

NATIONAL REPORT  
THE PRESIDENT  
OF THE ENERGY REGULATORY OFFICE  
IN POLAND

2009

JULY 2009



## Content

<b>Abbreviations</b> .....	<b>5</b>
<b>1. Foreword</b> .....	<b>7</b>
<b>2. Main developments in the gas and electricity markets</b> .....	<b>8</b>
<b>3. Regulation and performance of the electricity market</b> .....	<b>15</b>
3.1. Regulatory Issues [Art. 23(1) except „h“] .....	15
3.1.1. Interconnector capacity management and allocation, and congestion management mechanisms .....	15
3.1.2. The regulation of the tasks of transmission and distribution companies .....	18
3.1.3. Effective unbundling .....	21
3.2. Competition Protection and Promotion Issues [Article 23(8) and 23(1)(h)] .....	23
3.2.1. Description of the wholesale market .....	23
3.2.2. Description of retail market sales .....	29
3.2.3. Measures to avoid abuse of dominance on the market .....	36
<b>4. Regulation and performance of the natural gas market</b> .....	<b>42</b>
4.1. Regulatory Issues .....	42
4.1.1. Management and allocation of interconnector transmission capacity and network congestion management mechanisms.....	42
4.1.2. The regulation of the tasks of transmission and distribution companies .....	44
4.1.3. Effective unbundling .....	47
4.2. Competition Issues [Art. 25(1)(h)] .....	48
4.2.1. Description of the wholesale market .....	48
4.2.2. Description of the retail market .....	49
<b>5. Security of supply</b> .....	<b>53</b>
5.1. Electricity [Article 4] .....	53
5.2. Gas [Article 5] and 2004/67/EC [Article 5] .....	58
<b>6. Public service issues [Article 3(9) electricity and 3(6) gas]</b> .....	<b>66</b>



## Abbreviations

EMA SA.....	Energy Market Agency SA
n.a. ....	not available
CNG.....	Compressed Natural Gas
PGNiG SA.....	Polish Oil and Gas Company SA
IRiESD.....	Distribution Grid Code
IRiESP.....	Transmission Grid Code
LT PPAs.....	Long Term Power Purchase Agreements
NES.....	National Electricity System
LNG.....	Liquefied Natural Gas
Gaz System SA .....	Operator of Gas Transmission Pipelines Gaz-System SA
DSO.....	Distribution System Operator
SSO.....	Storage System Operator
TSO.....	Transmission System Operator
RES.....	Renewable Energy Sources
PSE SA .....	Polish Power Grid Company SA
PSE Operator SA.....	Polish Transmission Operator SA
TPA.....	Third Party Access
UCTE.....	Union for the Co-ordination of Transmission of Electricity
EU.....	European Union
ERO.....	Energy Regulatory Office
UOKiK.....	Office of Competition and Consumer Protection (OCCP)



## 1. FOREWORD

The year 2008 was the eleventh of functioning the institution of the President of the Energy Regulatory Office established with the aim to realization tasks related with energy sector regulation as well as promotion of competition, but also another year of the Polish Regulator's struggle for energy policy to become more economical and more friendly for people and environment.

The context of the regulatory functioning proved, that – due to the effect of consolidation in power sector and recentralization of trade in gas for energy industry and its markets – the efficiency of the regulations require many new norms and diversified actions. It was strongly highlighted by the President of the ERO by presenting many initiatives in this field. Among them one should mention especially the preparation of „Roadmap of price liberalisation for all electricity consumers...”, establishing research team concerning the subject of vulnerable customers as well as consulting project called the *Customer Zone*, whose scope is to identify barriers facing the energy customers.

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

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



## 2. MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

### Wholesale market

In 2008 the governmental *Program for power sector* was completed in the part concerning the vertical consolidation of the energy enterprises. As a result, created subjective structure of the supply side of the market, as well as the economic situation in the country resulting in the increase of demand for electricity, caused, that the electricity market in 2008 was a market of supplier with little activity of the customers. In the production sector the concentration indicator HHI increased in relation to net installed generation capacity, however it decreased in relation to net electricity production. On the same level was the number of producers, who have at least 5% of the market share.

On the wholesale market the trade of electricity was featured by high concentration, especially inside vertically consolidated energy groups. The concentration indicator HHI increased by unchanged number of enterprises holding a minimum 5% of the market share. Almost 90% of electricity sold by the system producers was sold to trade companies in the frame of bilateral contracts, the rest was realized (until the first quarter of 2008) in the frame of long-term contracts and in vestigial amounts on the energy exchange. The sale of electricity on the balancing market (including the need to ensure secure operation of the National Electricity System), reached a level not much higher than in 2007.

No significant changes took place in the power sector in reference to capacity of electricity interconnectors. The volume of cross-border exchange is influenced by technical barriers, such as: insufficient transmission capacity on the synchronic connections with neighbouring countries, increasing year by year loop flows of electricity resulting from wind generation in the north of Germany, as well as economic conditions, such as: the results of the financial crisis in Europe already felt in the second half of 2008, or the exchange rate of Polish currency against euro. On the other hand, there are no limitations due to coming discriminating transmission capacity allocation rules, or from the lack of proper means of supervision over the activities of the TSO.

On the 1st April 2008 Long Term Power Purchase Agreements were terminated, and the electricity from these agreements was directed to the market. However, it did not increase the liquidity of the trade on power exchange, because practically all the electricity was sold in bilateral contracts. The volume of electricity traded on the power exchange constitutes around 1,8% of all the electricity sold to end customers. Moreover, forward contracts were not concluded on the exchange. Besides trade on the trade platforms whose volume is similar the one on power exchange is not covered by the supervision of the market regulator (the lack of registration of such platforms), so the possibility of constant monitoring are very limited.

In order to improve the situation on the electricity wholesale market (counteracting the negative effects of vertical consolidation), as well as taking into consideration further integration of domestic markets, legislative actions were taken with the aim of administrative support of public forms of electricity trade, including the power exchange.

The current shape of the wholesale gas market is the consequence of many years functioning model of single supplier and relatively isolated natural gas transmission system, with contractually conditioned one direction gas flows (east-west). In reality the transactions take place in relation between PGNiG SA and end customers, on the basis of long-term or unlimited duration sales agreements. The other companies dealing with gas trade in general deal only with retail sale.

Insufficient integration of domestic transmission system with neighbouring systems, particularly of those of the European Union Member States, with the total reservation of nominations at the „entry” points for PGNiG SA results in the lack of activities of national and foreign trade enterprises in cross-border exchange and on regional hubs. Similarly, gas trade or exchange trade on the level of the national transmission system do not exist, that is why it is difficult to speak about liquidity of that market. Moreover, the transmission system operator consequently rejects providing transmission services to these importers, who cannot comply with the legal duty to maintain compulsory stocks of natural gas in storage installations situated on the Polish territory – by the way, that all of them belong to PGNiG SA. It is actually the indicated insufficiency of storage capacities of existing installations, in the light of contracted obligations of PGNiG SA, that is the main reason for rejecting to provide storage services. These are the barriers of entry for new suppliers, who could as well participate in co-financing of the gas infrastructure from the point of view of security of supplies. Moreover, there are no other regulatory tools allowing efficient execution of new investment.



## Retail market

The year 2008 was the period characterised by many changes on the electricity retail market, in which prices for industrial consumers were released. However, on account of the necessity to protect customers from tariff group G – mainly household customers – against unjustified price increase, the President of the ERO maintained the obligation to submit tariffs for approval in relation to this group.

14 trade companies unbundled from vertically consolidated distribution companies, that sold over 91% of electricity, had the biggest share of the market. The position of the three biggest suppliers, in electricity purchase for certain customer groups, did not change significantly in comparison with the previous year.

The dynamics of the situation on the wholesale market, as well as „closing” the trade of energy within capital groups, had a significant result on the retail market. It was indicated by the stagnation in attracting new customers, and the lack of competitive sales offers did not activate the customers themselves. As a consequence only a few of them took the advantage of the right to choose supplier, even after considerable simplification of procedures to switch supplier. The barrier against the TPA rule should be sought mainly on the wholesale market as well as in the behaviour of the distribution system operators in relations with electricity suppliers, whose indications are the provisions for general distribution agreements.

Average annual price increase for electricity, in comparison with 2007, amounted to 28%, whereas comparing to the IV quarter to the same period – 34,6%. The biggest increase concerned small enterprises connected with low voltage, which amounted to 32% and 43% respectively. On the other hand the lowest increase was with the household customers – 17% and 22%. In the case of electricity distribution the rates increased on average (year by year) by 6% whereas comparing to IV quarters – 5,4%.

The customer in relation with the energy enterprises remains largely in a weaker position, that is why in the frame of the ERO structure and the competence of the regulator, the Spokesman for fuel and electricity consumers is active. The scope of help provided to the customers by the Spokesman comes down to providing knowledge necessary to take actions in the frame of existing energy law regulations, giving help in classifying the case, as for example civil law or directing it to the right consumers organizations.

In 2008 the Spokesman received three times more complaints than in 2007. It resulted from great changeability of the circumstances and the conditions of the functioning of the electricity market (for example, restructuring, prices). The complaints concerned mainly the issues of tariff calculations, cases connected with grid connections as well as illegal consumption.

The promotion of competition is, next to the regulation of fuel and energy industry, the prime target activity of the President of the ERO, however vast majority of granted competence concerns the latter task. For this reason, many of the activities undertaken by the President of the ERO in the field of promoting competition can be classified to the so called „soft category”, to which the President of the ERO is not obliged directly, but which he sees as necessary for the realization of aim. 2008 was the period of intensified information-promoting activity of the Office. The President of the ERO started and continues diversified activities addressed to households. Through the whole 2008 the ERO was runny educational campaign, directed to individual electricity consumers from one side – including the first time also for young people, from the other side – to the local, district and town level consumer advocates. Moreover, the representatives of the ERO took part in many symposiums, conferences and educational workshops discussing issues connected with the market functioning and the activity of the President of the ERO. By the end of 2008 the President of the ERO launched a new initiative – *Customer Zone* – which collecting the representatives of customers, state offices as well as enterprises operating on the electricity, gas and heat markets, has an aim to solve problems, addressed by customers, jointly with the aim to work out standards of good practices in the energy market.

The main reason for the stagnation on the retail market is the lack of activity from the side of the energy enterprises, which is caused by the situation on the wholesale market as well as insufficient knowledge of the customers about their rights and duties on the free electricity market. In the opinion of the Regulator the most effective solution in the short term is to increase the competence of the President of the ERO in the frame of monitoring the market and promoting competition on the market, which was proposed by the working group<sup>1)</sup>, in whose works participated many representatives from different state bodies.

---

<sup>1)</sup> Inter-department working group to prepare drafts of legal acts providing vulnerable customers the right level of protection on the competitive electricity market as well as awarding the President of the ERO with the right role and regulatory tools on this market. The participants were representatives of the Ministries: Treasury, Finance, Labour and Social Policy, Infrastructure, Environment, Economy as well as the Presidents of: the Energy Regulatory Office and the Office of Competition and Consumer Protection. The Chairman of the group became the Vicepresident of the ERO.

The monopolistic position in the field of retail sale of gas still holds PGNiG SA. Process of centralizing retail trade in the frame of capital group PGNiG SA, formally completed in 2007, only strengthened this position. It should be underlined, that this idea was undertaken by the occasion of conducting the unbundling of distribution activities from own initiative of the company and was not covered by any government program.

There are no alternative gaseous fuel suppliers practically operating on the market, however there are many other enterprises dealing with reselling of natural gas purchased from PGNiG SA.

To the end of 2008 the prices of gas for all customers were regulated. In comparison to 2007 the average delivery price for natural high-methane gas increased by 11,3%, whereas for the household customers – depending on the tariff group – the increase was between 12,3 ÷ 13,3%, for industrial customers on the distribution network – 10,3 ÷ 12,3%, and for the industrial customers on the transmission network – 8,4 ÷ 10,2%. Moreover, none of the eligible gas customers exercised the possibility to switch supplier.

Taking into consideration the fact of keeping high quality standards for end customer services, as well quality parameters of delivered gas, explanatory proceedings were undertaken – upon the application of the President of the ERO – which concerned complaints about high gas bills as well as the quality of the gas delivered. The report included a diagnosis and proposals for necessary legislative changes needed to improve the quality standards of the natural gas deliveries, as well as how calculations are managed.

#### Conclusions: general status of markets

The process of vertical consolidation in the power sector in Poland caused the creation of limited number of groups, with a very strong market power. Almost all the volume of electricity is sold in bilateral agreements. Releasing electricity from the long term contracts did not bring the expected results in the form of increased competition, growth of liquidity or the market transparency. The competition of suppliers on the retail market is still limited, as well. The differences in prices of trade enterprises are not attractive enough to encourage customers to switch supplier.

Increasing the cross-border trade of electricity requires considerable investment and will be easier with the moment of introducing fully coordinated congestion management mechanisms in the regions. It will allow more effective use of existing possibilities of transmission network with the advantages for the market participants, as well as it should lead to the planning harmonization of the European transmission network development.

The current state of the gas wholesale market is far from expected competition level. This is due to historical conditions as well as present technical limitations (network, physical) and contractual. Holding on *status quo* is also the consequence of the country policy towards gas industry directed preferentially for providing security of supplies as well as the state of law (lack of regulations pertaining to detailed rules of functioning of the gas system and to tariffs setting, which would outline a model for the gas market on the basis of the tariffs „entry/exit“).

The changes should take place after determining by the regulatory body PGNiG SA for the storage system operator (the end of 2008), approving appropriate storage tariff (June 2009) as well as developing code for providing storage services (July 2009).

#### Infrastructure

In relation to the transmission and distribution infrastructure the President of the ERO possesses regulation tools such as agreeing with him by DSO and TSO investment development plans. This procedure stays in close relation to issuing decisions concerning tariff approval in electricity and gas, and it also allows the verification of planned expenses when it comes to the possibilities of their financing from the sources taken from the customers (the payment possibilities of customers).

In 2008 agreements existed from 2007 towards 14 electricity DSO's. By the end of the year 3 DSO's proposed the President of the ERO changes, which were included in the present year. By calculating tariffs DSO's for 2009 guidelines were accepted, that the combined model expenditure for that year will increase in comparison to 2008 by 12,6%.

Existing version of the project concerning development plan for PSE Operator SA (TSO) for the years 2006-2020 was prepared in 2006. Due to the fact that the investment intentions were ex-

pressed in detail only for the period of 2006-2010, the settlements concerned only this period of time. For 2011-2020 only investment directions were indicated<sup>2)</sup>.

In gas industry in 2008 existed for DSO's agreements prepared in the development plans for the years 2006-2008. Because of legally new circumstances (unbundling from currently existing enterprises) the operators were called to prepare draft development plans covering the years 2009-2013. The agreeing procedure has not been completed yet.

Moreover, works were continued concerning the agreeing of the draft development plan for Gaz-System SA for the years 2008-2013 among others because of works on the construction the LNG terminal and the gas pipeline called „Baltic Pipe“.

In 2008 the energy undertakings were not exempted from the duty of providing TPA services with application of new network infrastructure, following to article 7 of the Regulation 1228/2003 as well as Directive 2003/54/EC for electricity, and following to article 16 of the Regulation 1775/2005 of the European Parliament and the Commission as well as article 22 of the Directive 2003/55/EC for gaseous fuels.

There were no changes to the scope of cross-border interconnections with other countries in 2008. Eliminating transmission congestions on the synchronic auctions with EU countries is based on the market rules – in the process of coordinated tenders<sup>3)</sup>.

Providing export and import access transmission capacities takes place and is managed by PSE-Operator SA on yearly, monthly and daily auctions. Due to the low level of power reserves in NES, which made the elimination of transmission congestions impossible, as well as increasing year by year loop flows from the territory of Germany (the result of dynamic development of wind generation), resulting in transmission capacities amounted to 0 MW. It was caused by accepting considerably higher transmission reliability margin.

The above mentioned situation shows the need – noticed by the market participants – to develop cross-border interconnections with the aim of increasing the electricity trade. Due to the fact, that the investment process is a long lasting one, the effective use of the existing infrastructure becomes a priority. Its possible through cooperation of all parties, what is realized in the frame of Regional Initiatives ERGEG. This common work should lead to the launching of fully coordinated auction for transmission capacity in the region of Central and Eastern Europe (CEE) from the beginning of 2010 where the capacities are calculated and allocated accordingly to flow based methods.

In relation to the functioning of the gas transmission system, the rules of allocation are included in the network code of Gaz-System SA, which validity was extended until 31 December 2009. In the introduced changes, provisions concerning nomination and re-nomination were precised as well as records concerning the providing of transmission services on the interrupted rules in a wider sense were supplemented<sup>4)</sup>, which can lead to the increase of the use of transmission network and number of ordering transmission services. This change was also reflected in the TSO tariff content – for the first time rate for services realized on the interrupted principles was introduced.

### Regulation, unbundling

Scope of duties of the President of the ERO are strictly connected with the state policy, towards energy sector as well as external requirements (obligation of implementation *aqui communautaire*). The activities undertaken by the regulatory body concern the fulfilment of goal made up by the legislator, with the aim to create conditions for sustainable development of the country, ensure energy security, economical and rational use of fuels and energy, development of competition, prevent adverse effects

---

<sup>2)</sup> On application of the President of the ERO, PSE Operator SA in the middle of 2008 handed over for approval the updating of the draft plan for the development in the frame of 2008, 2009 and 2010. Taking into consideration the fact that the company is planning to submit the President of the ERO until the middle of 2009 (for approval), new edition of the draft plan for development in the scope of satisfying present and future needs for electricity, in which major changes are going to take place (that is, the change of basic guidelines, including forecasts for demand for power and electricity, renewed definition of investment needs, renewed verification of schedule for the realization of previously identified investment tasks), the update of the development plan was agreed for the years 2008-2009.

<sup>3)</sup> In coordinated auctions for cross-border transmission capacity currently take part five transmission system operators: VE-T and E.ON (Germany), CEPS (the Czech Republic), SEPS (Slovakia), PSE Operator SA (Poland).

<sup>4)</sup> From 2008 the transmission service can be offered on the interrupted conditions as well, when the probability of the interruption is difficult to estimate and exceeds estimated level.

of natural monopolies, considering the requirements of environmental protection, obligations coming out from international agreements as well as balancing the interests of energy undertakings and energy consumers.

The Energy Law has been amended many times, as a consequence it created the increase of task catalogue, addressed to the President of the ERO. New tasks, which realization has been performed since 2008 includes duties arising from the act concerning the termination of LT PPAs, act on reserves and act on bio-fuels.

The competencies of the President of the ERO in the scope of imposing fines arising from article 56 of the Energy Law. They concern the lack of performing duties imposed on the market participants by the act as well as legal regulation *aqui communautaire*. Financial penalty can be imposed on the energy undertaking, and additionally on the manager of company.

Power transmission system operator is responsible for the security of the system operation. With this aim it has at its disposal the operation of production units connected to the transmission network as well as it arranges the counter trading and re-dispatching with the scope of ensuring of temporary balance between demand and production of electricity. The above activities are performed day and night as an element of planning and operating the work of the system. At the same time TSO manages the balancing mechanism, determining by this the rules of participation in the balancing market, the settlement rules for imbalances and conditions of cooperation between TSO and the participants of the market. The balancing mechanisms allow the day ahead scheduling, as well as the organization of cross border exchange on the same manner. The intra day market should be launched in 4<sup>th</sup> quarter of 2009. The scope of information made available to market participants is high, though it still requires enlargement according to the Transparency Report prepared by the regulators associated in Regional Initiatives ERGEG. Extended catalogue of information is published after changing the rules for balancing the system from 1 January 2009. The power exchange is operated by the entity independent from TSO, though the rules of its operation are strictly connected with the rules for balancing the system.

The realization of unbundling in Poland took place gradually. Finally the process of transformation leading to the full independence of DSOs and as a result fulfilling the above mentioned formal-legal requirements, was completed at the end of 2008. From 1 January 2009 all legally unbundled DSOs by virtue of the decision of the President of the ERO have the DSO status being in force until the expiry date of the license for electricity distribution.

There is only one TSO in Poland – PSE Operator SA. It is a joint stock company (State owned) and the owner of the transmission assets. Moreover, at the end of the year there were 20 DSOs, including 14 unbundled legally from former distribution companies as well as six so called local operators towards whom the rule of 100 000 customers was applied. Most of the legally separated operators work in the frame of capital groups, vertically integrated, which are supervised by the State Treasury (indirectly through holding companies or mother companies being its property). Only in the case of two DSOs their owners are companies, where the main shareholders are foreign companies.

The process of obtaining full independence by the distribution operators has a too slow progress. Undoubtedly, the reason for this is to leave the operators in structures of vertically integrated capital groups, where securing the independence of the operator is not in line with the realization of the target of maximizing the group profits. In the assessment of the Regulator the operators slowly, but effectively realize, what an important role they should play in providing equal treatment of the users in the power system and the realization of the rule for equal access to the network for all participants of the market.

In the scope of unbundling gas transmission system operators, there have been no changes. According to the regulations Gaz-System SA remained as a joint stock company owned by the State Treasury. All of the gas distribution systems operators function in the structures of companies vertically integrated, so they have the obligation to obtain independence in respect of legal and organizational form as well as decision making. However, with the lack of formally signed agreement with DSO as well as accepted distribution network code, and also due to the necessity for full adaptation of their scope of economic activity to the tasks realized by the operator, six companies received the DSOs status only to 30 June 2008.

On 31 December 2008 PGNiG SA was designated by the President of the ERO as the storage system operator for gaseous fuels for the validity of the license, that is until 31 December 2025. Designation the SSO allows to execute from the operator duties resulting from, among others the Energy law, especially publishing data concerning storage capacities as well as historic data, non discriminating treatment of the system users, or even rules related with congestion system management. The Presi-

dent of the ERO, approving tariffs for storage services, will also be able to check the cost effectiveness of the SSO activity and the way of using capacity in storage installations.

The increasing independence of network operators is not enough to guarantee success in the functioning of competition on the market. In the opinion of the Regulator, further legislative and organizational activities are required, which will stimulate the development of competition, both on the wholesale and retail markets, guaranteeing at the same time smooth entry on the competitive energy market and the protection for vulnerable customers.

### Security of electricity and natural gas supplies

To provide the necessary level of investment in new generation capacity, governmental *Program for power sector* was accepted in 2006, assuming among others vertical consolidation in the sector. The main target was to increase the value of energy enterprises, which would enable the realization of investment. The impulse for planning new investments was also the agreement concerning the energy climate package. The effects, especially of the last activities, are the applications concerning connection to transmission grid submitted to TSO, which cover new production power on the level of 25 GW. According to the draft national energy policy, the power sector should be based mainly on coal, with the consideration of nuclear energy in the middle term. Investment intentions are also the effect of envisaged increase of demand for electricity and peak power.

Ownership independence of TSO created the preparation of expansive investment plans for network infrastructure, what is connected with significant increase of planned expenses. They also cover cross-border interconnections, including those on the border with Lithuania and Germany, being in the territory of the European Union. The realization of network investments are unfortunately hindered by administrative barriers (receiving building permissions), as well as those connected with obtaining land for the realization of these investments.

In 2008 an average consumption of electricity (year to year) increased by 0,5%. At the same time the production of electricity decreased by 2,5%. The average annual demand for power amounted to 21 222 MW and increased by 0,2% in comparison to 2007, on the other hand the maximum demand amounted to 25 121 MW and increased in comparison with 2007 by 2,1%. At the same time in cross-border exchange there was a decrease of physical export of electricity by over 25%, with increased import by over 16%.

The national strategy is aimed at diversification of natural gas sources, i.e. on balancing the supplies from the east with an increased value of gas imported from the north, as well as with further extension of storage capacities and increase in domestic production. The strategy includes the plans of constructing a LNG terminal in Świnoujście, which launch is expected in June 2014 and a new connection that will secure access to Norwegian deposits, i.e. participation in the Skanled Consortium and construction of the Baltic Pipe.

In 2008 no objections were raised in reference to the gas transmission, distribution systems as well as underground gas storages functionality. The technical condition of transmission gas pipelines can generally be described as good, whereas further extension and the so-called „doubling” of gas supply pipelines allows for fuel transmission to important customers from different transmission system points. In the opinion of the Regulator it is a very important feature of the transmission system, which allows for flexibility in reacting to for the needs of those requiring transmission services, and it also leads to providing stability of network operation in case of disruptions in gaseous fuels supplies. At the same time TSO continued its operations for the purpose of development, especially in the regions, where capacity congestions occur.

In 2008, TSO initiated operations aiming at researching the possibilities to build interconnectors with: Denmark, Lithuania, Germany and the Czech Republic in the frame of market screening procedure. The results of the study provided the basis for launching in 2009 an Open Season Procedure.

Moreover, to provide security of gas supplies for domestic customers, underground gas storages are utilized, with the working capacity of 1,66 BCM, which constitutes about 12% of the annual consumption of domestic customers.

For some years the domestic consumption of gas has been on a similar level – over 13 BCM. In comparison with 2007 the total consumption of gas increased by 3,2%, import by about 7%, at the same time domestic exploration, which meets the domestic demand in 28% – decreased by 4,7%. Additional gas supplies were realized from the east (66%) and the west direction (6%).

In the opinion of the Regulator the national strategy for security of gas supplies should be supported by the construction of the Southern system interconnection, which will secure access to the gas hub in Baumgarten. Moreover, planned storage capacity should reach approx. 3,8 bcm, thus it is necessary to support the realization of plans by PGNiG SA concerning the development of storages in Mogilno, Strachocina and Wierzchowice.

## Conclusions

The situation on the electricity market has been changing very slowly towards competition. According to the act the LT PPAs were terminated, the President of the ERO exempted energy enterprises from the obligation of tariffs submission for approval in electricity trading for non-households, in the frame of capital consolidated energy groups take place restructuring processes and the preparation to privatization. Unbundling is establishing itself. The TSO is taking investment actions for the security of NES functioning and increasing cross-border interconnections. However, the competition of suppliers on the retail market is still very limited, in spite of strong efforts of the President of the ERO to simplify the procedures for supplier switching and popularizing knowledge about the rights of electricity consumers among them.

The current structure on the gas market causes, that efforts to increase competition meet far more reaching obstacles than in the electricity sector. There is a need for a totally new governmental policy for gas industry focused on the development of competition and the continuation of activities, which will enable the entry to the market for new enterprises. It is also necessary to build new infrastructure as well as non-discriminatory access to gas storages.

Unsatisfactory level of competition on the electricity market requires further actions. Due to this fact, the Regulator prepared proposals for the Energy Law amendment, strengthening its competence in the field of, so called, soft activities, more adequate to the situation of liberalisation the price control on the market. At the end of 2008 the President of the ERO established as well a new initiative – *Customer Zone* – gathering the representatives of customers, governmental authorities as well as undertakings active on the electricity, gas and heat markets, has an aim to solve problems, which are submitted by customers, jointly and work out standards of good practices on the energy market.

In the opinion of the Regulator positive changes will bring the EU third energy package. The establishment of ACER, ENTSOE and ENTSOG should intensify the process of technical and trade integration. The harmonization of the rules governing the functioning of electricity and natural gas markets as well as common investment plans of operators of these markets, covering most of all regional markets operating from 2006, will speed up the creation of single European energy market. In the result, the concentration of activities on domestic markets should be neutralized by opening domestic electricity and natural gas markets to external competition.

Particularly the most important for the development of competition and improving the electricity efficiency are regulations related with the possibility of implementation a smart metering program<sup>5)</sup>. Thanks to its activity, electricity and gas consumers will get a knowledge how much energy they consume and what they pay for. They will also be aware, how their savings and choices of new electricity suppliers could influence not only the level of paid bills by them, but also how these savings influence on the protection of electricity resources and fight with climate changes.

---

<sup>5)</sup> It is worth mentioning about initiatives of the Polish regulator, which promotes the idea of smart metering. In 2008 the President of the ERO prepared *Feasibility study to install electronic metering devices in Poland*, which concerned both technical, cost, legal as well as social-economical aspects of introducing smart metering, as well as co-organized a scientific conference concerning the subject *How effectively lower the consumption of electricity? Smart metering systems for electricity – new possibilities for customers and enterprises* with the participation of experts from the electricity market. In 2009 from the initiative of the President of the ERO was signed a *Declaration concerning the introduction of smart metering into the Polish electricity market*, whose signatories – apart from the President of the ERO – were non-governmental organizations statutorily dealing with the protection of consumers and energy customers and promoting energy efficiency.

### 3. REGULATION AND PERFORMANCE OF THE ELECTRICITY MARKET

#### 3.1. Regulatory Issues [Art. 23(1) except „h”]

##### 3.1.1. Interconnector capacity management and allocation, and congestion management mechanisms

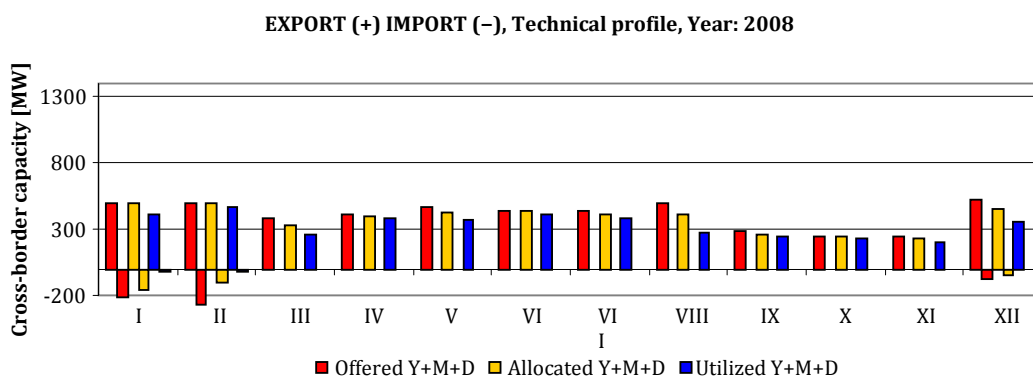
###### Congestion status review

In 2008 there were no significant developments in the area of network congestion within National Electricity System (NES), compared to 2007.

Network congestion in Polish transmission system is caused by historic factors (such as, for example, the exploitation of some elements of 110 kV network as transmission grid), as well as a very uneven geographic structure of generation sources (big concentration in the southern part of the country, shortage in the north-east). It is estimated that approximately 5-10% of total energy derived from NES is utilized to remove network limitations pertaining to Polish transmission system. Majority of network congestions consist in congestion that forces the work of generation units or groups of units supplying specific nodes within transmission grid. Some of those limitations are permanent, which means that the work of two power stations is required (must run generation) for those limitations to be removed (Ostrołęka and Dolna Odra). Some congestions are also removed by Transmission System Operator (TSO) thanks to re-dispatching of generation units and the use of generators' offer with must run generation price.

In 2008 there were no developments with regard to the cross-border interconnector status, in comparison to 2007. Due to high demand for transmission capacity at National Electricity System synchronous connections, which is greater than the actual technological capacity, the nature of such congestion may be described as structural. To a significant extent, this can be accounted for by the constant gap between electricity prices on the Polish market and in the neighbouring countries. Transmission congestion at synchronous connections with other EU member states is dealt with on a market basis – by virtue of coordinated auctions<sup>6)</sup>.

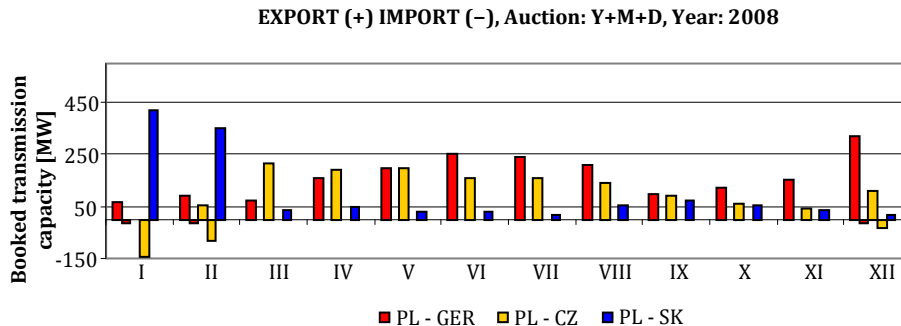
Access to export and import transmission capacity was provided by PSE Operator SA during monthly and daily auctions. With respect to monthly auction mode, Operator provided export capacity of up to 500 MW, and import capacity of up to 100 MW, whereas for daily auctions those values were, respectively: up to 494 MW and 273 MW. Just like in 2007, market participants were more interested in export auctions than import ones, as can be concluded from the level of reserved transmission capacity that had been utilized, with export auctions at a much higher level, as presented in Fig. 3.1.



**Figure 3.1.** Offered, reserved and utilized transmission capacity (Source: ERO, on the basis of data from PSE Operator SA)

<sup>6)</sup> Currently, five transmission system operators are involved in cross-border transmission capacity coordinated auctions, namely: VE-T and E.ON (Germany), CEPS (Czech Republic), SEPS (Slovakia), PSE Operator SA (Poland).

In 2008, the share of reserved export transmission capacity for particular commercial profiles was fluctuating during the year, without any preferential trend for a single profile. The reason was the ever-changing circumstances on individual national markets, and shifts in the exchange rate of Polish currency versus Euro, the impact of which could be noticed most clearly in the relation of Polish electricity prices to German ones, as described in Fig. 3.2.



**Figure 3.2.** Transmission capacity reservation (Source: ERO, on the basis of data from PSE Operator SA)

### Congestion management principles and access to information

In 2008 no significant developments were observed in that area in comparison to 2007.

Cross-border transmission capacities are allocated by explicit auctions, which – in accordance with the regulation 1228/2003/EC – are regarded as a market approach to congestion management. Transmission capacity auctions are coordinated between five transmission system operators from the Czech Republic, Germany (two operators), Poland and Slovakia. The information regarding cross-border transmission capacity offer is published on transmission system operator's website ([www.pse-operator.pl](http://www.pse-operator.pl)). Such information includes the rules governing coordinated auctions, projected volume of transmission capacity, and transmission capacity offer. Furthermore, users may obtain necessary data from an auction office in Prague, with the following information available, among other things:

- Principles governing transmission capacity auctions,
- Terms and conditions for participation in transmission capacity auctions,
- Forecasted, offered and allocated transmission capacity,
- Transmission capacity prices,
- Analysis of behaviour of market participants from the standpoint of submitted bids (price-wise and volume-wise).

Data describing the actual energy flows at cross-border connections is published on information exchange platform of transmission system operators associated in ETSO ([www.etsovista.org](http://www.etsovista.org)).

Distribution system operators do not provide cross-border capacity, thus they do not publish any information in that regard.

The information on the performance of National Electricity System is compiled and published by transmission system operator. It consists of Annual Coordination Plans, Monthly Coordination Plans and Daily Coordination Plans, which include the data on domestic capacity demand and aggregated generation capacity, among other things. Monthly and annual reports in scope of National Electricity System performance are published on a sub-contractor basis, and the information on National Electricity System capacity demand and national balance of cross-border exchange is published on daily basis.

The second monitoring report on compliance with the regulation 1228/2003/EC, drafted in 2008<sup>7)</sup>, has disclosed rather insignificant and infrequent irregularities in terms of execution of obligations set out in congestion management guidelines. Such deviations were mostly related to the information on the performance of National Electricity System. The President of Energy Regulatory Office has submitted to the European Commission a schedule with a timeline to correct those irregularities, connected with the implementation of modified National Electricity System balancing principles which came into force at the beginning of 2009.

<sup>7)</sup> Compliance Monitoring Second Report, 2008.



### Relationship between congestion management and wholesale market

In 2008 no significant developments were observed in that area in comparison to 2007.

Participation in the balancing market is required for cross-border exchange, which means that cross-border exchange is fully integrated with the operation of wholesale market. In accordance with the principles governing the execution of cross-border exchange commercial contracts, market participants have to submit their nominations – both in scope of the annual auction and monthly ones – by 7:45 a.m. That way, TSO is able to make an estimation of available transmission capacity and offer it within a daily auction (procedure *Use It Or Lose It*). Such information is published by 9:45 a.m. at the latest, while auction results are announced after 10:00 a.m. Under a daily auction, transmission capacity reservation entails an obligation to utilize the reserved capacity. Market participants have to notify the Operator about business contracts by 1:00 p.m., i.e. the Gate Closure time on the balancing market.

### Future outlook on congestion management

In 2008, operators from Central Eastern Europe Regional Market (*ERI Central Eastern Europe*<sup>8)</sup>) continued their work on a new congestion management mechanism, based on actual electricity flows in the grids managed by those operators. They established regional Allocation Office in Freising (Germany). The Office will determine transmission capacity throughout the region on the basis of regional network model and allocate it among auction participants according to submitted bids. Transmission capacity will be provided irrespective of border sections, i.e. across particular pricing areas represented by countries from the region, e.g. from Poland to Slovenia (source-sink bidding). Transmission capacity will be allocated according to social welfare criterion. As defined in the schedule of works, test phase for the new mechanism, involving market participants, was supposed to start in 2009, together with the final reconciliation of auction terms and other outstanding issues. Furthermore, the efforts undertaken under the auspices of Regional Initiatives, including the Northern Region<sup>9)</sup>, focused on the provision of transmission capacity on intra-day market, together with the regional coordination of that mechanism, side by side with the review of potential options and time schedule regarding the access to SwePol Link direct current interconnector for market participants.

Further, information transparency reports were also prepared under Regional Initiatives (Northern Region ERI – 13.09.2007, Central Eastern Europe ERI – 8.02.2008<sup>10)</sup>). These documents present detailed definitions of disclosure obligations pertaining to transmission system operator, related to congestion management guidelines and good practice guidelines drafted by ERGEG with reference to information transparency and management<sup>11)</sup>. They set out the timeline for publication of particular types of information by the operators, frequency of publication, and the period throughout which the information should be accessible. In July 2008 a report was drafted within Northern Region Electricity Market Initiative, dealing with the progress of information transparency report implementation. As can be learnt from that study, Polish operator has been in compliance with binding requirements pertaining to information obligation. Moreover, the report points out that TSO has cooperated with the President of the Energy Regulatory Office in scope of quality and access to information. At the same time, it was mentioned that there have been certain concerns regarding publication of detailed electricity generation data, which should be resolved within the framework of new balancing regulations, effective as of the beginning of 2009.

---

<sup>8)</sup> Central Eastern Europe Regional Market was established within the framework of ERGEG Regional Initiatives – European Regulators Group for Electricity and Gas, established by European Commission decision 2003/796/EC dated 11 November 2003 as an advisory body to the Commission. It included electricity markets in Poland, Slovakia, Czech Republic, Germany, Austria, Hungary and Slovenia.

<sup>9)</sup> The Northern Region functions under the auspices of ERGEG Regional Initiatives and comprises electricity markets in Denmark, Finland, Germany, Norway, Poland and Sweden.

<sup>10)</sup> „Report on transparency IG Transparency Electricity Regional Initiative Northern Regional Electricity Market”, and „Report on transparency IG Transparency Electricity Regional Initiative Central Eastern Regional Electricity Market”.

<sup>11)</sup> „Guidelines of Good Practice on Information Management and Transparency in Electricity Markets”.

### Review of transmission capacity calculations

Within the framework of coordinated congestion management mechanism, PSE Operator SA determines Net Transmission Capacity (NTC) and Transmission Reliability Margin (TRM). Transmission capacity is determined on the basis of technical profile, i.e. a sum of border profiles of the systems managed by operators from Poland as well as Germany, Czech Republic and Slovakia. Such a solution is an implication of significant loop flows within the National Electricity System and resulting substantial interdependence of available transmission capacity at each border. The model also helps maximize transmission capacity towards the strongest pricing signals and it affects transmission capacity demand. When calculating available transmission capacity, PSE Operator SA follows the criterion of system reliability, including „n-1” criterion (switching-off one cross-border line, national power line or a neighbouring country power line must not trigger system failure), taking into account forecasted weather conditions, German wind farm generation, „not agreed” balancing flows, actions taken by market participants, unexpected events, modelling and calculation errors. Available transmission capacity is determined according within annual, monthly, weekly and daily timeframe.

In connection with an increase in capacity demand, observed over many months of 2008, accompanied by simultaneous decrease in National Electricity System capacity reserves, and in view of constantly increasing level of loop flows related to wind generation in north-eastern Germany, PSE Operator SA provided zero transmission capacity at the annual export and import auction. Operator's decision was based on a calculation made in accordance with the approach agreed on with the President of the Energy Regulatory Office. To a significant extent, it was fostered by an increased value of Transmission Reliability Margin (TRM). Export transmission capacity was offered at monthly and daily auctions, with average value of 411 MW (at the maximum 518 MW, in December 2008). As far as import capacity is concerned, it was available only in January, February and December 2008, again at monthly and daily auctions, and their maximum value was 273 MW, in February 2008.

### 3.1.2. The regulation of the tasks of transmission and distribution companies

#### Network tariffs

There has been no change with regard to the scope of data collected. Regulator's reporting database was used (in the format of uniform DTA(1A) sheets), with the information regarding costs, revenues and financial results of distribution companies in the breakdown according to types of activities. The data was submitted by energy companies in the first and second half of 2008, respectively. The reliability of data was verified mainly from the standpoint of correctness and accuracy against the data presented in generally applicable statistical records.

In the process of approving tariffs for 14 DSOs in 2008, methodology applied by the President of the Energy Regulatory Office, based on the cap regulation approach, was not changed. Comparative analysis methods were applied – just like in previous years – for the assessment of a fair level of operating costs, network losses and investment outlays.

With regard to the transmission system operator, methodological approach based on cost of service regulation was continued in 2008. Comparative methods could not be used due to the absence of other companies with similar characteristics (there is only one transmission system operator in Poland). TSO tariff is approved for a one-year period.

In 2008, 14 DSOs were subject to a **3-year regulation period**, set out by the President of the ERO a year before and starting on 1 January, 2008. A fair level of operating costs, network losses and investment outlays was specified for that time horizon. To that end, benchmarking had been carried out with econometric tools and comparative analyses. Thus, the process of approving tariffs in 2008 was still based on the models applied in the evaluation of operational efficiency, fair level of network losses and investment outlays, introduced together with the new regulation period starting on January 1, 2008. Summary model description was included in 2007 submission.

In comparison to the last year, there were no modifications in the approach to the assessment of a fair level of other regulated revenue components not included in the evaluation involving econometric models, such as depreciation, taxes and return on capital. The assessment was performed by means of a simple comparative analysis.

In light of the need to secure the return on capital invested in network operation for distribution companies (DSOs) and the TSO, the President of the Energy Regulatory Office determines the fair level of such return in subsequent tariffs, on the basis of the Regulatory Assets Base and the cost of capital, taking into account model amounts of investment outlays. Capital rate of return calculation formula applied by the Regulator leaves room for incentives. When the volume of company investments has exceeded the level agreed in the development plan, financial implications of such investments will be taken into account in subsequent tariffs.

The Regulator designs methodology, understood as guidelines for tariff calculation and applied, among other things, to determine the fair level of regulated revenue of energy companies. Energy companies prepare tariffs with prices and rates of charges, and then submit those tariffs for approval to the President of the Energy Regulatory Office. Structure of the tariff prepared by the company, however, depends on the type of company operation and is rooted directly in relevant legal provisions. In that respect, the role of regulatory body is to make sure that composition of the tariff is compliant with formal requirements.

Energy companies dealing with transmission or distribution (i.e., grid companies) must provide users with the quality of electricity supply and, at the same time, minimize their outlays and costs. The Regulator's role is to supervise grid companies from the standpoint of compliance with customer service quality standards and, upon consumer's request, monitor electricity quality parameters<sup>12)</sup>.

In that respect, the ERO has been involved in the following task: „*National benchmarking report concerning the quality of electricity supply for users connected to transmission and distribution networks, and preparation of a set of data and information for European benchmarking report*”<sup>13)</sup>.

Upon completion of the task, the Regulator should be able to apply a consistent approach to the assessment of quality of electricity, in keeping with the best international practices. Benchmarking and comparison to other European countries will certainly facilitate verification of qualitative data provided by grid companies – at present, the data cannot be compared and it is not consistently uniform. On the basis of a properly defined and specified quality level, the quality of customer services and supplied electricity, and in particular business quality, continuity of supply and voltage quality, may be linked to the level of tariffs approved by the Regulator.

Suggestions and recommendations drafted as a result of the task can pave the way for the implementation of domestic electricity supply quality regulation, which would strengthen consumer position. As a first step to such quality regulation, it is required under currently binding legal provisions that TSO/DSOs publish on their websites the information concerning continuity of supply, on the basis of SAIDI, SAIFI indices for long lasting outages, whether planned or unplanned, and MAIFI index for short outages.

## Balancing

Analogically to previous years, Transmission System Operator managed transmission system balancing and congestion in accordance with the Grid Code, the section devoted to system balancing and congestion management, as approved by the decision of the President of the Energy Regulatory Office on 10 February, 2006. Throughout 2008, President's decision was modified three times. Modifications resulted from necessary changes in balancing mechanisms in view of the need to adjust Grid Code solutions to amended legal provisions, changes in the principles governing cost clearing regarding forced generation of electricity on the balancing market, the introduction of new clearing rules for wind generation on the balancing market, and the shift of balancing market gate to 1 p.m. Fundamental premises for balancing market operations, as well as the model for domestic electricity market, remain unchanged.

Settlement of unbalance on the balancing market was performed on the basis of spread prices, according to the formula based on average weighted prices from utilized increase and reduction offers

---

<sup>12)</sup> Pursuant to Energy Law dated 10 April 1997 (Journal of Laws of the Republic of Poland, 2006, no 89, item 625, as amended).

<sup>13)</sup> Within the framework of Transition Facility PL-2006/018-180.02.04 project: „Implementation of competitive energy market – component 2”, part B. The task was programmed on the basis of information obtained during the work of the Task Force for the Quality of Customer Service and Electricity Supply (CEER EQS TF), operating as a part of Central European Energy Regulators Electricity Working Group (CEER EWG).

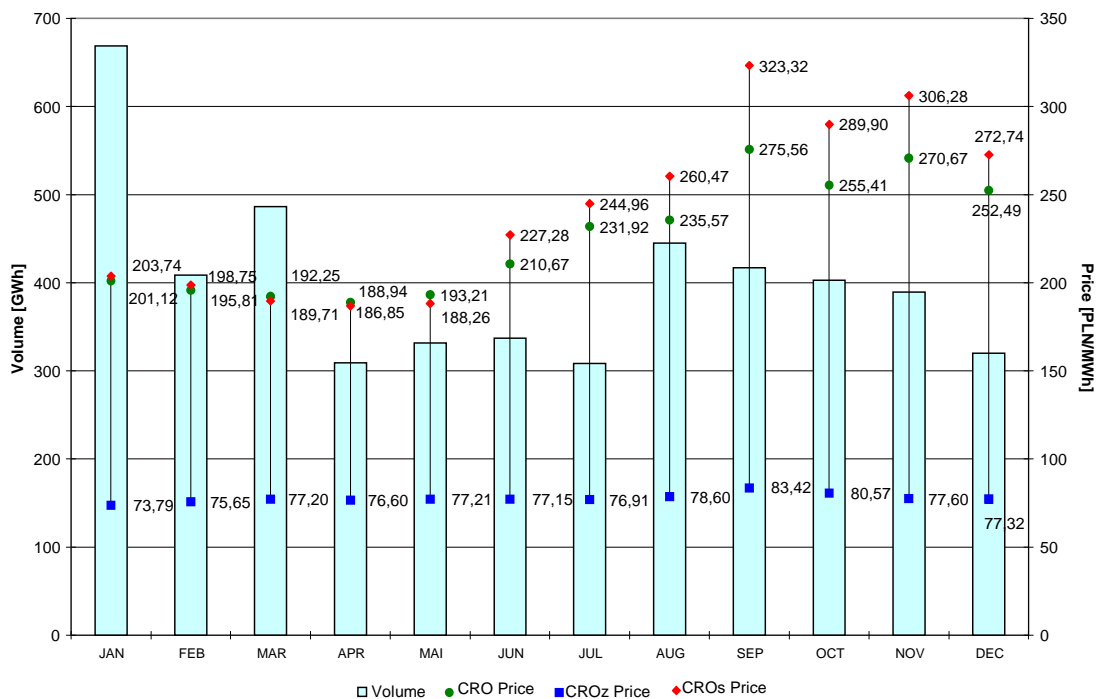
submitted by generators<sup>14</sup>). The basic clearing unit for unbalancing is 1 kWh, which allows for small balancing groups, especially for small users, and removes one more access barrier to the balancing market, as indicated by market participants. Table 3.1. presents overall description of balancing rules.

**Table 3.1.** Balancing – description

Indicator	Functional description
Period	60 minutes
Area	One, centrally – at transmission network level
Balancing market gate closure for contracts on electricity sale to the balancing market	1:00 p.m.
Typical balancing service fees	For users (set for each hour): CROz – balancing market electricity purchase deviation clearing price, calculated as a weighted average of all contract item correction prices used for the settlement of generation reduction for particular Scheduled Generation Units at the time $h$ , decreased by a fixed component $\Delta K^-$ CROs – balancing market electricity purchase deviation clearing price, calculated as a weighted average of all contract item correction prices used for the settlement of generation increase for particular Scheduled Generation Units at the time $h$ , increased by a fixed component $\Delta K^+$

Source: ERO.

Fig. 3.3. presents average monthly electricity volumes and the prices for unbalance on the balancing market.



**Figure 3.3.** 2008 trade volume and average electricity prices on the balancing market (Source: ERO)

Balancing bids submitted by generators participating in the balancing mechanism are submitted individually for particular centrally dispatched generation units (CDGU). Generators with CDGU are obliged to file bids. To a certain extent, that prevents excessive concentration in that market segment,

<sup>14</sup> Owing to average weighted prices formula, the cost of participation in the balancing market could be brought down, which helped remove a fundamental market access barrier indicated by market participants, and the conditions for the implementation of third party access principle (TPA) were improved. However, under the circumstances of significant increase and volatility of electricity prices on the wholesale market, an effort towards changing those rules was initiated. The formula based on marginal prices will eliminate the risk of undesirable competitive market behaviour such as, for example, shifting the trade from basic sectors to the balancing market.

although one cannot exclude the possibility that dominating market participants might use their market power, operating along the lines of the strategy of consolidated companies. Energy settlement mechanism under forced generation conditions is used to curtail market power – among other things, it is used to prevent a very high level of balancing bid prices, not justified by market conditions. It is applied when balancing bid cannot be used at a bidding price, when the bid is indispensable from the standpoint of reliability and safety of National Transmission System operation. In connection with dynamically increasing electricity demand in the first half of 2008, one could observe decreasing level of reserves in the system, which – in the opinion of the President of the Energy Regulatory Office – in many cases resulted from economic withdrawal of generation units from the market (lack of CO<sub>2</sub> emission rights allocation, lack of full representation of prices of CO<sub>2</sub> emission rights in the price of electricity). In the opinion of the President of the Energy Regulatory Office, such actions might have jeopardized the reliability and safety of National Transmission System operation, and as such they were brought to the attention of the President of the Office of Competition and Consumer Protection, who did not see, however, any reason for concern from the standpoint of competition law. In the second half of 2008 transmission system operator did not notify the President of the Energy Regulatory Office about any actions taken by market participants which might indicate market power abuse or result from excessive concentration on the balancing market.

### 3.1.3. Effective unbundling

In the effort of transposition of Energy Directives to the national law, Polish legislator decided that system operators, upon infrastructure owner's request, shall be appointed by the President of the Energy Regulator Office by the way of administrative decision. (Art. 9h par. 1 of the Energy Law)<sup>15)</sup>. Moreover, further Energy Law amendments introduced a number of requirements pertaining to the activity of DSOs. Such requirements are related to legal and organizational autonomy, as well as independence in decision-taking with regard to the issues connected with operator's duties (Art. 9d par. 1 and 2 of the Energy Law).

In Poland, unbundling was a gradual process. This restructuring effort, leading to factual autonomy of DSOs and, by that, the fulfilment of related legal requirements, was finally completed towards the end of 2008. Starting on January 1, 2009, all legally separated DSOs, upon the decision of the President of the Energy Regulatory Office, enjoy DSO status valid throughout the period of electricity distribution licence.

As of the end of 2008, in Poland there was one TSO – PSE Operator SA, which is a company fully owned by the State Treasury, and the owner of transmission assets. Operator has attempted to build an independent image: in the middle of June of 2008 it relocated to its own office building and its website contains no links to the companies it used to be affiliated with before. In distribution, there were 20 distribution company operators: 14 of those had been separated in legal terms from former distribution companies, and 6 were the so-called local operators. Majority of separated DSOs operate within corporate groups, i.e. vertically integrated energy companies. Ownership supervision over DSOs is performed mostly by the State Treasury – indirectly through State Treasury-owned holding companies or through parent companies: operator activity had been taken out of those companies and transferred to new companies. Only two DSOs are owned by the companies whose major shareholders are foreign companies. With regard to the six local operators, the principle of 100 000 consumers has been applied.

---

<sup>15)</sup> Transposition of European Parliament and Council Directives dated 26 June 2003: *2003/54/EC* on common principles governing electricity internal market, and *2003/55/EC* on common principles governing natural gas internal market to Polish law was carried out pursuant to Energy Law amendment dated 4 March 2005. Those provisions came into effect on 3 May, 2005.

**Table 3.2.** Unbundling description, status as of 31 December 2008

Specification	Quantity	
DSO – ownership unbundling	1*	* Starting from January 1, 2007.
DSO – ownership unbundling	0	** Starting from January 1, 2008.
DSO – legal unbundling, with assets (grid)	1**	
DSO – legal unbundling, no assets (grid)	0	
DSO – legal unbundling , with assets (grid)	14	
DSO – legal unbundling, no assets (grid)	0	

Source: ERO.

The process leading to full operator independence has been rather slow. One major obstacle to that process is the fact that operators remain within vertically-integrated structures and well-developed corporate group structures, where operator's independence does not go hand in hand with the objective of maximum benefits for the group. Even though a formal evaluation – based on the assessment of DSO compliance with legal provisions – leaves no room for reservations in most cases, an evaluation of actual DSO independence – for example, based on the attempts to create an individual image – gives rise to some doubts.

One must note a positive change in that system operator's premises are separated from the premises of a trading company: such a step has been made by ten DSOs. And six of those made that change by the actual relocation of company address. In the remaining four cases, the separation was made effective by appropriate allocation of space or buildings. Of the four operators who have not relocated their offices yet, two declare that they will do so by the end of 2009.

Nine operators have established their own customer service centers – the number of such centers for particular DSOs varies from 1 to 54. Centers of some DSOs provide comprehensive retail customer service, understood as both distribution-related service and service related to sales performed by selected suppliers. All DSOs have their own websites and names, whereas the logos are in most cases the same for the whole group from which a given company was isolated.

In the opinion of the Regulator, operators are beginning to understand – slowly but surely – the importance of their role in securing equal treatment for electricity system users and providing equal access to network for all market participants.

**Unresolved issues.** The President of the Energy Regulatory Office is concerned about the manner in which distribution system operators have been established, as well as the way in which some DSOs have operated after their appointment. With regard to some DSOs, those concerns led to a decision about their temporary appointment (until 31 December 2008), necessary to complete the restructuring, and allowing them to operate without applying additional legal requirements (such as amending company articles of association and transferring to other persons, other than the DSO, the fulfilment of rights and obligations related to the stock/shares owned by DSO in other entities for the term during which they perform DSO function or until the point when the restructuring process has been finalized). Some DSOs continue to render certain services to customers for the benefit of a trading company, which in Regulator's opinion does not guarantee full independence of the operator.

Another key factor from the standpoint of equal treatment for all system users is a shift in the image of energy companies, so that the users would stop perceiving a distribution system operator and a trading company (also established on the basis of a vertically integrated company) as one entity, and thus stop perceiving the trading company as the only electricity supplier in system operator's area. One way to help achieve that purpose would be to separate the offices of companies in question and establish separate customer service centers.

In the case of vertically integrated companies, there should be no doubt that – both for the sake of customers and for business efficiency – customer service centers with a comprehensive service offer should be established. Yet, in view of Energy Law provisions, such customer service centers must not be included in DSO structure.

Company name is another vital factor contributing to company image. In several cases, the association between operator's name and group name has been reinforced. It was argued that such a step was justified from the standpoint of an ongoing effort towards promoting group visual identity. The Regulator, however, looks at such actions with disapproval, focusing on the need to create a separate image of a DSO – an entity with neutral market stance.

To ensure greater independence of distribution system operator, the operator should prepare and implement a program (the so-called compliance scheme) with initiatives promoting non-discriminatory treatment of system users, as well as employee obligations in that regard. Before March 31 each year, operators submit to the President of the Energy Regulatory Office a report describing action steps taken during previous year in scope of compliance schemes.

Currently, there are no regulatory tools the Regulator might apply to intervene in the circumstances when appointed operators violate unbundling terms. With that in mind, the President of the Energy Regulatory Office has prepared recommendations regarding comprehensive amendments to the Energy Law, with the purpose to strengthen the ERO mandate in the area of regulation of the operation of distribution system operators. Those recommendations, together with other changes proposed in connection to Regulator's autonomy and reinforcement of regulatory tools, have been submitted to the Minister of the Economy, who is competent to initiate legislative effort in that respect.

According to suggested regulatory solutions, compliance schemes would be approved by the President of the Energy Regulatory Office by virtue of administrative decision, which would give the Regulator an opportunity to impact the tasks and roles performed by the operators. If those changes are implemented, the market should become more transparent and switching supplier should be facilitated, which in turn would promote competition.

Further, it was suggested that unambiguous punitive measures regarding operators should be introduced, for example for failing to implement compliance schemes in a timely manner, for procrastination in scheme execution, as well as for non-compliance with the provisions set forth in those schemes. Under the ERO recommendations, power system operators would be obliged to report company transformation, and to take new measures triggering a reaction in the form of a decision prohibiting certain types of activity. At the end of the day, it was agreed that information obligation would be sufficient, and the President of the Energy Regulatory Office should be able to enforce financial sanctions for non-compliance with the terms of unbundling.

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

### 3.2.1. Description of the wholesale market

In 2008, electricity wholesale market was based on non-standardized bilateral trading (short- and mid-term) and long-term structured contracts (LT PPAs). To a limited extent, transactions were performed on the Power Exchange and virtual energy trade platforms.

**Table 3.3.** Sales volume (system power stations, in TWh)

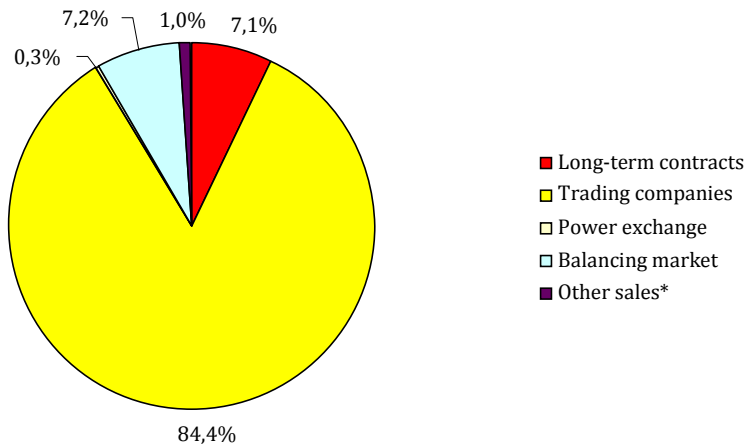
Year	Total	LTCs*	Bilateral contracts	Spot market	Balancing market**	Forward market
2007	123,30	38,88	75,42	0,49	8,51	0
2008	117,26	8,37	100,10	0,33	8,46	0

\* Regulated segment.

\*\* Including generation forced by system factors.

Source: ERO.

In 2008, long-term contract sales represented approximately 7,1% of total sales of system generators; it was accomplished only in the first quarter of last year. On April 1, 2008, long-term contracts – previously mandatory – were annulled. At the same time, however, energy from those contracts was transferred in full to bilateral transactions, without affecting the liquidity of the spot market (including stock exchange). In 2008, the lion's share – over 84% – resulted from bilateral contract sales (to trading companies).



\* Other sales include, among other things, sales to end users.

**Figure 3.4.** Structure of system generators' sales in 2008 (Source: ERO)

In 2008, there were 332 trading companies (in 2007, 319). During the process of electricity market monitoring, the President of the Energy Regulatory Office examined entities active on the wholesale market. Examination criterion was based on the turnover from licensed activity at the level above PLN 5 mln. In 2007, there were 41 such companies, and in 2008, 42. It should be noted, however, that in that group there are 14 companies established on the basis of former distribution companies (the so-called incumbent trading companies), which are active mostly in the retail segment.

Tables 3.4. and 3.5. present the structure of trading companies activity, as well as the structure of electricity supply and sales.

**Table 3.4.** Trading companies electricity purchase sources in 2008 [in TWh]

	Generation companies	Trading companies	Power exchange	Balancing market	Import	Remaining purchase	Total
Non-incumbent*	97,9	97,3	1,5	0,7	3,6	0,0	200,9
Incumbent**	25,0	100,8	0,5	2,9	0,8	0,1	130,0
Total	122,9	198,1	2,0	3,6	4,3	0,1	330,9

\* Non-incumbent – trading companies that were not established on the basis of vertically integrated groups.

\*\* Incumbent – trading companies established on the basis of vertically integrated groups (so-called „trading companies” – former Distribution Companies).

Source: ERO, on the basis of data from Energy Market Agency (ARE SA).

**Table 3.5.** Structure of trading companies electricity sales in 2008 [in TWh]

	End users	Trading companies	Power exchange	Balancing market	Export	Remaining sales***	Total
Non-Incumbent*	6,3	188,6	1,4	0,6	3,1	0,8	200,9
Incumbent**	112,7	3,5	0,3	1,8	0,4	11,4	130,1
Total	119,0	192,1	1,7	2,5	3,5	12,2	331,0

\* Non-incumbent – trading companies that were not established on the basis of vertically integrated groups.

\*\* Incumbent – trading companies established on the basis of vertically integrated groups (so-called „trading companies” – former Distribution Companies).

\*\*\* Remaining sales include, among other things, the volume of electricity sold to TSO, DSOs and generation companies.

Source: ERO, on the basis of data from Energy Market Agency (ARE SA).



The status in 2008 was similar to that observed in 2007. Prevalence of bilateral transactions on the wholesale market was a key factor behind the low volume of trades on the Power Exchange. Transactions on the Day Ahead Market accounted for about 1,8% of total electricity sales to end users. In November 2008, the Power Exchange launched Electricity Forward Market with forward contracts involving the actual delivery of contracted electric power. No such transactions could be observed in 2008. The Polish Power Exchange Day Ahead Market was accessible for transactions to 33 energy trade companies. In 2008 those transactions were still balancing in character (to improve the status prior to balancing market gate closure). Market participants may also use services of the so-called virtual energy trade platforms, such as: Internet Platform for Electric Power Trade, Energy Exchange, TFS<sup>16)</sup>, but to date the share of such platforms in total volume of electricity trade has been rather small. Yet, currently it may be compared to Polish Power Exchange turnover. The President of the Energy Regulatory Office has no access to information regarding the biggest Polish exchange market player because Polish Power Exchange has been supervised by Polish Financial Supervisory Authority, and such data has not been published by the Exchange.

Prevalence of bilateral contracts on the wholesale market and concentration of turnover within vertically-integrated groups (in 2008, total turnover in the four groups amounted to 52,3% of total wholesale turnover) resulted in limited liquidity and lack of transparency on Polish electricity market. Due to the absence of spot market energy transactions (including the exchange market), reliable benchmarking price for transactions on physical electricity supplies market could not be specified. Lack of forward market transactions hinders profitability assessment for investments in new generation sources (the so-called *new entry price*). Given the absence of forward transactions in 2008, open interest could not be determined, just like one could not determine the spread between bids and offers on the exchange market.

To key factor for the integration of Polish power market with the markets from neighbouring countries is the coordination of cross-border transmission capacity mechanism and adequate interconnectors. Transmission congestion management on the borders between Poland and Germany, the Czech Republic and Slovakia is carried out in a coordinated manner (cf. point 3.1. of the Report), even though a coordinated mechanism for the provision of access to cross-border transmission capacity throughout Central Eastern Europe region has not been implemented. In the course of cooperation with TSO under the auspices of ERGEG Regional Initiatives, Bidding Regulations were prepared for a fully coordinated congestion management mechanism throughout the whole region. Looking at the situation from that standpoint, one could claim that the character of Polish market is sub-regional.

One major limitation for the integration between Polish market and the neighbouring markets is insufficient level of cross-border transmission capacity. To a significant extent, this is exacerbated by already mentioned, increasing rate of wind generation in Northern Germany (TRM).

When discussing interconnectors with other member states it must be noted that SwePol Link interconnector does not belong to PSE Operator SA – the only transmission system operator in Poland, pursuant to the Energy Law (cf. point 3.1.2. of the Report). Thus, it has not been made accessible by PSE Operator SA on market terms. Within the framework of ERGEG Regional Initiatives, Regulators and transmission system operators have jointly prepared a report arguing that the integration between Polish and Scandinavian markets should be fostered by virtue of market coupling. Market coupling will be possible once the ownership structure of SwePol Link interconnector has been changed, i.e. once the interconnector has been taken over by transmission system operators.

Cross-border interconnection with Lithuania is currently in preliminary stage of execution.

In view of the above, at present one cannot determine the extent of integration between Polish market on the one hand, and Scandinavian markets and Lithuania on the other.

---

<sup>16)</sup> *Internet Platform for Electric Power Trade* – a virtual trading place designed for various purchase/sale transactions regarding energy and property rights for all energy generators, distribution and trading companies, and for energy users who use TPA principle.

*Energy Exchange* – an electronic system for electric power trade in the form of continuous quotes for all 24 hours of supplies for „day ahead” in the morning session and „two days ahead” in the afternoon session. Each purchase and sale transaction is made between the Participant and JAC EnTra through the types and hours of transactions selected by the Participant and by clicking the price offered by EnTra.

*TFS (Tradition Financial Services)* – a virtual trade platform managed by a German brokerage company. It allows for various types of OTC transactions based on diversified products, including energy products (such as electric power, natural gas, oil and oil products, etc.) or derivatives. Concluded contracts may include physical delivery of traded products, they may also be financial in nature.

Another barrier to continuing cross-border integration is lack of adequate liquidity of Polish exchange market, which has particular bearing in light of the introduction of implicit auctions<sup>17)</sup>.

Relatively modest level of interconnections is reflected in limited price correlation between Polish market and other markets. Information pertaining to adjacent markets does not translate directly into electricity market in Poland. Low volume of trade on Polish exchange market represents another contributing factor. Given such a marginal rate of liquidity of the spot market in Poland, any evaluation of price correlation on national markets may turn out to be unfounded due to the risk of a serious error. Presence of different national currencies additionally complicates the situation.

The final stage of ownership changes and restructuring in electric power sector was based on the document called „Program for power sector”, approved by the Council of Ministers on 28 March, 2006. Consolidation efforts led to the establishment of four Power Sector Groups, as follows:

- PGE Polska Grupa Energetyczna SA with headquarters in Lublin, established on the basis BOT Górnictwo i Energetyka SA holding (currently PGE Górnictwo i Energetyka SA), Zespół Elektrowni Dolna Odra SA, assets remaining after the separation of Transmission System Operator from PSE SA (Polish Power Grid Company) with the assets, and eight distribution companies: Zakład Energetyczny Białystok SA, Zakład Energetyczny Warszawa-Teren SA, Zakłady Energetyczne Okręgu Radomsko-Kieleckiego SA, Lubelskie Zakłady Energetyczne SA, Zamojska Korporacja Energetyczna SA, Rzeszowski Zakład Energetyczny SA, Łódzki Zakład Energetyczny SA and Zakład Energetyczny Łódź-Teren SA,
- TAURON Polska Energia SA with headquarters in Katowice, established by the way of capital consolidation of the following companies: Południowy Koncern Energetyczny SA with headquarters in Katowice, EnergiaPro Koncern Energetyczny SA with headquarters in Wrocław, ENION SA with headquarters in Kraków, Elektrownia Stalowa Wola SA with headquarters in Stalowa Wola,
- ENERGA SA with headquarters in Gdańsk, established by the way of consolidation of Koncern Energetyczny ENERGA SA and Zespół Elektrowni Ostrołęka SA,
- ENEA SA with headquarters in Poznań, established through the transfer of all the stock in Elektrownia „Kozienice” SA, with headquarters in Świerże Górne, owned by the State Treasury, to ENEA SA company capital.

State Treasury is the owner of 100% of shares in company capital of the following Power Sector Groups: PGE Polska Grupa Energetyczna SA, TAURON Polska Energia SA, ENERGA SA. In the case of ENEA SA, once the shares were issued and listed on Warsaw Stock Exchange on November 17, 2008, and the shares from increased company capital were taken by other shareholders, State Treasury currently owns 76,48% of ENEA SA company capital.

The Minister of State Treasury has rights to stock/shares with regard to the following companies operating in the power sector:

Item	Name of the entity	Headquarters	% ST
1	Agencja Poszanowania Energii i Usług Energetyczno-Górnictwowych „ENMAG-EG” Sp. z o.o.	Piekary Śląskie	17,23
2	Agencja Rynku Energii SA	Warszawa	10,10
3	Bałtycka Agencja Poszanowania Energii SA w Gdańsku	Gdańsk	5,16
4	Ciepłownia Łańcut Sp. z o.o.	Łańcut	100,00
5	Dalkia Łódź SA	Łódź	0,45
6	Dalkia Poznań Zespół Elektrociepłowni SA	Poznań	0,22
7	Elektrociepłownia Będzin SA	Będzin	5,00
8	Elektrociepłownia EC Nowa Sp. z o.o.	Dąbrowa Górnicza	42,06
9	Elektrociepłownia Tychy SA	Tychy	0,13
10	Elektrociepłownia Zabrze SA	Zabrze	100,00
11	Elektrociepłownie Wybrzeże SA (SP-lakcja)	Gdańsk	0,00
12	Elektrownia Chorzów SA	Chorzów	100,00
13	Elektrownia Rybnik SA (SP-lakcja)	Rybnik	0,00
14	Elektrownia Stalowa Wola SA	Stalowa Wola	0,51
15	ENEA SA	Poznań	76,48

<sup>17)</sup> In order to boost liquidity of Polish exchange market, legislative effort was initiated aiming at the introduction of mandatory sale of electric power through the exchange for selected group of generators. Relevant draft amendment to the Energy Law was approved by the Council of Ministers on May 12, 2009.

16	ENERGA Elektrownie Ostrołęka SA	Ostrołęka	0,18
17	ENERGA SA	Gdańsk	100,00
18	ENERGA-OPERATOR SA	Gdańsk	0,62
19	EnergiaPro SA	Wrocław	1,05
20	Energomix Servis Sp. z o.o.	Wrocław	1,05
21	ENION SA	Kraków	0,77
22	Enion Zarządzanie Aktywami Sp. z o.o.	Kraków	0,77
23	Fortum Częstochowa SA	Częstochowa	0,26
24	Górnośląski Zakład Elektroenergetyczny SA	Gliwice	25,07
25	Krajowa Agencja Poszanowania Energii SA w Warszawie	Warszawa	51,61
26	Nadwiślańska Spółka Energetyczna Sp. z o.o.	Brzeszcze	100,00
27	PGE Dystrybucja Łódź-Teren SA	Łódź	0,43
28	PGE Elektrociepłownia Gorzów SA	Gorzów Wlkp.	5,93
29	PGE Elektrownia Bełchatów SA	Rogowiec	0,01
30	PGE Elektrownia Opole SA	Brzezie k. Opola	16,04
31	PGE Elektrownia Turów SA	Bogatynia	0,04
32	PGE ENERGIA SA	Lublin	15,00
33	PGE Górnictwo i Energetyka SA	Łódź	15,00
34	PGE Lubelskie Zakłady Energetyczne SA w Lublinie	Lublin	0,69
35	PGE Łódzki Zakład Energetyczny SA	Łódź	0,99
36	PGE Polska Grupa Energetyczna SA	Lublin	100,00
37	PGE Rzeszowski Zakład Energetyczny SA	Rzeszów	0,27
38	PGE Zakład Energetyczny Białystok SA	Białystok	0,47
39	PGE Zakład Energetyczny Warszawa-Teren SA	Warszawa	0,72
40	PGE Zakłady Energetyczne Okręgu Radomsko-Kieleckiego SA	Skarżysko-Kam.	0,22
41	PGE Zamojska Korporacja Energetyczna SA	Zamość	0,39
42	PGE Zespół Elektrociepłowni Bydgoszcz SA	Bydgoszcz	0,39
43	PGE Zespół Elektrowni Dolna Odra SA	Nowe Czarnowo	0,35
44	Polskie Sieci Elektroenergetyczne Operator SA	Konstancin- Jeziorna	100,00
45	Południowy Koncern Energetyczny SA	Katowice	0,05
46	Pomorska Agencja Poszanowania Energii Sp. z o.o. w Bydgoszczy	Bydgoszcz	33,33
47	Przedsiębiorstwo Energetyki Ciepłej Katowice SA	Katowice	0,17
48	Przedsiębiorstwo Energetyki Ciepłej Sp. z o.o. w Chrzanowie	Chrzanów	49,00
49	Przedsiębiorstwo Energetyki Ciepłej Sp. z o.o.	Ustrzyki Dolne	2,09
50	Przedsiębiorstwo Energetyki Ciepłej w Dąbrowie Górniczej SA	Dąbrowa Górnicza	100,00
51	Przedsiębiorstwo Energetyki Ciepłej w Śremie SA	Śrem	7,35
52	Tauron Polska Energia SA	Katowice	100,00
53	Towarowa Giełda Energii SA	Warszawa	22,34
54	Vattenfall Heat Poland SA	Warszawa	25,19
55	Wojewódzkie Przedsiębiorstwo Energetyki Ciepłej w Legnicy SA	Legnica	100,00
56	Zakład Produkcyjno-Remontowy Energetyki Jedlicze Sp. z o.o.	Jedlicze	100,00
57	Zakłady Pomiarowo-Badawcze Energetyki ENERGOPOMIAR Sp. z o.o.	Gliwice	8,95
58	Zespół Elektrociepłowni Bytom SA	Bytom	100,00
59	Zespół Elektrociepłowni Wrocławskich KOGENERACJA SA	Wrocław	3,68
60	Zespół Elektrowni Pątnów Adamów Konin SA	Konin	50,00
61	Zespół Elektrowni Wodnych Niedzica SA	Niedzica	100,00

In 2008, phase I of privatization of ENEA SA was carried out: new shares were issued and all shares in that Company were listed on Warsaw Stock Exchange.

As regards other companies operating in the power sector, throughout 2008 and during the first five months of 2009, the Minister of State Treasury completed privatization processes with respect to the following entities from that sector:

Item	Name of the entity	Headquarters	Volume of blocks sold	Privatization completion	Comments
1	Przedsiębiorstwo Energetyczne MEGAWAT Sp. z o.o.	Czerwionka Leszczyny	100,00%	2008	
2	Elektrociepłownia Białystok SA	Białystok	30,00%	2008	
3	Elektrownia Skawina SA	Skawina	25,00%	2008	
4	Przedsiębiorstwo Energetyki Ciepłej w Śremie SA	Śrem	49,00%	2008	
5	PGE Elektrownia Bełchatów SA	Bełchatów	16,03%	2008	
6	PGE Elektrownia Turów SA	Bogatynia	16,00%	2008	
7	PGE KWB Bełchatów SA	Bełchatów	16,25%	2008	
8	PGE Elektrownia Opole SA	Opole	16,04%	2008	Ownership transfer will be completed by 31.12.2009
9	PGE KWB Turów SA	Bogatynia	15,46%	2008	Ownership transfer will be completed by 31.12.2009

10	Elektrociepłownia Kraków SA	Kraków	28,00%	2009	
11	Vattenfall Heat Poland SA	Warszawa	25,19%	2009	Ownership transfer will be completed by 31.07.2009
12	Górnośląski Zakład Elektroenergetyczny SA	Gliwice	25,07%	2009	Ownership transfer will be completed by 31.07.2009

Changes in ownership structure pertaining to the four vertically consolidated power sector groups referred to above were a continuation of efforts initiated in previous years within the framework of the „Program for Power Sector”. Consequently, their impact on the performance of electric power competitive market had already manifested itself in previous years. In spite of the negative opinion of the Regulator regarding the impact of vertical consolidation in the power sector on the performance of electric power competitive market, in the cases reported by the Regulator, inter alia, the President of the Office of Competition and Consumer Protection did not see any activities that would be non-compliant with the competition law. Other actions in scope of ownership structure changes in electric power sector referred to above, did not have any significant impact on the performance of electric power competitive market due to their limited extent.

In 2008, the number of generators with at least 5% market share, both in terms of net installed capacity and net output, remained the same. The level of CR3 i HHI<sup>18)</sup> was also similar to that observed in 2007: those values, presented in Table 3.6., demonstrate significant extent of concentration in generation sub-sector. The level of generator concentration in the breakdown according to net installed capacity went up incrementally (CR3 by 3,14%, HHI by 3,85%), while in the breakdown according to net output – it decreased slightly (CR3 by 5,17%, HHI by 9,95%). When looking into detailed circumstances of that status quo, one can conclude that such a decrease might have been affected by market strategies of particular capital groups, including PGE SA capital group. The outcome of monitoring effort conducted by the President of the Energy Regulatory Office has confirmed, among other things, the supposition that in the first quarter of 2008 PGE SA, a party to LT PPAs, made decisions on reduction of generation from its own generation units. The purpose of maximum generation from generation units in power stations from outside of the group (LT PPAs) was to reduce CO<sub>2</sub> emissions, given that there was no regulation on the allocation of carbon dioxide emission rights for the years 2008-2012 at that time, yet.

In Poland, there has practically been no competition at generator level following the completion of vertical consolidation, since generators that belong to power sector capital groups sell almost all of their output to their own trade companies. The share of sales within one's own group stays within the range of 71%-88%. In other words, leaving the balancing market aside, generators do not offer sales outside of their own group. The status of concentration in generation sub-sector is presented in the Table below.

**Table 3.6.** Concentration status in generation sub-sector\*

Year	The number of companies with at least 5% share in net installed capacity	The number of companies with at least 5% share in net output	Net installed capacity in three biggest companies	Net output in three biggest companies	HHI indicator	
					Net installed capacity	Net output
2006	6	5	44,2%	52,4%	1 002,9	1 366,6
2007	5	5	50,9%	58,0%	1 312,7	1 710,0
2008	5	5	52,5%	55,0%	1 363,3	1 539,9

\* For all entities operating in generation sector which are subject to statistical records obligation.

Source: ERO, on the basis of data from Energy Market Agency.

The extent of concentration on the market of trading companies is much greater than in generation sub-sector, as one can gather from the data summarized in the table below. In 2008, market share of three leading trading companies amounted to 76,7% and, in comparison to 2007, it was higher by 9,2 percentage points, which shows that their market power has been on the rise. The share of PGE group in the wholesale market in 2008 reached 58%, while the second biggest TAURON group (in

<sup>18)</sup> Herfindahl Hirschmann index, referred to as a sum square of market share percentages: HHI > 5 000 – very high concentration, HHI between 1 800 and 5 000 – high concentration, HHI between 750 and 1 800 – average concentration (according to the „Report on electric power and gas internal market development progress status”, Brussels, 2005).

terms of turnover) – 12,4% (the only entities with more than 10% market share). Very high level of concentration manifests itself, first and foremost, in HHI index, the value of which is much higher than the floor of high market concentration level (1 800).

**Table 3.7.** Concentration status in wholesale trade sub-sector

Year	The number of companies with at least 5% share in the volume of sales to wholesale customers	Sales to wholesale customers by three biggest companies	HHI index
2006	5	67,1%	2 993,4
2007	5	67,5%	3 140,4
2008	5	76,7%	3 632,7

Source: ERO, on the basis of data from Energy Market Agency.

In 2008, the President of the Office of Competition and Consumer Protection approved of three concentration cases in electric power sector, namely:

- 1) ENEA SA, with headquarters in the city of Poznań, took control of Kopalnia Węgla Brunatnego „Adamów” SA (lignite mine) located in Turek, and Kopalnia Węgla Brunatnego „Konin” SA (lignite mine) located in Kleczewo,
- 2) PSE Operator SA, with headquarters in the city of Warsaw, and Lietuvos Energija AB, with headquarters in the city of Vilnius, Lithuania, established a joint enterprise in the form of „LitPol Link” Sp. z o.o. limited liability company, with headquarters in the city of Warsaw,
- 3) E.ON edis energia Sp. z o.o. limited liability company, with headquarters in the city of Poznań, took control over MVV-Polska Sp. z o.o. limited liability company, with headquarters in the city of Warsaw.

It was decided in the course of case examination that in those instances concentration does not adversely affect the development of competition on specific, relevant markets, whether in vertical, horizontal or conglomerate dimension.

From the standpoint of competition promotion, particular attention should be paid to the decision referred to in point 2. The establishment of „LitPol Link” Sp. z o.o. is the first stage of investment – construction of an interconnector between Poland and Lithuania – LitPol Link project – 400 kV double circuit overhead line connecting Lithuanian and Polish power systems between the substations of Alytus (Lithuania) and Ełk (Poland). The investment is a part of Electricity Trans-European Networks (TEN-E), integrating Baltic states with the unified power system and European power market. Project implementation should exert positive influence on the development of competition on Polish market.

Owing to the absence of horizontally consolidated energy companies which would make substantial structural changes on specified, relevant markets, anti-monopoly authority did not examine the level of electric power market concentration in 2008.

### 3.2.2. Description of retail market sales

Retail electricity market is a national market, divided into local markets outlined according to the areas of operation of particular distribution network operators. While there has been progress in ongoing integration with neighbouring countries on the level of wholesale market, retail customers exercise their right to the choice of supplier by entering into electricity sale contract with a supplier of their choice operating within the country, and authorized by the relevant distribution network operator.

#### Description of retail market sales

In 2008, electricity consumption by approximately 16 mln customers connected to the network of 14 distribution system operators reached over 116 742 GWh. Table 3.8 presents detailed data in the breakdown according to customer groups, consumption criterion.

**Table 3.8.** Number of customers and electricity volume supplied to final customers by DSOs in 2008

Consumer groups by consumption criterion [in MWh]	Number of consumers in 2008	Electricity supplied to consumers in 2008 [in MWh]
> 2000	4 457	52 369 907
50 – 2 000	97 129	21 787 781
< 50	16 124 129	42 584 617
Total	16 225 715	116 742 305

Source: ERO.

The biggest market share was accomplished by the fourteen trading companies (the so-called incumbent ones – established on the basis of former DSOs), which sold about 91,4% of electricity to end users connected to distribution networks.

**Table 3.9.** Description of retail market suppliers

Year	Suppliers with more than 5% market share	Share of three biggest companies in the market of:		
		Large industrial consumers [in %]	Medium-sized industrial and commercial consumers [in %]	Small and domestic consumers [in %]
2006	6	47,5	51,5	48,2
2007	6	41,1	47,1	48,8
2008	6	40,0	46,6	48,9

Source: ERO.

Looking at the data, one can see that in 2008 the share of three biggest trading companies in terms of sales to large industrial consumers decreased by 1,1 percentage points and was equivalent to 40%, the drop in the percentage of sales to medium-sized industrial and commercial consumers was also insignificant. There was a small increase in the share of major trading companies with regard to sales to small and domestic consumers.

Table 3.10 contains specification of electricity sales directions from five biggest suppliers.

**Table 3.10.** Structure of sales of major suppliers (status as of the end of 2008)

Suppliers	Share in sales to final consumers [in %]		
	≥ 2 GWh	50 MWh – 2 GWh	≤ 50 MWh
ENERGA-Obrót SA	13,7	17,3	18,4
ENION Energia Sp. z o.o.	14,3	11,1	15,4
ENEA SA	11,8	17,9	15,1
EnergiaPro Gigawat Sp. z o.o.	12,1	11,4	10,1
Vattenfall Sales Poland Sp. z o.o.	6,7	6,0	7,0

Source: ERO.

### Switching supplier

Supplier switching procedure in Poland is regulated by the distribution grid codes, in the section dedicated to system balancing and congestion management, prepared by Distribution System Operators and submitted for approval to the President of Energy Regulator Office.

In 2008 supplier switching procedure was abbreviated and simplified. In the case of the first supplier switch, i.e. when a consumer terminates complex agreement with the supplier who is acting as a supplier „ex officio” (officially and routinely), the procedure cannot take more than 30 days, starting on the date on which the conclusion of an agreement with a new supplier has been nominated to

DSO<sup>19)</sup>. With regard to the second and subsequent changes, the procedure cannot take more than 14 days. Supplier switch does not entail any charges to be paid by consumer. Moreover, the following obligations were introduced:

- An obligation stipulating that system operators must publish a list of suppliers with whom they have entered into distribution service agreements, the so-called general distribution agreements, which are a pre-requisite for the execution of sales contracts concluded with consumers connected to operator's network;
- An obligation stipulating that system operators must publish a notification form regarding the agreement concluded with a new supplier;
- Further, an obligation stipulating that system operators must inform consumers about consumer rights, the terms and conditions of electricity distribution, and about terms and conditions of electricity supplier switch, i.e. the switching procedure, formal requirements related to the switch, consumer rights and obligations; and the response should be provided within 14 days from the date on which the inquiry was received.

The issue of complaints filed by consumers to system operators has also been addressed. A complaint should be dealt with within 14 days. If a complaint is rejected, consumer may apply to the operator again. There is a 60-day time limit for resolution of repeat complaints.

The level of consumer activity understood as the execution of supplier switch right, which was granted to all consumers as of July 1, 2007, remains extremely low. The share of large and medium-sized industrial entities that switched supplier has gone up by a very small margin. Likewise, an increase in the share of domestic (household) consumers switching supplier has been almost negligible (0,005%).

Quantitative data pertaining to supplier switch, presented in Table 3.11, illustrates that point very well.

**Table 3.11.** Supplier switch

Year	Consumers who switched supplier – by number of metering points (1)			The share of consumers who switched supplier – by energy consumption (2)			Number of renegotiated agreements
	Large industrial consumers	Medium-sized industrial and commercial consumers	Small business and domestic consumers	Large industrial con- sumers	Medium-sized industrial and commercial consumers	Small business and domestic consumers	
2006	82	199	10	15,84	0,012	0,000	47
2007	No data**	No data**	No data**	16,95	0,128	0,001	44
2008	No data**	No data**	No data**	15,95	0,309	0,005	No data

\* Renegotiation of agreement is understood as modification in the terms of agreement with the previous supplier.

\*\* Data in a different format (Table 3.12).

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

The data pertaining to consumers who switched supplier is presented according to the criterion of energy consumption, without information on the number of metering points (Table 3.12). When comparing data from different years, one should note that the data for 2007-2008 pertains to the number of consumers, while in previous years it was based on the number of metering points.

<sup>19)</sup> In two cases operators have prepared a procedure allowing supplier switch from the first day of the month directly following the month in which notification was made, with the window of opportunity to nominate the switch between the first and the fifth working day. However, as of January 1, 2009, that switch notification time window was extended to the period between the first and the tenth working day.

**Table 3.12.** Number of consumers who switched supplier (status as of the end of the year)

Consumer groups by consumption criterion [in MWh]	Number of consumers who switched supplier, according to energy consumption			
	Large and medium-sized industrial consumers and small business		Domestic (household) consumers	
	2007	2008	2007	2008
> 2 000	40	56	–	–
50 – 2 000	16	13	–	–
< 50	7	16	541	905
Total	63	85	541	905

Source: ERO.

As can be inferred from the data above, only some consumers see the benefits of supplier choice. Insufficient number of competitive energy sale offers was an overriding reason behind low consumer interest. Other barriers include time-consuming process of signing distribution service agreements and unfair modifications in the terms of service provision once the consumer has exercised the right to switch supplier. When such cases were reported to the Regulator, adequate measures were taken and, to date, those measures have been successful in ensuring that consumer's rights in relation to service provision are satisfied in due time.

The volume of trading companies electricity sales under TPA principle in 2008 was higher by only 2% in comparison to 2007 and reached 8 980 GWh (8,6% of total supplies to end users provided by distribution companies).

**Table 3.13.** Application of TPA rule

Year	Number of consumers who use TPA rule	Electricity supplied to TPA customers [in GWh]	Percentage share of electricity under TPA in relation to total electricity supplied
2006	61	8 469	7,6
2007	604	8 815	7,8
2008	990	8 980	8,6

Source: ERO.

All in all, as of the end of 2008 there were 990 consumers, of which 905 were domestic (household) consumers, who entered into sales agreement with a supplier other than the trading company separated from a vertically integrated company operating in the area of DSO whose network those customers have been connected to.

### Retail prices

It was in 2008 that regulated prices in electricity sales for industrial users and small and medium business consumers were no longer in force for the first time. The President of Energy Regulatory Office decided to uphold the obligation whereby domestic consumer tariffs must be submitted for approval.

Average prices of electricity in the breakdown according to particular consumer categories and their average increase as of the end of 2008, in comparison to the end of 2007, are presented below. Tariff category G refers to domestic (household) users, category C – institutional users connected at low voltage, category B – institutional users connected at medium voltage, category A – institutional users connected at high voltage.

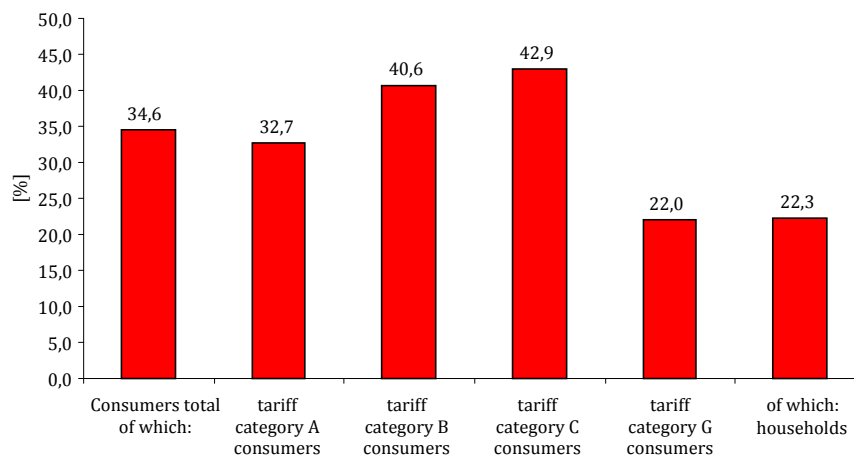


**Table 3.14.** Retail electricity prices for consumers with umbrella agreements in Q 4, 2007 and Q 4, 2008

Specification	Electricity charge [in PLN/MWh]	
	Quarter 4, 2007	Quarter 4, 2008
Consumers total	150,46	202,53
Of which: Tariff category A consumers	142,86	189,63
Tariff category B consumers	145,55	204,61
Tariff category C consumers	150,70	215,36
Tariff category G consumers	160,10	195,37
Of which: households	160,03	195,72

Source: EMA SA.

Between Q 4, 2007 and Q 4, 2008, the price of electricity for end users increased by 34,6%, on average: the biggest increase was observed in category C consumers (on average, 42,9%), and the lowest – in category G consumers (on average, 22,3%).



**Figure 3.5.** Change in electricity price (Q 4, 2008 – Q 4, 2007) / Q 4, 2007)\*100%) (Source: EMA SA)

To a significant extent, a small number of electricity supplier switch cases resulted from market situation in 2008. In consequence of dynamic increase in the demand for electricity and peak capacity, power market experienced equally dynamic increase in electricity prices. Under such generator market circumstances, instead of competitive offers one could observe increasingly costly ones or none at all. Situation began to change only towards the end of the fourth quarter, when a drop in demand for electricity and peak capacity was reflected in falling electricity prices and the emergence of some competitive activity of energy companies, continued in 2009 with the purpose to attract new consumers.

In the case of low consumption electricity consumers, low supplier switch activity can be accounted for on the grounds of insufficient awareness with regard to consumer rights and obligations on competitive energy market. Initiatives aiming at rising consumer awareness were among priority actions taken by the President of the Energy Regulatory Office in 2008. As far as higher consumption users are concerned, they are usually equipped with the necessary knowledge about supplier switch procedure and may often be quite experienced, but the steps taken by distribution system operators to discourage those consumers from switching the supplier or to procrastinate the whole process might have been an important barrier. Whenever such a case was reported to the Regulator, there was always an appropriate response that brought the matter to a satisfying end.

Complex agreements concerning electricity supply and sale for domestic consumers are usually concluded for an open-ended period, with a typical termination notice period of 30 days.

Starting from January 1, 2008, electricity prices for institutional consumers are not subject to *ex ante* regulation. This does not apply to household consumers. An analysis of consumer come-back to regulated prices in the case on institutional consumers may include a come-back to an incumbent supplier for whom the prices were liberated.

The data required to evaluate and describe this phenomenon has been collected by Polish Regulator since the middle of 2008, and it pertains to the return to an incumbent supplier, jointly by institutional and domestic customers. In the second half of 2008, approximately 16% of all supplier switch cases came from that category.

In 2008, 25 companies were active on end user sales market, and 19 of those companies are funded on domestic capital. Twenty suppliers are related to DSOs, in capital terms.

**Table 3.15.** The number of general distribution agreements (GUD)

Total	Average	Minimum	Maximum
315	23	18	30

Source: ERO.

As one can conclude looking at the outcome of monitoring activity, the process of signing general distribution agreements has been progressing at a good pace. However, taking into account both monitoring results and a wider knowledge of the Regulator, a shade of doubt seems to be justified as to whether both parties involved in negotiations of general distribution agreements have an equally powerful position, and whether concluded agreements take into account – on equal terms – the best interest of both parties.

**Table 3.16.** The number of products offered by 14 trading companies targeted at the end user

	Total	Average	Minimum	Maximum
Ig	83	5	3	12
Ib	120	8	6	28
Dc	42	3	1	12
Domestic	29	2	1	12

Consumer groups are defined as follows:

Ig = 24 000 MWh annual consumption and 4 000 kW maximum demand

Ib = 50 MWh annual consumption, 50 kW maximum demand

Dc = 3 500 kWh annual consumption, of which 1 300 kWh at night-time

Typical household- energy consumption at the level of 2 050 kWh was determined on the basis of data for 2008, compiled in the report prepared by Energy Market Agency.

Source: ERO.

With regard to overall market situation in 2008, as outlined above, retail energy market may be described as dormant. This has been manifested, among other things, by a small number of cases of supplier switch, despite supplier activity on new local markets administered by particular DSOs. Such activity should be regarded as favourable, as it demonstrates that energy companies have been making an effort to attract new electricity consumers.

### Measures to promote customer education and information

The year 2008 has been a turning point in the area of customer support and energy market competition promotion strategy. During that year, the President of Energy Regulatory Office was particularly involved in information and promotional activities. Special attention should be paid to educational and information initiatives targeted at households. The ERO – including its regional branches – cooperated with regional and local self-government units, scientific centers and non-governmental organizations. The purpose of this effort was the promotion of awareness pertaining to energy market and its processes, the enforcement of electricity user rights and the possibility of an informed decision regarding supplier choice.

In view of the new possibilities opening up for energy consumers, the ERO launched its Energy Consumer Information Center „How to switch supplier” for ongoing assistance and support. For easier and less expensive access to telephone consultations at the local level, the Center has also been established in each local branch of Regulatory Office. In 2008, the ERO staff was able to assist in approximately 2 thousand consultations, explanations and clarifications regarding procedures and legal provisions via that tool.

Throughout 2008, the ERO conducted educational campaign targeted, on the one hand, at individual electricity consumers, including the youth (for the first time), and on the other hand at local consumer ombudsmen, based at the powiat and municipal levels. Every two weeks, the ERO local branches organized workshops in various parts of the country for consumer ombudsmen, representatives of regional self-government, social welfare centers staff, consumer and non-governmental organizations (more than 20 such workshops have been organized to date). During the training, the intricacies of energy market were disclosed, economic and legal aspects of supplier switch were explained, and energy market conditions and liberalization status were discussed, side by side with efficiency in energy consumption.

Furthermore, the ERO representatives participated in more than 180 educational seminars, conferences and workshops, where they discussed issues related to market performance and the activity of the President of the Energy Regulatory Office. Those activities consist in information and educational efforts targeted at the power sector employees, organizations of energy consumers and those which protect consumer rights, and the media. In the opinion of the President of the Energy Regulatory Office, all those groups can serve as effective intermediaries in the communication with end users.

For a more systematic approach to solving the issues that bother consumers on the market, at the end of 2008 the President of the Energy Regulatory Office launched a new project called *Consumer Zone*. The objective of this initiative, putting together the representatives of consumers, public agencies and companies operating within electricity, gas and heat markets, will be to solve common problem issues encountered by users, and to develop standards based on good practices.

### Customer complaints and enquiries

Within the structure of the Energy Regulatory Office, the an office of the Spokesman for Fuel and Energy Customers has been established. The task of the Spokesman, among other things, is to initiate action with the purpose to protect the interest of fuel and energy consumers and to improve customer service standards in energy companies. Within the framework of that task, the Spokesman should inform the consumers who bring their concerns to Spokesman's attention about consumer rights, the ways to get the dispute resolved, and refer them to appropriate the ERO organizational units which should address the case. When the case falls beyond Regulator's mandate, the Spokesman provides information on relevant bodies and institutions competent to deal with the case.

Consumer complaints, enquiries and requests can be submitted by regular mail, e-mail, telephone, fax, or during personal appointments with the Spokeman. A significant proportion of issues brought to the attention of the ERO does not fall within the mandate of the Regulator, e.g. civil law disputes with companies that can only be resolved in court. In each and every case, however, the consumer applying to the ERO shall receive complete communication on how the problem can be solved and which institution is competent to address the case in question.

Spokesman's response is provided in the form of written explanation, telephone consultations and during face-to-face appointments in the office.

Some consumers file their complaints directly to the appropriate regional branch of the ERO. Branches can provide explanation and, if a dispute falls within the competence of the President of the Energy Regulatory Office, they will initiate relevant procedure with the purpose to get the dispute resolved.

Tables 3.17. and 3.18. present detailed data regarding the volume of cases, in the breakdown according to reasons.

**Table 3.17.** Complaints\*

Specification	Number of cases
Billing	216
Metering	82
Disconnection	74
Misleading advertising	0
Commercial practices	2
Terms of contract	118
Switching	1
Customer service	67
Other	514

Source: ERO.

\* A complaint is understood as every problem/unpleasant incident faced by the consumer which is brought to the attention of electricity supplier, distributor or another entity (for instance, the Regulator, the Energy Ombudsman, or some other body competent to deal with complaints).

**Table 3.18.** Enquiries\*

Specification	Number of cases
Billing	426
Metering	139
Disconnection	46
Misleading advertising	0
Commercial practices	0
Terms of contract	0
Switching	63
Customer service	88
Other	299

\* An enquiry is understood as consumer's enquiry with a request for information directed at electricity supplier, distributor or some other entity (for instance, the Regulator, the Energy Ombudsman, another body competent to deal with complaints or a consumer protection organization).

Source: ERO.

There are several reasons behind the overall increase of cases brought to the attention of the ERO, in comparison to previous years. One of those reasons has been growing awareness of the presence of a special office within Regulator's structure, dedicated to consumer issues and complaints. Another factor accounting for such an increase is related to consumer problems resulting from structural changes in energy companies (unbundling). When distribution activity was separated from trade, there were a lot of questions about the role of particular types of companies. And the third reason has been a relatively high extent of ambiguity in electricity bills (which, unfortunately, has been getting higher and higher), owing to new electricity charge components and the number of changes in rates and prices in the course of the year. The „Billing” category includes such cases as incorrect bills, rates and prices, as well as tariff rules. „Metering” category includes both the technical requirements pertaining to metering equipment and systems, billing in the case of malfunctioning metering systems, and the cases in which metering equipment has been damaged and, at the same time, consumers were accused of illegal consumption of electricity. „Disconnection” includes the incidents of disconnection from electricity supply, for various reasons such as, for example, falling in arrears with payments for consumed energy. „Customer service” includes both the incidents of low quality customer service and unsatisfactory quality parameters of supplied electricity. „Other” includes network connection refusal cases.

### 3.2.3. Measures to avoid abuse of dominance on the market

#### Generators' performance

- [Transparency in publication of information on available generation capacity, the period from placing the order to order execution, and projected level of generation capacity and capacity demand](#)

In 2008 there were no major developments in that field. The above principles have been implemented within the framework of capacity demand forecast and projected level of generation capacity and output capacity available. National capacity demand forecast has been prepared within the framework of coordination planning. Three-year plans and annual plans are published on PSE Operator SA website by the end of November of the preceding year. Monthly plans are disseminated among market participants by the 26th of the preceding month. Daily plans are disseminated electronically among energy market participants by 4:00 p.m. on the day directly preceding the day of energy supply. Plans for the particular day are forwarded to all participants upon plan calculation.

- [Information about sales offers](#)

Considering that more than 90% of electricity sale transactions are carried out within the framework of bilateral contracts, the access to sales offer information has been rather difficult. Moreover, in compliance with the strategy of consolidated power sector groups, sales of electricity by generators from within the group can be performed only and exclusively within the group (no direct sales outside of the group). Generators are practically excluded from exchange market transactions. The only way to access offer data would be explicit auctions sales, but it must be emphasized that the volume of energy sold through that channel has not been substantial. Generators and state agencies are not required under the law to publish offer strategies.

- **Market oversight principles: division of power between particular organs of government administration:**

- 1) The President of the Energy Regulatory Office is the key organ responsible for supervising energy and fuel market. The President of Energy Regulatory Office performs tasks in scope of fuel and energy management as well as competition promotion,
- 2) The President of the Office of Competition and Consumer Protection, who is competent for fuel and energy market in scope of, among other things, matters regarding compliance with Competition and Consumer Protection Law by entrepreneurs, analysis of the level of concentration in the national economy and market behaviour of entrepreneurs, counteracting monopolistic practices, and in the matters related to concentration or fragmentation of companies as well as in the matters of fines, in the cases set forth by the law,
- 3) The Minister of the Economy, who is competent for the general design of the national long-term energy security policy,
- 4) The Minister of State Treasury, competent for ownership supervision and transformation in the power sector,
- 5) The Financial Supervisory Authority, with a two-fold supervision over energy market. The first aspect pertains to supervision over energy companies (public companies listed on the stock exchange): company information disclosure requirements, a ban on financial instrument manipulation and access to confidential information. Secondly, with regard to marketing derivatives of property rights the price of which directly or indirectly depends on the price of electricity (underlying instrument), supervision includes the requirement to submit to the Authority the so-called terms of issue and trade of a given derivative right. In order to fulfil its supervisory mandate, an authorized representative of the Authority may enter the headquarters and premises of the company running an exchange or exchange accounting chamber with the purpose to examine the books, documents and other information carriers, and upon request from the Authority or its authorized representatives, the company running an exchange or exchange accounting chamber is obliged to promptly make and submit duplicate copies of documentation and other information carriers.

The ERO President's supervisory mandate is executed, first and foremost, by continuous monitoring of the performance of electric power system and the power sector, and by taking measures set forth in the law, such as, for example, a decision stating that a market segment in question has been operating in accordance with competition law, and thus regulatory requirements imposed upon entrepreneurs may be reduced<sup>20)</sup>. The President of the Energy Regulatory Office also examines, among other things, the level of electricity prices on competitive market, and publishes examination results<sup>21)</sup>.

- **Powers of the President of the Office of Competition and Consumer Protection with regard to energy companies**

The powers of the President of the OCCP towards companies from the power sector consist in the oversight in scope of compliance with Competition and Consumer Protection Law, and in particular in preventing and counteracting the practices which hinder competition, such as anti-competition agreements and abuse of dominance cases, as well as in oversight with respect to company mergers.

In 2008, the President of the OCCP conducted nine anti-monopoly actions against entities from the power sector in the aspect of practices that hinder competition. In six cases, final decisions were issued, and three proceedings were still ongoing at the end of reporting period.

Due to unique market characteristics of the power sector, and especially the presence of natural monopoly in the area of grid operations, a vast majority of anti-monopoly proceedings relates to abuse of dominance (in 2008, all the cases).

In two cases, the President of the OCCP did not find that the practices non compliant with the Competition and Consumer Protection Law did take place. The decisions issued in those cases are not legally valid.

---

<sup>20)</sup> In view of advanced implementation of competitive market mechanisms in electric power sector, and having performed a comprehensive analysis of electric power market as of July 1 2001, the President of Energy Regulatory Office decided that electricity generators would no longer be obliged to submit tariffs for approval.

<sup>21)</sup> By March 31 each year, the President of Energy Regulatory Office announces in ERO Bulletin and on the website average electricity price on competitive market in the previous year.

One of those proceedings was initiated on the grounds of the abuse of dominant position on the domestic market with regard to international transmission services provided within the framework of national power system, which was supposed to manifest itself in the following:

- Unjustified limitation of sales to the detriment of business partners, consisting in an unfounded decision to put electricity export from Poland on hold, in consequence of a complete closure of transmission capacity on interconnectors,
- Hindering the establishment of conditions that would help initiate or develop competition, consisting in actions which may eventually eliminate from the market related to international transmission services market (i.e. the wholesale electricity sales market) some of the entities operating on that market (i.e. the entities involved in electricity trade),
- Imposing difficult contractual terms upon business partners in such a way that negative financial consequences resulting from the circumstances in Polish power sector were shifted on the shoulders of those contracting parties, as they were forced to purchase electricity on emergency basis instead of the purchases that should and could have been made by the company,
- Division of the market according to geographic criteria and particular entities, which was discriminatory against the entities involved in cross-border electricity trade.

At the same time, the proceeding on the above-mentioned practices that violate EC Treaty has been discontinued.

In the other case, it was decided that there were no anti-competition and abuse of dominance practices, which would manifest themselves as follows:

- Imposing unfair electricity purchase terms in a direct way, consisting in such interpretation of the terms of electricity supply contract in scope of the calculation of charges for exceeding contractual capacity that resulted in excessively high fees charged for exceeding contractual capacity, enforcing increased declared electricity consumption to the level much higher than the actual demand, and enforcing the payment for costs of mismatched electricity in the amount out of proportion to the actual demand,
- Putting barriers to the establishment of conditions necessary for the development of competition by imposing excessively high capacity supply charges on those consumers who got metering devices installed,

and an anti-monopoly proceeding was discontinued with regard to anti-competition practice consisting in the abuse of dominant position by imposing burdensome electricity supply contract terms which bring unfair benefits by making the consumer declare higher electricity demand than the actual demand of the consumer.

In yet another case, regarding the abuse of dominant position on local electricity trade market by unlawfully charging the „G” tariff category consumer with two subscription fees for the month of January 2008, the President of the OCCP ruled that such practice must be discontinued. During the anti-monopoly action it was determined that the bills received by household electricity consumers for January 2008 included two subscription charges – one charged by the distributor, and the other one by electricity supplier.

In 2008 there were two decisions issued with regard to network connections. The following was determined:

- the obligation included in network connection agreements, stipulating that the entity applying for connection shall make it possible for the company – on entity’s property and free of charge – to install and expand the network as well as terminal service lines, and shall agree to make the property available to the company free of charge whenever necessary (such gratuitous access may be granted in the scope required for service line installation or in order to perform maintenance works and deal with malfunctioning elements of the above-mentioned network and service lines) – the company got those contractual clauses removed and replaced them with the provisions compliant with the Energy Law,
- hindering the development of competition on domestic energy generation market by flagrant violation of deadlines set for the issuance of the terms of connection and the description of the scope of an expert opinion regarding the impact of a wind farm under design on the power system – the President of the OCCP has ruled that such practice should be discontinued.

One proceeding has been discontinued by the way of a decision in relation to the withdrawal of the motion. The three ongoing proceedings are related to abuse of dominance

- 1) by:
  - imposing upon end users entitled to the right to choose the supplier, in replies to enquiries and ensuing electricity sale contracts, unfair and flagrantly low electricity sale prices, i.e. the prices which are substantially lower than the ones ensuing from that company electricity tariff;
  - imposing difficult terms and conditions in electricity distribution service agreements and in the Grid Code (not approved by the President of the Energy Regulatory Office), i.e. an obligation for electricity trade companies to establish separate schedule units for each and every end user (joint clearing of deviations from contractual position for those users who purchase electricity from one supplier, when at the same time the energy company is exercising that right when dealing with transmission system operator), and imposing the terms stipulating that only energy trade companies are obligated to secure financial reserve by virtue of participation in the balancing market, irrespective of the risk existing on both sides of the contract;
  - imposing upon the end user an obligation to modernize metering and billing equipment in supplier switch cases,
- 2) by imposing upon entities included in Connection Groups IV and V excessively difficult and unfair terms of connection to the network, in that the applicants who wish to modify their terms of connection in scope of the type of terminal service line are charged with an additional fee in the amount equivalent to the fee for overhead service line connection capacity and a fee which is equivalent to the difference between the actual cost of cable service line and the actual cost which would be incurred by the installation of an overhead service line, against the currently binding electricity tariff,
- 3) by:
  - hindering the development of conditions required for the establishment and development of competition by not allowing electricity trade companies other than the company to create composite schedules for users who use TPA principle;
  - imposing a burdensome obligation upon electricity trade companies other than the company to create separate schedule units for every final consumer who uses TPA principle, when at the same time having preferential settlement rules as regards imbalances.

During the reporting period, 24 explanatory proceedings were carried out with respect to power sector companies. Anti-monopoly procedure was initiated in only two cases.

Explanatory proceedings evolved around issues such as, among other things:

- an obligation imposed upon service users to cover at their own expense the cost of metering equipment modernization by getting an electronic meter installed with the function of tele-transmission of measurement data to the central computer at the energy company,
- verifying the compliance of commercial fees pertaining to electricity trade (sales) settlements which were not determined in tariff regulation,
- imposing burdensome contractual terms as regards the reconstruction of existing energy infrastructure interfering with road construction, renovation or reconstruction,
- complex agreement provisions stipulating user obligation to adjust user equipment to modified network operation conditions communicated to the user in due mode and time, including extensions to user's network or installations resulting from new place of electricity supply and ownership split,
- refusal to sign addenda to wind farm connection agreements – in the case of alteration in the location of wind farm under design that does not result in the change of the point of connection,
- discriminatory treatment of wind farm investors with regard to the processing of applications for connection to the network,
- refusal to grant a discount for electricity supply failure and unsatisfactory consumer service quality standards in consequence of a hurricane,
- conditions required from entities applying for power network connection in scope of network modifications required to make the connection and covering the cost of such modifications,
- energy company activities in scope of accuracy checks of metering and billing equipment, carried out upon request of electricity consumer,
- charging the users who do not own metering and billing equipment with the cost of checking equipment operation under the circumstances when the equipment had not been verified in laboratory tests,

- procedure applied for checking the accuracy of metering and billing equipment by means of the test meter when a system is found faulty only if test meter's readings have shown reading error's value at least twice as high as the standard error limit typical of the system in question,
- the use of prohibited contractual provisions filed into the Register kept by the President of the OCCP by energy companies, which include such provisions in sample consumer agreements,
- verification whether an energy company entering into electricity sales agreement with entrepreneurs who generate electricity in midget water power stations did not use, in similar agreements concluded with third parties, burdensome or inconsistent contractual terms, translating into lack of equal terms of competition, and whether the company did impose unfair contractual terms and gained unfair benefits,
- bids for tender regarding construction works related to modernization, development, reconstruction of existing electric power grid, in the specification of terms of reference, where one of bidding criteria was defined as a requirement to purchase construction materials from an affiliated company (in terms of capital),
- notifying electricity consumers about planned interruptions in electricity supply.

In the reporting period, there was one explanatory proceeding related to power sector companies operating on the wholesale market. The purpose of that action was to determine – on a preliminary basis – whether the principles governing the sales of electricity violate the provisions of Competition and Consumer Protection Law. In the course of proceedings, the conduct of PGE Polska Grupa Energetyczna SA was reviewed and analyzed. Based on collected material, there were no premises for the President of the OCCP to initiate anti-monopoly procedure.

The division of powers between the organs of government administration referred to above serves transparency of their respective efforts. That does not preclude, however, the need for cooperation on issues pertaining to the power sector. Cooperation between the President of Energy Regulatory Office and the President of Competition and Consumer Protection Office mostly consists in notifying one another of reported issues, in accordance with their respective scope of competence, reporting law violations, again in accordance with the scope of competence of each office, sharing information and expertise, and participating in joint training sessions. Analogically, cooperation between the President of the Energy Regulatory Office and the Minister of Economy consists in issuing opinions on draft bills and ordinances, presenting positions and motions with regard to the power sector.

- [Performance of virtual power stations and other solutions for trading available generation capacity](#)

In Poland there are no virtual power stations or any other virtual solutions for trading generation capacity.

#### Traders' activity

- [Transparency of operations and disclosure requirements](#)

This principle has been put into practice by publication of information, most typically on the internet. Websites of energy trading companies present, first and foremost, information about the enterprise. Several websites additionally include detailed offer (in the breakdown according to wholesale and retail consumers) and commercial operator's offer. Few websites include contact forms. Some trading companies publish on their websites the so-called tariff calculators to help potential consumers compare offers against competition.

On the internet portal of Energy Trade Association, an organization of trading companies, one can find updated exchange market and balancing market quotations, a historical outline of the principle of the choice of supplier, and a description of present day barriers to the functioning of free energy market in Poland.

- [Structure of contracts \(including the acceptability of long-term contracts with restrictions or clauses regarding financial sanctions imposed in the case of premature termination of contract\)](#)

Typically, traders present their offer to final customers on individual basis. Prices and other contractual terms are negotiated with a business partner each and every time, and they may vary depending on the timeframe of supply, deviations and consumption profile. Some traders also offer assistance in negotiating transmission service agreements.



Generally speaking, contracts between trading companies and their clients are short-term contracts, concluded for the period of a day (SPOT), several days, a month, six months, and the longest ones, for a period of a year. They usually come as framework agreements, encompassing each transactional agreement. There may also be sales contracts with a pre-determined energy volume. Most contracts include indemnity clauses in the case of non-performance or unsatisfactory performance, describing the liabilities of each of party. Some traders rely on standard EFET contractual forms.

The mode of payment for electricity is always specified in the contract. Traders can be very flexible in that respect. Billing may be done on a weekly basis, every ten days, twice a month, or once a month. Payment is usually made by bank transfer, within 14, 21 or 30 from invoice issue date.

Each contract includes dispute resolution provisions. Amicable dispute resolution is preferred, followed by arbitration procedure, and when the case falls within the competence of the President of the Energy Regulatory Office, a motion to initiate administrative proceeding is filed.

Distribution companies, after unbundling from the structure of vertically integrated companies, enter into distribution service agreements or umbrella electricity supply agreements with final consumers. Users are charged for electricity supplied and distribution services provided in accordance with the prices and rates set for tariff groups included in approved electricity tariffs. Billing for electricity supplied or distribution services provided is carried out according to billing periods, separately determined in the tariffs of individual suppliers.

### Competition protection and promotion policy

The President of the OCCP has prepared a document called „Competition Policy for 2008-2010”<sup>22)</sup>. Section 2 of that document, dedicated to the „Establishment and development of competition”, includes the powers related to the establishment and development of competition in the power sector (those powers included, among other things, competition monitoring in the sector, taking into account market impact of vertically integrated energy groups, and actions taken to ensure competition development; monitoring the process of liberalization in the sector from the standpoint of potential elimination of energy generation and trade tariffs; raising public awareness with respect to the opportunities brought about by liberalization in electric power sector, review of the provisions of the law on reserves from the standpoint of their impact on competition development process in the gas sector and implementation of required changes).

Furthermore, the OCCP was involved in coordinating the work on the document called „Competition and consumer protection development directions in Poland’s power sector”<sup>23)</sup>. The document is made up of two parts: part one is dedicated to the issue of competition development in electric power sector, whereas part two is focused the problems encountered by electricity consumers.

---

<sup>22)</sup> Document prepared by the President of the OCCP approved by the Council of Ministers in July 2008.

<sup>23)</sup> Document prepared by the President of the OCCP in August 2008.

## 4. REGULATION AND PERFORMANCE OF THE NATURAL GAS MARKET

### 4.1. Regulatory Issues

#### 4.1.1. Management and allocation of interconnector transmission capacity and network congestion management mechanisms

National transmission network is managed by Gaz-System SA. Transmission network operation is carried out in accordance with procedures set out in Section 2 of the Transmission Grid Code<sup>24)</sup>, approved by the President of the Energy Regulatory Office, which pertains to balancing and network congestion management principles, published by the operator on the website together with the draft transmission contract, as well as a map and a catalogue of „entry/exit” points.

Table 4.1 contains information regarding system congestion in 2008 and the mechanisms to deal with congestion.

**Table 4.1.** Managing physical congestion within the system

Location	Scale of congestion	Mitigating measures	Transmission capacity at the point of congestion [in m <sup>3</sup> /per day]
North-western Poland	Lack of transmission capacity reserve was disclosed in high methane gas system	In order to improve flow capacity in the north-west of Poland, Goleniów – Nowogard – Płoty – Koszalin transmission system has been developed, which is bound to improve Group E gas supply conditions to Przymorze gas mixing facility. Additionally, construction of Goleniów compressor station is planned in order to improve flow capacity in the area.	8,4 mln
Częstochowa region	Lack of transmission capacity reserve was disclosed in high methane gas system	In order to be able to increase supplies in the region of Częstochowa, a gas pipeline DN 500 Lubliniec – Częstochowa is being built.	1,3 mln
Gdańsk region	Lack of transmission capacity reserve was disclosed in high methane gas system	Ongoing construction of DN 500 Gustorzyn – Gdańsk transmission system.	1,2 mln
Białystok region	Lack of transmission capacity reserve was disclosed in high methane gas system	Increase of Tietierowka supply contractual pressure related to renegotiation of contractual agreements.	0,5 mln
Piotrków Trybunalski region	Lack of transmission capacity reserve was disclosed in high methane gas system	Completion of Mory-Meszcze gas pipeline construction. Increased gas transmission to Łódź region.	1,7 mln
Jarosław region	Lack of transmission capacity reserve was disclosed in high methane gas system	Modernization of Jarosław II compressor station.	15,6 mln

Source: Gaz-System SA.

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

<sup>24)</sup> According to Transmission Grid Code provisions, contractual congestion should be eliminated by TSO on the basis of the *use-it-or-lose-it* mechanism. Swap transactions have not been applied with regard to network congestion. Information regarding transmission capacity at those points, required pursuant to regulation 1775/2005/EC, is published on Gaz-System SA website. In 2008, TSO continued the effort related to the functioning of online information platform.

Data from Table 4.2 illustrates the status observed in 2008. Average time of supply interruptions per one consumer connected to transmission network was calculated on the basis of TSO data.

**Table 4.2.** Interruptions and congestion in gas supply

	Interruptions and congestion				
	Quantity	Duration [in min]	Number of consumers without supply	Average time [in min/cons]	Quantity of fuel not supplied [in mln m <sup>3</sup> ]
Breakdowns	11	210	1	210	0,004 for one TSU*
Planned works in progress	-	-	-	-	-
Congestion	-	-	-	-	-

\* Transmission Service User – PGNiG SA.

Source: Gaz-System SA.

Table 4.3 presents a description of flow capacity on national transmission system interconnectors and interconnector utilization.

**Table 4.3.** Cross-border interconnectors under cooperation between operators

System Operator's name	Operator's country	Point of connection	Direction of supplies	Types of filed nominations	Total transmission capacity* [in mln m <sup>3</sup> /year]	For booked transmission capacity [in mln m <sup>3</sup> /year]	Not booked transmission capacity [in mln m <sup>3</sup> /year]
ONTRAS	Germany	Lasów	Poland	day/hour	1 054,2	1 054,2	0,0
ONTRAS	Germany	Gubin	Poland	day	17,6	17,6	0,0
Severomoravske plynarenske	The Czech Republic	Branice	Poland	day	1,4	1,4	0,0
Severomoravske plynarenske	The Czech Republic	Głucholązy	Poland	day	105,4	105,4	0,0
Ukrtransgaz	The Ukraine	Drozdowicze	Poland	day/hour	5 682,4	5 682,4	0,0
Biełtransgaz	Belarus	Tietierowka	Poland	day/hour	188,9	188,9	0,0
Biełtransgaz	Belarus	Wysokoje	Poland	day/hour	5 490,0	5 061,8	428,2
EuRoPol GAZ SA	Poland	Włocławek	Poland	day/hour	3 057,6	3 057,6	0,0
EuRoPol GAZ SA	Poland	Lwówek	Poland	day/hour	2 371,7	2 371,7	0,0
ONTRAS	Germany	Kamminke	Germany	day	87,8	87,8	0,0

\* Maximum firm transmission capacity that transmission system operator may offer to network users, taking into account system integration and requirements pertaining to the maintenance of transmission grid.

Source: Gaz-System SA.

At all „entry” points to Polish transmission system, the share of capacity booked by PGNiG SA is equivalent to almost 100%. The extent of utilization by the company is varied, e.g. 80% on all interconnections with German operator, or 42% on interconnections with Belarus operator. However, the extent to which TSO may give access to transmission capacity not utilized by PGNiG SA to other gas importers is limited, first and foremost, by the provisions of compulsory gas reserves law. In 2008, only one importer of natural gas managed to obtain access to the entry point in Lasów – on firm conditions – in the quantity of 25 m<sup>3</sup>/h.

In Poland, there have been no separate terms for transit contract conclusion, even though such a solution would be allowed pursuant to the provisions of Article 3(1) Regulation 91/296. That is why the SGT EuRoPol Gaz SA company – the owner of Polish section of the „Yamal-Europe” pipeline – renders transmission services only to PGNiG SA and OOO „Gazprom Export”, a company owned by OAO „Gazprom”<sup>25)</sup>. In 2008, the following gas volumes were transported via that pipeline: OOO „Gazprom Export” – 27,70 bln m<sup>3</sup>, PGNiG SA – 2,55 bln m<sup>3</sup>.

<sup>25)</sup> Those entities are legal successors to Company founders, who entered into the „Agreement on dispatching principles regarding transmission capacity of transit pipeline system in the territory of the Republic of Poland” with „Gas Trading” SA and SGT EuRoPol Gaz SA. Under the terms of agreement, the above-mentioned entities dispatch transit pipeline transmission capacity taking pipeline construction phase into account. Agreement governing gas transit through the territory of Poland remains in force until the end of 2019.

Nota bene, pipeline operator still remains to be appointed, which means that the Regulator has been unable to carry into effect the provisions of regulation 1775/2005/EC with regard to network management.

The methodology of nomination of maximal technical flow capacity, according to generally abiding forms, was not a subject of a separate regulatory control. The elements of the evaluation should be realized in the case of the analysis of the reasons of refusals for network connections and justifications of new network investment, however there were no such cases in 2008.

#### 4.1.2. The regulation of the tasks of transmission and distribution companies

##### Network tariffs

In the case of gaseous fuels<sup>26)</sup>, during the approval process it is verified whether the tariff meets the requirements set out in the Law and secondary legislation, i.e. in the ordinance on tariffs and network connection. On February 20, 2008, a new tariff ordinance came into effect<sup>27)</sup>, introducing some significant changes to network tariff calculation, namely:

- Cost of gas transportation via pipelines that cross Polish border, cost of transportation of liquefied natural gas, including road transport, and the cost of the preparation and storage of compulsory gas reserves represent the basis for the calculation of gas price, rather than – as it used to be – the basis for the calculation of transmission and distribution fee rates;
- Distribution fee rates are calculated only and exclusively on the basis of costs incurred by gas companies which provide distribution services, in contrast to the rates calculated in accordance with the old regime, when the rates included all costs related to gas transportation, from the source to the user, as well as the cost of gas storage;
- Methodology for calculating the return on committed capital has been specified; previously the methodology was determined by the President of the Energy Regulatory Office pursuant to the provisions set forth in Article 23 paragraph 2 point 3 letter c of the Energy Law and, in compliance with those provisions and in light of the need to protect customer interest, only a part of net fixed assets as of the end of reporting year directly preceding the year in which the tariff was determined was compensated for, whereas under the new regime the return on committed capital is calculated not only on the basis of committed fixed assets, but also on the basis of the working capital, and average values observed during regulatory period are taken into account.

One must note, however, that in distribution system operators' tariffs, which came into effect on 25 May 2008 – due to the fact that tariff approval process for 2008 had been initiated under the old regime – the return on capital was calculated according to the old methodology, i.e. it was calculated on the basis of ½ of net fixed assets, status as of 31 December 2007. As regards the companies which are not obliged to establish a separate operator, the new rules were applied. Return on committed capital was determined by the companies themselves, in compliance with the principles set forth in the tariff ordinance. The President of the Energy Regulatory Office specified only three components indispensable for the calculation of the rate of return, i.e. the risk-free rate of return, equity risk premium and the *asset beta* coefficient, necessary for the definition of risk level for committed capital. Further, the President of the Energy Regulatory Office defined the ceiling of working capital compensation at the level not greater than that equivalent to 1% of fixed assets committed to licensed activity.

Analogically to previous years, regulated revenue of gas companies was calculated according to the cost-based approach. With regard to companies such as Gaz-System SA and SGT EuRoPol SA, the main reason was the fact that they were not comparable to other companies, and as regards DSOs of the Capital Group PGNiG SA, the comparative analysis approach, which may well be applied in the future, could not be used this time due to the lack of comparable statistical data<sup>28)</sup>. DSO operation was launched only in the middle of 2007, as DSOs took over some tasks from the trade (in consequence, even though functional unbundling between distribution and trade became effective as of January 1, 2006, cost-related data pertaining to company activity covered only six months). Furthermore, the assets the operators could use in 2008 were not even barely com-

---

<sup>26)</sup> Pursuant to the Energy Law, Article 47.

<sup>27)</sup> Journal of Laws of the Republic of Poland, no 28, item 165, dated 20 February 2008.

<sup>28)</sup> The analysts claim that in order to be able to employ comparative approach to determine operating costs of companies when the number of companies involved does not exceed ten entities, one would need stable statistical data covering the period of at least five years.

parable to the assets they used to own in 2007, due to the fact that a substantial segment of high pressure network was taken over from Gaz-System SA<sup>29)</sup>.

In 2008, there were no significant changes in the scope of gathered data. Just like before, the companies were required to submit – in the course of their tariff approval process – the following information:

- Length of the network, in the breakdown according to pressure levels,
- Number and capacity of reduction stations,
- Value of fixed assets committed to network operation,
- Value of amortization of network assets,
- Level of investment outlays during the term of tariff,
- Number of connected customers and the level of connection fees,
- Number of consumers in each tariff category, the volume of gas transported to meet their demand, and the capacity ordered by those consumers,
- Gas balance,
- Volume of gas purchased to cover balance deficit,
- Volume of network losses,
- Amount of company cost by types of profiles, in the breakdown according to particular tariff categories,
- Amount of revenues in particular tariff categories.

A new requirement was related to the information on the amount of working, domestic and foreign capital<sup>30)</sup>.

A fundamental guarantee of the reliability of data for the reporting year is a data accuracy statement, subject to the sanction of imprisonment of up to three years in the case of false data submission. The sanction described above applies to individuals authorized to represent the company in front of the Regulator. Further, it is examined whether the financial data presented in the tariff application for the reporting year matches respective data from company financial statement, and whether it is consistent with the data provided for the purpose of monitoring effort undertaken by the Regulator once a quarter. It is important to note that company financial statements (irrespective of company activity profile) are reviewed by a certified auditor.

The key method of the examination of planned financial data is to compare this data to reporting year information or, when in doubt, to the data pertaining to previous years. The examination of other data required for tariff calculation, such as, for example, planned volume of gas to be supplied to customers and planned volume of capacity ordered by consumers, is carried out by the way of comparison to the reporting year data side by side with last years' trends, and by taking into account forecasted conditions in those sectors of national economy which may have influence upon gas sector. Additionally, mostly in scope of tariff categories with a large number of customers (more than 100), trend analysis pertaining to the average volume of transmitted gas per one consumer and average capacity ordered per one consumer is carried out. Moreover, the consistency of gas balances and ordered capacity planned by gas system operators and gas traders is verified.

Efficiency estimation is performed mostly by the comparison of unit costs (company costs versus the volume of transmitted gas, length of the network, number of reduction stations, taking into account their technical condition), share of gas dedicated to losses, and balance gap in the total volume of transmitted gas.

In 2008, network company tariffs were approved for a one-year period, as applied for by the companies.

---

<sup>29)</sup> In December 2007 some network assets were excluded from operating lease contract. Those assets included mostly the so-called system endings and high pressure gas pipelines of local significance or such technical parameters which make it impossible to use those pipelines as fully operational transmission pipelines. Upon the terms of the above-said agreement, approximately 4,2 thousand km of transmission network were excluded from the lease contract.

<sup>30)</sup> The data applies to the last reporting year. i.e. the year directly preceding the year in which the tariff was determined, for which year financial statement was reviewed in accordance with accounting regulations, and the amounts planned for the year in which the tariff submitted for approval shall be binding

### The role of regulatory body in the process of assessing the effectiveness of network operations

The role of the President of the Energy Regulatory Office has not changed in that respect – it consists of the following tasks:

- Within the framework of tariff approval process, to approve of such company revenues which may ensure security of supplies and improvement in the effectiveness of network operations, measured – among other things – on the basis of the average time of supply interruptions resulting from breakdowns, increased flow capacity of the network, and a decrease in the share of gas for balance deficit purposes,
- To evaluate network operations during the process of development plan design for subsequent years, when the President of the Energy Regulatory Office analyses the reasons behind the level of planned outlays to be covered by tariff revenues in the context of network development and security of supplies,
- To require of network companies that they include in their tariff the provisions regarding rebate amounts in respect of service quality, including rebates triggered by limitation of contractual capacity and unsatisfactory customer service quality standards.

Tariffs approved by the President of the Energy Regulatory Office and presented by network companies to market participants include service fee rates and underlying principles. Additionally, companies publish on their websites information pertaining to their network coverage, types of transmitted or distributed gaseous fuels, customer service points, branches, their contact data, sample contract and application forms. Furthermore, DSOs publish on their websites average monthly values of quality parameters pertaining to the gas they distribute, determined on the basis of periodic gas quality measurements performed by DSOs at selected points of the network.

In 2008, gas distribution companies reported 2 378 registered cases of connection refusals<sup>31)</sup>. Average time of supply interruptions per one consumer was calculated on the basis of data provided by distribution companies (Table 4.4).

**Table 4.4.** Interruptions in gaseous fuel supplies by distribution companies

Year	Interruptions					
	Breakdowns			Outages planned due to works		
	Duration	Number of customers without supply	Average time	Duration	Number of customers without supply	Average time
	In min.	No.	In min./cust.	In min.	No.	min./cust.
2005	43 341 809,10	109 571	395,56	79 411 583,60	194 219	408,88
2006	89 518 594,80	123 361	725,66	76 721 978,40	153 386	500,19
2007	46 707 750,34	89 218	523,52	78 061 416,00	153 083	509,93
2008	110 416 057,40	104 108	1 060,62	131 395 059,60	130 673	1 005,53

Source: ERO.

### Balancing

Balancing of gas transmission system is managed by Gaz-System SA, in accordance with principles set out in the Grid Code. In comparison to 2007, the details of that mechanism have not changed.

Table 4.5 presents characteristics of balancing mechanism and the charges.

**Table 4.5.** Balancing – description

Indicator	Description
Period	24 hours
Area	Balancing is performed within one area – at the level of national transmission system
Gate closure time	12:00 day n-1
<i>Impact of ordered capacity volume on the limits</i>	<i>Criterion <math>K_m=15\ 000\ m^3/h</math> was adopted in order to determine the volume of permitted unbalancing limits as the sum of contractual capacity ordered by ZUP at entry points</i>

<sup>31)</sup> The Energy Law, Article 7, paragraph 1.

<i>Quantity in brackets for <math>K_m</math>, respectively, above and below 5 000 m<sup>3</sup>/h Diversification of limits is supposed to help protect small market participants as well as the new ones</i>	
<b>CHARGES:</b>	
<i>Daily unbalancing</i>	<i>Unbalancing within the gas day (24 hours) It is a gap between the quantity designated for transmission and received from the transmission system within a single gas day (24 hours) There are two permitted unbalancing limits for the gas day: Daily Unbalancing Limit (5% and 15%) Maximum Daily Unbalancing Limit (15% and 45%) Limit values pertain to the quantity transmitted at the entry points on a given day Unbalancing service regarding DUL is included in transmission charge Exceeding DUL and MDUL, respectively, results in additional charges</i>
<i>Maximum incremental unbalanced quantity</i>	<i>Incremental unbalancing is a sum of daily unbalancing over subsequent gas days The value of MIUQ is set for (20% / 40%) of daily average value in a given gas month, calculated on the basis of monthly quantities for a given month in Annual Nomination. If MIUQ is exceeded in a given month, additional incentive charge is triggered in order to secure stable system operation</i>
<i>Fee for failing to maintain daily nomination above the limits</i>	<i>Calculated separately for each entry and exit point if the limit is exceeded by 10%</i>
<i>Fees and rebates for failing to meet quality parameters of transmitted fuel</i>	<i>Calculated separately for each entry and exit point if the gross calorific value or other quality parameters are not met</i>

Source: ERO.

#### 4.1.3. Effective unbundling

Legal regulations pertaining to the issue of unbundling were discussed in much detail in the section devoted to power sector. From a formal standpoint, the process of unbundling of DSOs – legally and organizationally – was completed towards the end of 2008. Currently, there are six gas distribution system operators, appointed by the President of the Energy Regulatory Office for the effective term of their license for distribution of gaseous fuels.

**Table 4.6.** Unbundling status description, as of 31 December 2008

<b>Specification</b>	<b>Quantity</b>	
DSO – ownership unbundling	1	* As of 31 December 2008, DSOs owned the following assets: 6 768.2 km of transmission network, 507 gas stations and 13 compressor stations, and – pursuant to Operating Lease Agreement concluded with PGNiG SA – DSOs administered 2 906,9 km transmission network and operated 316 as stations and 1 compressor station.
DSO – ownership unbundling	0	
DSO – legal unbundling, with assets (grid)	0	
DSO – legal unbundling, no assets (grid)	1*	
DSO – legal unbundling, with assets (grid)	6	
DSO – legal unbundling, no assets (grid)	0	

Source: ERO.

Gaz-System SA continued the process of gradual purchase of individual components of transmission assets under lease from PGNiG SA. At the end of 2008, TSO's own assets represented 84% of the total administered transmission system.

On 31 December 2008, the President of the Energy Regulatory Office appointed PGNiG SA as a Storage System Operator (SSO) for the period of 27 years. That way, the Regulator will be able to hold the operator accountable for the fulfilment of obligations set forth in the Energy Law regarding, among other things, disclosure requirements concerning storage capacity data and the principles governing system congestion management. When approving tariffs for storage services, the President of the Energy Regulatory Office will be able to review cost-effectiveness of SSO operations and the way the storage space is utilized.

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

### 4.2.1. Description of the wholesale market

In 2008, total natural gas consumption in Poland amounted to 157,3 TWh/year, of which almost 29% came from domestic sources with total production capacity of 61,5 TWh/year. Domestic production was supplemented by import supplies, which reached almost 110 TWh/year. In comparison to 2007, total gas consumption went up by 3,2%, imports by about 7%, and national production decreased by 4,7%.

Technical capacity of Polish gas system is presented in Table 4.7.

**Table 4.7.** National production capacity in 2008

Production capacity [in bln m <sup>3</sup> /year]	Production capacity [in mln m <sup>3</sup> /day]
Natural gas	
5,61	17,23
Gas converted to high methane	
4,44	13,50

Source: PGNiG SA.

Foreign supplies in 2008 included imports from Russia, the Ukraine and Central Asia countries, as well as supplies from Germany and the Czech Republic. The biggest share of imports came from Russia, within the framework of a long-term contract concluded by and between PGNiG SA and Gazprom Export. In 2008, 77,4 TWh was purchased under that contract, which represents 68% overall gas supply to the territory of Poland. The volume of natural gas transit via Polish section of the „Yamal-Europe” pipeline amounted to 303,9 TWh/year. The volume of liquefied natural gas sales has been rather modest – about 22,5 thousand tonnes.

**Table 4.8.** Structure of gas supplies in 2008

Specification	Quantity [in mln m <sup>3</sup> ]
Imports, of which:	10 264,2
– The „Yamal” contract	7 056,7
Purchases within the EU / country of origin	
a) Czech Republic	0,2
b) Germany	847,3
Other imports / country of origin	
a) Ukraine	4,8
b) Turkmenistan	2 377,2
Domestic production	4 073,9
Gas storage (change in stock)	+ 11,8

Source: PGNiG SA.

High level of concentration on gas wholesale market results in a very small share of active, independent market participants – their share stays below 2% (Table 4.9). By and large, those entities purchase gas from PGNiG SA.

**Table 4.9.** Number of major companies and their market share in 2008

Number of companies with gas market share above 5%	Share of the three biggest companies in gaseous fuel supply [in %]	Share of the three biggest trade companies [in %]	Number of foreign capital companies active on the market	Foreign capital companies market share [in %]
1	100	97,4	12	1,34

Source: ERO.

Gas trade is carried out only on the basis of bilateral contracts. There is no gas exchange or trade in gas hubs. Gas prices do not vary depending on the fact whether the consumer will use the gas to satisfy their own needs or whether they will resell the gas – price depends on ordered capacity, taken



into account individually for each point of delivery. Sales volume does not directly affect price diversification.

100% of underground gas storage capacity is owned by PGNiG SA. Under bilateral agreement, the company makes 50 mln m<sup>3</sup> of gas available to Gaz-System SA, in view of the fact that Gaz-System SA performs the function of transmission system operator. Remaining storage capacity has been utilized exclusively by PGNiG SA and it was not shared with other companies<sup>32)</sup>.

In 2008, active capacity of underground gas storage facilities was equivalent to, approximately, 18,2 TWh. Storage characteristics are presented in Table 4.10.

**Table 4.10.** Underground gas storage

Item	Name of storage facility	Type of storage facility	Working capacity [in mln m <sup>3</sup> ]	Volume of gas withdrawn from the facility [in mln m <sup>3</sup> ]	Volume of gas injected to the facility [in mln m <sup>3</sup> ]	Minimum storage level [in mln m <sup>3</sup> ]	Maximum storage level [in mln m <sup>3</sup> ]	Level at the end of reporting period [in mln m <sup>3</sup> ]
1	Wierchowice	Depleted natural gas field	575,00	346,465	470,005	130,077	575,000	473,451
2	Brzeźnica	Depleted natural gas field	65,00	41,148	63,842	1,158	65,000	55,135
3	Strachocina	Depleted natural gas field	150,00	77,215	103,287	46,501	150,027	106,312
4	Swarzów	Depleted natural gas field	90,00	74,578	87,180	2,833	90,000	66,360
5	Husów	Depleted natural gas field	400,00	192,013	287,989	112,021	400,010	380,505
6	Mogilno	Salt cavern	380,17	205,713	240,306	159,379	380,170	374,764
TOTAL			1 660,17	937,132	1 252,609	451,969	1 660,207	1 456,527

Source: PGNiG SA.

Gaz-System SA regional cooperation is carried out pursuant to agreements concluded by operators, i.e. with the Ukrainian operator „Ukrtransgaz”, German operator Ontras-VNG Gastransport GmbH, and „Bieltransgaz” from Belarus.

In 2008 a merger between MOW Sp. z o.o. and EWE energia Sp. z o.o took place. The new Company covers the area of the following voivodship regions: lubuskie, dolnośląskie, świętokrzyskie, opolskie and lubelskie.

#### 4.2.2. Description of the retail market

Retail market is still a one supplier market. Apart from PGNiG SA, a few dozen other entities are involved in retail trade: they resell natural gas – purchased from PGNiG SA – to final customers, but their market share is about 2%. A vast majority of those companies sell gas via their own, local distribution networks. From the standpoint of sales volume, the following companies are the leaders: ENE-STA SA, G.EN. Gaz Energia SA, Media Odra Warta Sp. z o.o., KRI SA and EWE energia Sp. z o.o.

The most numerous category of PGNiG SA customers is composed of domestic gas consumers (households) – 99,6% of all customers. Their share in 2008 sales volume reached 26,1%. Industrial users had the biggest share in the volume of natural gas sales by PGNiG SA – equivalent to 61,1%, with nitrogen plants, refineries and petrochemical companies taking the lead. On top of that, PGNiG SA sells gas to Gaz-System SA and PGNiG SA distribution system operators – for internal needs and system balancing purposes. In 2008, technological demand (losses and internal consumption) of Gaz-System SA and PGNiG SA capital group distribution system operators amounted to 264,77 mln m<sup>3</sup>. Table 4.11 presents the volume and structure of gas sales to final customers.

<sup>32)</sup> In 2008, the President of the Energy Regulatory Office conducted a proceeding regarding the motion to release PGNiG SA from the obligation of storage service provision under TPA principle. A negative decision in that matter was issued in January 2009, once PGNiG SA was appointed as storage system operator.

**Table 4.11.** Volume and structure of gas sales to final customers

Specification	Volume	Number of customers
TOTAL	13 862,1	6 548 900
1. Wholesale customers*, of which	212,1	71
within the CG PGNiG SA	0,0	0
outside the CG PGNiG SA	212,1	71
2. TSO – (Gaz-System SA)	79,7	3
3. DSOs	128,8	10
4. Export	36,7	2
5. End users – industry, of which	8 461,0	35 150
Fertilizer plants	2 420,1	17
CHPs	1 032,5	357
Heat stations	239,5	1 643
Other small customers (up to 1 mln m <sup>3</sup> /year consumption)	872,7	32 507
Other mid-size customers (consumption above 1 mln m <sup>3</sup> and up to 25 mln m <sup>3</sup> /year)	1 879,0	599
Other large customers (consumption above 25 mln m <sup>3</sup> /year)	2 017,2	27
6. End users – commerce and services, of which	1 321,4	145 636
Small customers (up to 1 mln m <sup>3</sup> /year consumption)	1 173,8	145 503
Mid-size customers (consumption above 1 mln m <sup>3</sup> and up to 25 mln m <sup>3</sup> /year)	147,6	133
Large customers (consumption above 25 mln m <sup>3</sup> /year)	0,0	0
7. Households	3 622,4	6 368 028

\* Customers who purchase gas for resale.

Source: PGNiG SA.

The solution based on the integration of retail trade as well as continued production and exploration activity within PGNiG SA actually means that the *status quo* is preserved, and the monopolist can gain unfair advantage. Thus, it would be difficult to speak about real supplier switch opportunities. Formally, a consumer may switch gaseous fuel supplier twice a year, and supplier switch procedure is free of charge.

Under present-day gas market structure, types of contract between PGNiG SA and final customers are also pre-determined. Consequently, one can observe mostly the so-called „complex agreements”, which include provisions pertaining to sales, transmission and distribution, and storage service contracts. Complex agreements define, among other things, obligations of gaseous fuel suppliers and consumers, billing methodology and the procedure for filing financial complaints. Small users receive standard terms of contract. Only in the contracts with large consumers is there some space for negotiated provisions. The charges for all users of gaseous fuel supply, as well as transmission and distribution services, are based on prices and rates relevant for particular tariff categories, included in approved gaseous fuel tariffs. Typically, complex agreements are long-term contracts with a three-year notice period.

### Gaseous fuel prices

In 2008, the price of gas fuel on retail market was modified twice. The first tariff change, dated 25 April 2008, brought about an increase in the price of gaseous fuel, as a commodity, and an increase in the rate charged for fuel delivery, which covers the cost of gas transportation via operators' networks and the cost of storage. At the same time, the rates charged for gaseous fuel supply to consumers connected to transmission network were decreased. On a national scale, taking into account supplies to consumers connected to both transmission and distribution networks, an increase in the average price of high methane gas supplies was equivalent to 14,3%. Network fee rates for consumers supplied via transmission grid went down by 11,3%, as regards high methane gas.

Another change in the tariff, effective as of 1 November 2008, resulted in gas price increase by 7,9% on the end user's bill. The tariff, approved by the President of the Energy Regulatory Office, translated into the following average increase on gas bills: by 4,5% in the case of users who use gas only and exclusively for making meals; 5,8% for consumers who use gas to prepare meals and heat water, and 6,8% for consumers who need gas to prepare meals as well as to heat the water and the house. Nota bene, PGNiG SA was applying for a gas price increase by 24,20% (17,37% on end user's

bill), putting forward the arguments of high increase in oil prices (in July the price of oil reached the highest-ever peak of USD 147 per barrel) and less favourable exchange rate of Polish *zloty* currency, which is used by PGNiG SA to pay for gas imports. Yet, in the opinion of the President of the Energy Regulatory Office, a rise equivalent to 7,9% was sufficient to cover justified increase in the cost of PGNiG SA operation, with due consideration for the best interest of final customers.

In the context of Polish gas market, the Regulator takes effort to give gas consumers the opportunity to use price calculator. In that respect, a contract for the design of price calculator has been signed, so that domestic (household) end users may compare energy offers, including natural gas price offers, available on the market. The calculator will be launched in the middle of 2009. At the same time, the ERO has initiated a national info-line for consumers, as well as local info-lines in the ERO branches, where consumers may obtain information regarding TPA principle, supplier switch procedure and energy consumer rights.

### Customer complaints and enquiries

Complaints and enquiries of gas consumers detailed in the Table below are directed to the Spokesman for Fuel and Energy Customers, created within the structure of the Energy Regulatory Office, or to the ERO regional branches. Cases put forward by gas consumers are processed in the same way as those that trouble energy consumers. A more detailed discussion to the point can be found in electricity section 3.2.2.

**Table 4.12.** Complaints

Specification	Number of cases
Billing	192
Metering	11
Disconnection	5
Misleading advertising	0
Commercial practices	0
Terms of contract	218
Switching	0
Customer service	118
Other	704

Source: ERO.

**Table 4.13.** Enquiries

Specification	Number of cases
Billing	280
Metering	14
Disconnection	0
Misleading advertising	0
Commercial practices	0
Terms of contract	11
Switching	3
Customer service	17
Other	50

Source: ERO.

Looking at the specification, one must notice a significant number of cases in the category labelled as „Other”. This category includes cases of negative decisions regarding applications for connection to gas network. Such decisions may be observed in the regions without a well-developed distribution network, where a connection might not be economically viable (high cost of connection development and a limited amount of payment brought in by the applicant, as set forth in relevant regulations). „Billing” category includes cases such as incorrect bills, rates and prices, as well as tariff rules. „Customer service” includes both the incidents of low quality customer service and unsatisfactory quality parameters of supplied gas. Compared to 2007, the two latter items saw quite significant increase in the number of complaints and enquiries, which resulted from extensive media coverage and misleading information pointing at the regulatory body as the institution competent to deal with complaints regarding invoices issued by companies.

#### 4.2.3. Measures to avoid abuse of dominance on the market

PGNiG SA is a public company, listed on Warsaw Stock Exchange. Consequently, the company has to meet certain disclosure requirements under the laws regulating financial market, i.e. an obligation to publish periodic company statements (quarterly, semi-annual and annual) with the report on company activity and financial results. Moreover, PGNiG SA is obliged to immediately publish its current reports, which should include production-related data. Supervision over compliance with disclosure requirements by all public companies is performed by Polish Financial Supervision Authority.

In view of the fact that about 98% of production activity is carried out by PGNiG SA, and taking into account approved tariff calculation principles regarding gaseous fuels (weighted average of imported gas purchase cost and the cost of domestic extraction), as well as the nature of import agreements signed by PGNiG SA and Gazprom, gas availability for non-incumbent companies or new entrants on the wholesale market is very much limited. In practical terms, there have been no SWAP transactions, either. Furthermore, Poland has no experience as regards the implementation of „gas release programmes” from long-term contracts. Neither the President of the Energy Regulatory Office nor the President of the Office for Competition and Consumer Protection (have the mandate to impose such measures upon any energy company by the way of administrative decision.

Cooperation between the President of the ERO and the President of the OCCP mostly consists in notifying one another of reported issues, in accordance with their respective scope of competence, reporting law violations, again in accordance with the scope of competence of each office, sharing information and expertise, and participating in joint training sessions.

In 2008, the President of the OCCP conducted one proceeding on anti-competition practices, and four explanatory proceedings.

Anti-monopoly proceeding was related to the obligation, imposed within the framework of network connection contracts, in that future gas consumers have to cover an advance payment by virtue of connection fee, equivalent to 100% of the fee amount, which might bring the company unfair benefits. Explanatory proceedings, in turn, have been initiated in order to determine, on a preliminary basis, whether the conduct of DSOs in scope of the terms of conclusion and execution of gas network connection contracts is compliant with the provisions of the Law on Competition and Consumer Protection.

In 2008, the President of the OCCP did not issue any decision regarding concentration of companies on natural gas market.

## 5. SECURITY OF SUPPLY

Security of fuel and electricity supply is a pillar of energy security. In the document entitled: „Poland’s Energy Policy until 2025”, security of supply was defined as securing stable fuel and electricity supply at the level which guarantees that national needs will be met, and at a price acceptable to the economy and the general public, assuming maximum utilization of domestic resources of energy material and diversification of sources and supply directions of oil as well as liquid and gaseous fuels.

Many factors impact energy security. The significance of those factors from the standpoint of electricity and fuel demand-supply balance depends on both internal circumstances observed within the country and global market situation. Important factors include diversification of the mix of energy carriers that contribute to national balance, the level of diversification of supply sources, technical condition and efficiency of equipment and systems used for transmission and distribution of fuels and energy.

### 5.1. Electricity [Article 4]

First and foremost, energy security depends on the fact whether it is possible to meet peak demand for electricity and related capacity, and on present-day and future structure of fuel consumption in the process of electricity generation. For obvious reasons, all these elements are subject to extensive monitoring effort with regard to the security of electricity and gas supply, leading to appropriate regulatory measures.

Table 5.1 presents the status of electricity market and development of capacity demand, as forecasted by the TSO.

**Table 5.1.** Peak demand in the years 2008-2013

Year	Peak demand [in GW]
2008	25 120
2009*	25 626
2010*	26 149
2011*	26 578
2012*	27 013
2013*	27 456

\* Forecast.

Source: PSE Operator SA.

The Table below presents forecasted electricity demand for 2008-2013.

**Table 5.2.** 2008 electricity demand and demand forecast for National Electricity Network for 2009-2013

	Year					
	2008	2009*	2010*	2011*	2012*	2013*
Electricity [in TWh]	154,9	158,1	159,9	162,8	165,7	168,5

\* Forecast according to expected scenario.

Source: PSE Operator SA.

According to the data from the Ministry of Economy, the level of system installed generation capacity should reach 36 684 MW in 2010, and 38 973 MW in 2015.

**Table 5.3.** Electric power status available as of the end of the year

Specification	December		Dynamics index [in %]
	2007	2008	
	[in MW]		
Utility power stations <sup>1)</sup>	32 620,1	32 614,4	99,98
hard coal	20 691,9	20 446,5	98,81
lignite	8 819,0	9 053,0	102,65
gas	846,9	850,4	100,41
water:	2 258,3	2 260,5	100,10
pumped storage <sup>2)</sup>	1 406,0	1 406,0	100,00
river power station	852,3	854,5	100,25
Industrial power stations	2 086,4	2 084,4	99,90
hard coal	1 979,7	1 966,1	99,31
gas	73,5	83,6	113,74
biogas	1,2	1,2	100,00
biomass	31,5	33,0	104,76
water	0,5	0,5	100,00
Remaining, independent power plants	422,8	679,0	160,61
water	73,2	78,0	106,52
wind	306,2	544,2	177,70
biogas	40,5	45,5	112,22
biomass	2,8	10,6	377,58
other renewable sources	-	0,8	x
<b>Total</b>	<b>35 129,3</b>	<b>35 377,8</b>	<b>100,71</b>

1) Power sector plants and independent heat plants.

2) Pumped storage power stations include: Żar, Żarnowiec, Żydowo.

Source: Energy Market Agency (ARE SA).

Judging from the data presented in the tables above, one could say that Poland should not be at risk of generation capacity deficit, and that national demand for electricity and power should be met – at least under National Electricity Network regular running mode.

#### Investments in new network infrastructure

An important factor in the security of electricity supply is the volume of **capacity of the power grid and technical condition of the grid**. In that light, investments carried out by transmission system operator gain particular significance. Investment effort initiated by TSO in scope of national transmission network has two major purposes: to ensure security of electricity supply, and to promote free trade in electricity, including trade on the common market (interconnectors). Investment decisions are made by the TSO on the basis of periodic analyses and assessment of technical criteria, mainly related to the reliability and quality of supply, as well as the evaluation of effectiveness of projects under design.

Investment tasks are taken into account in the development plan of national transmission network. The Table below presents a list of investment tasks in scope of construction and development of stations and power lines (of more than PLN 10 mln in value), included in TSO development plan for 2006-2020, agreed with the President of the Energy Regulatory Office for the period 2008-2009.

**Table 5.4.** Types of TSO investment tasks and project timelines

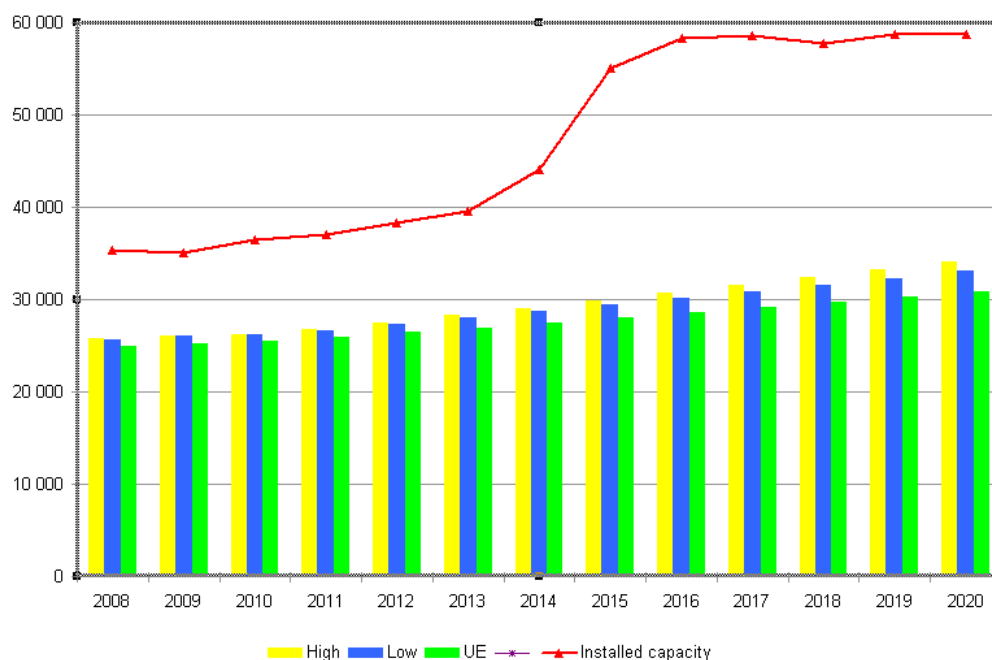
Item	Project name	Investment launch/completion dates
1	Construction of 400 kV substation in Pątnów station	2008/2008
2	Construction of 400 kV substation in Byczyna station	2006/2009
3	Construction of 400 kV line from Ostrów station to Rogowiec-Trębaczew line	2004/2008
4	Construction of 400 kV line in Pasikurowice-Świebodzice section	2006/2011
5	Construction of 400 kV Kromolice-Pątnów line	2006/2009
6	Construction of 400 kV substation in Morzyczyn station	2006/2009
7	Installation of ATR 220/110 kV in Lubocza station	2009/2009
8	Construction of 220 kV line in Glinki-Reclaw-Morzyczyn section	2008/2013
9	Installation of ATR 400/110 kV in Krajnik station	2010/2010
10	Construction of 400 kV line in Pątnów-Grudziądz section	2008/2015
11	Installation of additional ATR NN/110 in National Transmission Network	2006/2009
12	Development and modernization of Łagisza node	2007/2009
13	Programme for the construction of voltage level regulation systems in transmission network	2007/2010

14	Construction of 400/220/110 kV Ołtarzew station	2009/2011
15	Construction of 400 kV line from 400/110 kV Czarna station to 220/110 kV Polkowice station	2009/2015
16	Development and modernization of Moszczenica station	2008/2009
17	Installation of 400/110 kV transformer in Płock station	2009/2009

Source: TSO draft development plan.

### Investments in new generation capacity

New economic environment has alleviated the issue of generation capacity shortages observed in 2007 and at the beginning of 2008. Further, by the end of December 2008 the companies notified the Ministry of the Economy of their plans to construct about 25 000 MW of capacity in coal-based power sector. Most certainly, that fact was related to allocation rules pertaining to free CO<sub>2</sub> emission rights for existing installations and for those installations for which investment process was physically started by 31.12.2008. The companies believed that it would be regarded as construction starting point, and so they applied to PSE Operator for the terms of connection. Completion of some of the projects is planned for 2015 (Fig. 5.1).



**Figure 5.1.** Increase in installed generation capacity in proportion to capacity demand forecasts by 2020 (Source: prepared by ERO on the basis of data provided by PSE Operator SA and generation companies)

**Table 5.5.** Ongoing investments in new generation capacity, to be completed within the next three years, and capacity withdrawal planned during that period

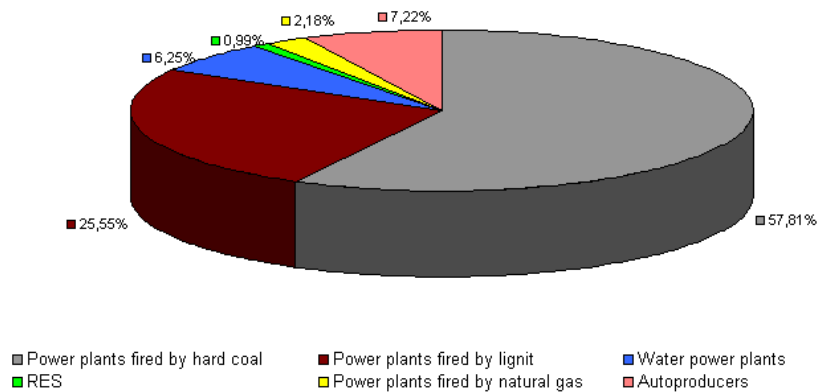
Centrally dispatched generation unit (JWCD)	Maximum capacity [in MW]	Fuel	Date	Comments
Bełchatów Power Plant	10	lignite	Starting from 1.01.2011	Capacity increase
Łaziska Power Plant	25	hard coal	Starting from 1.01.2009	Capacity increase
Łagisza Power Plant	-110	hard coal	1.03.2009	Planned liquidation
Siersza Power Plant	-120	hard coal	1.03.2009	Planned liquidation
Turów Power Plant	-206	lignite	1.09.2010	Planned liquidation
Bełchatów Power Plant	858	lignite	1.10.2010	Unit launched for operation
Łagisza Power Plant	460	hard coal	1.04.2010	Unit launched for operation
<b>TOTAL</b>	<b>917</b>			

Source: PSE Operator SA.

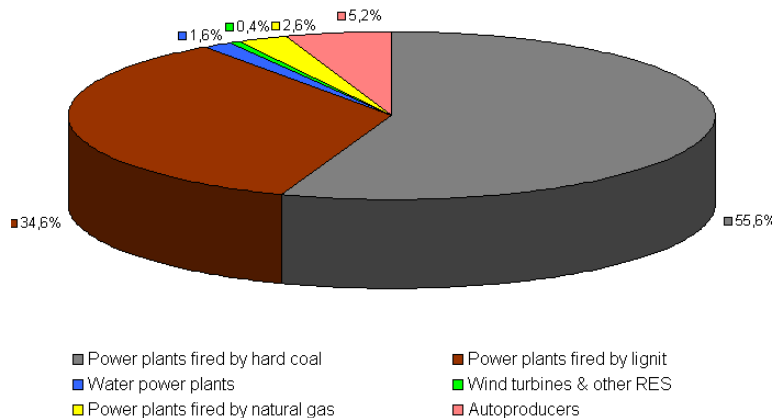
Taking into account ongoing investments (Table 5.5), and assuming that a majority of intended investments will indeed be completed, and the plans of the government of the Republic of Poland regarding the development of nuclear energy will be carried out, it seems quite likely that the security of electricity supply to final consumers will not be at risk during the period in question.

The end of 2007 saw a definite drop in the surplus of available capacity in proportion to maximum national capacity demand. Similar situation could be observed at the beginning of 2008. The trend was reversed, however, in the second half of 2008, and it intensified towards the end of the year. This shift, resulting in sudden emergence of generation capacity surplus available to TSO and the market, was caused by economic slowdown which triggered a drop in the demand for electricity. According to TSO estimations, end user demand in December 2008 was lower by as much as 12% in comparison to the same period in 2007. In that context, the risk of insufficient generation capacity (forcing TSO to introduce restrictions in power consumption) has decreased, so it seems that there is more time now available to complete investments in new generation capacity.

Generation of electricity has been based mainly on hard coal and on lignite, and those fuels should remain major energy carriers utilized for the purpose of electricity generation in the future. Introduction of nuclear energy represents a new direction of development in Poland. Apart from the advantage of no CO<sub>2</sub> emissions, nuclear energy will help fill up energy balance and gain independence from typical energy sources, and by that it will help improve country energy security. According to the premises set out in the draft of „Poland’s Energy Policy until 2030”, gross electricity generation capacity [MW] from atom sources will reach the following values: 1 600 MW in 2020, 3 200 MW in 2025, and 4 800 MW in 2030.



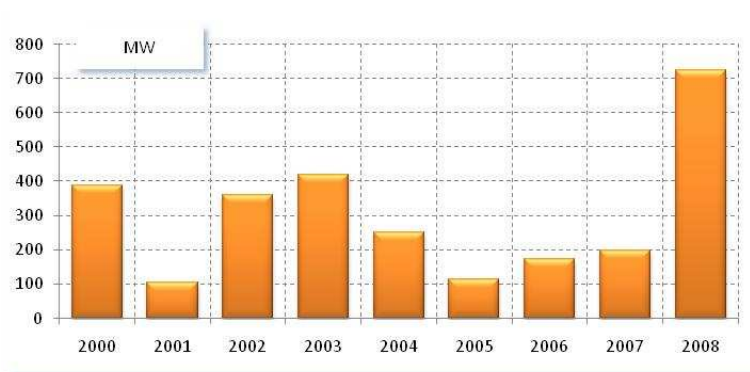
**Figure 5.2.** Structure of capacity installed in the National Electricity System, in the breakdown according to sources, status as of 31.12.2008 (Source: PSE Operator SA)



**Figure 5.3.** Structure of domestic generation of electricity, in the breakdown according to types of power plants (Source: PSE Operator SA)



Fig. 5.4 illustrates the volume of capacity released for operation in recent years.



**Figure 5.4.** Capacity released for operation in Poland (Source: Energy Market Agency ARE SA)

Tables 5.6 and 5.7 present the structure of capacity installed in the power sector (without renewable energy sources) from the standpoint of generation technology (fuel), in the breakdown according to capacity released for and withdrawn from operation in 2008.

**Table 5.6.** Installed capacity released for operation in 2008

Installed capacity released for operation	[in MW]
coal/oil	550,3
gas	1,5
other	0,0
Total	551,8

Source: ERO, on the basis of data provided by Energy Market Agency (ARE SA).

**Table 5.7.** Installed capacity withdrawn from operation in 2008

Installed capacity withdrawn from operation	[in MW]
coal/oil	-533,8
gas	-30,0
other	0,0
Total	-563,8

Source: ERO, on the basis of data from Energy Market Agency (ARE SA).

In 2008, the level of new installed capacity from renewable sources increased by approximately 155 MW, in comparison to 2007. The greatest increase in new capacity was observed in wind farms. In 2008 there was not a single case of capacity withdrawal in renewable sources.

#### Role and mandate of the Regulator in scope of promoting CHP and renewable energy sources

The President of the Energy Regulatory Office issues energy generation license (license commitment letter), which contains a requirement to report modifications to the scope and terms of economic activity, which in turn results in a license change.

In 2008, the President of the Energy Regulatory Office issued 126 licenses for electricity generation, including 116 licenses for generation from renewable sources.

Under Energy Law, every energy company which generates electricity from renewable sources or in cogeneration, irrespective of the installed capacity, has to apply to the President of the Energy Regulatory Office for a license required for such economic activity. With the purpose to make it easier for companies to launch energy generation economic activity, the information helpful in the licensing process is published on ERO website.

Besides that, ERO website contains numerous memos and announcements to remind energy companies of their obligations, and to clarify any doubts as to how those obligations should be met. Moreover, the website contains sample certificate of origin applications and cogeneration certificate of

origin applications, side by side with the guidelines as to what attachments are required together with the application to obtain certificates of origin and cogeneration certificates of origin (CHP).

In 2008, the level of new capacity installed in renewable sources increased by about 155 MW, compared to 2007. The biggest increase was observed in wind farms.

In 2007 there were no cases of withdrawal from renewable source operation.

**Table 5.8.** Capacity installed in renewable energy sources

Source type	2007	2008
	Installed capacity [in MW]	Installed capacity [in MW]
Biogas plants	45,699	54,615
Biomass plants	255,390	231,990
Wind farms	287,909	451,090
Water power stations (including pumped storage)	934,779	940,576
<b>Total</b>	<b>1 523,777</b>	<b>1 678,271</b>

Source: ERO

Currently in Poland there are no formal mechanism supporting the construction of new generation capacity which would serve as an incentive to foster investment decisions. One exception is the preferential principles for connecting renewable energy sources and CHP units with installed capacity below 1 MW, whereby only half of the connection fee determined on the basis of actual cost is required and 50% of investments outlays is covered by DSO or TSO. Other generators have to pay the fee calculated on the basis of 100% outlays on connection investment.

Investment effort initiated by TSO in scope of national transmission network has two major purposes: to ensure security of electricity supply, and to promote free trade in electricity, including trade on the common market (interconnectors). Investment decisions are made by the TSO on the basis of periodic analyses and assessment of technical criteria, mainly related to the reliability and quality of supply, as well as the evaluation of effectiveness of projects under design.

Investment tasks are included in national transmission network development plan. The draft development plan, prepared by TSO after a series of analyses, must be consulted with the President of Energy Regulatory Office. Costs resulting from the investments listed in the agreed draft plan are used as a basis for the calculation of the fair costs in the determination of TSO transmission tariff (more about TSO development plans in p. 2 and p. 5.1).

In 2008, cross-border exchange with third countries was carried out on interconnectors with the Ukraine and Belarus, and it amounted to 1 319,55 GWh. This volume of electricity imports includes the supply via 220 kV Zamość – Dobrotwór lines, as well as via 110 kV Wólka Dobrzyńska-Brześć line. Cross-border interconnectors with third countries are not available to market participants on a market basis, and the volume of electricity imports from the third countries represented approximately 0,85% of total gross domestic electricity consumption. Given the small scale of electricity imports from third countries, it has limited social and environmental impact.

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

### Gas consumption forecast

In 2008, the share of natural gas in the balance of primary fuels in Poland represented about 13% of total energy consumption, which is much below EU average of approximately 25%. It is forecasted, however, that the role of natural gas in Poland's energy balance is bound to grow, considering its use for the purpose of electricity generation, expected development of high performance sources in combined cycle technology, and in view of gradual increase in end user gas consumption.

Total natural gas consumption in 2008 reached 14 338,1 bln m<sup>3</sup> (13,5 Mtoe). Table 5.9 illustrates demand forecast by 2020.

**Table 5.9.** Natural gas demand forecast for 2010-2020

Year	Natural gas demand forecast	
	[in bln m <sup>3</sup> ]	[in MToe]
2010	14,9	14,05
2015	16,2	15,28
2020	17,9	16,88

Source: Announcement of the Minister of Economy, dated 7 May 2009, on the report on the outcome of supervision over security of natural gas supply („Monitor Polski” official gazette dated 25 May 2009).

In 2008, Gaz-System provided high-methane gas transmission service for 12,3 bln m<sup>3</sup>, and 1,4 bln m<sup>3</sup> in low-methane gas volume. Table 5.10 presents TSO forecast regarding the increase in the volume of transmitted gas in the years 2009-2018<sup>33)</sup>.

**Table 5.10.** Natural gas demand forecast in 2010-2020

	Year	[in MToe]	[in bln m <sup>3</sup> ]
Volume of transmitted gas	2008	887	13,75
	2009	887	13,75
Expected demand levels	2010	913	14,16
	2011	941	14,59
	2018	1 060	16,44

Source: Gaz-System SA.

When forecasting the volume of gaseous fuel supplied, TSO takes into account the continuous process of new user connections to distribution networks, mostly small business customers, and large industrial consumer connections to the transmission network. By the end of 2014, expected increase in the transmission of gaseous fuel in the system should mostly be covered through supplies from already existing gas import „entry” points.

#### Resources, domestic production, imports

As of the end of 2008, natural gas resources<sup>34)</sup> were at the level of 93,3 bln m<sup>3</sup>. Compared to 2007, the level of resources fell by 2%. In other words, assuming present-day rate of natural gas production, domestic resources will be sufficient for about 25 years ahead.

In 2008, domestic production amounted to 4,1 bln m<sup>3</sup> of natural gas (27,6 mln boe), of which 2,6 bln m<sup>3</sup> of high-methane gas and 1,5 bln m<sup>3</sup> of low-methane gas, which represents approx. 30% of its annual consumption. Supplementary supply was secured by PGNiG SA by gas imports of 10,3 bln m<sup>3</sup>, within the framework of agreements and contracts referred to below, i.e. the long-term import contract with Russia and three mid-term supply contracts with Germany and Central Asia countries, respectively:

- Long-term contract for gas supply from Russia, concluded on 25 September 1996 with OOO „Gazprom Export”, effective until 31 December 2022. In 2008, annual contractual volume reached 7 056,7 mln m<sup>3</sup>, according to the Polish standard,
- Gas import agreement dated 17 August 2006, concluded with VNG-Verbundnetz Gas AG, effective until 1 October 2016. Over the first two years, supply will amount up to 500 mln m<sup>3</sup> a year, and between 1 October 2008 and 1 October 2016 gas supply volume will reach 400 mln m<sup>3</sup> a year,
- Agreement signed with RosUkrEnergo AG for Central Asia gas imports. Supply was initiated on 1 January 2007 in the quantity of 2,5 bln m<sup>3</sup> (according to GOST), and it should continue in agreed annual volumes until 1 January 2010, with the option to extend the term of supply by another 3 years<sup>35)</sup>.

<sup>33)</sup> The volume of gaseous fuel transmitted in 2008, as well as the forecast for subsequent years, do not include gas volumes transmitted to and from underground gas storage facilities. Expected volumes were presented in accordance with the forecast made in respect of TSO development plan for 2009-2014. Division was made in proportion to the flows observed in 2008. According to the development plan, by the end of September 2009, transmission of gaseous fuel from „Ls” subgroup should be replaced with the transmission of gaseous fuel from the „E” subgroup.

<sup>34)</sup> Converted to high methane gas.

<sup>35)</sup> Due to the situation triggered by the „gas crisis” at the turn of 2008/2009, and the fact that the contract with ROSUKRENERGO AG has not been executed since 1 January 2009, it was necessary to look for another way to fill in gas deficit by entering into contract with another supplier.

Furthermore, within the framework of local supply for Hrubieszów area, PGNiG SA has imported gas under the long-term agreement concluded on 26 October 2004 with NAK „Naftogaz of Ukraine”, effective until 2020.

The other gas importer, Media Odra Warta Sp. z o.o., imported from Germany in 2008 approx. 33,3 mln m<sup>3</sup> of gas under the terms of agreement signed on 27 September 2004 with EWE AG, effective until 30 September 2009.

### Gas production prospects

In accordance with the strategy adopted in 2008, PGNiG SA intends to increase natural gas production levels up to about 6,2 bln m<sup>3</sup> a year. To make it possible, domestic production capacity will be increased up to, approximately, 4,5 bln m<sup>3</sup>, and natural gas production from foreign deposits will be initiated in 2011.

In 2008, the development of Jasionka I Stobierna-Terliczka natural gas deposit was completed. The volume of high methane gas produced from that deposit has reached 150 mln m<sup>3</sup>. Investment is planned to be completed in 2009, together with the development of Jasionka I deposit (phase 2). In 2009, the following deposits should be made available for operation: Cierpisz, Luchów, Wola Różaniecka, Kaleje and Sędziszów.

The project of developing natural gas deposits Lubiatów-Międzychód-Grotów, to be carried out by 2012, carries particular importance. Documented volume of natural gas deposits amount to about 5 bln m<sup>3</sup>. Further, completion of the development of Rudka, Sarzyna, Jeżowa, Zalesie and Pantalowice deposits is planned by 2009: at present, relevant investment documentation is being prepared, or construction and assembly work has been launched.

### Infrastructure and investments planned to increase the security of natural gas supply (source diversification)

Technical condition of transmission infrastructure is of key importance for the security of natural gas supply. In 2008 there were no objections regarding transmission system operation, but its age structure – cf. Fig. 5.5 – and substantial exploitation in the future may pose a threat to the continuity of supply and generate high operational costs, or create a barrier to modern transmission grid management.

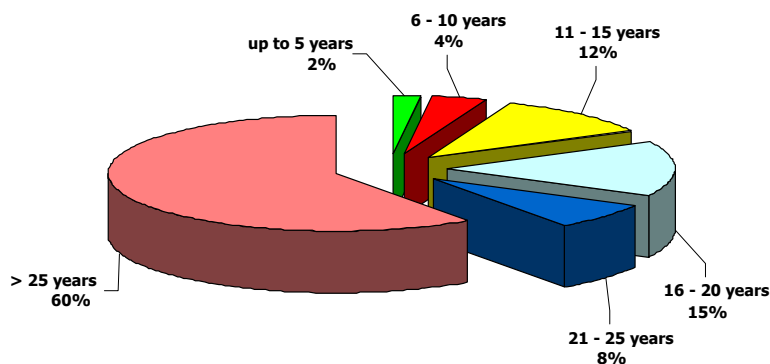
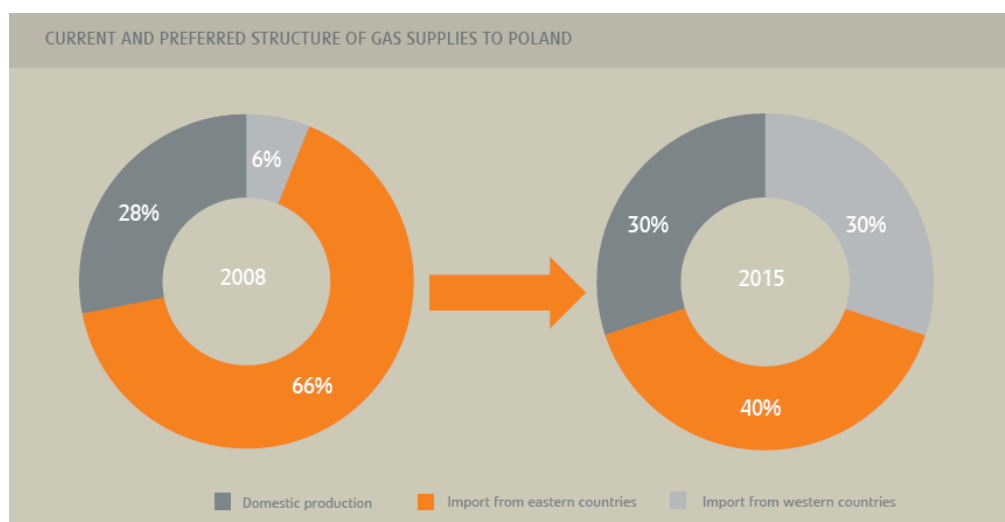


Figure 5.5. Age structure of gas transmission pipelines (Source: Gaz-System SA)

A priority objective for Polish gas sector security strategy is to gain independence from supply from the East.



**Figure 5.6.** Current structure of supply and preferred in year 2015 (Source: PGNiG SA)

TSO and PGNiG SA implement that strategy with the construction of new gas transportation routes – LNG terminal in Świnoujście and the Baltic Pipe transit system<sup>36)</sup>. To enable gas intake and distribution from those sources the following pipelines must be built: Świnoujście – Szczecin (DN 800), Szczecin – Lwówek (DN 700) and Szczecin – Gdańsk (DN 700). Also, transmission system which links Polish transmission system with the German one in Zgorzelec area will have to be modernized. To that end, TSO intends to develop Lasów measuring and billing point by 2012, and build a gas pipeline node Jeleniów – Jeleniów compressor station (DN 500), Jeleniów pipeline – Dziwiszów (DN 500), and Taczalin pipeline – Radakowice – Gałów (DN 500).

The implementation of southern pipeline project (by 2012), linking Polish and Czech transmission systems, should substantially improve the level of integration with European pipeline systems and pave the way for gas imports to Poland at the rate of approx. 0,5 bln m<sup>3</sup> a year. With that purpose in mind, TSO intends to build high pressure gas pipeline in Podbeskidzie region (DN 500 with the length of about 23 km in the territory of Poland, in the following municipalities: Cieszyn, Hażlach, Dębowiec and Skoczów), a measuring and billing point near Cieszyn, and approx. 10 km long section of gas pipeline in the territory or the Czech Republic, in cooperation with RWE Transgas Net.

National transmission system also requires investments in the so-called „bottleneck” sections, i.e. the areas with capacity congestion. At present, north-western Poland experiences the most serious problems with the transmission of high methane gas and with increasing the capacity of gas consumers at transmission system „exit” points. TSO is issuing terms of connection with the proviso that in extreme temperatures transmission services may be rendered on an interruptible basis.

Anti-congestion plan prepared by TSO includes:

- Increasing contractual gas entry capacity from Lwówek node Transit Gas Pipeline System to the level of 270-280 thousand m<sup>3</sup>/h, while at the same time preserving gas transmission conditions to Mallnow node,
- Construction of compressor station in Goleniów area,
- Construction of Szczecin-Gdańsk pipeline,
- Completion of DN 500 Gustorzyn-Gdańsk-Wiczlino pipeline construction,
- Completion of DN 500 Lubliniec-Częstochowa pipeline construction,
- Completion of DN 400 Mory-Piotrków pipeline construction,
- Modernization of Jarosław compression station.

<sup>36)</sup> At the initial operating phase, LNG terminal will have natural gas annual intake capacity of 2,5 bln m<sup>3</sup>. In subsequent years, depending on gas demand increase curve, transmission capacity may be increased up to 5 or even 7,5 bln m<sup>3</sup>. With the Baltic Pipe operational, transmission capacity may reach up to 3 bln m<sup>3</sup> gas a year.

### Storage capacity

PGNiG SA operates six underground gas storage facilities of total working capacity equal to 1.66 bln m<sup>3</sup>. Facilities are located in various geological structures (salt caverns as well as depleted natural gas fields). They all have different injection and withdrawal capacity. Thanks to storage facilities, an appropriate level of reserves may be maintained in case of short-term interruptions in gas supply caused by a breakdown or limitations in raw material supply. Furthermore, storage facilities help to maintain a stable level of extraction throughout the year – when gas demand goes down, gas can be injected to the facility, and during peak demand (too high to be covered by extraction from deposits), gas can be withdrawn. Table 5.11 illustrates the status of storage reserves between 1.10.2008 and 28.02.2009, together with relevant technical details.

**Table 5.11.** Description of underground gas storage facilities

	<b>Wierzchowie</b>	<b>Brzeźnica</b>	<b>Strachocina</b>	<b>Swarzów</b>	<b>Husów</b>	<b>Mogilno</b>	<b>Total</b>
Working capacity [in mln m <sup>3</sup> ]	575,000	65,000	150,000	90,000	400,000	380,170	1 660,170
Level of stocks dated on 1.10.2008 [in mln m <sup>3</sup> ]	548,9	65,0	149,8	90,0	400,0	380,2	1 633,9
Level of stocks dated on 28.02.2009. [in mln m <sup>3</sup> ]	213,9	18,2	46,7	18,9	158,6	314,1	770,4
Withdrawal capacity [in mln m <sup>3</sup> /day]	4,8 – 0,42	0,84 – 0,22	1,24 – 0,76	1,0 – 0,3	5,76 – 0,8	20,64 – 1,0	

Source: PGNiG SA.

### Security of supply standards

In compliance with the law on natural gas reserves and principles of conduct in case of threats to supply security<sup>37)</sup>, trading companies and importers are obliged to maintain stock of gas fuels in the territory of Poland in the quantity equivalent to 30 days of natural gas delivery in the period of 12 months, counting from April 1 of the previous year until March 31 of the current year. The stock volume is verified by the President of the Energy Regulatory Office on the basis of delivery forecast for the coming year. Moreover, companies have to draft adequate procedures in case of threat to gas supply continuity, and they have to notify TSO to the point in advance.

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

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

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

In the opinion of the President of the ERO introduction of the obligation to maintain compulsory stocks omitted the issue of storage capacity deficit in the national gas system in relation to the needs enforced by the act. Also the possibility of releasing from the duty to maintain compulsory stocks in the case of beginning operation in the scope of gas transport is not included. An enterprise already

<sup>37)</sup> The Act on stocks of crude oil, petroleum products and natural gas, the principles of proceedings in circumstances of a threat to fuel security of the State and disruption on petroleum market, dated 16 February 2007, Journal of Laws of the Republic of Poland 2007, no 53, item 343.

operating may apply for such release but it has to meet two requirements: the number of its customers cannot exceed 100 000 and the annual sale of natural gas cannot exceed 50 mln m<sup>3</sup>.

Such legal solution has negative impact on the prospects for launch and development of gas sales activity, and thus it has negative impact on the development of competition. In 2008, the Minister of Economy received twelve applications for the release from obligation to maintain compulsory gas reserves, but in no case did the Minister of Economy issue a positive decision granting the exemption.

#### Incentives for new investments

National regulations include a relevant set of actions (incentives) for new investments. The Energy Law contains a mechanism enabling the President of the ERO to discharge enterprises from the obligation to provide services on the basis of TPA and present tariffs for approval. The discharge refers to services rendered on the basis of new infrastructure and is granted after meeting the requirements listed in the act.

The definition of incentive for new investments includes co-financing from EU support funds. The European Commission approved of the „Infrastructure and Environment” Operational Programme for the period 2007-2013. The amount of EU funding committed to this program equals almost EUR 28 bln. The program includes as many as 15 priorities, and two of those priorities pertain to the gas sector: Priority IX – Environment-Friendly Energy Infrastructure and Energy Efficiency – EUR 1 403,0 mln, and Priority X – Energy Security, including diversification of energy sources – EUR 1 693,2 mln.

Yet, another mechanism is set out in the law on natural gas reserves: under that incentive, justified cost related to the construction, development or modernization or gaseous fuel storage facilities may be reimbursed, together with a fair return on capital committed to that investment, in the amount not smaller than a 6% rate of return. According to the President of the Energy Regulatory Office, the scale of barriers to the execution of new investments by far exceeds the number of incentives. Existing barriers contribute to greater cost – at the end of the day, shifted to the end user – and extend the time of investment completion, or may even result in a decision to withdraw from the investment.

The way real estate tax is calculated may be a good case in point here. It is calculated on the basis of initial investment value rather than the extent to which it is utilized. As a result, the investor must pay substantial amounts, irrespective of the volume of gas transmitted via given section of the network.

The law on public roads further aggravates an already difficult situation. Significant fees are charged for the installation of technical infrastructure components in the ground and for occupying road lane during construction. As a rule, construction facilities and equipment not related to road management or traffic needs cannot be installed in roadway, and road administrator's consent is granted only in special cases. The investment process itself is also full of obstacles related to the fact that many location procedures must be carried out for one investment in the case when a transmission line under construction goes across several areas governed by various organs of administration (e.g. municipalities, poviats, etc.).

The President of the Energy Regulatory Office consistently takes initiatives aiming at gradual elimination of the above-mentioned barriers, among other things, working on relevant analyses and notifying the organs of administration responsible for particular areas.

#### Country regulations regarding the so-called „new infrastructure”

Companies involved in natural gas transmission, distribution or storage are required to provide natural gas transmission, distribution and storage services on equal terms to all consumers and companies dealing in gaseous fuel trade. Provisions of the law, however, allow the circumstances in which an energy company may be released from such service obligation. The President of Energy Regulatory Office, upon a substantiated request from the energy company in question (Energy Law, Article 4i), may decide that the company shall not be obliged to provide certain services and submit tariffs for approval in the situation when such service provision is performed by means of the so-called „new infrastructure”, i.e. the elements of gas system or gas installations the construction of which was not completed by August 4, 2003, or was started after that date.

The President of the Energy Regulatory Office may grant the exemption if all of the following conditions are met jointly:

- new infrastructure contributes to competitiveness in scope of gaseous fuel supply and the security of supply,
- owing to the risk related to infrastructure construction, without the exemption the construction would never be initiated,
- new infrastructure is/will be owned, at least in legal terms, by an entity independent from gas system operator in whose system the new infrastructure was/will be built,
- there are infrastructure usage fees charged from new infrastructure users,
- the exemption in question will not result in the deterioration of the conditions of competitiveness and efficiency of operation of gaseous fuel market or gas system in which the new infrastructure has been/will be built.

The President of the Energy Regulatory Office issues a license for economic operation of gaseous fuel storage in storage facilities and appoints, upon the motion of the owner of gaseous fuel storage installation, gaseous fuels storage system operators. Energy company involved in gaseous fuel storage is obliged to provide gaseous fuel storage services in storage installations on equal terms to all consumers and companies dealing in gaseous fuel trade. Provisions of the law, however (Article 4h p. 1), allow the circumstances in which an energy company dealing in natural gas storage may be temporarily released from such service obligation, or the obligation may be temporarily alleviated. Relevant decision is taken by the President of Energy Regulatory Office, upon a substantiated request from the energy company in question, by the way of a separate proceeding, referred to on Article 4h pp. 2-8 of the law.

In 2008 there was one proceeding regarding temporary exemption from the application of TPA principle – it refers to Article 22 of the gas directive. However, in consequence of ownership changes in Polskie LNG Sp. z o.o., the company withdrew its application, and the ERO administrative proceeding has been discontinued.

#### Infrastructure projects within the framework of trans European energy networks (Decision no 364/2006/EC)

Addendum no 1 to the Decision no 1364/2006/EC contains two Polish infrastructural projects „of European interest”: LNG terminal and a second line of the „Yamal-Europe” gas pipeline.

The construction of LNG terminal in Świnoujście is planned for completion in 2014. Preliminary terminal receiving capacity should amount to 2,5 bln m<sup>3</sup> of natural gas a year. Depending on natural gas demand, annual intake capacity may be increased up to 5-7,5 bln m<sup>3</sup>. Project investor is „Polskie LNG Sp. z o.o.”, established in May 2007 and owned by Gaz-System SA. The company obtained an appropriate license commitment letter to carry out business activity in scope of natural gas liquefaction and re-gasification on June 30, 2008.

Construction of the second line of the „Yamal-Europe” gas pipeline is foreseen in the agreement signed on 25 August 1993 by Polish and Russian governments, regarding the construction of pipeline system for the purpose of transit of Russian gas through the territory of Poland. Yet, to date no binding decisions have been made with regard to the timeframe of pipeline construction.

#### Relationship with „third countries” gas producers and exporters

In previous years one could hear some information on the possibility of disturbances in gas supplies from the East. Due to complicated relationship between the major gas supplier and transit countries (the Ukraine and Belarus), similar events may be observed in the future, as one could learn from the January 2009 gas crisis.

Since 2006, PGNiG SA has been involved in production activity on Norwegian continental shelf. In 2008 this project entered into implementation phase (deposit management), and natural gas production from that field should start in the second half of 2011. Deposits are estimated at 41,5 bln m<sup>3</sup>. This initiative is closely related to another project called „Skanled”, i.e. the construction of a gas pipeline from gas terminal in Karsto (Norway) to Sweden and Denmark, and to another project, the „Baltic Pipe”. The whole new pipeline system is planned for launch in 2014.



## Conclusions

As can be concluded from the review of activities performed by energy companies operating on the gas market in 2008, there were no objections regarding the security of gas supply to consumers. System efficiency did not give rise to any concern. All stakeholders responsible for gas supply have met their statutory obligations – they carried out modernization and investment projects in order to increase system efficiency, and they met the requirements related to mandatory fuel reserves. Approved restriction plans have been successful, given that there were no cases of sudden lack of supply for consumers. Key gas sector companies reported improved financial results, which means that they can channel additional funds to investments. One could also observe efforts to utilize EU support funds with investment projects.

The efforts aiming at diversification of gas supply sources were continued. In the opinion of the Regulator, there is a need for infrastructure development, especially in terms of increasing the working capacity of underground natural gas storage facilities, which would guarantee security of supply in case of supply disturbances. Likewise, there is a constant need for the development of transmission system, especially in the areas with flow capacity congestion. Finally, domestic production efforts should be continued.

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

Public service issues are at the core of electricity and gas market liberalization. Fundamental public service objectives, such as: ensuring security of supply, network reliability, adequate quality and price service, together with regard for environmental as well as company energy efficiency improvement obligations can be met thanks to the requirements set forth in Polish legal regulations (the Energy Law and secondary legislation), and in license terms and conditions, to be obeyed by the stakeholders of energy and gaseous fuels market. Pursuant to Article 56 paragraph 1 point 12 of the Energy Law, when an energy company fails to meet the requirements set out in the license, it is subject to a financial penalty administered by the President of Energy Regulatory Office. Moreover, if an entrepreneur obviously infringes the terms of the license or other requirements related to licensed economic activity, as set out in the law, the President of the Energy Regulatory Office shall revoke their license, pursuant to Article 41 paragraph 3 of the Energy Law.

The President of the Energy Regulatory Office confirms the fact of electricity generation from renewable sources by means of certificates of origin. The system of issuing (and then redeeming) certificates of origin has been fully operational since the beginning of 2005 (Articles 9a and 9e of the Energy Law). Upon this regulation, electricity generated from renewable sources can be branded in the breakdown according to the following generation technologies. Certificates of origin are issued by the President of the Energy Regulatory Office upon a motion from the generator (license holder), certified by the power system operator in scope of output volume for the period in question.

**Table 6.1.** Electricity generation and certificates of origin in the period 2007-2008. Status as of 29.04.2009.

Type of renewable energy source	2005	2006
	Electricity volume [in MWh]	Electricity volume [in MWh]
Biogas plants	161 767,939	220 882,924
Biomass plants	545 764,936	515 044,320
Wind farms	472 116,429	790 287,701
Water power stations	2 252 659,312	2 153 863,135
Cogeneration	1 797 217,058	2 538 746,824
Total	5 229 525,674	6 218 824,904

Source: ERO.

### Certificates of origin from cogeneration

In Polish system, two types of certificates of origin issued for electricity from cogeneration: 1) certificates of origin for electricity generated in installation fuelled gas, or with installed capacity below 1 MW (so-called „blue” certificates), and 2) certificates of origin for electricity generated in the remaining cogeneration sources (so-called „red” certificates).

**Table 6.2.** Electricity generation and CHP certificates of origin in the 2nd half of 2007 and 2008. Status as of 28.02.2009

Type of cogeneration unit	2nd half of 2007	2008
	Electricity volume [in MWh]	Electricity volume [in MWh]
„Blue”	1 112 971,930	2 950 316,867
„Red”	9 405 003,581	20 589 988,208

Source: ERO.

Generators who have obtained „green” certificates of origin or CHP certificates of origin may sell those certificates on the Polish Power Exchange to stakeholders who are obligated to purchase certificates, thus earning additional income from electricity generation activity.

The system of support for renewable sources and CHP would not be complete without legal provisions which foresee that financial penalties may be imposed upon those companies which have not fulfilled their obligation to purchase a required quantity of certificates of origin or CHP certificates of origin, or have not paid a relevant fee instead.

An obligation to purchase certificates of origin and CHP certificates of origin and present them for redemption, or to pay a fee instead, was imposed upon companies dealing in electricity generation or trade and selling such electricity to final customers.

In order to meet this requirement, said companies may:

- redeem appropriate certificates of origin,
- pay a fee to the account of National Fund for Environmental Protection and Water Management, which should be dedicated to supporting renewable energy and cogeneration sources located in the territory of the Republic of Poland.

According to the law, the President of the Energy Regulatory Office should verify the compliance of energy companies with the obligations referred to above. Verification is performed after the end of each calendar year (after March 31).

#### Criteria from Annex A to Directives 2003/54/EC and 2003/55/EC

Most of the criteria mentioned in the Annex has been introduced in the Energy Law. The criteria are so detailed, however, that their effective implementation by energy companies will be possible by placing them in appropriate secondary legislation.

#### Social tariffs

**The social help for vulnerable customers.** Work on the definition of a „vulnerable” or „fuel poverty” customer and support mechanisms for those categories of users does not fall directly within the mandate of the President of the Energy Regulatory Office. The definition of a vulnerable customer or the definition of a fuel poverty customer wasn't work out in Poland.

As an attempt to solve the issue of vulnerable customers, a special Team for Vulnerable Customer Research<sup>38)</sup> was established in ERO structure in 2008. The outcome of Team's effort was a model for vulnerable customer support and also amendments to existing legislation, indispensable for the model to be implemented. In their work, the Team also prepared a special funding scheme in order to help vulnerable customers.

According to the solution proposed in 2008, electricity is regarded as public service issue. It is recommended that the task of supporting vulnerable customers should be carried out by municipalities, via existing public social assistance centres and housing divisions. It is suggested that relevant funding should be obtained from the state budget (through electricity excise tax and VAT decrease), and from the fines administered by the President of the Energy Regulatory Office, whereby the inflows from those fines would be channelled to municipal budgets.

In order to introduce required amendments it would be essential to change; the law on social assistance, on housing allowances, the Energy Law, and the excise tax law.

In the first half of 2008, a Working Group for the preparation of legal acts which would ensure adequate protection of vulnerable customers on competitive energy market and endow the President of the Energy Regulatory Office with relevant role and appropriate regulatory tools on that market was established. The following organs of government administration were involved in the work of the Group: Ministry of Labour and Social Policy, Ministry of Finance, and Ministry of Infrastructure, side by side with the Office for Competition and Consumer Protection. The above-said organs did not fully condone the ERO recommendation regarding vulnerable customer protection. Social tariff mechanism was pointed out as the only acceptable solution with regard to support for economically impaired customers.

In Poland the system of social tariffs has been non-existent, and the President of the Energy Regulatory Office is against its introduction because of many disadvantages as cross-subsidizing between customers groups. Social tariff system interferes with price transparency and shifts the burden of vulnerable customer protection on other users, adversely affecting their financial standing.

The report summarizing Working Group effort was submitted to the Minister of the Economy in September 2008. Working Group cooperated with the Institute of Labour and Social Studies. As a result, a unique attempt at estimating the impact of electricity price rises on the scale of poverty increase was made. According to the analysis, a 10% increase in electricity price will result in an increase in the number of fuel poverty households to the level of more than 1 mln<sup>39)</sup>.

---

<sup>38)</sup> Team appointed upon Decision no 31/2007, made by the President of the Energy Regulatory Office on 30 November 2007.

<sup>39)</sup> In Poland there is a total of almost 14 mln domestic (household) consumers.

## Suppliers of last resort – obligations, selection mode (tender procedure or administrative decision)

From 1 July 2007, 14 DSO started operate on electricity market dealing with distribution – they were established on the basis of 14 major companies which, until that point in time, had been involved in electricity distribution and trade. By the way of administrative decision, the President of the Energy Regulatory Office appointed them as distribution system operators (DSOs). In consequence of those changes, electricity market saw the emergence of suppliers established separately as distribution system operators (14 entities from incumbent companies), as parties to complex agreements. At present, they function as suppliers of last resort for municipal and household customers who did not decide to switch a new supplier. There are also other suppliers on the market, who have not been developed from the structures of energy companies. Approximately 200 other suppliers are vertically integrated industrial energy sector companies, involved in sales and distribution activities. Pursuant to the Energy Law, a supplier of last resort is selected in a bid for tender procedure. Until the tender is announced, that function is performed by „incumbent” suppliers. There were no tenders in 2008.

The number of customer disconnections for non-payment is presented in Table 6.3 below.

**Table 6.3.** Total number of electricity and gas disconnections

Year	Electricity			Gas		
	Disconnections total	Consumers total	[in %]	Disconnections total	Consumers total	[in %]
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
2006	190 936	15 817 289	1,2	33 815	6 396 234	0,53
2007	160 860	16 064 750	1,0	31 006	6 493 775	0,48
2008	174 445	16 201 598	1,1	43 319	6 594 867	0,66

Source: ERO.

For a year now the President of the Energy Regulatory Office has been taking initiatives for the establishment of a support system for customers who – due to difficult economic circumstances – have not been able to cover their electricity bills, recommending that they should be included in social assistance scheme. ERO has prepared draft solutions which are now pending statutory regulations.

The issue of disconnections for non-payment is regulated by the Energy Law. There are no such regulations, however, with regard to disconnections for non-payment during winter time.

In 2008, the system for approving the end user energy prices was changed, and the new mechanism was continued in 2009 as well. The requirement to submit electricity tariffs for approval was upheld with regard to household customers groups („G” tariff category), connected to the network of distribution system operator, who have not switched supplier.

Administrative proceedings regarding tariff approval for „G” category for 2009 were initiated in November 2008 in respect of all 14 companies – suppliers – upon their request. On January 2, 2009, the President of the Energy Regulatory Office approved and announced the decision regarding electricity tariffs for 12 suppliers. Those tariffs are binding for „G” category customers in 2009. Average electricity price amounted to 234,55 PLN/MWh.

Electricity bills of consumers from the most populous category, G11 – i.e. the consumers who pay electricity prices, irrespective of the time of usage – went up from PLN 5,60 to PLN 7,00 a month, with average consumption at the level of 1 777 kWh.

There is a possibility for increasing approved prices upon company or the ERO request if some external circumstances change. One of the factors which may trigger cost increase, for example, an increase in the price of electricity on the wholesale market.

**Table 6.4.** Regulation of prices for final customers in 2009

Specification	Electricity				Gas		
	The biggest customers according to the volume of electricity supply	Small and medium business	Households	Combined heat and power stations and gas fired stations	The biggest customers	Medium-size industrial customers and distributors	Very small business customers and households
Tariff regulation supply (T/N)	N	N	T	T	T	T	T
% tariff customers (supply)	-	-	100	100	100	100	100

Source: ERO.

In 2008, network activity related to gaseous fuel supply (transmission and distribution) and trade were both regulated. Regulation applied not only to small consumers (municipal and domestic), but to large consumers as well. Either category had their gas supplied under umbrella agreements, and about 98% of sales for end users was accomplished by one company – PGNiG. Furthermore, other companies operating on the gas market purchase gaseous fuel from PGNiG, by and large. Under the circumstances, the President of the Energy Regulatory Office could not decide that any company involved in gas trade was operating in competitive conditions, and thus could be released from tariff approval obligation. In view of the fact that there were no developments with regard to that aspect of the situation in 2009, tariffs for all consumers had to be approved.

As far as the prices of high methane natural gas are concerned, they are supposed to compensate the gas company not only for the cost of acquisition, but also for the cost of transportation via pipelines located in the territory of the Republic of Poland, cost of transportation of liquefied natural gas, including road transport, and cost of the establishment and storage of mandatory gas reserves.

Throughout 2008, there were two changes in gas prices for PGNiG customers. The first change became effective on April 25, and the other one on November 1. In 2009 a new PGNiG tariff, i.e. a new gas price, was introduced on June 1. Tariffs of other gas companies were changed accordingly.

In light of the number of consumers serviced by PGNiG, against the backdrop of all gas consumers in Poland, it can safely be assumed that the average gas prices for PGNiG customers are equivalent to average gas prices for all consumers on a national scale. Below one can see a specification of average prices for domestic (household) consumers with regard to high methane gas trade (GZ-50), as well as average prices of high methane gas supply (including not only gas as a commodity but also the cost of gas transportation via transmission and distribution grid and the cost of storage).

Tariff category symbol	Average gas price GZ-50 in PLN/m <sup>3</sup>			
	In the period:			
	until 24.04.2008	25.04+31.10.2008	since 1.11.2008	since 1.06.2009
	in trade			
W-1	1,2329	1,3176	1,4716	1,3867
W-2	0,9586	1,0838	1,1838	1,0945
W-3	0,8448	0,9627	1,0627	0,9669
	total (trade + transportation + storage)			
W-1	1,8908	2,2343	2,3343	2,3353
W-2	1,4873	1,7405	1,8404	1,8164
W-3	1,2895	1,4977	1,5977	1,5760

W-1 – annual consumption up to 300 m<sup>3</sup>,

W-2 – annual consumption above 300 m<sup>3</sup> and up to 1 200 m<sup>3</sup>,

W-3 – annual consumption above 1 200 m<sup>3</sup> and up to 8 000 m<sup>3</sup>.

Source: ERO.

There are no legal regulations which would allow for potential cost compensation to the supplier who is obliged to sell electricity to users at regulated prices.

The table below presents the population of consumers who use the services of their last resort suppliers, i.e. suppliers operating in the area of particular distribution network operators. Nota bene, after the liberalization of electricity prices for institutional users, effective as of January 1, 2008, there is no *ex ante* regulation of those prices, even in the case of last resort suppliers.

**Table 6.5.** Number of consumers and volume of electricity supplied by default suppliers in 2008.

Consumer categories according to consumption criterion [in MWh]	Number of consumers in 2008	Electricity supplied to consumers in 2008 [in MWh]	Number of consumers serviced by default supplier	Electricity supplied to consumers serviced by default supplier [in MWh]
> 2 000	4 457	52 369 909	4 401	43 458 392
50 – 2 000	97 129	21 787 782	97 116	21 720 369
< 50	16 124 129	42 584 619	16 123 208	42 582 573
Total:	16 225 715	116 742 310	16 224 725	107 761 333

Source: ERO.

Initiatives of the Regulator taken with the purpose to ensure transparency of electricity supply contracts, taking into account the division of powers between the government, the Regulator, and other public agencies

Enforcement of transparency requirements pertaining to electricity supply contracts is addressed on the platform of:

- legislation proclaimed by the bodies empowered for legislative initiative, the government, the Parliament, and the President

The President of the Energy Regulatory Office is involved in legislative process, but is not competent to determine final contents of the regulations and is not empowered to initiate legislation – the ERO President participates in consultations, puts forward recommendations and expresses opinions);

- law enforcement (in particular, the President of the Energy Regulatory Office, the President of the Office of Competition and Consumer Protection, Competition and Consumer Protection Court)

**The law.** Contents of electricity and gas supply contracts are regulated by the Energy Law and secondary legislation, i.e. ordinances, which specify the so-called „indispensable items” of such contracts.

In 2008, the President of the Energy Regulatory Office did not take any particular actions related to the issue of contract transparency, mostly due to the fact that Polish legislation foresees relatively high level of protection in that respect. Certain legal provisions to the point are included in the Law on competition and consumer protection, dated February 16, 2007, which prohibits: onerous or inconsistent contractual terms in similar contracts with third parties, conditional contract execution dependent on the fact whether the other party will accept or provide a benefit which has no material or customary relation to the subject of contract, onerous contractual terms imposed by the enterprise which may result in unfair benefits for the enterprise, direct or indirect enforcement of other unfair contractual provisions, such as extended payment deadlines or other conditions pertaining to the sale or purchase of goods. Contract transparency in that regard is supervised by the President of the OCCP. Any abuse of above-mentioned prohibitions may be regarded as abuse of market dominance, or as anti-competition conduct. General provisions regarding contractual obligations, including specimen contracts, may be found in the Civil Code as well (Articles 384 through 396). Those provisions regulate the matter of contracts and specimen contracts. Under those regulations, provisions of an agreement concluded with a consumer which were not agreed upon on individual basis shall not be binding for the consumer if they present consumer rights and obligations in contradiction to good practice and blatantly infringe customer interest (forbidden contractual provisions). This does not apply to provisions describing key services of the parties as long as they were phrased in an unambiguous way. Dispute resolution in that regard rests within the competence of the common court.

**Application of the law.** Under the Energy Law, the President of the Energy Regulatory Office is not empowered with the tools that would enable the President to impact the contents of electricity or gas supply contracts in a direct manner, e.g. by contract form approval procedure, or by imposing the requirement whereby energy companies would have to put in the contracts certain

clauses – such as are not required under the law, but represent the so-called best practice. In consequence, it is understood that the company is only required to follow the rules set out in the law.

In particular cases of dispute (Energy Law, Article 8 paragraph 1), the President of the Energy Regulatory Office may affect the contents of an agreement between the energy company and the consumer, but always within limits defined in the request for assistance in getting the issue in question resolved. Under such circumstances, energy company obligations can also be found in the Energy Law and secondary legislation. To apply the best practice principles, the agreements would sometimes have to be amended to the extent beyond the regulations directly rooted in Energy Law provisions. In 2007, the President of the Energy Regulatory Office resolved 62 cases related to the issue of electricity supply contracts. Thus, it must be concluded that the criterion of contract transparency, with the purpose to provide the customers with adequate information on the level of prices, service quality and the terms of service provision, or changes to those terms, has been implemented by energy companies of their own accord, or – indirectly – by the President of the Energy Regulatory Office, through properly structured tariffs and license conditions.