 2005 – for about 500 mln PLN. The TSO is creating its own image – own logo, internet service without links to other members of the capital group, etc.

##### **Distribution System Operator**

According to the act amending the Energy Law, since May 3<sup>rd</sup> 2005 the duties of the distribution system operators have been performed by these undertakings which had performed these duties before the amendment date. There are vertically integrated companies. However according to the act mentioned above, the DSO are to be organisationally separated until December 31<sup>st</sup>, 2006, and legally until July 1<sup>st</sup> 2007.

**Table 4.1.3a. Regulation of network companies**

Year	Number of regulated companies		Storage charge (Euro/m <sup>3</sup> ) <sup>(1)</sup>
	Transmission	Distribution	
2004 <sup>(2)</sup>	61	-	N.A.
2005 <sup>(2)</sup>	3	61	N.A.

(1) In the years 2005 – 2006 charges for storage were not separated. The cost of storage was covered by transmission charges.

(2) The table shows data related to the number of licensed network companies. After the amendment of the Energy Law the President of the ERO grants separate licenses for transmission and distribution of gaseous fuels. According to article 17 of the amending act the licenses for transmission and distribution of gaseous fuels became , from the day of the validity of the act (May 3<sup>rd</sup> 2005) licenses for transmission or distribution, according to the kind of activity carried out by a given energy undertaking.  
Source: ERO

### Network Tariffs.

Tariff of the EuRoPol Gaz SA for transmission services valid for 2005, was approved in mid-December 2004, on the level lower than applied in 2004 by 4%, and lower than it was 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 charges for three exits: Włocławek, Lwówek and Mallnow, with the division into two periods of a tariff year. The establishment of different charges for periods mentioned above was due to the fact, that the undertaking will bear different costs of transmission in the first and second half of 2005, different capacities and quantities of gas covered by this service in these periods, with connection with commissioning of two new pressure stations in mid-2005. Making the charge average for the whole year would cause the lack of financial means in the first half of 2005, what would result in losing financial liquidity.

The application the GTO Gaz–System, which started activities on July 8<sup>th</sup> 2005, was rejected. The reason of refusal to approve the TSO tariff was exceeding of the regulated revenues, being the base for tariff calculation, by accepting some costs and return on equity on the level not acceptable by the President of the ERO. The text of the tariff did not meet the requirements of the Energy Law and secondary legislation.

It must be noted, that according to par. 31 pos. 2 of the Ordinance of The Minister of Economy and Labour of December 15<sup>th</sup>, 2004, on detailed principles of shaping and calculating tariffs and settlements in the gas trade, (Legal Journal Nr.277 pos.2750) the TSO could, maximally for 9 months since the day of beginning transmission activities, apply tariff of a company from which it was separated, that means POGC.

Establishing a gas transit tariff and transmission tariff is elaborated with the application of the cost method. Applying of benchmarking is impossible, not only because of to small number of entities, but also incomparable conditions of their activities.

The fact of refusal of the TSO's tariff and the lack of secondary legislation, to the amended version of the Energy Law, ( that means the ordinance on the functioning of the gas sector and the ordinance on shaping and calculation of tariffs on gaseous fuels) and, which introduced numerous changes influencing the gas sector, and, consequently, also tariffs elaborated by the undertakings of the sector, was the reason that new tariffs of distribution companies were not approved. These companies applied tariffs for distribution services approved in September 2003. Only gas prices were increased , due to the growth of wholesale prices of gaseous fuels bought from POGC.

Due to its structure, the wholesale natural gas market can not be recognised as competitive, so the prices on this market are shaped by the decisions of the President of the ERO.

Considering permanent growth of oil products since early Spring 2004 to late autumn of 2005, noticed growth of costs of gas purchases from import reached 70% (in USD), with further growth tendency. This growth was delayed comparing to changes of prices of oil products due to the character of the contractual formula.

The changes in the prices of oil products was triple correction of wholesale gas prices in the POGC tariff in 2005 (cumulated growth reached about 26%). The dynamics of the growth of gas prices was weakened by the changes in the exchange rate of the zloty (PLN) to the dollar (USD), because in 2005 the Zloty became relatively stronger.

The prices of gaseous fuels, sold by the POGC changed three times in 2005, on January 1<sup>st</sup>, July 1<sup>st</sup> and October 1<sup>st</sup>, however the proceeding also concerned an application to increase prices since April 1<sup>st</sup>, but it was finally withdrawn by the company. Moreover, by a decision of December 14<sup>th</sup> 2005 a new rise was approved, which came into force on January 1<sup>st</sup> 2006.

The dynamics of the rise of distribution tariffs was significantly lowered comparing to the wholesale tariff, due to the fact that since October 2003, network charges had not been changed. Combined invoices, issued to final customers, grew less when the share of distribution charges was higher.

The table below shows – in the scale of the country – average network charges for selected groups of customers.

**Table 4.1.3b. Average network charges for customers**

	Unit	I4-1	I1	D3
		2005	2005	2005
Transmission charges (excluding legal and public charges)	Euro/m <sup>3</sup>	0,041	0,103	0,103

Source: ERO

#### *Interruptions in gas supplies*

The regulations of the Energy Law and related secondary legislation contain regulations referred to admissible length of brakes in gas supplies and the amount of discounts for exceeding admissible norms.

**Table 4.1.3c. Interruptions in gas supplies in 2005 r.**

breakdowns			Planned works		
Duration in minutes	Number of customers cut	Average duration/ one customer in minutes	Duration in minutes	Number of customers cut	Average duration/one customer in minutes
43 341 809,10	109 571	<b>395,56</b>	79 411 583,60	194 219	<b>408,88</b>

Source: ERO

#### Balancing

In 2005 the balancing of the transmission system was carried out by GTO Gaz–System for POGC, based on two contracts – a contract on performing transmission service and a contract on operative management of gas storage capacities belonging to POGC. Due to the

lack of the grid code balancing of the system, similarly to 2004, was executed according to simplified procedures of notifying the demand of the transmission system users. The balance of the system included:

- The demand for gas of distribution companies: Gas Joint Stock Companies of the POGC capital group and other distribution companies;
- Demand for gas of big customers supplied directly from the high pressure transmission network;
- Needs to store gas and develop underground storages of gas;
- Own needs of the TSO;
- Export contracts.

The Regulator was not approving in 2005 the methodology of balancing, placed in the mentioned above draft of the grid code.

#### 4.1.4. Effective unbundling

Referring to the Energy Law the TSO and DSOs being in the structure of a vertically consolidated company are obliged to implement legal, organisational and accounting separation. Legal separation of DSO will be required since July 1<sup>st</sup> 2007. This obligation does not concern gas DSOs with less than 100 000 customers connected to the network and sales not exceeding 100 mln mcm.

All energy companies are obliged to implement accounting and organisational separation (DSOs at the latest until December 31<sup>st</sup> 2006) Now, referring to the network companies this duty will play significant influence on DSOs excluded from a duty of legal and organisational separation. In the rest of DSOs legal separation will inevitably lead to accounting separation.

**Table 4.1.4a. The level of unbundling in the gas sector**

	<b>Transmission</b>	<b>Distribution</b>
Legal unbundling – separated head offices (Y/N)	Y	N
Organisational unbundling (Y/N)	Y	N
Accounting unbundling (Y/N)	Y	N
Separated auditing (Y/N)	Y	Y
A duty to announce financial reports (Y/N)	Y	N
The existence of managements without members from other managements of the same group (managerial unbundling) (Y/N)	Y	N

Source: ERO

#### **TSO**

In the case of TSO not only legal separation but also ownership separation was introduced – since April 28<sup>th</sup>, 2005, the owner of 100% shares of the TSO is the State Treasury. This joint – stock company is not a part of a vertically integrated undertaking , so its independence from companies dealing with extraction and trade in gas is guaranteed. The head office of the company is in a separated building, only National Gas Dispatching Centre is located in a separated part of a building occupied by a company which deals with extraction and trade in gas (POGC).

**Table 4.1.4b. Transmission system operators**

year	Number of TSOs	Number of TSOs with ownership separation (units)
2004 <sup>(1)</sup>	1	0
2005	1	1

(1) In 2004 r. GTO Gaz-System fulfilled the function of the operator – managed the transmission system.

Source: ERO

## DSO

In the case of DSOs organisational and accounting separation was implemented. These companies were reorganised, and the departments dealing with distribution were separated. This process is supported by elaboration by the companies *The programmes of compatibility*, describing in details rules of co-operation with other spheres of activities of the capital group.

**Table 4.1.4c. Distribution system operators (DSO)**

Year	2004	2005
Number of DSOs	6	6
Number of DSOs legally separated	0	0
Principle of 100 000 customers of a DSO (yes/no)	yes	yes
Number DSOs servicing <100 000 customers	0	0
Number of legally separated DSOs which own their network assets	0	0
Number of legally separated DSOs without own network assets	0	0
Affiliated services (%)	n.a.	n.a.

Source : ERO

**Table 4.1.4d. The share of employees in network undertakings (TSO + DSO)**

Year	The share of employees in network undertakings (in %)
2004	66,2
2005	79,0

Source: Based on data from the Agency of the Energy Market and reports on network undertakings.

## 4.2. Competition Issues [Article 25(1)(h)]

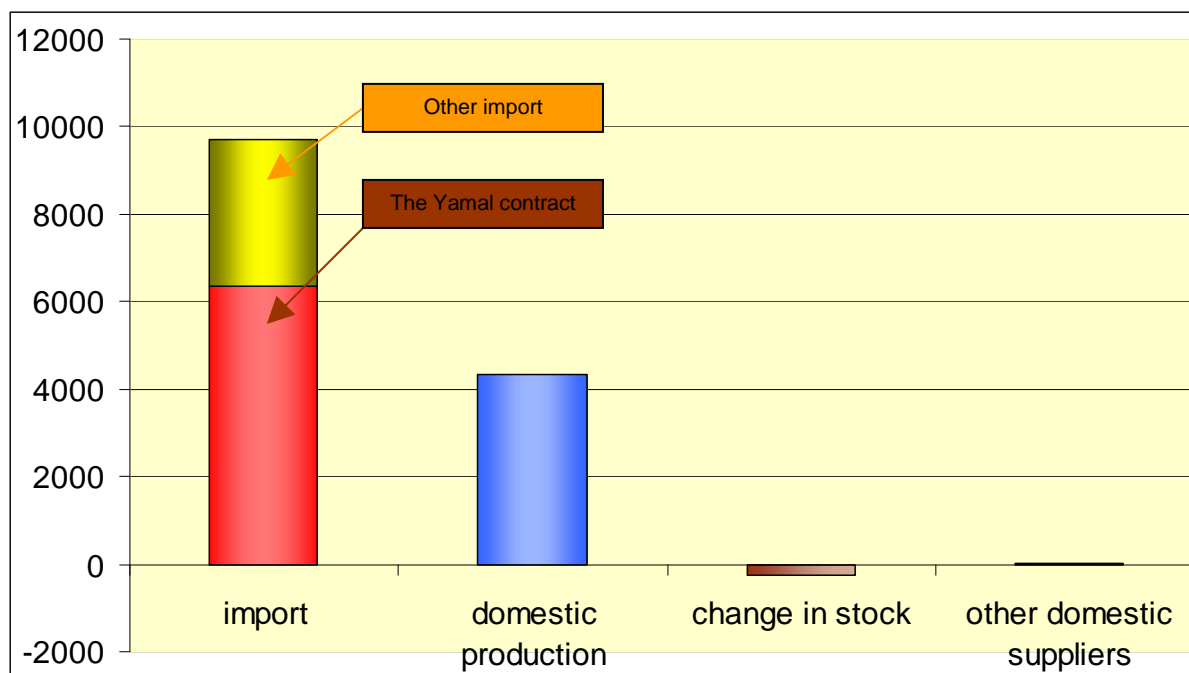
### 4.2.1. Description of the wholesale market

Total natural gas consumption in Poland reached 13,8 bcm, 31% of gas came from domestic sources. The suppliers of imported gas were Russia, Germany, Norway and central Asian Countries. The most of import was realised within the frames of a long – term contract with Russia – in 2005 on the base of this contract 6,3 bcm was imported, what constituted 65,4% of the total volume of import. Supplementing supplies were realised through smaller, short – term or medium – term contracts.

The structure of origin of gas in 2005 was as follows:

- a) the Yamal contract – 6 340,3 mcm
- b) domestic extraction – 4 318,1 mcm
- c) other import (Germany, Norway, Uzbekistan, and other central Asian countries, the Czech Republic) – 3 350,3 mcm
- d) Changes in the gas storages – (-) 242,3 mcm
- e) other domestic suppliers<sup>9</sup> – 20,3 mcm

**Figure 4.2.1. The structure of gas supplies in 2005 (in mcm)**



Source: ERO

The sales to companies dealing with trade is carried out by one undertaking – the POGC and partly by distribution companies. The sales of gas on the wholesale market reached in 2005 almost 8 bcm, and only 1,8% of this volume was purchased by other entities than distribution companies. The sales of distribution companies to wholesale customers reached nearly 19 mcm, what was 0,2% of total sales.

**Table 4.2.1a. The wholesale market – production, import**

Year	Demand		Extraction		Import capacity [bcm/year]				Market concentration		
	Total consumption [bcm <sup>3</sup> ]	Peak (mcm/ 24 hours)*	Total [bcm <sup>3</sup> ]	Capacity [mcm/24 hours]	Total	Reserved for transit	Reserved for long – term contracts	Not reserved	Number of companies controlling > 5% of gas extraction and import	Number of companies consuming > 5% of gas	Th marker share of the biggest wholesalers [%]
2004	13,4	58,3	4,3	14,6	16,4	n.a.	12,0**	4,4	1	1	100
2005	13,8	60,7	4,3	14,5	14,8	2,7	7,7	4,5	1	1	100

Remarks: (1) Total consumption = Production + Import – Export + Storage changes

\* referring to total wholesale and retail markets

\*\* includes reserved quantities from transit

Source: ERO estimations based on data from POGC and GTO Gaz-System

<sup>9</sup> Other national sources include companies dealing with gas coming from other suppliers than capital group POGC, for instance Media Odra Warta.

Transit services were not performed for the third parties, however transmission capacity of the transit pipeline was not fully reserved by main shareholders of the EuRoPol gas company, that means POGC and Gazprom.

**Table 4.2.1b. Wholesale market (in bcm)**

Year	Turnover of the gas market	Turnover of the futures market	Bilateral contract not listed on the Stock Exchange (OTC)
2004	0	0	n.a.
2005	0	0	n.a.

Source: URE

In 2005, like in 2004, no trade in gas hubs was carried out. There is not gas exchange. Domestic gas market is to low extent co-ordinated with neighbouring countries – members of the EC. In 2005 total transmission capacity of two interconnectors with a German operator reached 1 090 mcm, out of it 994 mcm were reserved for long – term contracts. The prices in international trade are generally negotiated between parties.

In 2005 the TSO carried out works on the system which would give access to information on the transmission network to the users of the system on web pages of the TSO. The scheme of network with marked entries and exits was being elaborated. No information about accessible transmission capacity in export, import and national transmission were published.

The TSO declared that final form and scope of presented information will be set according to the regulation of the European Parliament and Council on the access to gas transmission networks, which came into force on July 1<sup>st</sup> this year.

#### 4.2.2. Description of the retail market

Retail sales on the gas market reached in Poland in 2005 13,4 bcm (3,6% more than in 2004) and was run by companies of POGC capital group (total consumption in Poland reached 13,8 bcm, - the difference of 0,4 bcm between total consumption and retail sales results from the fact that data in table 4.2.2a do not include sales in companies out of the capital group of POGC dealing with trade in gas, they reflect balance differences, and consumption of gas undertakings for own purposes The data of POGC show that 41,8% of gas sold on the Polish market was directed to customers (mostly industrial) directly from the national transmission system or from sources. Moreover, the POGC sold to DSOs gas for own purposes of the operators and system balancing needs. The rest of gas was sold from the distribution system by daughter companies of POGC. The sales to household customers was carried out totally from the distribution systems.

The structure of the retail market in 2005, not significantly different that in 2004, was presented in table 4.2.2a

**Table 4.2.2a. The structure of the retail market in 2005 r. (in mcm)**

Specification	The sales of capital group	Including:	
		Sales from the system and direct	Sales of gas undertakings
<b>Total</b>	<b>13 350,4</b>	<b>5 584,0</b>	<b>7 766,4</b>
<b>1. Industry, including:</b>	<b>8 041,3</b>	<b>5 423,6</b>	<b>2 617,7</b>
Nitrogen plants	2 455,1	2 455,1	0,0
CHPs	1 133,7	1 118,6	15,1



Heat stations	288,9	23,7	265,2
Other medium customers (consumption from 1 to 25 mcm/year)	1 937,8	480,6	1 457,2
Other big customers (consumption from 1 do 25 mln m <sup>3</sup> /year)	1 483,7	1 329,1	154,6
Others	742,1	16,5	725,6
<b>2. Trade and services</b>	<b>1 445,0</b>	<b>31,0</b>	<b>1 414,0</b>
Small customers (consumption <1mcm/year)	1 208,5	4,6	1 203,9
Medium consumers (consumption from 1 to 25 mcm/year))	236,5	26,4	210,1
<b>3. Households</b>	<b>3 734,7</b>	<b>0,0</b>	<b>3 734,7</b>
<b>4. Export</b>	<b>41,8</b>	<b>41,8</b>	<b>0,0</b>
<b>5. GTO Gaz-System</b>	<b>87,6</b>	<b>87,6</b>	<b>0,0</b>
<b>% of sales</b>			
	<b>100</b>	<b>41,8</b>	<b>58,2</b>
<b>1. Industry, including:</b>	<b>60,2</b>	<b>40,6</b>	<b>19,6</b>
Nitrogen plants	18,4	18,4	0
CHPs	8,5	8,4	0,1
Heat Stations	2,2	0,2	2
Other medium customers (consumption from 1 to 25 mcm/year))	14,5	3,6	10,9
Other big customers (consumption from 1 to 25 mcm/year)	11,1	10	1,2
Others	5,6	0,1	5,4
<b>2. Trade and services</b>	<b>10,8</b>	<b>0,2</b>	<b>10,6</b>
Small customers (consumption < 1mcm/year)	9,1	0	9
Medium consumers (consumption from 1 to 25 mcm/year))	1,8	0,2	1,6
<b>3. Households</b>	<b>28,0</b>	<b>-</b>	<b>28,0</b>
<b>4. Export</b>	<b>0,3</b>	<b>0,3</b>	<b>-</b>
<b>5. GTO Gaz-System</b>	<b>0,7</b>	<b>0,7</b>	<b>-</b>

Source: ERO based on data from POGC and gas undertakings

The retail market in Poland is heavily concentrated. 7 companies consolidated in the capital group POGC. possessed marked share > 5% each. Due to the specific activity of distribution companies ( practically they are a single gas supplier in their respective areas of activity) the retail market is divided into local monopoly markets. The POGC runs sales from the system and directly from sources, aimed at supplying industrial customers. Calculation of shares of three biggest sales companies is not purposeful, because achieved results will not reflect actual structure of the market.

Table 4.2.2b. presents development of the retail market.

**Table 4.2.2b. The development of the retail market**

Year	Number of companies with turnover share >5%	Number of companies independent from network companies	Share of three biggest suppliers to:				Yearly value of change indicator (in%)						
			CHPs and heat stations	Big industrial consumers including nitrogen plants	Medium and other industrial consumers	Small and medium consumers – trade services and household customers	According to measurement points			According to volume			Customers changing contractual conditions
							Big industrial customers	Medium industrial customers	Small companies and household customers	Big industrial customers	Average industrial customers	Small industrial and household customers	
2004	7*	0	n.a.	n.a.	n.a.	n.a.	0	0	0	0	0	0	0
2005	7*	0	n.a.	n.a.	n.a.	n.a.	0	0	0	0	0	0	0

\* All companies belong to the POGC capital group

Source: Elaboration of ERO based on data of POGC and gas undertakings

The procedure of switching will be contained in the grid codes of distribution companies. Their creation and approval will depend on prior authorisation. No one of eligible customers did not execute the TPA principle in 2005. Due to specific nature of the retail market of the grid codes it is impossible to measure the impact of long – term contracts on the retail market.

**Table 4.2.2c. The structure of gas prices 2004 - 2005 (in Euro/m<sup>3</sup>)**

	Calorific value for the country [MJ/m <sup>3</sup> ]	I4-1		I1		D3		Typical household supplier*	
		2004	2005	2004	2005	2004	2005	2004	2005
Transmission fees (without public and legal charges)	39,5	0,0367	0,0414	0,0919	0,1036	0,1036	0,1036	0,0961	0,1081
Public and legal charges (overheads)		-	-	-	-	-	-	-	-
Taxes		0,0081	0,0091	0,0202	0,0916	0,0227	0,0202	0,0211	0,0237
<b>Total transmission</b>		<b>0,0448</b>	<b>0,0505</b>	<b>0,1121</b>	<b>0,1952</b>	<b>0,1263</b>	<b>0,1238</b>	<b>0,1172</b>	<b>0,1318</b>
Payments for gas		0,1033	0,1322	0,1102	0,1406	0,1156	0,1303	0,1345	0,1686
Taxes		0,0227	0,0291	0,0273	0,0309	0,0254	0,0323	0,0296	0,0371
<b>Total gas</b>		<b>0,1260</b>	<b>0,1614</b>	<b>0,1375</b>	<b>0,1715</b>	<b>0,1410</b>	<b>0,1626</b>	<b>0,1641</b>	<b>0,2057</b>
Supply of gas		0,1401	0,1737	0,2022	0,2443	0,2076	0,2504	0,2306	0,2768
Taxes		0,0308	0,0382	0,0444	0,0537	0,0456	0,0551	0,0507	0,0608
<b>Total supplies</b>		<b>0,1709</b>	<b>0,2119</b>	<b>0,2466</b>	<b>0,2980</b>	<b>0,2532</b>	<b>0,3055</b>	<b>0,2813</b>	<b>0,3376</b>

Remarks:

Tariffs for distribution companies are subject to the President of the ERO approval.

The prices were calculated according to average yearly exchange rate announced by the Polish National Bank:

2004 r. 1 Euro = 4,53 PLN

2005 r. 1 Euro = 4,02 PLN

\*A category of a typical household is artificially created for benchmarking purposes – Consumption of "a typical household" was calculated as a quotient of the quantity of gas sold and number of these household.

**Table 4.2.2d Consumption of gas in a typical household (in m<sup>3</sup>)**

Year	2004	2005
Typical household*	569	576

\* explanations below table 3.2.2c.

Source: ERO

## 5. Security of supply

### 5.1. Electricity [Article 4]<sup>10</sup>

#### *Characteristics of the market – security of supply*

Energy security depends on many elements: peak demand and possibilities of its fulfilment, structure of primary fuel consumption (including dependence on import) construction of new capacities.

**Table 5.1.a Demand for capacity**

Year	Peak demand (GW)	Available capacity (GW)
2004	23,11	27,98
2005	23,48	27,80
Planned		
2006	24,10	28,30
2007	24,30	28,54
2008	24,50	28,49

Source the PPGC - Operator

It has to be pointed out that within the scope of the construction of new sources the President of the ERO had granted 19 licenses for generation of energy in renewable sources of total installed capacity 320,793 MW, a promise of a license for the generation of electricity in a hydro power station of 3 MW of capacity which is not recognised as a renewable source and promise of a license for the generation of electricity fuelled by lignite with installed capacity of the source of 460 MW. Due to the lack of legal obligations to obtain a promise of a license earlier, it is possible that data about the number of issued promises can not be a reliable source about investment in new capacities.

Independently from above, the President of the ERO, according to Article 16a of the Energy Law, after the statement of the Minister of the Economy that existing and under construction capacities do not secure long – term security of electricity supplies announces, organises and runs tenders for the construction of new capacities. When choosing an offer the President of the ERO takes into consideration the following:

- Energy policy of the state;
- Security of the energy system;
- Requirements referring to health, environmental protection and public security;
- Energy and economic efficiency of a given undertaking;
- Location of the construction of new energy generation capacity;
- Kind of fuels designated for the consumption in new sources of electricity.

Now, on the Polish market, the generation of energy is dominated by fuels coming from the Polish sources, black coal – 60,6% and lignite – 35%.

The structure of the consumption of basic fuels for generating electricity is shown below.

<sup>10</sup> This chart contains references to related market projections of the TSO.

**Table 5.1 b Generation of electricity in 2004 - 2005**

Fuel	Generation of electricity in MWh		Structure in %	
	2004	2005	2004	2005
coal	93 805,6	93 471,8	60,85	59,56
gas	3 491,4	3 174,6	2,26	2,02
lignite	52 159,3	54 865,4	33,83	34,96
hydro*	3 690,6	3 777,7	2,39	2,41
Other renewables	761,2	871,4	0,49	0,56
Co - firing	251,3	777,0	0,16	0,50
<b>Total</b>	<b>154 159,4</b>	<b>156 937,9</b>	<b>100,00</b>	<b>100,00</b>

\* including pump storage

Source: ERO, the Agency of the Energy Market

I. The ventures realised by the TSO in 2005 influencing possibilities of real intersystem exchange is the construction of 400kV Tarnów – Krosno – Iskrzynia line (finished investment) and modernisation of electric energy station 400/220/110 Mikołowa and also an undertaking called „the Improvement of technical conditions of the Krosno – Lemesany 400kV line”

The TSO is also planning (realisation after 2010) the investment of the development of synchronic connections with the German and Slovakian systems, and also the construction of new connections with the Lithuanian and Ukrainian systems, aimed at the increase of transmission capacity in international exchange.

II. Within the frames of investment activity in 2005 the TSO finally finished or finished stages of the following investment tasks, which realisation should improve security of energy supplies:

- A. Construction of 400 kV Tarnów-Krosno line – the line was commissioned at the end of the year;
- B. the purchase of switching station 220 kV SE Blachownia;
- C. modernisation of the station 400/220/110 kV Mikołowa;
- D. modernisation of the station 220/110 kV Gdańsk I – modernisation works finished in June 2005;
- E. Modernisation of the station 220/110 kV Łośnice – at the end of the year the station was included into the national electricity system and commissioned;
- F. The program of safety of work of electricity grid within the scope of modernisation of autotransformer 220/110 kV from the Połaniec station and exchange of connectors 220kV in Wielopole station;
- G. Modernisation of the population of transformers 220/110 kV – assembling, final commissioning and putting into motion of autotransformers 220/110 kV in the stations: Aniołów, Wrzosowa, Grudziądz–Węgrowo, Mory i Mokre (a task partly completed);
- H. Exchange of insulation VKLS in the switching station 220/110 kV Lubocza;
- I. Instalment and supplement of LRW equipment in low – voltage stations.

The TSO in 2005 also carried out works connected with the preparation of new investment in:

- A. development and modernisation of central hub, including the construction of new lines:
  - construction of 400 kV line Kromolice-Pątnów,
  - construction of 400 kV line Plewiska-Pątnów-Sochaczew-Mościska,
  - construction of 400 kV line Pątnów-Jasiniec-Grudziądz,
  - construction of southern half of the ring around Warsaw.

- B. construction and modernisation of the Silesian system, including the construction of new lines
- construction of connection 400 kV from 400/110 kV station Pasikurovice do existing line 220 kV Świebodzice-Klecina,
- C. construction and modernisation of Northern – Western system, including the construction of new lines:
- construction of 400 kV line Piła Krzewina-Bydgoszcz Zachód,
  - construction of 400 kV line Plewiska-Piła Krzewina-Żydowo-Dunowo,
  - construction of 400 kV line Ełk-Narew,
  - construction of 400 kV line Ostrołęka-Olsztyn I,
  - construction of 400 kV line Ostrołęka-Ełk,
  - construction of 400 kV line Narew-Ostrołęka,
  - construction of 400kV line from 400/110 kV station Czarna to 220/110 kV station Polkowice,
  - the construction of multi – connection line 400 i 220 kV Buczyna-Bieruń-Czeczot-Moszczenica-Wielopole.

D. connection with Lithuania – there are no plans to build interconnectors with the Lithuanian system.

The investment activity of the TSO in the national transmission grid is aimed at the realisation of two basic targets: to guarantee security of supplies and increase possibilities of energy trade, including on the internal energy market (interconnectors). The TSO makes investment decisions based on periodically run analyses and technical assessments, related to first of all, to reliability and quality of supplies and evaluations of efficiency of planned ventures.

Investment tasks are considered in the development program of national transmission system. The draft of the development plan elaborated by the TSO for the years 2005 – 2009, based on elaborated analyses, is subject to the agreeing procedure with the President of the ERO. The costs resulting from the investment presented in the agreed program are the base for including treating them as justified, approved for the calculation of the transmission tariff of the TSO.

## **5.2. Gas [Article 5]**

*Characteristics of the market – security of supply.*

POGC is now importing gas within the frames of below listed constricts, i.e. a long – tem contract with Russia and three medium – term contracts for supplies from Central Asian countries, Norway and Germany:

- long – term contract for the supplies of the Russian gas of 25<sup>th</sup> September 1996, with Gazexport, valid until 2022,
- a contract for the supplies of the German gas of 15<sup>th</sup> September 2004 for with VNG-Verbundnetz GAS AG/E.ON Ruhrgas AG, valid until 30<sup>th</sup> September 2008,
- contract for the supplies of Norwegian gas of May 5<sup>th</sup> 1999 with Statoil ASA, Norsk Hydro Produksjon AS and Total E&P Norge AS, valid until 30<sup>th</sup> September 2006,
- contract for the supplies of central Asian gas of 10<sup>th</sup> August 2005 with RosUkrEnergo AG, quantity 3,4 bcm of gas valid until 31 December 2006.

Table 5.2 shows general view on many aspects of today's and forecasted security in the gas sector.

**Table 5.2. Security of supply of natural gas (forecast for 2006-2008)**

Year	Total gas consumption [bcm]	Domestic extraction [bcm]	Import capacity [bcm]		New transmission investment [bcm]	
			domestic	transit	approved	under construction
2005	13,8	4,3	10,9	3,9	n.a.	n.a.
2006*	15,4	5,0	10,9	3,9	n.a.	n.a.
2007*	16,4	n.a.	10,9	3,9	n.a.	n.a.
2008*	17,3	5,5	10,9	3,9	n.a.	n.a.

\* estimation

Source: GTO Gaz –System, POGC

The ordinance of the Council of Ministers of 24<sup>th</sup> October 2000 (Legal Journal No. 95, position 1042) on *minimal level of diversification and supplies of gas from abroad*. Imposes on the energy undertakings which will obtain licenses for wholesale trade in gas with abroad a duty to obey regulations on diversification of gas sources. According to provisions of Article 32 pos. 2 of the Energy Law a license is required for trade in natural gas with abroad and the licenses are granted with the consideration of diversification of gas sources and energy security. In connection with the legal requirements in the licenses issued by the President of the ERO for the trade in natural gas with abroad a condition remembering a duty to diversify sources of supplies was added.

It must be underlined that in 2005 a new period of validity of a new maximal threshold of imported gas from one source started. In the years 2005 – 2007 a share of gas bought from one source should not exceed 72%. So the information related to the real level of the diversification indicator of purchases carried out by companies possessing licenses for trade in natural gas with abroad will be known after obtaining from these companies information referred to the quantities of purchases of natural gas from abroad in 2005, what took place at the beginning of 2006.

In the case of activities of network companies a very significant source of obtaining information about the state of network infrastructure and planned investment by these companies are draft development plans prepared according to the requirements of art.16 of the Energy Law. The plans and substantial changes in them are approved by the President of the ERO.

The TSO prepared the first development plan for the years 2006 – 2008, which will be the foundation for the development and construction of the transmission network in the scale of the country, both on the its won assets and leased from POGC.

*Investment planned for the future – interconnectors.*

- **The construction of Poland – the Czech Republic interconnector**

The project covers the construction of a pipeline connecting Polish and Czech gas systems in the area of Cieszyn – Ostrava and the construction and modernisation of pipelines Cieszyn – Oświęcim – Częstochowa – Piotrków Trybunalski together with objects making possible keeping required parameters of transmission and distribution of gas. The realisation of the project would let to link the Polish system by the Czech transit pipelines with Western Europe and would be additional source for the supplies to Poland from the hub in Baumgarten. The realised investment would be an element of the north – south gas transmission line, connecting transmission networks of the Baltic countries with the Polish, and Czech systems, further to the hub in Baumgarten.

- **The construction of the Poland – Germany interconnector (the area of Zgorzelec)**

The project covers the development the gas transmission system between Poland and Germany in the area of Zgorzelec, including the extension of the intake – outflow point in Lasów and gas pipeline Lasów – Wrocław PMG Wierzchowice. The realisation of the project would increase flow capacity in import points. Moreover the network infrastructure brought by the project would make possible the instruction of the gas storage in Wierzchosławice to international gas storage system as an eurostorage.

- **The construction of the Poland – Lithuania interconnector.**

The project concerns the construction of a gas pipeline from the system centre in Rembelszczyzna through the Mazurian Lake District, The Suwałki area, and a gas pipeline in the south – west part of Lithuania. The realisation of the project would let to create a regional transmission system with the Baltic countries (North – South pipeline). Moreover the construction of this gas pipeline would facilitate the development of gas networks in the area of North–Eastern Poland and shifting distribution networks in the urban communities of the area from propane to high methane gas.

- **The construction of the Poland – Slovakia interconnector.**

The project involves the construction of a pipeline connecting gas systems of Poland and Slovakia in the area south of Jarosław through gas storage in Strachocice, the state border towards the connection with the Slovak system in the area of Koszyce. The realisation of the project will let to link the Polish transmission system with the Slovak system, which would make a supplementary source of gas supplies for Poland, in connection with the need to increase flow capacity in import points. The project would also include Polish gas storages into the European system of gas transmission, which would secure continuity of gas supplies to Europe in a case of a breakdown of a pipeline to Slovakia.

In the Polish transmission system the most important investments realised by the TSO and important for the functioning of the system as a whole are:

- Gas pipeline Włocławek-Gdynia;
- Gas pipeline Czeszów-Wrocław;
- Gas pipeline Nowogard-Płoty-Karlino-Koszalin;
- Gas pipeline Lubliniec-Częstochowa;
- Gas pipeline Mory-Piotrków Tryb.-Częstochowa.

Moreover the TSO is planning new investment related to the development of infrastructure aimed at the increase of transmission capacity of the system and elimination of congestion for the realisation after the year 2008.

- Gas pipeline Jarosław-Głuchów, aimed at the strengthening of southern transmission line;
- Gas pipeline Pogórska Wola-Tworzeń, aimed at the strengthening of southern transmission line;
- Gazociąg Koszalin-Wiczlino together with the connection to Wiczlino with constructed now pipeline Włocławek-Gdynia, to expand the system of gas supplies in the area of the Baltic coast;
- Gas pipeline Odolanów-Gorzów Wielkopolski, to expand the transmission line to Police;
- Gas pipeline Odolanów-Wydartowo (Mogilno), to link operationally PMG Wierzchowice with PMG Mogilno i SGT (the Polish part of the Yamal pipeline);
- Gas pipeline Meszcze-Wronów-Odolanów, to improve operational management of the gas flows in the system;
- Gas pipeline Rembelszczyzna-Huta-Mory, to expand gas supplies in the area of Warsaw;
- Gas pipeline Wierzchowo-Bonin, to improve gas supplies in Pomerania (Sławno, Słupsk, Ustka);
- Gas pipeline Kiełczów-Oftaszyn, to improve gas supplies in Lower Silesia;



### *The role of the regulatory body in the context:*

- *The institution of the last resort supplier.* The procedure of its appointment will be started on July 1<sup>st</sup> 2007, from the day of receiving by all customers the status of eligible customers<sup>11</sup>. Until then universal character of public services will be guaranteed by set in the license conditions of running economic activity with parallel validity of up – to now gas tariff.
- *Mechanisms of supporting import capacity.* The energy undertakings dealing with transmission, distribution and storage of gaseous fuels are obliged to offer to all customers ( since July 1<sup>st</sup> 2007 also to household customers) or to companies dealing with trade in gas according to the principle of equal treatment, performing of transmission, distribution and storage services. However the regulations contain the provisions which allow, under special circumstances, to obtain a release from this duty. According to article 4i of the Energy Law, the President of the ERO, can, after obtaining a justified application of an energy undertaking interested in the release, release a given company from performing services in defined scope, and submitting tariffs for his approval, when performing of services will be carried out with the use of „new infrastructure” that means elements of the gas system or gas installations which construction was not finished until August 4<sup>th</sup> 2003 or was started after this day. The president of the ERO can approve a release when all conditions listed below are fulfilled:
  - New infrastructure influences the growth of competitiveness in the supplies of gaseous fuels and security of supplies;
  - Due to risk connected with the construction it would not be begun without a release;
  - The new infrastructure is/will be the property of an independent entity, which is, at least in the legal aspect, independent from the TSO of the gas system in which this infrastructure was/ will be built;
  - The users of the new infrastructure are to pay fees for using it thois infrastructure;
  - The release will not worsen the conditions of competition end efficiency of functioning of the gaseous fuels sector or the gas system, in which the new infrastructure was/will be build.
- *The requirements related to gas storage services aimed at the fulfilling public service obligations.* The President of the ERO, according to Article 32 pos.1 point 2 of the Energy Law - grants licenses for storage services related to gaseous fuels in storage installations, and, according to Article 9h of the Energy Law appoints, on the motion of the owner of gaseous fuels storage installations, operators of the gas storage systems. An energy undertaking dealing with storage of gaseous fuels is obliged, according to art. 4c of the Energy Law, to guarantee for customers, on the principle of equal treatment, performance of gaseous fuels storage services in storage installations. However the assumptions of the Energy Law (Article 4h pos.1 of the Energy Law) foresee the situation in which an energy company dealing with natural gas storage can be released from a duty to perform such service or temporarily limitation of performing this service. Such a decision can be taken by the President of the ERO on the justified application of an energy undertaking interested in it., after conducting a separate proceeding , described in art.4h pos. 2 – 8 of the Energy Law. Due to the activity of the President of the ERO, the POGC, being the owner of all natural gas storages on the Polish territory, was obliged in 2005 to separate gas storage activity with the aim of appointing in the future the gas storage system operator. The POGC was called to show all storage capacities at its disposal or to submit an application for gas storage. Finally the President of the ERO, on February 1<sup>st</sup>, issued a decision about granting to POGC a license for gas storage so the company can perform gas storage services. The company has not applied to the President of the ERO for the appointment of the gas storage system operator.

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<sup>11</sup> The choice of last resort supplier will take place in the form of a tender, organized and run by the President of the ERO.

## 6. Public service issues [Article 3(9) for electricity and Article 3(6) for gas]

The principles of performing services of public character, including rights and duties of market participants, were set in the Energy Law. In the Annual Report of the President of the ERO to the European Commission 2005 these rights and duties and possibilities of regulatory intervention were presented in details.

The situation in the green energy market was changed comparing to 2005. Since October 1<sup>st</sup> 2005, the system of issuing and trade in certificates of origin has been functioning in Poland.

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

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

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

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

The certificates of origin are issued by the President of the ERO on the motion of a generator (license holder) confirmed by the operator of the electricity system within the scope the quantity of energy generated in a given period. Data needed for the measurement of energy covered by certificates of origin are measured on the terminal of the generator (photovoltaic cell, fuel cell) or estimating the quantity of energy according to a special logarithm (procedure of settlement) in the case of electric energy coming from co – firing of solid fuels and biomass or biogas.

### *Number of disconnections.*

The President of ERO does not monitor the number of disconnection caused by non-payments for electricity. Basic figures in the table below are given by distribution companies.

**Table 6 a Number of disconnections**

Year	Electricity			Gas		
	Number of disconnections	Number of customers	%	Number of disconnections	Number of customers	%
2004	236 012	15 661 600	1,5	46 451	6 337 536	0,73
2005	239 289	15 761 619	1,5	44 957	6 386 160	0,70

Source: ERO based on the data supplied by distribution companies.

### Level of prices for final customers

The energy undertakings are obliged to submit, to the President of the ERO elaborated by them, tariffs for approval.

Undertakings dealing with generation and transmission of energy are released from this duty (since July 1<sup>st</sup> 2001)

Now all customers can apply regulated tariffs, that means approved by the President of the ERO. Customers using TPA rule can return to regulated tariffs.

**Table 6b Regulation of prices for final customers.**

Details	Electricity			Gas			
	The biggest customers (according to quantity of supply electricity)	Small and medium enterprises	Very small enterprises and household customers	Combined Heat and Power Stations and gas fired power	The biggest consumers	Medium consumers and distribution companies	Very small enterprises and households
Tariff regulation (Y/N)	Y	Y	Y	Y	Y	Y	Y
% of tariff consumers	85	100	100	100	100	100	100
Possibility of return to regulated tariffs	Y	Y	Y	Y	Y	Y	Y
Number of enterprises obliged to submit tariffs for regulation	14	14	14	5	1	7	37

Source: ERO

Tables below present level of prices for main groups of customers applied in tariffs of undertakings and prices of energy sold within the frames of TPA.

**Table 6c Prices of electric energy in distribution companies for tariff customers in Euro/MWh**

Specification	2004						Indexed of dynamics of average sale price of electric energy in PLN	Indexes of dynamics of average sale price of electricity in Euro.
	Average sale price	Including		Average sale price	Including			
		Payments for electricity	Transmission fee		Payment for electricity	Transmission fee		
	Euro/MWh							
Total customers	58,42	29,13	29,29	67,77	33,07	34,69	102,93	116,00
Including high voltage customers (group A)	41,73	26,51	15,21	48,26	30,05	18,21	102,63	115,65
Medium voltage customers (groups B)	49,18	27,72	21,45	56,48	31,26	25,22	101,92	114,84
Low voltage customers (groups C)	73,59	30,44	43,14	84,03	34,37	49,65	101,34	114,19
Customers groups G	68,25	31,35	36,89	79,65	35,85	43,80	103,57	116,70
Including household and farms	68,33	31,35	36,98	79,65	35,80	43,84	103,43	116,57

Prices for 2004 were calculated according to average yearly exchange rate for 2004 announced by the Polish National Bank 1 Euro = 4,53 PLN

Prices for 2005 were calculated according to average exchange rate for 2005 announced by the National Bank of Poland 1 Euro = 4,02 PLN.

Source: the Agency of the Energy Market.

**Table 6d Sale of electric energy to final customers connected to high voltage grid, executing the TPA principle**

Year	Characteristics of a consumer	Quantity of energy bought from consumers within the frames of TPA in MWh	Average price of energy for customers using the TPA principle in Euro/MWh	Average price of energy according to regulated tariffs Euro/MWh
2004	HV customers	5 744 878	25,71	26,51
2005	HV customers	4 254 162	29,60	30,05

Prices calculated according to average yearly exchange rate, announced by the National Bank of Poland

2004 – 1 Euro = 4,53 PLN

2005 - 1 Euro = 4,02 PLN

Source: the Agency of the Energy Market

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

**Table 6e Prices of supply of 1 cubic meter of natural gas for transmission and distribution customers [Euro/cm]**

Specification		2004	2005
Price – total supplies	Transmission network *	0,14	0,15
	Distribution network, including: **,	0,22	0,22
	Customers of capacity 10 m <sup>3</sup> /h	0,24	0,24
	Customers with capacity over 10 m <sup>3</sup> /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 <sup>3</sup> /h	0,14	0,14
	Customers of capacity over 10 m <sup>3</sup> /h	0,12	0,12
Transmission fee	Transmission fee *	0,02	0,02
	Distribution network **, including:	0,09	0,09
	Customers of capacity to 10 m <sup>3</sup> /h	0,10	0,10
	Customers of capacity 10 m <sup>3</sup> /h	0,08	0,08

\* With pressure over 0,5 MPa– according to the division valid from May3dt 2005

\*\* With the pressure not higher than 0,5MPa

Net prices for 2004 calculated according to average weighted exchange rate of Euro announced by the Polish National Bank for 2004, 1 Euro = 4,53 PLN.

Net prices for 2005 calculated for 2005 according to average weighted exchange rate of Euro announced by the Polish National Bank 1 Euro = 4,02 PLN

Source: ERO