Structure for the Regulators' 2009 National Report to the European Commission

The data/contents should refer to 31 December 2008 or the reporting period 2008 unless otherwise stated.

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1. Foreword

In 2008 provisions of the Law on Energy and the Law on Electricity regulating the energy sector were not amended. In 2009 the Law on Electricity was amended: in March the Seimas amended provisions of Articles 43 and 44 regarding the principles of asset value assessment in the pricing area.

In May 2008, to prepare for construction of a new nuclear power plant and interconnections with Poland and Sweden, the transmission company (Lietuvos Energija AB) and two distribution companies (VST AB and Rytų Skirstomieji Tinklai AB) were merged into a national investor company LEO LT, AB. 61.7% of the company shares are held by the Republic of Lithuania and the balance 38.3% - by NDX Energija UAB. The established national electricity company had to implement strategic national energy projects.

However when discussions on LEO LT transparency started, the Seimas amended the Law on Nuclear Power Plant on 21 July 2009 thus increasing the state influence in the company LEO LT and opening an opportunity to reorganize or liquidate it. Amendments to the Law on Nuclear Power Plant oblige the Government to aim to have no less than 2/3 of the national investor company shares in its ownership. The amendments also entitle to revalue shares of Lietuvos Energija AB and Rytų Skirstomieji Tinklai AB owned by the state at the time of establishing LEO LT, AB. By the virtue of these amendments LEO LT was also eliminated from projects of building the new nuclear power plant and electricity bridges to the West, which have to be implemented by state-owned companies.

On 20 November 2008, headed by the European Commission, the first High Level Group meeting took place to discuss issues of the Baltic Region interconnections. The outcome of activities of the Electricity Market Integration and Interconnection subgroups was the Baltic Energy Market Interconnection Plan (BEMIP) approved in Quarter I of 2009 and the Memorandum of Understanding regarding the above Plan signed on 17 June 2009 by 8 states of the Baltic Sea Region. They will facilitate faster integration of the Baltic electricity system into the Scandinavian and West European electricity markets. Interconnection of regional markets should be facilitated by the joint market price setting project of Nord Pool Spot AS and the Baltic States. The first project phase was completed at the end of 2008 when the market price was set During the second phase the market price for the Baltic electricity market should be agreed thus linking Scandinavian and Baltic regional electricity markets.

The Natural Gas Law was amended in July 2009 modifying asset value identification principles for pricing. To prevent asset revaluation (asset value increasing) done by companies form having an impact on profit calculations the law includes the provision that the NCC shall set and approve asset value in line with the NCC-drafted and the Government-approved principles of setting value of assets used in licensable gas supply company activities.

In 2008 the largest natural gas company, Lietuvos Dujos AB kept unbundling its activities: the supply activity was fully handed over to the Sales Department which operates independently of other company units, it makes independent decisions, does individual book-keeping and concludes consumer contracts. A deeper (legal) activity unbundling will be done in line with legal requirements.

To develop this report the NCC used materials of companies operating in the electricity and gas sectors and data of the Ministry of Energy and the Ministry of Economy. The present report overviews the key development stages of the gas and electricity markets and lists significant problems faced by them.

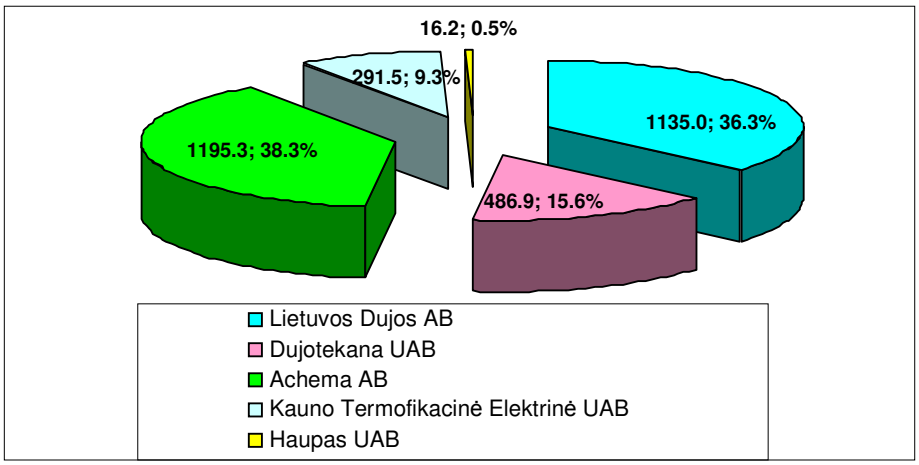
2. Main Developments in the Gas and Electricity Markets

2.1. Gas Sector

2.1.1. Wholesale Market

In 2008 no essential changes took place in the natural gas market structure: gas was imported by the same five companies: Lietuvos Dujos AB, Dujotekana UAB, Haupas UAB, Achema AB and Kauno Termofikacijos Elektrinė UAB. Natural gas import volumes were 3124.85 million m^3, i.e., by 16% lower than in 2007. Gas volumes imported by the above companies and their market shares are shown in Figure 1.

Figure 1. Natural Gas Import Market Shares in 2008 (million m^3)



Among these companies Achema AB and Kauno Termofikacinė Elektrinė UAB use gas only for their own needs and the other three ones sell gas to customers.

All gas is bought from Russia. 95% of the total gas volume was bought directly from Gazprom AAB and the balance was acquired from a newly established intermediary company LT Gas Stream AG. Dujotekana UAB started buying gas from this company since Quarter IV of 2008.

Lithuanian natural gas wholesale market is hardly in existence. In 2008 trade in natural gas among gas companies amounted only to 0.3% of total imported gas volume. Local gas distribution companies buy and sell small gas quantities to customers. Lithuanian customers are supplied with gas by two major suppliers: Lietuvos Dujos AB and Dujotekana UAB. Haupas UAB supplies gas only to Druskininkai Region the gas system which is not connected to the main system capturing the remaining territory of Lithuania.

Currently gas market of the Baltic States is dysfunctional. This is caused by two reasons: an isolated gas transportation system of the Baltic States (including Finland) and the fact that all the countries are dependent on the single gas supplier, Gazprom AAB. The Baltic States gas market will not function until the issues of the gas system isolation, supply diversification are solved and transparent and non-discriminatory third country access to the natural gas markets is ensured.

2.1.2. Retail Market

The number of players in the retail market has not changed in 2008, and the market has 7 gas suppliers, but like the wholesale the retail is dominated by the two of them: Lietuvos Dujos AB (70.5%) and Dujotekana UAB (28.0%). All other gas supply companies have as low as 1.5% share of the total gas volume sold to customers.

In 2008 the total volume of natural gas used in Lithuania was by 10% lower than in 2007, i.e., 3213.18 million m^3. 88.3 million m^3 out of this number was sold from Inčukalnis Gas Storage Facility. 182.5 million m^3, i.e., 5.7% of the gas total volume used in Lithuania were supplied to household customers. Lietuvos Dujos AB is the main natural gas supplier to household customers. In 2008 this company supplied 99.9% of natural gas used by households.

Though the natural gas market has been opened since 1 July 2007, no customers switched their natural gas suppliers in 2008.

Natural gas prices applicable since 1 July 2009 to individual customer groups are shown in the Table below.

Table 1. Natural Gas Prices Applicable to Individual Customer Groups (since 1 July 2009)

Customer group Price, EUR/MWh	D3	I1	I4-1
Transmission (excluding VAT)	1.76	1.61	1.61
Distribution (excluding VAT)	7.84	7.84	3.67
Final gas price (including 19% VAT)	42.51	33.68	28.71

To improve consumer protection and gas company transmission and supply service requirements companies annually, at the end of year, submit annual reports on received complaints settlement to the National Control Commission for Prices and Energy. In 2008 Lietuvos Dujos AB received and analyzed 42 complaints and 415 applications, out of which 6 complaints and 193 applications were justified and 36 complaints and 222 applications - unjustified.

2.1.3. Infrastructure

Lithuanian natural gas system is connected to Belarusian, Latvian and the Russian Federation gas systems. International connections with Russia, republics of Belarus and Latvia are regulated on a contract basis. In 2008 annual design capacities for natural gas imports into Lithuania accounted for 11.8 billion m^3. In 2008 Lithuanian natural gas demand amounted to 3.2 billion m3 per year, thus the long-term contractual capacity reservation causes no transmission system overloads either on the level of domestic or international connections. The maximum use of import pipelines was 61.5%.

The gas mainline owned by Lietuvos Dujos AB is used for gas transmission within Lithuania and gas transit to Kaliningrad Area (the Russian Federation). A long-term gas transit transmission contract between Gazprom AAB of Russia and Lietuvos Dujos AB was signed in 1999 and is in force up to 2015. In 2008 the quantity of transit gas transmission increased by 3.4%, but due to lower gas consumption by Lithuanian energy companies the total transmission volume reduced by 6.8%. In 2008 one main natural gas transmission and distribution system operator, Lietuvos Dujos AB and five distribution system operators were engaged in natural gas transportation activities in Lithuania. The total natural gas system length is 9875 km, including 1846 km of

mainlines and 8029.4 km of the total distribution system length. During 2008 Lietuvos Dujos AB invested 50 billion LTL into construction of new gas distribution systems and built 239 km of distribution gas lines.

Natural gas distribution volumes changed insignificantly: they reduced by 5.4%, if compared to 2007.

2.1.4. Regulation issues and Activity Unbundling

The general principles of natural gas sector organization and natural gas activity and relations with domestic customers and system users are regulated by the Law on Energy and Law on Natural Gas.

In line with the Law on Natural Gas transmission, distribution, storage, liquefaction and supply of natural gas are licensable activities.

In 2008 the National Control Commission for Prices and Energy (hereinafter referred to as the NCC) has drafted and approved a new Natural Gas Transmission and Distribution Price Cap Calculation Methodology (hereinafter referred to as the Transportation Methodology).

Some essential problems were solved by approving the new Transportation Methodology:

- new normative profit calculation rules have been prescribed allowing to objectively calculate the justified profit margin rate which is calculated by estimating the economically justified asset value and the weighted average cost of capital (WACC) for the year immediately preceding the regulation period year;
- to tighten gas company investment control and assess their effectiveness, the Transportation Methodology provides for new gas price cap adjustment coefficients: the depreciation (amortization) cost and the normative profit coefficients, which are used to annually adjust gas company depreciation (amortization) costs and normative profits subject to investments made;
- price adjustment subject to inflation has been clarified: costs are no longer, as prescribed by the previous methodology, adjusted fully but only partially, making only inflation-dependent costs subject to adjustment.

In line with the Transportation Methodology the NCC shall set gas transmission and distribution price caps for a five year period, which shall be adjusted once a year.

In 2008 the NCC approved a new Natural Gas Supply Price Cap Calculation Methodology (hereinafter referred to the Supply Methodology). Under the previous methodology gas supply company profit was calculated as a percentage of supply activity and gas import costs, while the new Supply Methodology prescribes that gas supplier margin practically does not change due to gas import price, and only its minimum reduction is allowed subject to oil and other fuel price fluctuations.

Activity unbundling is regulated by Article 12 of the Natural Gas Law currently in force. It specifies that transmission, liquefaction, storage, distribution activities shall be unbundled in gas companies. Unbundling shall be done by establishing a daughter or a separate company. There is no must to unbundle activities and establish a daughter or a separate company for an integrated gas company supplying gas to less than 100000 customers. Lietuvos Dujos AB is the largest natural gas transmission system operator in the Baltic Region. More than 99% of total natural gas volume demanded by Lithuanian customers is supplied to Lithuania through the company-controlled and operated gas system. This company is the only one in Lithuania providing services to more than 100000 customers. The company is vertically integrated and

has unbundled its activities internally. On its website this company is presented to customers as a single integrated company, Lietuvos Dujos AB having one logo, address and website. Activities of this company have not been legally unbundled; however the company keeps individual book-keeping records and does individual financial statements for each such activity. One of the most important and relevant upcoming issues is the one of unbundling the independent transmission operator. Currently in order to implement provisions of the European Union 3rd Legislative Energy Package (Measure 684) the Programme of the Government of the Republic of Lithuania prescribes developing draft amendments to the Natural Gas Law of the Republic of Lithuania. The Measure should be implemented by Quarter IV of 2010.

2.1.5. Security of Supply

Long term gas supply contracts are among the key elements of ensuring the supply security. Lietuvos Dujos AB has a long term natural gas supply contract signed with Gazprom AAB for 2000 - 2015 (inclusively). This contract has been signed in 1999. Since 1 October 2008 Dujotekana UAB terminated the supply contract with Gazprom AAB and buys gas from the company LT Gas Stream AG, headquartered in Switzerland. This contract has been signed for 2008-2012.

Functions of the transmission operator and the majority of distribution system operator ones are performed by one company in Lithuania, Lietuvos Dujos AB. In 2008 this company invested 34.7 million LTL into construction of new gas transmission systems. In 2007 investments into transmission system construction amounted to 34.24 million LTL. In 2008 the NCC approved the Transmission and Distribution Activity Investment Programme 2009-2013 of Lietuvos Dujos AB. Within this time several major projects related to the system development and ensuring gas supply reliability are to be continued or implemented. Gas compressor station construction in Jauniūnai, Širvintai District, would allow transporting higher gas volumes after Ignalina Nuclear Power Plant is decommissioned, ensure stable functioning of the gas line Šakiai – Klaipėda, improve the transmission system functioning reliability and facilitate increasing gas transmission and transit volumes through the Republic of Lithuania.

Under Articles 3 and 4 of the Directive 2004/67/EC natural gas supply reliability is regulated by the Natural Gas Law (Art. 24.3) providing the Government with the right to specify concrete measures to ensure security, which are obligatory to gas companies, customers the NCC. In 2008 the Government of the Republic of Lithuania approved the Description of Means to Ensure Natural Gas Supply Security, under which all customers are grouped into uninterruptible gas supply and interruptible gas supply ones. Gas reserves shall be formed and stored for uninterruptible gas supply customers, which include all the household customers. Supply companies shall be responsible for uninterruptible gas supply to household customers. Supply companies shall form gas reserves, costs of maintaining which shall be included into the gas supply price (provision in the Natural Gas Law). The reserves shall ensure gas supply to household customers for 10 days since 1 September 2008, adding extra 10 days annually until the 60 day level is reached. As a gas supply company Lietuvos Dujos AB shall be responsible for uninterruptible gas supply to household customers. There is no natural gas storage facility available in Lithuania; therefore Lietuvos Dujos AB concluded a contract on natural gas storage with Latvijas Gaze AB of the Republic of Latvia. In 2008 10 million m^3 of gas reserves were stored in Inčukalnis Underground Gas Storage Facility to ensure 10 day gas supply. In 2009 20 million m^3 of gas are stored in the Storage Facility ensuring uninterruptible 20 day gas supply to household customers.

While developing the national gas system infrastructure and relations between the European Union members the Ministry of Economy submitted a bid to the European Commission for the

Feasibility Study "Seismic and Geophysical Investigations for the Installation of an Underground Gas Storage Facility (UGSF)".

Contracted by the Ministry of Economy and Achema AB the Feasibility Study "Installation of a Liquefied Natural Gas (LNG) Import Terminal in Lithuania" has been developed. The study provides positive results stating in conclusions that an LNG terminal installation in Klaipėda Sea Port territory is technically possible. Contracted by the Ministry of Economy, AF-Enprima UAB developed the Feasibility Study of Polish and Lithuanian Gas System Interconnection.

2.2. Electricity Sector

2.2.1. Wholesale Market

a) Development of market concentration based on the relevant market.

The development of monopolistic Lithuanian electricity market structure was historically determined, when since 1984 Unit I of Ignalina Nuclear Power Plant was put into operation, followed by Unit II in 1987. This power plant with the installed capacity amounting to 3000 MW (doubling the installed capacity had been planned) became the topmost electricity producer both nationwide and in the entire western region of the former Soviet Union, or the current territory of the Baltic States. Therefore when the electricity market was opened back in 2002 competition was impossible.

When Unit I of Ignalina Nuclear Power Plant has been decommissioned in 2005 and with the plans to decommission Unit II at the end of 2009 Lithuanian electricity sector will have another major producer, Lietuvos Elektrinė AB, the capacity of which will account for approximately 65% of total installed national capacity. However since 2010 there are plans to implement an electricity market model approved by the Resolution No. 740 On Lithuanian Electricity Market Development Plan of 8 July, 2009, of the Government of the Republic of Lithuania, which may change the monopolistic status of this electricity producer to facilitate higher player participation in this market.

b) Market integration (across borders, at the national level), reasons for non integration (lack of transport capacity, discriminatory allocation by TSO, insufficient regulatory measures)

In 2008 Lithuania like other Baltic States kept its island status in the European Union electricity system, with the exception of a low throughput line between Estonia and Finland operation of which started in 2007. The Baltic States market is too small for effective competition while it was technically impossible to expand to other countries due to no interconnections available. Last year national and international projects commenced to connect the Baltic Region with North and West European countries.

In May 2008 the transmission company (Lietuvos Energija AB) and two grid line companies (VST AB and Rytų Skirstomieji Tinklai AB) were merged to establish a single national company LEO LT, AB. 61.7% of the company shares are held by the Republic of Lithuania and the balance 38.3% are held by NDX Energija UAB. The established national energy company shall implement the following national strategic energy projects:

- Ensure smooth operation of Lithuanian of power transmission and distribution network system;
- Implement the new Lithuanian Nuclear Power Plant project;
- Integrate Lithuanian energy system into the European Union market by implementing projects to interconnect Lithuanian electricity system with Poland and Sweden, and to

simultaneously link the Baltic energy systems with the West European energy system, UCTE.

The first High Level Group meeting on the Baltic Region interconnection issues headed by the European Commission took place on 20 November 2009. Since the beginning of 2009 meetings of Electricity Integration and Interconnections working subgroups took place resulting in the Baltic Energy Market Interconnection Plan (BEMIP) approved within the first half of 2009, and the Memorandum of Understanding regarding the above plan, signed on 17 June 2009 by 8 states of the Baltic Sea Region.
. , and extra working groups were set up to consider transparency issues and BEMI Plan implementation.

c) Energy exchange development
Under the joint Finnish, Baltic Transmission System Operator and Nord Pool Spot AS (hereinafter referred to as NPS) project the Baltic electricity market price setting is planned thus interconnecting Scandinavian and Baltic markets. The first project stage completed at the end of 2008 was setting the market price in the implicit auction concerning the Estlink line capacity. The second stage should allow calculating the electricity market price in the Baltic Region. Currently hourly electricity auctions take place only in Lithuania. Trading principles are under further improvement and coordination with NPS to later have a possibility of applying them to the Baltic Region.

d) Conclusions
The Baltic electricity market is small for effective competition, thus inter-system connections are planned, LitPol with Poland and NordBalt with Sweden, and similar projects of the neighbouring countries should facilitate solving this problem. By focusing on this issue the European Commission helped to reach a significant progress in this area.

2.2.2. Retail market

a) Development of market concentration based on the delineation of the relevant market (as set forth in the Law on Competition)
In the mid 2007 the electricity market was 100% opened as in other European Union countries. This means that all customers have become eligible and may choose their electricity supplier. Since 2010 it is planned to abolish the end public energy prices to customers with power exceeding 400 kW and gradually reduce this level up to 2013. This will facilitate practical implementation and accelerating market relations both in the domestic and regional markets.

b) Development of switching
Last year as at the beginning of the electricity market opening the same market players used the right to switch the supplier. They have accounted for 14% of the total national efficiently supplied electricity quantity. This was caused by the relatively cheaper-priced public supplier sold electricity versus distribution grid market prices offered by independent suppliers.

Table 2. Declared and real degree of market opening

Indicator	2002	2003	Up to 01-07-2004	Since 01-07-2004	2005	2006	Since 01-07-2007	2008
Electricity consumption by eligible customers as a share of total customer consumption, %	20	23	25	74	74	74	100	100

Electricity consumption by eligible customers having selected independent suppliers as a share of total customer consumption, %	17	17	15	15	15	13	12	14

c) Price Development (total and components) including regulated prices

With significant natural gas price increase in 2008 the NCC estimated the average forecasted public price for electricity production 2008, which was 33.94 EUR/MWh and which increased by 5.04 EUR/MWh compared to 2007. For 2008 the average transmission service price of Lietuvos Energija AB went up by 0.3 EUR/MWh for power reserves. Thus in 2008 the production and transmission price increase amounted to 5.33 EUR/MWh. At the same time price for electricity bought by distribution grid operators to cover the technological losses and own needs also rose. The distribution service price over medium voltage networks provided by VST AB increased by 3.36 EUR/MWh, while the one over low voltage networks reduced by 3.94 EUR/MWh.

Table 3. Actual and forecasted prices for 2006-2009, EUR/MWh

Indicators	VST AB				Rytų Skirstomieji Tinklai AB			
	2006	2007	2008	2009	2006	2007	2008	2009
Electricity generation price	24.56	28.9	34.32	38.9	24.56	28.9	34.32	38.9
Electricity transmission service price	10.05	10.45	10.6	10.77	10.05	10.45	10.6	10.77
Electricity supply service price	0.55	0.55	0.58	0.58	0.61	0.61	0.61	0.61
Public electricity price for customers receiving electricity from high voltage networks	**35.16**	**39.9**	**45.5**	**50.25**	**35.22**	**39.96**	**45.53**	**50.28**
Electricity distribution service price over medium voltage networks	18.13	18.33	21.58	18.39	17.2	17.11	19.55	16.02
Public electricity price for customers receiving electricity from medium voltage networks	**53.29**	**58.23**	**66.9**	**6.86**	**52.42**	**57.07**	**64.85**	**66.29**
Electricity distribution service price over low voltage networks	26.36	26.18	21.98	2.44	20.68	23.75	20.94	23.55
Public electricity price for customers receiving electricity from low voltage networks	**79.65**	**84.41**	**88.86**	**93.03**	**73.1**	**80.82**	**85.64**	**89,84**

d) Complaints (topics, amount, responsibilities)

In 2008 the NCC received 27 various consumer complaints and applications. In the electricity sector consumers contacted NCC regarding application of electricity supply prices and tariffs, calculation of new customer connection fees, disconnecting from and renewing electricity supply. The regulator has the obligation to consider customer applications and complaints regarding application of electricity supply tariffs and customer connection fee amounts.

e) Activities by NRAs to foster retail competition

A sufficient number of market players is required to boost both retail and wholesale competition. As mentioned above, one major producer has dominated the Lithuanian market, however when the last unit of Ignalina Nuclear Power Plant is going to be decommissioned at the end of 2009 the electricity market may be expected to liven up.

Since 2008 consideration of potential pricing barriers to electricity market started. Identified barriers are to be eliminated through amendments to the Law on Electricity and price calculation methodologies. Gradual abolition of public (end) electricity prices up to 2013 would be the key change.

f) Conclusions
Compared to 2007, in 2008 the number of independent suppliers changed insignificantly, i.e., 20 supply licenses were issued and 6 companies were engaged in licensed activities.

Customer decision to switch suppliers may be economically motivated, but as public suppliers sell electricity at prices lower than the market ones only customers connected to the transmission grid have switched suppliers. Abolition of end electricity prices would increase supplier switching numbers however would also raise electricity prices for customers. Beside this, without a sufficient number of market producers available competition is ineffective even on the scale of the Baltic States.

2.2.3. Infrastructure

a) Development in tariffs
The electricity sector has contractual and state regulated prices. Prices are not regulated in the generation (electricity and reserve capacity) and independent supply area, except when electricity producers and independent suppliers have Lithuanian electricity sales market shares exceeding 25%. Prices for electricity transmission, distribution and public supply services are under regulation by price cap setting. Regulated public tariffs cover all customer categories – individuals and small, medium and major businesses. As mentioned above, since 2008 abolition of end electricity prices has been under consideration, except for household and small commercial customers: end electricity prices should stop applying to them since 2013.

b) Investment/Art. 22
In 2008 investments into the transmission network amounted to 37.7 million EUR, and investments into the distribution grids were 86.9 million EUR. Similar values are planned for 2009.

The following inter-system lines are planned: 1000 MW LitPol with Poland up to 2015 (238 million EUR) and 700 – 1000 MW NordBalt (formerly SwedLit) with Sweden (553 million EUR).

In June 2007 a law was passed on construction of a new nuclear power plant. The planned maximum wattage is 3400 MW, the construction is to be completed in 2018.

No changes were observed relating to Article 22 regulating direct use of lines.

c) Capacity distribution
Electricity transmission networks have sufficient throughput capacity, thus in 2008 no overloads in the electricity network were observed nationally or in the Baltic States. However preparations took place for organizing an auction of the Estlink transmission line capacity distribution under the joint project of Nord Pool Spot AS, Baltic and Finnish Transmission System Operators, which was completed at the end of 2008.

d) Conclusions
Projects on inter-system lines with Poland and Sweden which should ensure supply reliability and competitiveness in the electricity market have progressed but irrespective of granted assistance electricity prices for customers may significantly increase.

In 2008 there were no overload problems in the Baltic Region.

2.2.4. Regulation / Unbundling

a) The national regulator's competence

Under the Law on Electricity the NCC must control the efficient unbundling of accounts to prevent cross-subsidizing of generation, transmission, distribution and supply activities.

Since 2002 electricity generation, transmission and supply activities are legally unbundled, i.e., via existing individual companies. Distribution and public supply activity costs are accounted for by doing individual bookkeeping accounts and accounting registers in distribution grid companies. Costs of the market operator, two hydroelectric power plants, and other activities are also individually accounted for in the transmission company.

Further possibilities to reorganize the national company LEO LT, AB established in May 2008, were considered. Legislation passed in July 2009 will allow increasing the state influence in the company, do reorganizations and even liquidate the company.

b) Sanctions imposed by the national regulator

The NCC provides for detailed reporting requirements and liability for the failure to meet them. More details on the applicable sanctions are available in the relevant chapter.

In 2008 a legal act was passed on application of sanctions which prescribes fining both officials and companies.

c) Transmission system operator's (hereinafter – TSO's) market role (TSO interaction with market locations (Energy exchanges), transparency, producer dispacherization all the time or only during overload management, ...)

TSOs play a key role in the development of the electricity market. Knowledge of daily trade processes and electricity system data management place them in a special position. The above Nord Pool Spot AS and Baltic and Finnish TSO project demonstrates their close cooperation. Under the first stage of this project, at the end of 2008 a market price has been set at the connection line Estlink, and during the second stage electricity market price for the Baltic States shall be set, and the daily trade market Elbas.

Transparency requirements established by law have been implemented. However, if needed arising issues may be clarified.

The dispatcher central operates round the clock performing the national balancing function, with respect to electricity exchange, electricity flow limitations matched with other energy systems.

As mentioned above, there are no overloads in Lithuania or on the Baltic States level.

d) Improving TSO and distribution grid operator (hereinafter - DGO) unbundling (TSO independence degree, improvements related to TSO market unbundling: network investments, supply security, progress since the legal DGO unbundling became obligatory)

TSO and DGO legal unbundling took place in 2002. The transmission company Lietuvos Energija AB was a state-controlled company up to the middle of 2008. It has retained a hydroelectric power plant, a hydro-accumulation power plant and the market operator's functions.

Further possibilities to reorganize the national company LEO LT, AB established in May 2008 and incorporating the TSO and two DGO companies, were considered. Legislation passed in

July 2009 will allow increasing the state influence in the company, do reorganizations and even liquidate the company.

e) Conclusions
The existing insufficient legal unbundling did not cause any problems regarding network access and use, or inadequate investment level.

Legal unbundling ensures effective unbundling, however potential economic consequences of further Transmission Company and LEO LT, AB splitting should also be taken into account. Unbundling of distribution and supply services is also a discussion subject.

2.2.5. Security of supply

a) Investment development (generation, transmission, distribution...)
While preparations are made to decommission the last, namely the Unit II of Ignalina Nuclear Power Plant at the end of 2009, there are plans to build a new 3200 MW nuclear power plant up to 2018. For this purpose a shareholding company of the national investor, LEO LT was established in the middle of 2008 incorporating transmission and distribution companies, and foreign partners are negotiated with.

To avoid an isolated market in the Baltic States and increase supply security, connection lines with Poland and Sweden are planned.

The distribution sector has a higher investment need in the low voltage due to construction and real estate sector development in recent years.

b) Supply / Demand balance dynamics
Since 2000 electricity demand in Lithuania has kept steadily growing by approximately 2.1 – 5.6% per year. Supply (generation) has respectively increased, as well.

Like in the preceding years in 2008 Lithuanian power plants had surplus power at their disposal of approximately 1700 MW. The power balance may turn negative in 2010, after Unit II of Ignalina Nuclear Power Plant is decommissioned at the end of 2009, unless the required long-term reserve is reduced.

c) Investment delays (key reasons)
Intersystem project implementation gets delayed because of coordination of individual country positions and potential shortage of funds and the construction permit process.

d) Diversification of sources and supply
To retain energy source diversity the use of renewable energy sources is encouraged by increasing purchasing prices, and also support to new energy sources, such as solar energy is under consideration.

The supply diversification would be ensured upon implementing the above mentioned LitPol and NordBalt projects.

e) Conclusions
Upon decommissioning Unit II of Ignalina Nuclear Power Plant at the end of 2009 Lithuanian power system will become more dependent on natural gas imports. Electricity supply security level will also be reduced by increasing gas prices. Having incorporated the national investor company a new nuclear power plant is to be built, however this will be done in 2018 under the optimistic scenario.

The electricity transmission network is well developed, however Lithuania and the Baltic States altogether make an energy island as there are no connection lines with the West European and Scandinavian power systems and this also reduces supply reliability.

The above reasons may cause supply security problems not only on the local but also on the regional scale.

2.2.6. General conclusions

a) Related to present legal framework

No problems with the legal framework have been noticed so far.

b) Related to 3rd package

There may be potential incompliance of the national investor company LEO LT including the transmission (Lietuvos Energija AB) and two distribution companies (VST AB and Rytų Skirstomieji Tinklai AB) with provisions of the 3rd legislative package on unbundling the transmission system. There plans to restructure the above company.

3. Regulation and Performance

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

3.1.1. Management and Allocation of Interconnection Capacity and Mechanisms to Deal with Congestion

The Lithuanian electricity system as well as the Baltic energy system does not experience any congestion because of sufficient transmission capacity of electricity networks. Intersystem electricity flows, interconnection capacities, generation, consumption, export/import, the influence of transmission network outages on transmission capacities between neighbouring countries may be followed on-line on the website of the Lithuanian transmission system operator www.le.lt.

The maximum possible capacity flows with neighbouring countries under a normal network scheme are presented in Table 4.

Table 4. Maximum Possible Capacity Flows with Neighbouring Countries

Connection	Capacity, MW
Lithuania - Latvia	1,500
Latvia - Lithuania	1,350
Lithuania - Belarus	2,200
Belarus - Lithuania	1,400
Lithuania - Kaliningrad	680

For the purpose of calculating the transmission capacity of the transmission network, the transmission system operator is currently applying the Methodology for the Calculation of Interconnection Capacities. This Methodology allows assessing maximum flows, dynamic stability; emergency reserves and other network status parameters (see Table 5).

Table 5. Planning and Network Transmission Capacity Management Stages

Stage	Term	Parameters to be Assessed
Pre-planned	Over a week in advance	Import/export Scheduled repairs
Planning	A week in advance	Work schedule of the hydro pumped storage power plant Work schedule of the hydro power plant Network status
	A day in advance	Revision of the work schedule of the hydro pumped storage power plant Revision of the work schedule of the hydro power plant Revision of the network status
Transmission capacity management	Operation day	Operation of power plants Activation of reserves Network status

The Baltic Regional Initiative Group analyses different alternatives of the inter-TSO compensation mechanism between the Baltic transmission system operators and follows the information of the European Commission on these issues to be able to apply general principles.

With sufficient throughput of electricity networks, congestion management has not been recently integrated into wholesale markets. Though having shut down the Ignalina Nuclear Power Plant in the end of 2009 and from 2010 having applied market relations in Lithuanian electricity market, the situation might change. Preparations and calculations are performed for the purpose.

Transmission system operators did not meet any major problems in calculating and establishing interconnection capacity.

3.1.2. The Regulation of the Tasks of Transmission and Distribution Companies

In 2008, licensed activities in Lithuania were carried out by one electricity transmission system, two regional and five local electricity distribution network operators indicated in Table 6.

Table 6. Data about Network Operators

No.	Company	Type of Licence	Local or National Network	Main Shareholders*
1.	Lietuvos Energija AB	Electricity transmission	National	LEO LT AB (State-owned – 61.7 % Private company – 38.3 %)
2.	Rytų Skirstomieji Tinklai AB	Electricity distribution and public supply	Regional	LEO LT AB (State-owned – 61.7 % Private company – 38.3 %)
3.	VST AB	Electricity distribution and public supply	Regional	LEO LT AB (State-owned – 61.7 % Private company – 38.3 %)
4.	Visagino Energija PE	Electricity distribution and public supply	Local	State-owned
5.	Achema AB	Electricity distribution and public supply	Local	Private company
6.	Akmenės Cementas AB	Electricity distribution and public supply	Local	Private company
7.	Prekybos Namai Giro UAB	Electricity distribution and public supply	Local	Private company
8.	Lifosa AB	Electricity distribution and public supply	Local	Private company

Note: * – Data reflects the status of 9 February 2009

It should be noted that in May 2008 a national investor company LEO LT, AB that consists of a transmission and two regional distribution network companies, was established. 61.7% of the company shares are held by the Republic of Lithuania and the balance 38.3% -held by a private investor NDX Energija UAB. It is planned to change the structure of the company and the share of the owners.

Compared to 2007, last year the number of licensed independent suppliers has increased by 2 ones. The number of licensed independent suppliers is specified in Table 7.

Table 7. Number of Electricity Suppliers by Year

Supply licenses issued in 2008		Engaged in licensed activities in 2008		Engaged in licensed activities in 2007		Engaged in licensed activities in 2006		Engaged in licensed activities in 2005		Engaged in licensed activities in 2004	
PES	**IES**	**PES**	**IES**	**PES**	**IES**	**PES**	**IES**	**PES**	**IES**	**PES**	**IES**
6	20	6	8	6	6	7	5	7	5	7	4

Line lengths by electricity network companies in 2008 are provided in Table 8.

Table 8. Line Lengths by Electricity Network Companies in 2008

No.	Company	Overhead line length, km	Cable line length, km
1.	Transmission system operator (Lietuvos Energija AB)	6,643	33
2.	Distribution network operators:	99,551	20,133
2.1.	Rytų Skirstomieji Tinklai AB	52,047	10,009
2.2.	VST AB	47,504	10,124

Network Tariffs

Since 2002, Lithuania has applied the principle of incentive regulation or price caps in setting prices for electricity transmission, distribution (50/50 price and revenue cap combination) services according to voltage levels. Pursuant to the Methodology for Setting Prices for Electricity Transmission and Distribution Services and their Price Caps, price caps are set for a three-year period, with annual adjustment of the initial revenue level for respective activities by the following four correction coefficients:

1. indexation (consumer price index and efficiency);
2. unpredicted changes (external factors);
3. impact of electricity volume;
4. correction (assessing revenue surplus/deficit depending on the applied price differentiation structure in order to ensure the necessary revenue of the company, provided the company gives valid reasons behind the failure to collect the target amount).

When setting price caps and the initial revenue level, an assessment is made of the justification of costs, activity results during the previous regulatory period, market development forecasts, changes in the legal environment, etc. When setting state regulated prices, necessary expenses must be planned for the extraction of energy resources, energy production, purchasing, transmission, distribution and supply, and provisions must be made for the development of the energy sector and energy efficiency, the use of indigenous and renewable energy resources and the implementation of public service obligations, and the profit rate must be set.

Taking into account the national micro- and macro-economic indicators and the methods applied in the international practice, efficiency coefficients are set for the abovementioned period of price caps. Lithuania has only 2 main distribution network companies; therefore half of

the consumer price index is applied to identify operational efficiency which is calculated by setting a price cap.

Participation in making benchmarking analysis with other countries is also carried out. The comparative analysis of DNOs in the Central and Eastern Europe was implemented on the initiative of Energy Regulators Regional Association (ERRA). The Analysis showed that private distribution companies operated the most efficiently not only in Lithuania. The results of the company were twice as good. The NCC participates in the comparative analysis of the European TSOs arranged by the European Union regulators. Concluded results were presented in spring 2009, which were the basis to apply 2 percent efficiency rate for the transmission system companies.

At the end of the financial year, corporate profit is corrected by 50% and 100%, where the average profit rate for the last two years increased by 2 and 6 percentage points respectively is exceeded, taking into consideration the coefficient of electricity supply reliability and service quality, as well as the use of investments to ensure the quality requirements.

Investment incentive is manifested by calculating depreciation and normative profits according to asset market value in setting a price cap.

Upon the approval of the price caps by the NCC, the specific prices and tariffs for transmission and distribution services shall be set and changed by service providers. The weighted average of the prices and tariffs set by service providers shall not exceed the respective price caps any year of the regulatory period. The NCC shall publish the prices and tariffs set by the service provider within 30 calendar days from the receipt of the application of the service provider, subject to prior verification whether the prices and tariffs are non-discriminatory for customers. At the end of every year of the regulatory period, the NCC shall control whether the weighted average of the prices and tariffs set by the service provider has not exceeded the price caps. Should the NCC ascertain that the weighted average of the prices and tariffs set by the service provider exceeded the respective price cap during the previous year of the regulatory period, it shall have the right to obligate the service provider to set accordingly smaller prices and tariffs. When companies set specific prices and differentiate them by tariffs, the NCC inspects if average weighted values exceed a cap and customers are discriminated.

It should be mentioned that setting up specific tariffs for transmission services, the component G is not applied i.e. all transmission system service costs are covered by consumers. As electricity networks have no overloads there are no revenues generated and they do not reflect in the price.

Other state institutions may provide comments and suggestions before approving various documents i.e. developing pricing, it has the advice function.
Pursuant to the forms set by methodologies for calculating electricity price caps, a transmission system operator and a distribution network operator are requested to provide the following information on a *quarterly* and *annual* basis:

1. calculation of prices for electricity transmission and distribution services and their price caps;
2. efficiency indicators;
3. electricity balances;
4. electricity tariffs applied by companies, consumption and revenue;
5. electricity sales of companies by consumer groups;
6. other data required for adequate supervision of the electricity market.

Pursuant to the Rules for Licensing Activities in the Electricity Sector, the following documents must be produced on a quarterly basis:

1. financial statements of the licensed economic-financial activities;
2. report of the market operator (free form);
3. report on supply reliability indicators.

On an *annual* basis, the following documents must be submitted in addition:

1. annual audit report on the costs of the licensed activities;
2. annual analysis of the use of the electricity network system;
3. report on the development prospects for the electricity network system;
4. annual report on complaint investigation.

According to the Monitoring Report on Supply Security in the Lithuanian Electricity Market, technical and economic data must be collected and summarised *annually*, before 31 July, by drawing conclusions on electricity supply reliability as well as internal and regional electricity market development prospects. Such information covers forecasts for the three forthcoming years and reflects the following data from various aspects and in different periods:

- electricity generation, transmission and distribution capacities, intersystem connections with the neighbouring energy systems;
- electricity capacity balances;
- electricity generation, consumption, exports and imports;
- market concentration;
- volumes of electricity purchases and sales;
- degree of market opening;
- market participants;
- dynamics of market prices;
- degree of eligible customer activity;
- forecasted volumes of electricity purchases, sales and exports;
- forecasted capacity balances;
- needs for new power capacities;
- planned development and renovation of electricity transmission and distribution networks, possible weak spots.

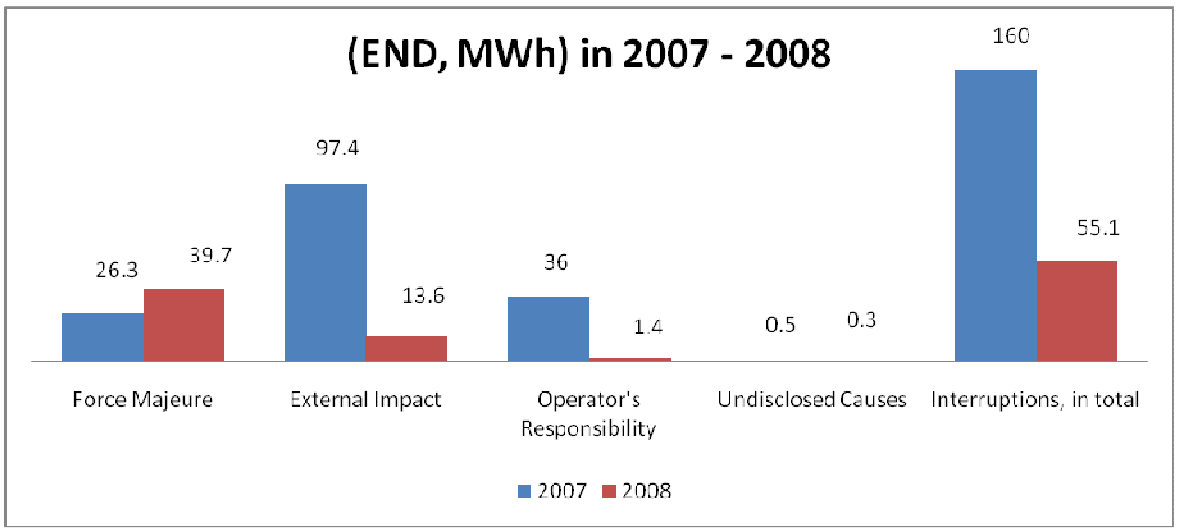
Under the Law on Electricity the NCC is obliged to control how licensed electricity companies satisfy Quality Requirements for Reliability of Electricity Supply and Electricity Transmission, Distribution and Supply Services (hereinafter – the Quality Requirements) approved by Order No. 4 – 265 of July 15, 2005, by the Minister of Economy, and perform monitoring of reliability of electricity supply and service quality. The NCC annually inspects major electricity companies, analyzes and evaluates how they register data on reliability of electricity supply and service quality, calculate indicators and outline reports submitted to the NCC. If violations are found out during inspections, companies are obliged to eliminate them within the NCC-specified time. Moreover, it should be highlighted that in 2008 the NCC carried out the evaluation of data to establish the level of reliability of electricity supply collected in 2005-2007, and presented proposals concerning the setting of the minimum levels of reliability of supply for DSOs and TSOs. It is noted that under the Quality Requirements, already this year the change over the indicators will be compared with the minimum level fixed by the NCC and shall be taken into account when calculating price caps for transmission and distribution services thus motivating DSOs and TSOs to assure relevant level of electricity transmission reliability and service quality to all consumers.

Reliability of electricity supply by a transmission network (the system operator Lietuvos Energija AB) is estimated by two indicators – END (*the electricity quantity not delivered by the transmission network which shows the electricity quantity not supplied by transmission network*

due to interruptions within a reporting period) and AIT (*the average interruption time which shows the average interruption duration within a reporting period*).

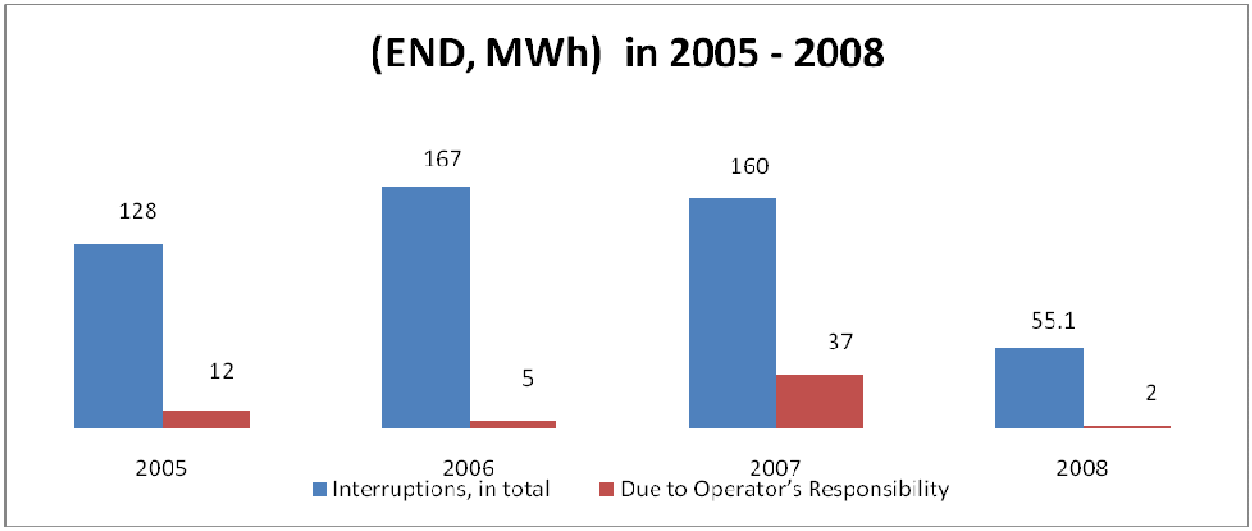
In 2008, the electricity quantity not delivered by the transmission network (END) reached 55.1 MWh, out of them more than 53 MWh were not delivered due to Force Majeure or an external impact, i.e., causes not attributed to the company's responsibility. In 2007, the electricity quantity not delivered by the transmission network was three times larger than in 2008 (160 MWh), therefore this year also the greatest amount of electricity (123.7 MWh) was not delivered due to causes not attributed to the operator's responsibility.

Figure 2. Average Energy not Delivered (END, MWh) by the Transmission Network of Lietuvos Energija AB by Interruption Causes in 2007 – 2008



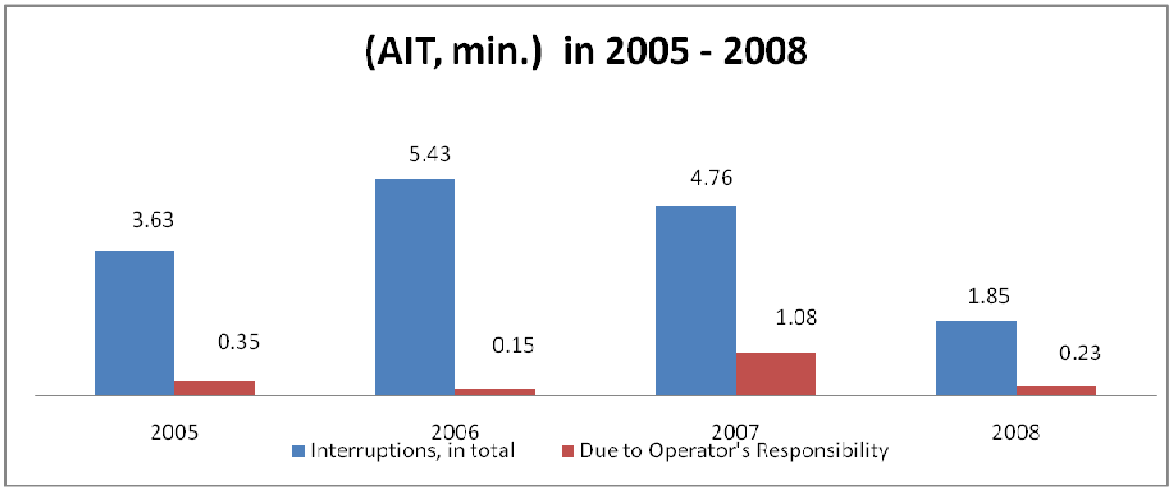
The attention should be drawn that a similar ratio is significant within the entire period of 2005-2008 (Figure 3). In comparison with the annual quantity of not delivered electricity, electricity quantity not delivered due to causes attributed to the operator's responsibility accounted for a relatively small share i.e. about 9.6 percent per year on average.

Figure 3. Energy not Delivered by the Transmission Network of Lietuvos Energija AB (END, MWh) in 2005 – 2008



In 2005–2007 (Figure 4), the average interruption time (AIT) reached 3.63; 5.43 and 4.76 minutes respectively, the majority of which happened because of Force Majeure and external impacts. In 2008 the average interruption time was 1.85 minutes, the majority of which happened because of causes attributed to the operator's responsibility.

Figure 4. Average Interruption Time (AIT) of Lietuvos Energija AB in 2005 – 2008



Data in Figure 3 and 4 shows that last year both the electricity quantity not delivered (END) and average interruption time (AIT) due to causes attributed to the operator's responsibility changed insignificantly and in comparison with the annual quantity (time) formed a relatively small share (END amounted to 9.6 percent on an average, and AIT – about 12 percent).

Following the provisions of the Quality Requirements, the minimum level of electricity transmission reliability for TSO is fixed taking into account the average END and AIT indicators in 2005-2007 (only for long-term and not planned interruptions). Due to the said indicators, the fixed minimum reliability level for Lietuvos Energija AB amounts to END_{MPL} =19 MWh, and

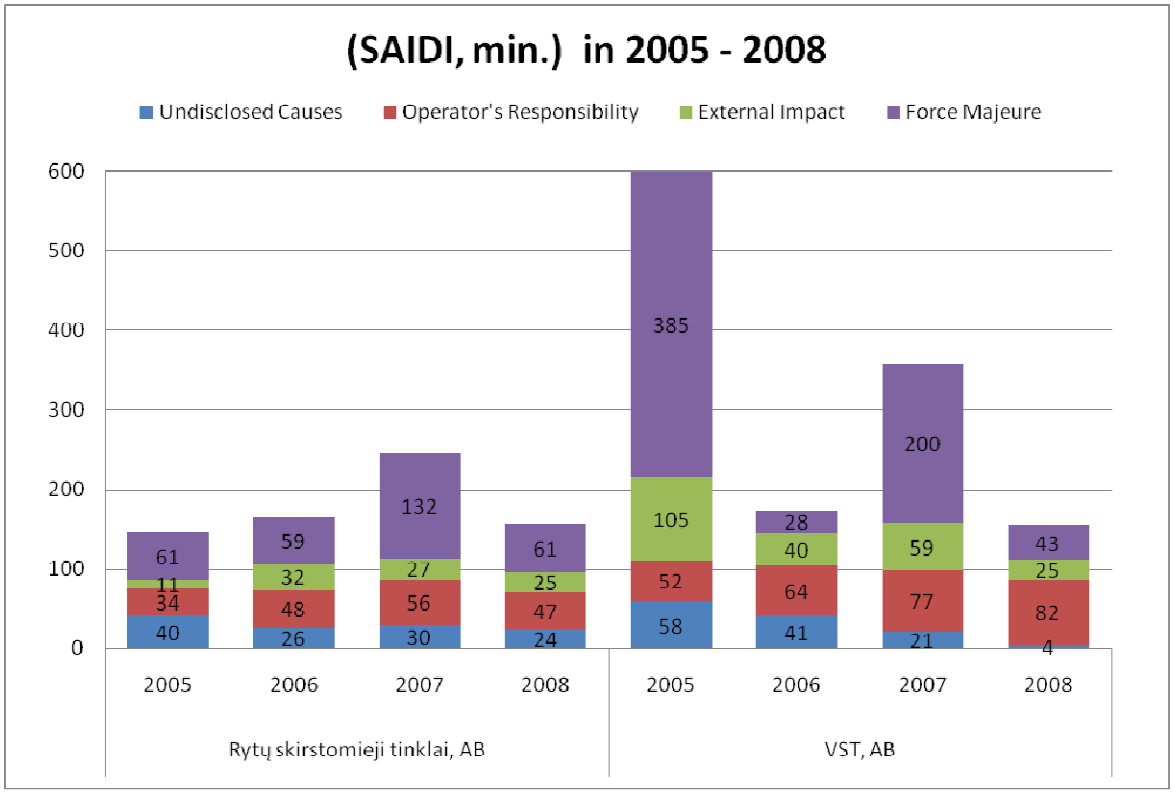
AIT_{MPL} = 0.56 min. It should be noted that according to the preliminary reliability indicators of END and AIT given by the TSO, Lietuvos Energija AB did not exceed the fixed minimum level of the reliability of supply.

In terms of reliability of electricity supply by the distribution network, the key indices are as follows: system average interruption duration index (SAIDI) and frequency index (SAIFI, MAIFI) per customer.

The reliability of electricity transmission and service quality analysis is done by comparing reliability of supply indicators of Rytų Skirstomieji Tinklai AB and VST AB.

In 2008, the system average interruption duration index (SAIDI) of Rytų Skirstomieji Tinklai AB (Figure 5) was 157 minutes (in 2007-246), and SAIDI of VST AB per customer - 155 minutes (in 2007-358). SAIDI related to the operator's responsibility was 47 minutes (Rytų Skirstomieji Tinklai AB) and 82 minutes (VST AB). The system average interruption duration indexes (or failures), caused by reasons attributed to the third party impact was 25 minutes.

Figure 5. System Average Duration of Unplanned Long-term Interruptions per User (SAIDI,min) by Interruption Causes in 2005-2008

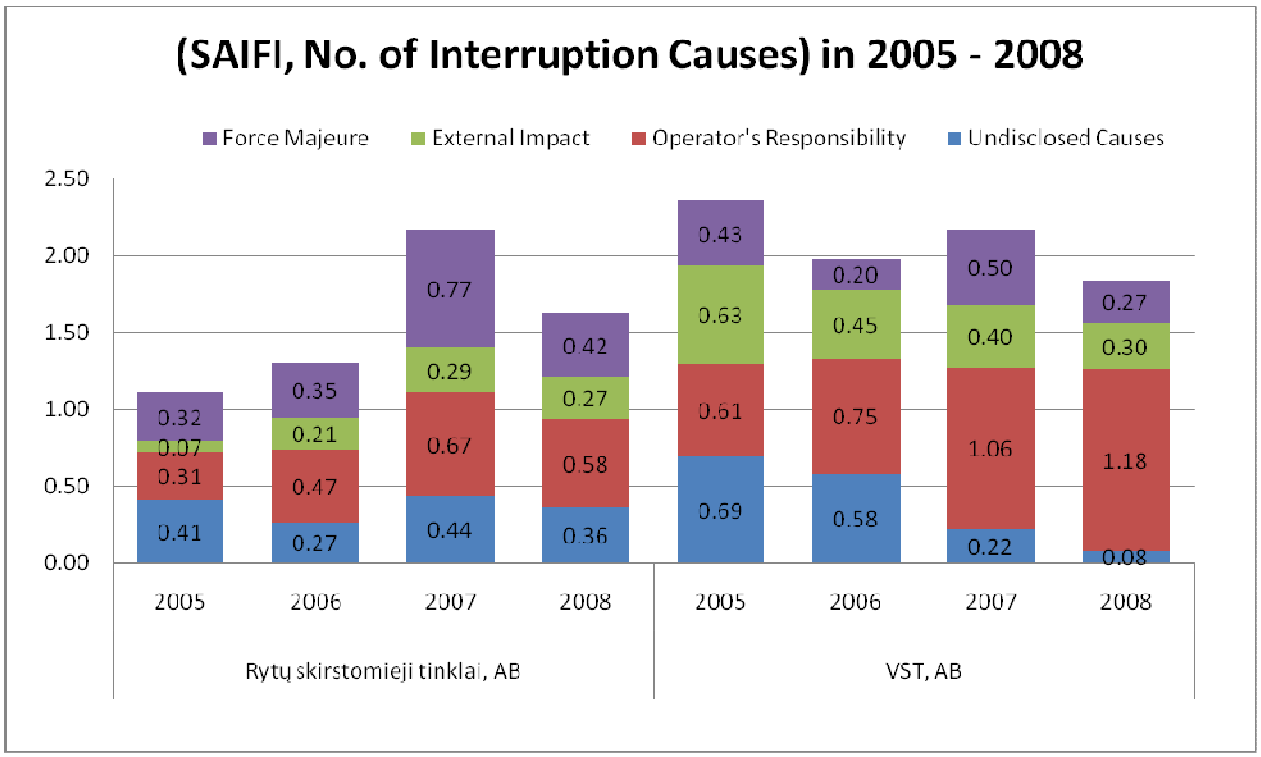


For the purpose of measuring the average frequency of unscheduled interruptions per consumer, two indices are calculated: for sustained interruptions lasting 3 minutes and longer (SAIFI), and for momentary interruptions lasting longer than network automation switch-on, but shorter than 3 minutes (MAIFI).

The SAIFI and MAIFI indicators specify the system average frequency of the system interruptions i.e., the average number of electricity supply interruptions per reporting period per

system user. Thus in 2008 the system average interruption frequency index (SAIFI) of Rytų Skirstomieji Tinklai AB (Figure 6) was 1.63, and that of VST AB totalled – 1.84, of which 0.94 (Rytų Skirstomieji Tinklai AB) and 1.26 (VST AB) were attributed to the operator's responsibility. The system average interruption frequency index attributed to the external impact of Rytų Skirstomieji Tinklai AB was 0.27, and that of VST AB totalled 0.3.

Figure 6. System Average Interruption Frequency Index per User (SAIFI) by Interruption Causes in 2005 – 2008



In 2008 the momentary average interruption frequency index (MAIFI) in comparison with 2007 changed insignificantly and totalled to 0.05 (in 2007-0.07) for Rytų Skirstomieji Tinklai AB and 0.3 for VST AB (in 2007- 0.4) respectively.

Following the provisions of the Quality Requirements, the minimum level of electricity transmission reliability for TSO is fixed taking into account the average SAIDI and SAIFI indicators in 2005-2007 (only for long-term and not planned interruptions). According to the preliminary reliability indicators of SAIDI and SAIFI given by the DSOs, it has been defined that Rytu Skirstomieji Tinklai AB and VST AB did not exceed the fixed mínimum level of the reliability of supply.

The quality of services is another equally important aspect of the performance assessment of companies for consumers, including such issues as the connection of consumerr equipment to the company's grid, consumer notification of unscheduled interruptions, prompt and efficient investigation of consumer complaints, etc.

According to the data provided by the network operators the average time needed to connect the equipment of a new consumer from the date of payment of the connection fee (when only a

branch line with a metering cabinet or panel has to be installed to connect the consumer's equipment, and no project is required for these works) in Rytų Skirstomieji Tinklai AB was similar to that in 2007– about 10 working days, while in Vakaru Skirstomieji Tinklai AB it amounted to 8 working days on the average (in 2007 – around 11 working days).

Following the payment of debts, the average time for reconnecting the household consumer after disconnection due to outstanding debts in 2008 was 1.4 working days (Rytų Skirstomieji Tinklai AB) (*the requirement was set that residential consumers should be reconnected within 5 working days, other consumers – within 2 working days*), and 1 working day (VST AB) on the average. Equipment of other customers were reconnected within 1 (Rytų Skirstomieji Tinklai AB) and 0.7 working days (VST AB) respectively. In 2007 customer equipment was connected within 1.6 and 1.26 working days, while at VST AB – within 0.81 and 0.41 working days.

It was noted that in 2008 the average time of complaint investigation at both companies increased: the average duration of complaint investigation at Rytų Skirstomieji Tinklai AB was 19.7 calendar days for household customers (16.9 days in 2007) and 16.7 calendar days – for other customers (12.5 days in 2007). In 2008 the average duration of complaint investigation at VST AB was 17.7 calendar days (18.1 days in 2007) and 24.7 calendar days for other customers (13.8 days in 2007) respectively. There is a requirement for DSOs that 95 percent of complaints should be investigated within 30 days. In 2008 Rytų Skirstomieji Tinklai AB investigated 96.7 percent of complaints, and VST AB – 95 percent.

With respect to the importance of the service quality for customers, the NCC plans to focus more attention on analysis and monitoring of this data and indicators, track their changes and perform detailed comparative analysis. The results of the said analysis to be published on the website of the NCC as well.

When changes are made to electricity prices and tariffs of the regulated network operators and public suppliers as well as the procedure for their application, a new procedure is published in the supplement *Informaciniai pranešimai* to the official gazette *Valstybės žinios*. The applicable electricity prices, tariffs and procedure for their application are placed on the websites of respective companies. Customers may also find information about planned changes to electricity prices, tariffs and procedure for their application, as well as make customer inquiries to companies. Furthermore, companies operating in the electricity sector are obliged by the Law on Electricity to notify household customers of the increase of prices and tariffs in writing or by other means at least one month prior to such increase.

The fees for connection to the existing electricity grids are set by the NCC. The rates of the fees are published when the NCC takes a decision on their approval. The rates of the applicable fees are also made available on the website of the respective company or by phoning the contact numbers given on the website of the company.

Companies make public to market participants the following information:

- electricity tariffs for customers, their changes, new plans, etc.;
- commercial losses and technological costs;
- terms and procedures for the connection of new customers applied by the company based on existing legal acts (required documents, applications, etc.);
- terms and conditions of payment for electricity, rates of charges, etc.;
- various campaigns and discounts.

Customers may obtain relevant information not only in official and media publications and on websites, but also in all customer service departments, over information and general phone lines, as well as in information leaflets.

Prices for the electricity transportation service vary depending on the voltage of the grids supplying electricity to customers. Major industrial customers consuming about 24 GWh electricity per year with the maximum allowed capacity of 4000 kW receive electricity from medium and high voltage electricity distribution grids, whereas households with the annual consumption of about 3500 kWh and business customers with the annual consumption reaching 50 MWh and with the maximum allowed capacity of about 50 kW are usually supplied with electricity from low voltage electricity distribution grids. Respective average prices for electricity transportation are presented in Table 9.

Table 9. Average Prices for Electricity Transportation Services in 2008

Title	Ig	Ib	Dc
Average prices for electricity transportation services in the country, EUR/MWh	28.79	60.76	60.76

Municipal charges, costs of public service obligations or similar costs are not included in prices for electricity transportation services.

Table 10 shows electricity tariffs by regions served by two main distribution networks.

Table 10. Prices for Electricity Distribution Services Provided by Companies in Separate Regions

Indicators/Company	VST AB	Rytų Skirstomieji Tinklai AB
Price for electricity distribution via medium voltage electricity grids, EUR/MWh	21.58	19.55
Price for electricity distribution via low voltage electricity grids, EUR/MWh	21.98	20.71

Balancing

After the start of electricity auction from the second quarter of 2002, and thus hourly trade between producers, procedures for balancing electricity trade and fixing of purchase–sale price have not changed. Therefore the Baltic Regional Initiative Balancing Harmonization Working Group carried out discussions on possibilities to equalize balancing mechanism between the Baltic countries. In the beginning of 2009 this Group finished the work and consistent with the completed study, the work on balancing issues to be continued with non EU countries.

The balancing energy price is calculated in accordance with the average weighted price of each uninterrupted trading hour corrected by coefficients 1.2 and 0.8 respectively in purchasing or selling electricity at the auction. The average annual auction price amounted to 26.4 EUR/MWh (the lowest price was 19 EUR/MWh, the highest price-49.7 EUR/MWh).

The highest concentration in the balancing market was reached in August when Ignalina Nuclear Power Plant was under repairs. The lowest concentration – in May, when electricity market was full of cheap imported electricity.

3.1.3. Effective unbundling

The NCC ensures effective competition, non-discrimination of customers and suppliers and provision of services of the established quality to all customers on the electricity market. The

NCC controls the effective unbundling of accounts with a view to avoiding cross-subsidies between generation, transmission, distribution and supply activities.

The Law on Electricity provides that a distribution network company which, in addition to distribution activities, is also engaged in the activities of the public supplier must unbundle these activities. Distribution and supply activities shall be considered as unbundled also in the case when the activities of the public supplier are carried out by the sales (electricity supply) division of a distribution network company, provided that the unbundling of economic transactions is ensured. Electricity companies shall record, group and aggregate their transactions related to transmission, distribution, supply or other non-electricity activities in separate accounts and ledgers.

Public suppliers supplying electricity not only to customers that are not eligible to choose a supplier but also to eligible customers shall register, group and aggregate information relating to customers not eligible to choose a supplier and eligible customers in separate accounts and ledgers.

The transmission system operator, distribution network operator and public suppliers fulfilling public service obligations, the revenue and costs related to these obligations shall accumulate, specify and record them into separate accounts and ledgers

The Rules for Licensing Activities in the Electricity Sector establish that a separate licence is issued to engage in each type of licensed activities in the electricity sector. A company must keep separate accounts for every licensed activity. The costs of the licensed activities of electricity companies must be audited and the auditor's report must be submitted to the NCC within four months after the end of the previous year.

The regulator checks the breakdown of costs by separate activities when setting price caps for their services. On-site visits are also undertaken to companies to check how these companies fulfil the requirements set forth in their licences.

There is one transmission system operator Lietuvos Energija AB and two main distribution network operators Rytų Skirstomieji Tinklai AB and VST AB in Lithuania. Up to May of 2008 the principal shareholder in Lietuvos Energija AB was the State of Lithuania holding 96.5 % of shares in the company. The main manager of the state-owned shares was the Ministry of Economy. The remaining 3.5 % of shares in the company were owned by small shareholders. The principal shareholder in Rytų Skirstomieji Tinklai AB was the State holding 71.35% of shares, E.ON Energie AG held 20.28% of shares, and small shareholders held 8.37% of shares. The main manager of state-owned shares was the Ministry of Economy. The public company VST AB was privatised on 23 December 2003. The major shareholder in this company was a Lithuanian capital company, NDX Energija UAB. It owned 97.1% of shares in VST, and small shareholders owned 2.9% of shares. In May 2008, an established national investor company LEO LT merged all three companies wherein 61.7% of shares in the company are held by the State and the balance 38.3% - by a private investor NDX Energija UAB. Therefore after discussions on the transparency of the national investor company, the company might be reorganized or liquidated

After the reorganisation in 2002 of the vertically integrated company Lietuvos Energija SPAB by founding four new legal entities, i.e. two distribution network companies and two power plants (Lithuanian Power Plant and Mažeikiai Power Plant), it has retained two hydro-power plants: Kaunas Hydro-Power Plant and Kruonis Pumped Storage Plant used for ensuring the national balance. Units of Kruonis PSP are also used as synchronic compensators. This is a significant

tool in regulating voltage levels in the 330 kV voltage electricity network. Therefore in the future the said companies to be separated.

The transmission system operator is not engaged in supply activities, but there is a market operator department in the company, which is responsible for the organisation of electricity trade, including auction. It is also planned to separate the said department and after preparations, it could function as electricity exchange, most likely as the division of Nord Pool Spot AS.

The costs of the electricity distribution service and the public supply service are unbundled; therefore it is considered that by the end of 2010 a public supplier could become the last resort supplier and function as a separate company in the future.

The administrative premises of the transmission system operator and distribution network operators are located in the territories geographically separate from those of electricity producers. Rytų Skirstomieji Tinklai AB and VST AB are also public suppliers therefore; branches of the companies performing these functions are situated nearby the branches of the companies engaged in the activities of the distribution network operator.

Since 2002, the transmission system operator (TSO) and distribution network operators (DNO) have been functioning as completely separate legal entities. These companies have different names, trademarks, administrative buildings and websites:

- Lietuvos Energija AB (TSO) – www.le.lt;
- Rytų Skirstomieji Tinklai AB (DNO) – www.rst.lt;
- VST AB (DNO) – www.vst.lt.

Access to information about the activities of these companies, the energy sector, the electricity market, etc. is provided by the following means: website, leaflets, brochures, annual reports, multimedia presentations, documentaries/information films, events (organised or supported), press releases, informative articles, etc.

Companies place their annual reports, financial statements, economic and technical indicators on their websites.

The shares of Lietuvos Energija AB, Rytų Skirstomieji Tinklai AB and VST AB are traded on the National Stock Exchange of Lithuania; quarterly reports of these companies are made public in compliance with the stock exchange requirements.

In accordance with the procedure for profit and loss accounts for separate activities established by Lietuvos Energija AB, economic transactions related to the activities of the transmission system operator are recorded, grouped and aggregated in separate accounts and ledgers. After the end of each financial year, audits of consolidated financial statements as well as revenue and costs broken down by licensed activities are conducted by independent auditors in regulated electricity network companies. Financial statements and auditor's reports are submitted to the NCC. A report according to separate activities is publicly released together with the company's annual report. Companies must publish their audited financial statements approved by independent audit companies. Individual legal entities, Lietuvos Energija AB, the transmission system operator and VST AB or Rytų Skirstomieji Tinklai AB, the distribution system operators, have different auditors.

Pursuant to the methodologies for setting price caps and the licensing rules in the electricity sector, the NCC establishes forms of reports that electricity transmission and distribution operators are obliged to follow in submitting quarterly reports to the NCC on their costs,

indicators of electricity supply quality and reliability, electricity balances, prices and other actual and target indicators. The costs of the electricity distribution service and the public supply service are unbundled in accordance with the cost unbundling Methodology approved by the NCC. Since transmission and distribution activities are legally unbundled, the NCC checks the principles of the unbundling of costs of distribution and public supply services approved by distribution network companies and serving as the basis for calculating respective prices.
Pursuant to Article 34 of the Law on Electricity, generation, transmission, distribution and supply companies are subject to mandatory independent audit. These companies, whose activities are regulated in accordance with the procedure established by this Law, submit their financial statements and auditor's report to the NCC. Upon the regulator's commission audit companies may do audits using the forms established in the NCC-approved Energy Company Rules for Provision of Information.

The NCC sets detailed requirements for preparing accounts and imposes responsibility for any breach of such requirements. The NCC may impose penalties, suspend or revoke licences for violations relating to the licensed activities. When suspending a licence, the NCC must set a time period during which the undertaking concerned must eliminate its violations of the requirements for licensed activities. If violations are not eliminated by the established deadline, the licence may be revoked. Upon committing violations, the Manager of the company is held liable to administrative proceedings in accordance with the procedure laid down in the Code of Administrative Offences. The Code of Administrative Offences provides for liability for any breach of the procedure for the transmission, distribution, storage, supply or use of energy resources or energy, for failure to provide data on economic and financial activities and/or provision of knowingly inaccurate data by suppliers of energy resources or energy, as well as for any violation of or non-compliance with resolutions of the NCC or failure to comply with orders of the NCC, etc. It should be noted that legal entities are not held liable to administrative proceedings. Instead, responsible officials and natural persons are held liable for respective violations. Two main types of penalties are provided for in the Code of Administrative Offences, namely, a warning and a pecuniary penalty the amount of which depends on the nature of the violation.

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

3.2.1. Description of the wholesale market

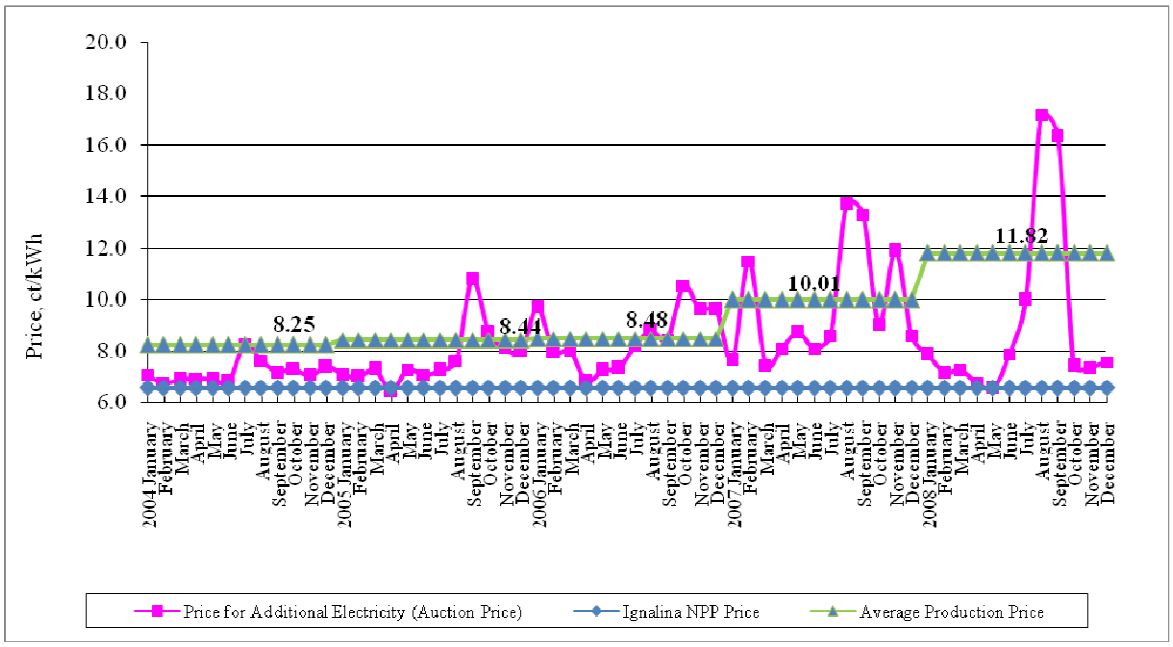
Upon the reorganisation of the electricity sector, generation and supply activities are not regulated, except in the cases of a 25% share in the electricity sales market. The generation structure and wholesale market model given in previous reports did not see any changes.

There were 8 active independent suppliers out of 20. It should be mentioned that in 2008 suppliers holding foreign capital and willing to be engaged in export and import activities became more active.

As it was mentioned the hourly electricity trade is carried out only between producers, while electricity purchased by suppliers is accounted for on monthly basis. Having harmonized trade principles with Nord Pool Spot AS, the hourly trade could be active on behalf of suppliers in due course.

Dynamics of hourly auction electricity price is showed in Figure 7.

Figure 7. Dynamics of Auction (Additional Electricity) Prices in 2004-2008



The diagram shows that the auction price mainly fluctuated and reached the peak during the repair period of Ignalina Nuclear Power Plant. The average arithmetic auction price last year totalled to 34.3 EUR/MWh.

Electricity consumption in 2008 was 9.8 TWh and peak load was 2.0 GW. The total installed capacity of Lithuanian power plants was 4.6 GW and electricity supplied to the grid was 12.6 TWh.

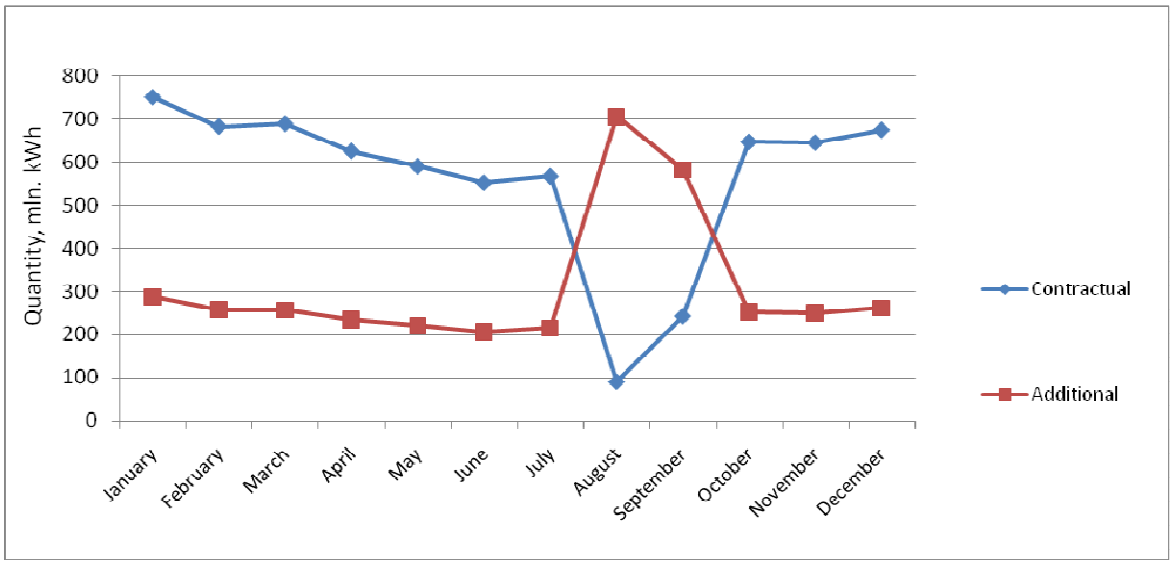
In 2008, Lithuania had 3 power plants with the capacity of at least 5% of the installed capacity: state enterprise Ignalina Nuclear Power Plant, power plant Lietuvos Elektrinė AB and Vilnius Energija UAB. The share of the three largest power plants in 2008 accounted for 68% of the installed capacity. According to the produced volumes there were two power plants with the share of more than 5 % in the production market: state enterprise Ignalina Nuclear Power Plant and power plant Lietuvos Elektrinė AB. The share of the two largest production companies amounted to 78.9 %.

With the view of satisfying the national electricity needs, the basic electricity system load is ensured by Ignalina NPP. With the medium system load, electricity is supplied by Ignalina NPP and thermal power plants. During electricity consumption peaks, the system is supported, apart from Ignalina NPP and thermal power plants, by Kruonis PSP to ensure operational reserve.

From 2008 electricity under public service obligations (PSO) is not excluded i.e. the trade is carried out only in two types of energy – contractual and additional electricity at auction. Electricity at auction is divided into support electricity and non-support. In 2008 the support electricity consisted of electricity purchased under quotas and from renewable resources.

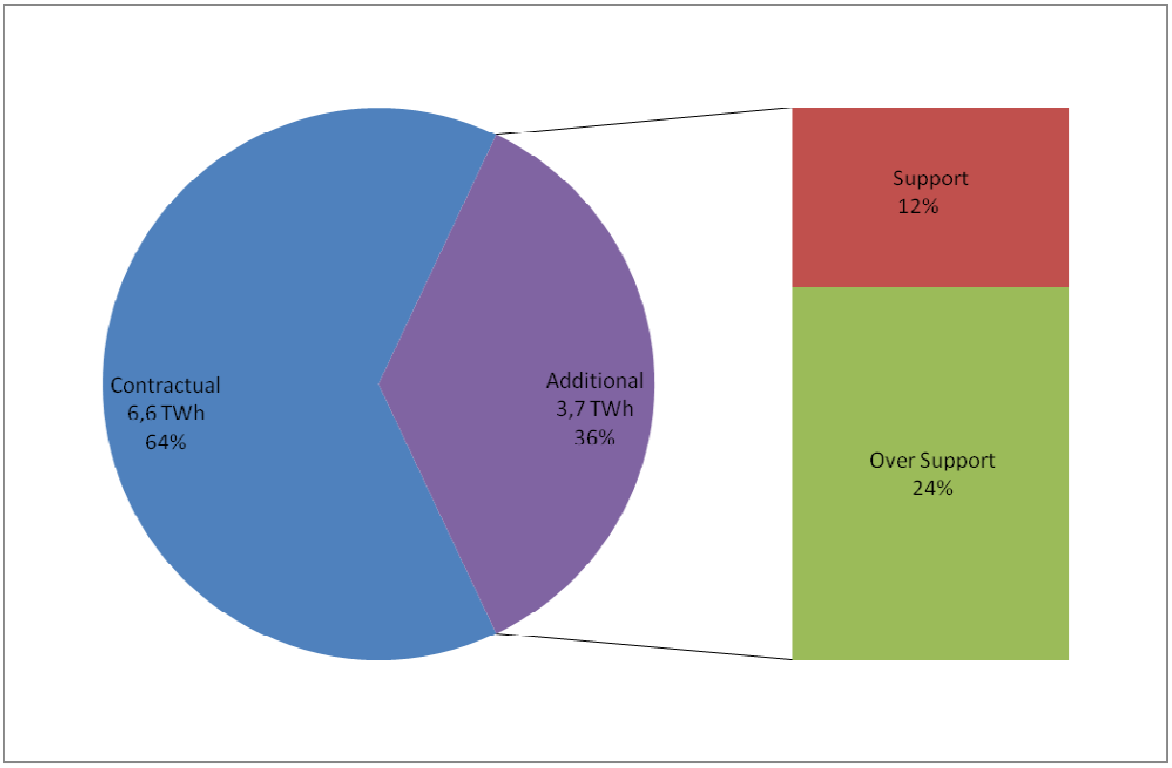
There were five active suppliers (producers) in the auction. There are no long-term contracts between producers and suppliers. Figure 8 shows the dynamics of electricity purchased by market participants by type.

Figure 8. Dynamics of Electricity Purchased by Market Participants by Type in 2008



Electricity sales to domestic electricity customers are shown in Figure 9.

Figure 9. Structure of Electricity Sold in 2008



As mentioned above, under the joint Finnish, Baltic transmission system operator and Nord Pool Spot AS project the Baltic electricity market price setting is planned. This would mean that Scandinavian market territory would expand to the Baltic countries. The first project stage was setting the market price in the implicit auction concerning the Estlink line capacity up to the end

of 2008. The second stage would be the above market price for the regional Baltic electricity market up to 2010.

The participation of suppliers or purchasers in the wholesale market and the volumes of their purchases are indicated in Table 11.

Table 11. Volumes of Contractual Electricity Trade between Suppliers and Producers in 2008, MWh.

Supplier	Producer					TOTAL
	Ignalina NPP	Vilniaus Energija UAB	Mažeikių Elektrinė AB	Other		
Rytų Skirstomieji Tinklai AB	2,487,991	288,725	0	71,208	8,990	2,856,914
VST AB	2,314,097	304,000	0	77,436	110	2,695,643
Prekybos Namai Giro AB	2,488	0	0	0	0	2,488
Mažeikių Elektrinė AB	499,077	0	232,013	0	0	731,090
Achema AB	226,260	0	0	0	0	226,260
Korelita UAB	24,688	0	0	0	0	24,688
Visagino Energija PE	38,905	0	0	0	0	38,905
Akmenės Cementas UAB	74,521	0	0	0	0	74,521
Lumen Balticum UAB	65	0	0	0	0	65
Total	5,668,092	592,725	232,013	148,644	9,100	6,650,574

The share of the major suppliers in the market shown in Table 12.

Table 12. The Share of Purchased Electricity in the Market by Suppliers in 2008

Suppliers	Quantity, MWh	%
Independent suppliers	1,312	13
VST AB	4,351	42
Rytų Skirstomieji Tinklai AB	4,598	44
Visagino Energija PE	66	1
Total	10,327	100

The Lithuanian transmission network is fairly well integrated with Belarus, Latvia and Kaliningrad Region, which allows electricity exports. There is no current connection with the neighbouring energy system of Poland. Hourly trade related to exports/imports was started in November 2003.

In 2008, foreign electricity sales by Lietuvos Energija AB amounted to 2.6 TWh. Compared with the previous year, electricity export was on the same level. In 2007, imports totalled 1.68 TWh, i.e. 45% more than in 2007. Electricity trade volumes between countries are presented in Table 13.

Table 13. Electricity Exports/Imports in 2008, million kWh

2008.	Export to						Import from			
	Latvia	Belarus	Skandinavia	Russia	Estonia	**Total:**	Russia	Latvia	Estonia	**Total:**
Total:	**611.6**	**304.1**	**415.2**	**98.7**	**1209.1**	**2638.7**	**1515.8**	**119.9**	**40.3**	**1676.0**

Prices are contractual, and contracts are mainly concluded between transmission system operators.

Baltic Sea Region Initiative Working Groups solved relevant issues in order to implement regional electricity market. Basically preparatory works have been carried out for realistically to be opened markets, because Estonian electricity market to be fully opened in 2013, while in Lithuania operated a huge producer, supplying more than 70 percent of electricity to the national market. Starting 2010 the situation should change because in the end of 2009 Ignalina NPP should be shut down and this would allow increase of competition in the region gradually.

Electricity market prices in the neighbouring Baltic countries were slightly lower than in Lithuania. In Estonia it was most probably influenced by available national energy resource-slates. The price in Lithuania increased because of accessible infrastructure and related energy purchase costs of support electricity due to respectively increased natural gas prices. The largest quantity of electricity consumed in Latvia is imported and that allows negotiating and receiving lower electricity prices.

In May 2008, the transmission company (Lietuvos Energija AB) and two distribution companies (VST AB and Rytų Skirstomieji Tinklai AB) were merged into a national investor company LEO LT, AB. 61.7% of the company shares are held by the Republic of Lithuania and the balance 38.3% - by NDX Energija UAB. The established national electricity company had to implement strategic national energy projects. Therefore after discussions on the transparency of the national company, the company could be reorganized or liquidated

3.2.2. Description of the Retail Market

The total consumption of end users amounted to 9.1 TWh. Electricity consumption by sectors is presented in Table 14.

Table 14. Electricity Consumption by Sectors in 2008

No.	Sector	Consumption, TWh
1.	Industry	3.S0
2.	Services	0.7
3.	Household customers	2.8
4.	Other customers (transport, agriculture, etc.)	3.3
5.	**Total**	**9.8**

In 2008, in the electricity supply sector, 6 companies held licences of public suppliers, 20 companies were licensed as independent suppliers, whereas 8 companies were actually engaged in the activities of the independent supplier. The main public suppliers supplying energy upon request to all customers within their territory are Rytų Skirstomieji Tinklai AB and VST AB. Independent suppliers supplying energy to eligible customers are as follows: Mažeikių Nafta AB, Achema AB, Akmenės Cementas AB, Lumen Balticum UAB, Prekybos Namai Giro,

Korelita UAB, Fortis Energy UAB and Energijos Realizacijos Centras UAB. In 2008, only 6 eligible customers chose independent suppliers. Korelita AB, Achema AB and Akmenės Cementas AB, having the status of eligible customer, were granted licences of the independent supplier and traded on the market as suppliers.

Public suppliers Rytų Skirstomieji Tinklai AB and VST AB have the major supply market share. In 2008, it accounted for 84.7 % of electricity sold to domestic customers.
In 2008, an active independent supplier with the market share amounting up to 5% was Mažeikių Nafta AB. The share of three independent suppliers that purchased the largest amount of electricity accounted for nearly 10%.

Proposals of alternative suppliers are useful to customers due to lower electricity price. This should notably be more appropriate to major customers with more stable electricity consumption schedules, thus these customers benefit from the electricity market advantages since the very opening of the electricity market in 2002.

One of the largest electricity producers in Lithuania, Ignalina Nuclear Power Plant, also holds an independent supplier's licence. Another four producers also had licences of independent suppliers, among which the major one was Mažeikių Nafta AB.

Since the very opening of the electricity market in 2002, there was an annual increase from 13 to 20 in the number of independent suppliers having no connection with the transmission system operator and distribution network operator. However last year, comparing with 2007, the number of issued licences increased to 20, and only 8 companies were active on the electricity market.

As soon as the electricity market was opened, 6 major industrial customers receiving electricity from electricity transmission grids changed their supplier and this number remained the same in 2008.

Eligible customers may choose and change their electricity supplier without any charge. Distribution network operators also perform the public supplier's functions and must supply electricity upon request to all customers who have not chosen an independent electricity supplier at the pre-set and announced public electricity price. The actions and duties of customers and suppliers when customers change their electricity supplier are defined in Article 28 of the Law on Electricity, *Independent Supply of Electricity*. Before concluding or withdrawing from the electricity supply contract with the independent supplier, an eligible customer located in the territory specified in the public supplier's licence must communicate a written notification thereof to the public supplier 30 calendar days in advance. The same applies to the independent supplier; before concluding or terminating the electricity supply contract with an eligible customer located in the territory specified in the public supplier's licence, the independent supplier must communicate a written notification thereof to the public supplier 30 calendar days in advance. When purchasing electricity from an independent supplier, eligible customers whose equipment is connected to the distribution network must pay the distribution network operator for electricity transportation through the transmission and distribution networks, for system services and for public service obligations. Eligible customers whose equipment is connected to the transmission network must pay the transmission system operator for electricity transportation through the transmission network and for public service obligations in the electricity sector when purchasing electricity from an independent supplier.

In 2008 there was no single household customer to switch a supplier.

The data presented in Table 15 do not consider the prices agreed under direct contracts with independent suppliers in the market.

Table 15. Electricity Prices by Components in 2008, EUR/MWh

Item/Customer group	Ig	Ib	Dc
Prices of transportation services (excluding fees) including: price for transmission service	28.78 6.98	60.76 6.98	60.76 6.98
Fees included in the price of transportation services	-	-	-
Prices of electricity and supply service *	34.87	34.87	17.00
Taxes (VAT – 18%)	11.47	17.20	14.02
Total (including all taxes)	75.12	112.83	91.78

Note: * Since 1 January 2008 this component has become the price for transmission service component and amounts to 10.77 EUR/MWH.

Table 15 provides prices calculated under regulated final or public prices for customers. These prices are applicable due to non-existent competition in the electricity market, as it is dominated by a single producer (Ignalina NPP) with the market share of about 70%. The above public prices are set by service suppliers (public suppliers) without exceeding these price caps set by the NCC for one year. The situation should change after the shutdown of Ignalina NPP in 2010 and no public tariffs to be applied for customers gradually.

Companies do not have electricity price calculators therefore one of distribution companies retains contact phone and interactive website.

Paragraph 3 of Article 26 of the Law on Energy stipulates that the NCC shall hold preliminary extra-judicial hearings of complaints concerning acts or omissions of energy undertakings in supply, distribution, transmission, storing of energy, failure to grant them a right to use networks and systems, connection, balancing of energy supply flows, application of prices and tariffs

Complaints not in compliance with the requirements of this procedure shall be considered under the Procedure of NCC Services to Citizens and other Entities.

In 2008 the NCC considered about 170 various types of residential complaints and requests. Quite many of them were ungrounded as customers complained without going deeper into or understanding relevant legal provisions *(the NCC would specify legislation regulating certain legal relations and explain their certain provisions to such customers), or* they complained to the NCC though under the legal requirements they should have first contacted their service provider regarding problems faced *(to respond to such complaints and requests the NCC would specify legal requirements which regulate provider's rights and obligations with respect to customers)*.

Complaints based on specific legal provisions and circumstances on illegal company acts were analyzed by the NCC, which then provided violator companies with argument-based conclusions and respective obligations. Complaints received by the NCC concerning violations of accounting and payments for used electricity, and grounds of the block-house operation and maintenance fees were analyzed in cooperation with the State Energy Inspectorate, the National Consumer Rights Protection Board under the Ministry of Justice or respective municipal administration according to their competence. Official cooperation with other state and municipal institutions or agencies was an opportunity to fully and effectively resolve problems rose in customer complaints and had a positive impact on consumer rights protection.

In 2008 the NCC received 27 various consumer complaints and applications. In the electricity sector consumers contacted NCC regarding application of electricity supply prices and tariffs, calculation of new customer connection fees, disconnecting from and renewing electricity supply.

Discussion on electricity tariffs applicable to farmers processed on. Farmers have privatized warehouses and other buildings from collective farms and thus have inherited huge capacities and the average of only about 4% of which are used in harvest time, and the rest capacities are saved and not used. The problem has emerged where new buildings were built next to them and their owners addressed the distribution companies requesting connection to the electricity network. Upon doing analysis the distribution companies have found out that the network would have capacity to connect new customers, however if the existing customers suddenly switch on their all mechanisms and request the maximum power contractual capacity the network would fail. There was only one question to address, namely whether the network investment should be increased, or businesses encouraged to refuse the surplus capacities thus more effectively using the existing grid and reducing costs. Upon introduction of the binomial tariff customers have become interested to more effectively use capacities booked from the distribution grid.

For several years by now all non-household customers use a binomial tariff to pay for electricity, namely for the existing installed capacity and used KWh. Farmers had discounts applicable for a certain time. Farmers paid only for the used electricity KWh to give up surplus capacities during the transition period. However when distribution network companies announced that since 2008 farmer had to pay as all businesses, a major dissatisfaction rose though agricultural companies operating in the same market have used binomial tariff to pay for electricity for quite a long time. Both Rytų Skirstomieji Tinklai AB and VST AB agreed to give one more year of extra time for farmers to make preparations for more efficient use of electricity distribution networks.

3.2.3. Measures to Avoid Abuses of Dominance

Production

The Law on Electricity provides that prices of electricity and reserve capacity sold by producers and independent suppliers are not regulated, except in the cases where a producer or independent supplier has a share of over 25% in the market. The mechanism for regulating prices of electricity and reserve capacity sold by producers and independent suppliers having a market share of over 25%, as well as the mechanism for regulating the price of balancing electricity are determined by the NCC.

Transparency

Pursuant to the Rules for Trade in Electricity, the market operator must submit information about the amount of electricity consumed and/or supplied by each market participant by the hour during a trading day, as well as about imports, exports and regulating instructions given by the dispatch office of the transmission network operator during a trading day; establish the results of trade in balancing and regulating electricity and grant access for every market participant to relevant information; establish the results of every day of a month and issue respective references to all market participants necessary for invoices for balancing and regulating electricity.
The documents regulating transparent activities in the electricity generation sector were indicated in the previous reports to the European Commission

Bidding

Auction procedures are defined in the Rules for Trade in Electricity at Auction.

Market Supervision
The NCC controls and publishes information relating to the situation on the electricity market in the Monitoring Report on Supply Security in the Lithuanian Electricity Market before 31 July of each year. Dominating producers and independent suppliers or such companies having a market share of over 25% are subject to regulation.

Pursuant to the Rules for Licensing Activities in the Electricity Sector, the market operator must conduct annual analyses of electricity transmission, the operation of the electricity distribution system, electricity supply to customers (electricity market) and provide the Ministry of Economy and the NCC with information about development prospects for the electricity transmission and distribution systems and the electricity market.

Supply

Transparency
Distribution network companies must, on a quarterly basis, submit electricity balances specifying amounts of contractual electricity purchased, amounts of electricity under public service obligations, amounts of additional electricity, amounts of electricity purchased from small hydro power plants, etc. Companies also submit other reports on amounts of electricity sold and tariffs, which are necessary not only for the Ministry of Economy, but also for the Department of Statistics.

The documents regulating transparent activities in the electricity generation sector were indicated in the previous reports to the European Commission.

Rules Governing the Structure of Contracts
Relations between energy companies, as well as relations with customers of energy resources or energy are based on contracts. Energy supply, transmission and distribution contracts are public. Electricity is supplied, transmitted and distributed to regulated customers and natural persons under contracts concluded in accordance with the mandatory standard conditions. When carrying out State management of the energy sector, the Government or the institutions authorised by it shall approve the mandatory standard conditions of contracts for electricity transmission, distribution and supply to regulated customers and natural persons. Standard conditions of electricity purchase-sale contracts with household customers shall be approved by an institution authorised by the Government on the proposal of suppliers, upon agreement with the State Consumer Rights Protection Authority under the Ministry of Justice.

Contracts with household customers are concluded for an indefinite period, unless these contracts provide otherwise. Contracts also set out quality parameters, responsibility for their implementation and other conditions.
Lithuania does not encounter any problems relating to long-term contracts. No restrictions or penalties in that regard have been set.

Provision of Information
Pursuant to the Law on Electricity, the NCC has the right to request from generation, transmission, distribution and supply companies whose activities are regulated under the Law, as well as from the market operator the information necessary for proper supervision of the electricity market. Generation, transmission, distribution and supply companies as well as the market operator must provide the said information in accordance with the procedure established by legal acts.

With the current structure of the electricity sector, where one producer has a 70% share of the electricity supply market, the promotion of competition in the country so far is hardly possible. As already mentioned, with the view of developing the regional Baltic electricity market, meetings were held with the neighbouring countries on development and pricing issues. When the last unit of Ignalina Nuclear Power Plant is going to be decommissioned at the end of 2009 the electricity market may be expected to change.

4. Regulation and Performance of the Natural Gas market

4.1. Regulatory Issues [Article 25(1)]

4.1.1. Management and Allocation of Interconnection Capacity and Mechanisms to Deal with Congestion

The Lithuanian natural gas system is interconnected with the gas systems of Belarus, Latvia and the Russian Federation. Interconnections with the Russian Federation, the Republic of Belarus and the Republic of Latvia are regulated under contracts. Table 16 shows gas import capacities through the interconnections with the neighbouring countries.

Table 16. Capacities at Cross-Border Points

Interconnection	Capacities, thous. m^3/day
Lithuania-Latvia	5,200
Latvia-Lithuania	5,200
Belarus-Lithuania	27,200
Lithuania–the Russian Federation (Kaliningrad region)	6,720

Lietuvos Dujos AB has not concluded a gas transit contract under the Article 3 (1) of the Directive 91/296. The natural gas transit via the territory of Lithuania is affected only to Kaliningrad Region of the Russian Federation, i.e., by crossing the external European Union border. A long-term agreement between the Russian company Gazprom AAB and the Lithuanian company Lietuvos Dujos AB was signed in 1999 and is valid until the year 2015. Under the transit agreement the transit capacities reserved for 2007-2015 amount to 1,050-1,270 million m^3 annually. The pricing principle set in the agreement differs from the internal market pricing principle: the natural gas transmission price in Lithuania is calculated on the basis of the "postage stamp", meanwhile the assessment of transit is based on the principle applied on the international gas market, i.e. the price is calculated for the transportation of one thousand m^3 over a distance of 100 km.

Lithuanian technical capacities of natural gas imports in 2008 amounted to 11.8* billion m^3 per year (*- having peak system load during the year).In 2008 the annual demand for natural gas by Lithuanian customers was 3.2 billion m^3. The available technical capacities of the transmission system operator were not used in full; therefore, no trade in capacities was carried out on the secondary market. The peak use of the system pipes amounted to 61.5 percent. The unused (free) capacity is offered on the market providing system users with the possibility of concluding contracts on interruptible capacities.

The general principles of the organisation of the natural gas sector and natural gas-related activities as well as relations with customers and system users in the country are regulated by the Law on Energy and the Law on Natural Gas. Paragraph 4 of Article 19 of the Law on Energy sets forth the requirement for a transmission system operator to provide information to customers within the territory of its operation on the activities carried out, the prices of services and the services provided to gas consumers. The Law on Natural Gas provides that gas undertakings shall inform customers about efficient gas consumption, the services provided by the gas undertaking, the conditions of the provision of services, the prices of gas and services, the prices and terms for connection to the systems as well as the intended modifications to contractual conditions. The information of gas undertakings regarding the costs of regulated activities, system operation, modernisation and development, investments into system development, the structure of prices and tariffs, as well as conditions of the provision of services is public. Article 13 of the said Law contains a provision prohibiting a transmission system

operator from discrimination between system users and customers falling within different categories in favour of other customers or undertakings related to the transmission system operator.

The provision of information and transparency requirements are laid down in Article 6 of the Regulation (EC) No 1775/2005 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks (further–Regulation) and Part 3 of the Guidelines in the Annex to the Regulation, which provides for rules of publishing the technical information necessary for network users to gain effective access to the system. Pursuant to the provisions of the Regulation, the gas transmission system operator on its website www.dujos.lt must publish the information about the relevant points of the system, indicating:

a) the maximum technical capacities of the system, thousand m^3/day;
b) the maximum (minimum) pressure, kg/cm^2;
c) the contracted and interruptible capacities, thousand m^3/day;
d) the available capacities, thousand m^3/day;

The relevant points are approved by the NCC.

System users and customers are provided with the timely information about:

- provided services;
- natural gas prices ;
- natural gas transmission and distribution service prices (subject to the gas delivery points);
- quality of the natural gas.

The system users are notified of scheduled maintenance works two months in advance and additionally informed 48 hours beforehand – by coordinating (defining) the consumption mode of natural gas. All other consumers shall be informed one month in advance and 48 hours beforehand repeatedly. In case of not planned events (emergencies, extreme situations and other urgent works) consumers shall be informed as soon as possible. Information sources should be press releases, official letters and communication means.

Declaration of free capacities in the transmission system is to be carried out once in the beginning of a month. Capacities additionally ordered by system users to be coordinated every week.

To more effectively use the available transmission system capacities the Natural Gas Price Caps Calculation Methodology provides that users may have a binomial gas transmission price set, consisting of the fixed and the variable components. The fixed component is calculated under the customer-booked (ordered) daily capacity. Gas companies set the fixed component payment coefficient which is no less than 0.7.

4.1.2. The Regulation of the Tasks of Transmission and Distribution Companies

Natural Gas Transmission and Distribution System Operators

Pursuant to the Law of the Republic of Lithuania on Natural Gas, natural gas transmission, distribution, storage, liquefaction and supply are considered to be licensed activities. Licensing rules are approved by the Government of the Republic of Lithuania. Licences are issued, suspended and revoked and licensed activities are controlled by the NCC. In 2008, Lithuania had one main natural gas transmission and distribution system operator and five local distribution system operators. The total length of all natural gas systems is 9,875 km, including 1,846 km of the gas transmission system length, and 8,029.4 km of total distribution grid length.

Natural gas transmission and distribution system operators are listed in Table 17.

Table 17. Natural Gas Transmission and Distribution System Operators

No.	Company	Type of licence	Local or national network	Main shareholders
1.	Lietuvos dujos AB	Natural gas transmission and natural gas distribution	National	E.ON Ruhrgas International AG, Russian company Gazprom AAB, State
2.	Achema AB	Natural gas distribution	Local	Private company
3.	Druskininkų Dujos UAB	Natural gas distribution	Local	Private company
4.	Intergas UAB	Natural gas distribution	Local	Private company
5.	Joniškio Energija UAB	Natural gas distribution	Local	Private company
6.	Agrofirma Josvainiai AB	Natural gas distribution	Local	Private company

Only a licence holder has the right to install or develop the transmission and distribution systems within the territory specified in the operator's licence. Pursuant to the Law on Natural Gas, the right to install new transmission or distribution systems in the new territory where natural gas systems are being installed shall be vested in legal persons that have acquired this right by way of competition. System operators to whose systems new gas distribution systems are being connected must connect these systems. A decision to grant permission to install new systems is taken by the NCC. A decision of the NCC to grant permission to install new transmission or distribution systems is a pre-condition for the issue of a permit to build these objects in accordance with the procedure established by the Law on Construction

To identify assessment criteria for investment planned by energy companies the NCC is drafting a new Investment Appraisal and Approval Procedure for Energy Company. This procedure provides that during the last year of price caps being in force companies shall submit a Long Term Program on Regulated Activities together with documents and data supplied for regulated price-setting. This Program shall be drafted with respect to provisions of the National Energy Strategy and requirements for energy supply reliability, regularity, quality, consumer and environmental protection. The Long-Term Program shall specify planned regulated activity investments during the price regulation period, as well as funds required to implement the Program and financing sources. When setting regulated prices the NCC shall take into account the need for funds, costs and other indicators regarding the investment planned in the Long Term Program on Regulated Activities. Every year, together with documents and data supplied for regulated price-setting or adjustment, companies shall draft and submit for the NCC approval an Annual Investment (Development) Plan with a specific list of sites to match the Long-Term Program on Regulated Activities, deviations from which shall be duly justified by the company. While coordinating the Annual Investment (Development) Plan the NCC shall take into account the impact of planned investments on regulated prices. If the Annual Plan includes investments aiming to implement objectives of the National Energy Strategy, or measures to ensure security set forth by legislation or the Government or an authority authorized by it, or

measures to ensure the system security and supply reliability, then their impact on regulated prices shall be assessed separately from all other investments specified in the plan.

Before approving a company investment project the NCC shall establish financial capacity of the company. A new Energy Company Technological, Financial and Management Capacity Assessment Procedure was developed in 2008. Based on this Procedure nine new relative financial indicators shall be calculated: four of them are revenue protection indicators, four others - financial leverage, and one - commercial activity indicator. The above indicators shall be used as the basis to calculate the company financial capacity indicator which shall be compared with limit values of the normative indicator of the gas sector. The company financial capacity shall be rates sufficient for performing licensed activities, if its total financial capacity indicator (within the last two years) exceeds the NCC-set bottom threshold for the normative indicator of the sector.

Companies shall supply data to the NCC under the NCC-approved Energy Company Information Provision Rules. At the end of the reporting year a balance-sheet and profit (loss) statement data shall be submitted for audit, and shall be used to assess financial company capacity. Beside this, at the end of the year gas companies must submit an annual investment statements made by gas companies, as well as statements of fixed asset change, provided service quality indicator statement, activity and security ensuring statement and a report on contracts concluded for the upcoming year. At the end of each quarter gas companies shall submit quarterly economic - financial activity statements including a breakdown of costs and revenue for all company activities, quantities of supplied and transported gas, actual investments made, and a number of new connected customers

Transportation Tariffs

Pursuant to the Law on Natural Gas and requirements of the European Union legal acts in 2008 a new Methodology for Calculating Natural Gas Transmission and Distribution Price Caps (hereinafter referred to as the Transportation Methodology) was drafted and approved, whereby the transmission and distribution price caps of gas companies and the prices for household customers were adjusted in 2008. Following the said Methodology, the natural gas transmission and distribution price caps set by the NCC shall be fixed for a five-year period and adjusted once a year, depending on inflation, operational efficiency coefficients, changes in gas consumption volumes, as well as other factors which do not depend on the undertaking's operation. Specific gas transmission and distribution prices not exceeding the NCC-fixed price caps in the territory of licence define the companies. A gas undertaking shall present the project on specific gas transmission, distribution and supply prices to NCC prior to 30 days of its publication.

Gas transmission and distribution prices are applicable in accordance with the "postage stamp" principle irrespective of the transmission and distribution distance. When setting transportation price caps, gas transportation amounts and costs are calculated taking into consideration the actual transportation amounts and the actual costs of the gas undertaking during the last three years, as well as forecasts for the forthcoming five years, moreover indicating causes that conditioned changes in gas consumption volumes. Changes in gas consumption volumes due to investments planned in the long-term activity program of the gas undertaking shall be specified separately.

The NCC sets annual basic costs for a five-year period, taking into account the operational costs of the last years before the regulation period as well as forecasts for the forthcoming five years of the gas undertaking.

Gas companys' costs are the lowest costs needed to deliver gas to the site residents assuring reliable and safe gas supply. The calculations cover the costs that occur performing economic-financial activities and long-term activity programs excluding depreciation costs of planned investments. All costs related to investments shall be indicated separately.

The NCC sets specific and well-founded working efficiency indicators and implemented efficiency measures. If a gas company fails to achieve the set efficiency indicators, costs for the payment of the work are respectively adjusted taking into account working efficiency.

The costs associated with unused, in store preserved property which is not related to regulated activity and the costs of inefficient investment of gas companies are not recognized as economically reasonable costs. Planned changes in the costs of gas the company must be reasonable; otherwise such costs are not recognized. The profit is calculated, taking the last year before the regulatory period, based on economic value and the weighted average cost of capital (WACC)

Some essential problems were solved by approving the new Transportation Methodology:

- new normative profit calculation rules of natural gas transmission and distribution activities have been prescribed allowing to objectively calculate the justified profit margin rate which is calculated by estimating capital structure of gas undertakings. In comparison with formerly applicable rules on profit calculation, the new rules are more transparent and comprehensible for natural gas market participants.
- to tighten gas company investment control and assess their effectiveness, as well as to encourage gas undertakings to accomplish designed investments to the system development and modernization, the Transportation Methodology provides for new gas price cap adjustment coefficients: the depreciation (amortization) cost and the normative profit coefficients. The coefficients, taking into account the target and NCC-agreed investment execution, are used to annually adjust gas company depreciation (amortization) costs and normative profits subject to investments made. The NCC by adjusting price caps also shall take into account the efficiency of carried out investments of the gas undertaking.
- price adjustment subject to inflation has been clarified. The costs are no longer, as prescribed by the previous methodology, adjusted fully but only partially, making only inflation-dependent costs subject to adjustment i.e. due to inflation no adjustment made to the technological costs, labour costs, taxes and interests.
- fixed efficiency indicator, which was previously equal to a half of inflation coefficient, was changed. Lately, due to increase of inflation, such an efficiency indicator in reality impossible to attain, thus the new methodology specifies the margin of 3 percent of the efficiency coefficient.

The principles of the differentiation of specific transportation prices for gas undertakings are given in the Methodology of Transportation. The Methodology provides that gas undertakings may differentiate prices by customer categories or groups, gas consumption amounts, gas pressure, capacity, duration, consumption purpose, reliability of gas supply, as well as on the basis of other objective criteria chosen by the gas undertakings that allow pursuing higher operational efficiency. It is not allowed to discriminate customers, apply cross-subsidy among customers and their groups while establishing and differentiating prices. Natural gas price differentiation methodologies developed by gas undertakings are submitted to the NCC. Should the NCC establish that the price differentiation principles set by gas undertakings discriminate customers, it points out such faults to the undertakings and the latter must correct them. Should undertakings fail to follow orders of the NCC, the NCC may unilaterally set gas prices.

In 2008, a 3-year price regulation period of the largest natural gas transportation company Lietuvos Dujos AB ended. The NCC had to evaluate activity results of the company, plans and prognosis for the coming five years and set forth transmission and distribution price caps for 2009-2013.

The change in transportation price cap of Lietuvos Dujos AB was mainly influenced by increased prices of imported gas (when calculating the costs for technological needs), planned investments by the company (planned in the National Energy Strategy), and increased costs for security of supply for residential consumers and labour costs.

New distribution price caps were set forth for Agrofirma Josvainiai AB and Fortum Joniškio Energija UAB, while price caps for Druskininkų Dujos UAB, Intergas UAB and Achema AB were only adjusted.

Table 18 presents comparison of all transportation price caps in 2008 and 2009.

Table 18. Gas Transportation Price Caps in 2008 and 2009

Company	Tariff, Euros/MWh		Change, %
	2008	2009	
Lietuvos Dujos AB			
Transmission	1.06	1.25	17.9
Distribution	3.96	5.66	42.9
Fortum Joniškio Energija UAB			
Distribution	5.26	4.81	-8.5
Intergas UAB in Druskininkai Municipality			
Distribution	1.84	1.97	7.2
Intergas UAB Mažeikiai Municip.			
Distribution	16.48	18.18	10.3
Druskininkų Dujos UAB			
Distribution	39.11	37.74	-3.5
Agrofirma Josvainiai AB			
Distribution	1.470	1.473	0.2
Achema AB			
Distribution	0.32	0.42	30.7

Natural gas transportation prices of the largest system operator Lietuvos Dujos AB for different customer groups are presented in Table 19.

Table 19. Average Transportation Tariffs for Different Customer Groups in 2009

Customer group	Transportation tariff, EUR/MWh		
	Transmission	Distribution	Total
D3 (83.7 GJ)	1.76	7.84	9.60
I1 (418.6 GJ)	1.61	7.84	9.45
I4-1 (418.6 TJ)	1.61	3.67	5.28

Due to major differences in company sizes and activity conditions making comparative analysis of gas companies' activities is complicated in Lithuania, if costs of individual gas companies per production unit are compared. The NCC analyzed gas company activity effectiveness by comparing dynamics of actual and the NCC-set operational expenditure (OPEX) in 2005 to

2008. As gas transportation is the major company cost item, the cost dynamics in gas transmission and distribution activity was analyzed. To establish the effectiveness comparison was made between costs per production unit per each year, i.e., costs per 1000 m^3 gas transportation by mainline and distribution systems and costs set by the NCC during price adjustment. It was found out that up to 2008 actual costs were in line with the NCC-set ones, however in 2008 with the natural gas price having steeped up, costs for technological needs increased respectively. Beside this wages were increased, thus the relative costs exceeded the NCC-set ones.

Supply security indicators

Lithuanian natural gas system is developed in line with market principles and provisions of the European Union directives and other legislation, and also by taking into account realistic possibilities to implement these provisions, and Lithuanian obligations to the European Union. In order for the gas market and system objects to operate reliably and qualitatively, gas company service quality has to always be sufficient. Thus in line with the Natural Gas Law and Resolution No.725 of 11 July 2007 of the Government of the Republic of Lithuania, by Order No. 4-348 the Ministry of Economy of the Republic of Lithuania approved the Quality Requirements for Gas Company Provided Transmission, Distribution and Supply Services. The Quality Requirements prescribe a service quality evaluation procedure for natural gas transmission and distribution system operators and supply companies, the services being directly related to their licensed activities. These Requirements specify that gas company services of transmission, distribution, supply and connection of new customer systems to transmission or distribution systems shall be regulated. These requirements shall be obligatory for natural gas transmission and distribution operators and supply companies.

The NCC shall evaluate and control quality of gas company-provided services. Gas companies shall submit quarterly and annual quality indicator statements to the NCC.

The following are quality indicators for reliability: System average interruption duration index (SAIDI), and System average interruption frequency index (SAIFI) per reporting period. These indicators shall be calculated separately for planned and unscheduled interruptions. SAIDI and SAIFI for unscheduled interruptions shall be calculated by groups of interruption reasons. Fig. 10 shows the planned natural gas supply SAIFI of the largest natural gas company Lietuvos Dujos AB. In 2008 it was 0.230132.

According to Lietuvos Dujos AB data SAIDI was 2.2 minutes (in 2007 – 2.6 minutes; in 2006– 2.206 minutes; in 2005– 2.066 minutes). Fig. 11 provides a comparison with SAIFI for 2005 - 2007

Figure 10. Number of Planned Natural Gas Supply Interruptions per Customer (SAIFI) by Lietuvos Dujos AB

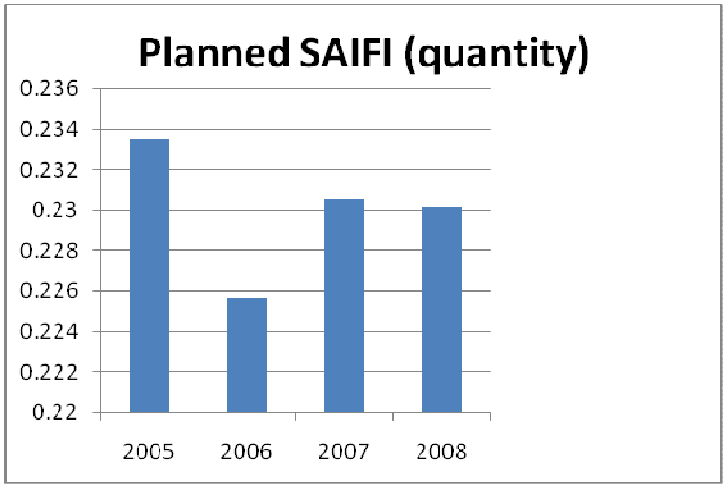
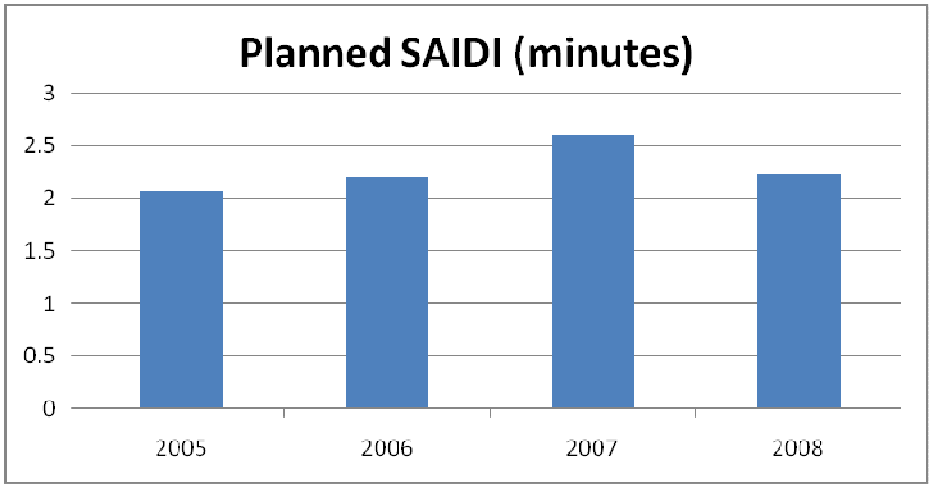


Figure 11. Average Duration of Planned Interuptions (SAIDI) in 2005 -2008



Data on unscheduled natural gas interruptions presented in Table 20.

Table 20. Data on Unscheduled Natural Gas Interruptions by Lietuvos Dujos AB

Year	Number of unscheduled interruptions	Number of disconnected users	Duration of unscheduled interruptions(min)	Average frequency of unscheduled gas supply interruptions per customer	Average duration of unscheduled gas supply interruptions per customer (min)
2005	537	2742	74,780	0.00512	0.1395
2006	1284	2900	181,756	0.00536	0.3362
2007	539	2427	192,039	0.00448	0.3557
2008	530	2821	70,655	0.00517	0.1297

In 2008 the average number of unscheduled interruptions of supply per one system user (SAIFI) amounted to 0.00517. The average duration of unscheduled interruptions per one system user (SAIDI) was 0.1297 minutes.

Every interruption shall have a cause to be identified. Unscheduled interruptions are allocated to one of the three groups: force majeure, interruptions due to external impact, and interruptions subject to operator's responsibility. Mostly unscheduled interruptions of natural gas supply take place due to external impact i.e. irresponsible earth digging.

Balancing

In 2008 the Ministry of Economy of the Republic of Lithuania contracted the *Study of natural gas transmission system pricing: fees for misbalance (balancing methodology) and fees for exceeding ordered transmission system capacities. Recommendations for gas sector application*. The purpose of this study was analyzing pricing of fees for disbalance (balancing methodology) and fees for exceeding ordered transmission system capacities in natural gas transmission systems of the European Union member states, and to provide recommendations for drafting a natural gas balancing price calculation methodology.

The key legislation regulating balancing activities of the natural gas transmission system is the Natural Gas Law and the *Natural Gas Transmission, Distribution, Storage and Supply Rules* approved by an order of the Minister of Economy.

Art.3 of the Law on Natural Gas defines balancing as equation in the transmission and/or distribution systems of the delivered and received amount of natural gas. Balancing is ascribed to gas company services provided to system users. This law prescribes that transmission or distribution system operators shall set system balancing rules upon approving them with the NCC. The rules shall be objective, transparent and non-discriminatory. Requirements of system balancing rules shall be mandatory for customers and system users, except household customers. System balancing rules shall be published in the supplement *Information Announcements* (*Informaciniai pranešimai*) of the *Official Gazette (Valstybės žinios*). Chapter VI of the Law entitles the NCC to set system balancing and use rules, if draft rules developed by system operators are incompliant with requirements of this law and other legislation. Article 25 also provides that the NCC shall consider complaints about system balancing under an extra-judicial preliminary complaints handling procedure.

Natural Gas Transmission, Distribution, Storage and Supply Rules specify that gas flow balancing in the transmission and distribution system shall be ensured. The transmission system operator has an opportunity to request a supply company to conclude a gas transmission contract with a gas transmission company for gas transmission customers, or a tripartite contract with a gas transmission company and an eligible user.

Chapter IX of these Rules is about system balancing. A gas company with a transmission license shall be responsible for the balanced activity of interconnected transmission systems located throughout the territory of Lithuania. Its instructions regarding gas flow balancing shall be obligatory to distribution, storage and supply companies, the ones transporting gas in transit and system users (customers). The gas company responsible for balancing shall draft gas flow balances based on contracts concluded and gas quantities supplied to the gas system.

The gas system shall be balanced on a daily basis in line with gas quantities received, transferred and distributed. The gas balance shall not exceed ±8%. An hourly consumption (transfer, distribution) of gas by a customer (system user) at the place of delivery shall not exceed the contracted maximum permissible gas quantity. If the contracted maximum

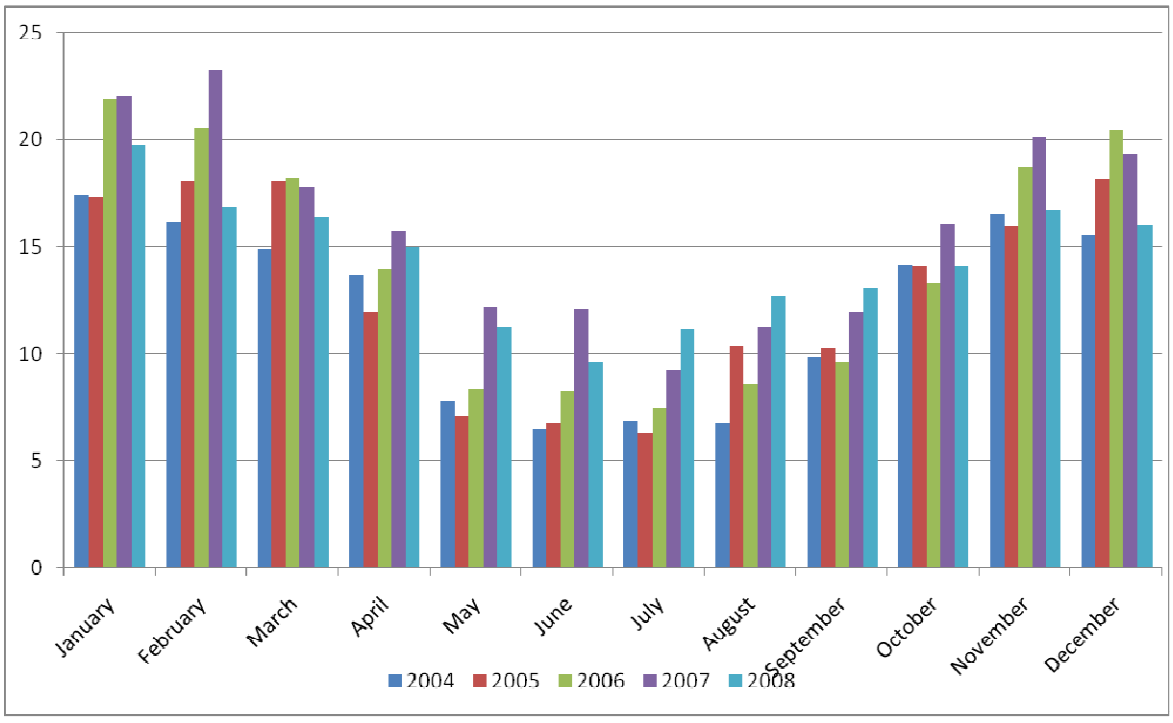
permissible gas quantity is exceeded, the gas company shall be entitled to limit gas supply (transmission, distribution).

The gas company with a transmission license, i.e., Lietuvos Dujos AB, shall be responsible for the activity of interconnected transmission systems located throughout the territory of Lithuania. Instructions of this company shall be obligatory to the system users. The transmission system balancing time shall be one 24-hourly period. The 24 hour-based balancing is acceptable to all the market players. As long as balancing methodologies are neither drafted, nor approved, gas balancing issues shall be addressed in customer gas transmission/distribution contracts. Quantities required for the gas system balancing shall be established by the transmission/distribution operator based on the planned need and capacities ordered by customers, and specified in gas supply contracts, as well as the existing reserve in the pipeline or the Storage Facility.

Capacity Distribution Mechanism and Overload Management

Small customers use gas without any restriction; no individual capacity fee is applied to these customers. Small customers with the annual consumption of up to 20,000 m^3 do not participate in the system balancing. 13.8% of customers participate passively, i.e. gas consumption limitations are specified in their contracts, but no specific balancing charges have been set. Other system users (79.6% of the market) actively participate in the system balancing process and therefore must pay charges for exceeding the established capacity. There is no a separate balance or balancing fee. The highest natural gas consumption per month is indicated in Figure 12.

Figure 12. Maximum Daily Gas Consumption per Month in 2004-2008(million m^3/day)



The transmission system operator has set the following charges for system users, which are applied if the established capacity is exceeded:

- charge for exceeding unapproved capacity;

- charge for exceeding approved capacity;
- charge for unused capacity.

The charge for exceeding unapproved capacity is paid when a system user exceeds daily gas consumption without agreement in advance with the system operator in accordance with the established procedure. The charge does not depend on the season of the year.

The charge for exceeding the approved capacity is paid when a system user exceeds daily gas consumption upon agreement in advance with the system operator in accordance with the established procedure. A gas undertaking must have a 24-hour telephone line or any other means of communication that would enable immediate reception of information on gas supply interruptions, limitations, variations from the usage mode or emergency situations from gas transmission and distribution undertakings and its communication to customers.

In 2004-2007 the maximum system capacity increased, therefore in 2008 there were tendencies towards reduction. The line-pack service is not provided to customers because the transmission system is not suitable for compressing and storing gas in the pipeline.

4.1.3. Effective Unbundling

Activity unbundling is regulated by Article 12 of the Law on Natural Gas currently in force. It specifies that transmission, liquefaction, storage, distribution activities shall be unbundled in gas companies. Unbundling shall be done by establishing a daughter or a separate company. There is no must to unbundle activities and establish a daughter or a separate company for an integrated gas company supplying gas to less than 100000 customers. The Law provides that employees managing the transmission, distribution and liquidation activities shall act independently and are not allowed to participate in the management of the integrated gas company.

Lietuvos Dujos AB is the largest natural gas transmission system operator in the Baltic Region. This company is the only one in Lithuania providing services to more than 100,000 customers. The company is vertically integrated. The Organizational chart of Lietuvos Dujos AB has been changed since 1st January 2008 and complies with the requirements of EU legal acts regarding the functional unbundling of company's transmission, distribution and supply activities. There are five natural gas distribution affiliates in different regions of Lithuania. The company has implemented internal unbundling of activities, but legal unbundling has not been implemented yet. On its website this company is presented to customers as a single integrated company, Lietuvos Dujos AB having one logo, address and website.

Activities of this company have not been legally unbundled; however the company keeps individual book-keeping records and does individual financial statements for each such activity. The General Manager of the company approved the accounting procedure for activities. Statements on income and costs of the regulated activities to be audited and approved by an audit company. Amendment to the Law on Natural Gas passed on 20th March 2007 provides that financial statements of company transmission, distribution and supply activities are public.

The shares of Lietuvos Dujos AB are traded on the National Stock Exchange of Lithuania; they are listed on NASDAQ OMX Vilnius. Quarterly reports of the company are published in accordance with the stock exchange requirements. The major shareholders of Lietuvos Dujos AB are: E. ON Ruhrgas International AG, Gazprom AAB and the State Property Fund. The said shareholders control the main part of shares and have a decision vote in the shareholders meeting. The structure of Lietuvos Dujos AB shares is: E. ON Ruhrgas International AG with

38.9% of the shares, Gazprom AAB with 37.1% of the shares, and the State Property Fund with 17.7% of the shares in the company. 6.3% shares in the company are owned by various natural and legal persons

One of the most important and relevant upcoming issues is the one of unbundling the independent transmission operator. Currently in order to implement provisions of the European Union 3rd Legislative Energy Package (Measure 684) the Programme of the Government of the Republic of Lithuania prescribes developing draft amendments to the Natural Gas Law of the Republic of Lithuania. The Measure should be implemented by Quarter IV of 2010. Thus, hopefully 3rd Legislative Energy Package will be implemented in the best way for Lithuania by using all targeted measures, which are related to the subject of the independent transmission system operator and other alternatives.

System operator's activity at Lietuvos Dujos AB is arranged as if it functions as a separate company: separate decision making, daily management, accounting and contracts with customers. Deeper (legal) unbundling of activities to be carried out in accordance with legal acts.
In 2008 there were two gas supply companies not engaged in other licensed activities – Haupas UAB and Dujotekana UAB (Fig. 21) in Lithuania.

Table 21. Unbundling of Natural Gas Companies in 2008

Activity	Number of gas companies	Legally unbundled	Legally not unbundled	Gas companies which may be covered by the rule of 100,000 customers
Transmission	1	0	1	0
Distribution	6	0	6	5
Supply	8	2*	6	5

* - a gas company engaged in a single type of activity – supply.

Liability for Violations of Requirements for Licensed Activities

The NCC may impose penalties, suspend or revoke licences for violations relating to the licensed activities. When suspending a licence, the NCC must set a time period during which the undertaking concerned must eliminate its violations of the requirements for licensed activities. The licence may be revoked if:

- emerged that data provided in application to issue a licence is incorrect;
- the company twice or more per year makes violations relating to the licensed activity;
- the company fails to eliminate violations by the NCC-established deadline.

Licence validity could be revoked if the company concerned fails to eliminate the indicated violations during the set period of time or violates the licensing activity conditions repeatedly.

Upon committing violations, persons responsible for the performance of licensed activities are held liable to administrative proceedings in accordance with the procedure laid down in the Code of Administrative Offences. The Code of Administrative Offences provides for liability for any breach of the procedure for the transmission, distribution, storage, supply or use of energy resources or energy, for failure to provide data on economic and financial activities and/or provision of knowingly inaccurate data by suppliers of energy resources or energy, as well as

for any violation of or non-compliance with resolutions of the NCC or failure to comply with orders of the NCC, etc.

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

4.2.1. Description of the Wholesale Market

Lithuanian Market

Lithuanian natural gas wholesale market is hardly in existence. In 2008 trade in natural gas among gas companies amounted only to 0.3% of total imported gas volume. Local gas distribution companies buy and sell small gas quantities to customers. In 2008, Intergas UAB and Agrofirma Josvainiai AB purchased gas from Dujotekana UAB, Fortum Joniškio Energija UAB – from Lietuvos Dujos AB, and Druskininkų Dujos UAB – from Haupas UAB. Natural gas suppliers traded in gas only under long-term contracts. No other types of contracts have been concluded by supply undertakings. Pursuant to the Law on Natural Gas, the NCC has the right of access to contracts concluded between gas undertakings and customers. Gas undertakings submit the main conditions of their gas purchase and sales contracts and annual activity reports to the NCC.

Currently gas market of the Baltic States is dysfunctional. This is caused by two reasons: an isolated gas transportation system of the Baltic States (including Finland) and the fact that all the countries are dependent on the single gas supplier, Gazprom AAB. The Baltic States gas market will not function until the issues of the gas system isolation, supply diversification are solved and transparent and non-discriminatory third country access to the natural gas markets is ensured.

The annual natural gas consumption in Lithuania in 2008 totalled to 30.3 TWh (3,2 billion m^3). The average calorific value of imported natural gas was 9.311 kWh/m^3. The maximum daily consumption of natural gas was 0.155 TWh. Natural gas is not produced in Lithuania; the entire volume of gas is imported from Russia. In 2008 import of natural gas totalled to 40.7 TWh (4,885 billion m^3). Out of them 11.7 TWh (1.216 billion m^3) was transmitted to Kaliningrad Region by transit.

Maximum technical import capacities are presented in Table 22.

In 2008 the total volume of natural gas used in Lithuania was 30.3TWh (3,2 billion m). 88.3 million m^3 out of this number was sold from Inčukalnis Gas Storage Facility. 182.5 million m^3, i.e., 5.7% of the gas total volume used in Lithuania were supplied to household customers. Lietuvos Dujos AB is the main natural gas supplier to household customers. In 2008 this company supplied 99.9% of natural gas used by households.

Table 22. Maximum Technical Import and Export Capacities

Connection	Capacities, TWh/h	Out of them : not reserved capacities, TWh/hour
Latvia– Lithuania (Kiemėnų DAS)	0.002	0.002
Belarus –Lithuania (Kotlovkos DAS)	0.011	0.003
In total:	0.013	0.005
Lithuania – the Russian Federation (Šakių DAS)	0.003	0.001

Import capacities reserved for long-term contracts totalled to 0.008 TWh/h, while export amounted to 0.003 TWh/h.

Two gas supply undertakings having over 5% of the gas supply market, namely, Lietuvos Dujos AB and Dujotekana UAB, supplied gas to Lithuanian customers. Gas quotas to the latter undertakings are allocated by a single external supplier Gazprom AAB.

The Lithuanian gas transmission network is not interconnected with the Western European natural gas system. The transmission system has a single connection with Latvia. However, natural gas from Latvia may be transported only in the event of interrupted gas supply through the Republic of Belarus.

To sum up, there is no competition on the gas supply market, either on an international or national level.

Baltic Market

Currently the Baltic States gas market is dysfunctional. This is caused by two reasons: an isolated gas transportation system of the Baltic States (including Finland) and the fact that all the countries are dependent on a single gas supplier, Gazprom AAB.

Gas supply source diversification is one of the key preconditions of the gas market functioning. This purpose may be achieved by implementing strategically important infrastructure investment projects: interconnection of Lithuanian and Polish natural gas systems, finding a solution of the issue of Latvian gas system capacities and the use of Inčukalnis underground natural gas storage facility in Latvia, and construction of a liquefied gas terminal.

Diversification and liberalization of the gas market would ensure gas supply security and reliability and make it possible for every gas user to freely choose a gas supplier and buy cheaper gas on the market. However it should be noted that though Lithuania has opened its natural gas market this has been a mere formality which currently generates no benefits whatsoever to natural gas users due to the above mentioned circumstances.

On 14 July 2009 Lithuanian and Latvian gas companies Lietuvos Dujos AB and Latvijas Gaze A/S submitted a joint proposal to the European Commission Directorate General for Energy and Transport to get funding for a jointly implemented project under the European Commission European Energy Programme for Recovery – the Baltic Energy Market Interconnection Plan. The joint project of the natural gas companies Lietuvos Dujos AB and Latvijas Gaze A/S aims to: increase natural gas interconnection throughput capacities between the two countries, achieve a better integration of gas markets in the Baltic States, and facilitate the development of the Baltic natural gas market and preparations to integrate into the European Union natural gas market. The project implementation would increase natural gas supply reliability in case of gas supply interruptions or limitations and stimulate domestic gas market development in the Baltic States. Under Articles 3 and 4 of the Directive 2004/67/EC natural gas supply reliability is regulated by the Natural Gas Law (Art. 24.3) providing the Government with the right to specify concrete security ensuring means, which are obligatory to gas companies, customers and the NCC.

To guarantee the natural gas market functioning, besides natural gas supply reliability issues transparent and non-discriminatory third party access to natural gas transportation systems shall be ensured. Thus regulatory authorities must control how gas transmission system operators implement provisions of the Regulation No.1775/2005 of the European Parliament and the Council specifying requirements for publishing information and tariff setting. In line with

the Regulation requirements the NCC has approved the actual points of the transmission system for which gas companies publish customer-relevant technical system information and short term and interruptible supply prices. There are plans to draft and approve the natural gas system balancing price methodology and set balancing prices.

In summary it may be stated that the Baltic States gas market will not function until the issues of the gas system isolation, supply diversification are solved and transparent and non-discriminatory third country access to the natural gas systems and the Storage Facility is ensured.

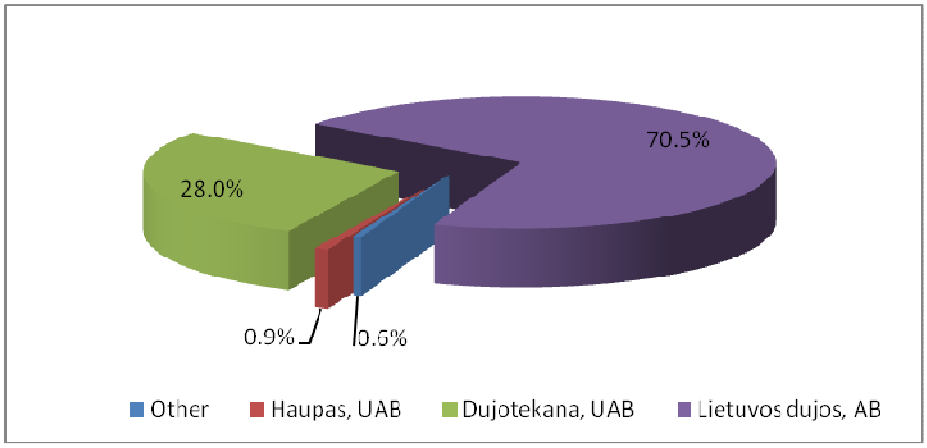
4.2.2. Description of the Retail Market

In the end of 2008 there were 549 thous. natural gas consumers (users), out of them 543.4 thous. household users and 5.6 thous. industrial users. Natural gas was supplied to customers by seven supply undertakings: Lietuvos Dujos AB, Dujotekana UAB, Haupas UAB, Fortum Joniškio Energija UAB, Druskininkų Dujos UAB, Agrofirma Josvainiai AB and Intergas UAB.

In 2008, the total sales of natural gas on the national gas supply market amounted to 16.07 TWh (1,726 m m^3).
Two suppliers occupying over 5% of the gas supply market are dominant on both the retail and wholesale gas supply markets. These are Lietuvos Dujos AB and Dujotekana UAB. The remaining gas supply undertakings represent only 1.5% of the total gas sales.

Market share in the retail market of Gas Companies are presented in Figure 13.

Figure 13. Market Share in the Retail Market of Gas Companies



The total volume of natural gas sold by the largest gas company **Lietuvos Dujos AB** in 2008 amounted to 11.390 TWh (1.223 billion m^3), of which 1.697 TWh (182.259 billion. m^3.) was sold to household consumers, 9.693 TWh (1041.055 mln. m^3) – to non-household consumers. 4.610 TWh (495.158 mln. m^3) of natural gas were sold to gas power plants. Furthermore, 47 GWh was sold to other gas undertakings (Fortum Joniškio Energija AB and Intergas UAB). The amount supplied to Lithuania through the gas system managed and operated by the said company accounts for more than 99% of the total demand of Lithuanian customers for natural gas

Dujotekana UAB supplied 4.534 TWh (486.940 million m^3) of natural gas. All gas was sold only to non-household consumers, of which 41.91 GWh (4.501 million. $m^{3)}$ was sold to other gas undertakings (Agrofirma Josvainiai AB and Intergas UAB). Dujotekana UAB has 15 consumers in total; the largest share of them consists of gas power plants. The total volume of natural gas

sold to gas power plants amounted to 4.407 TWh (473.324 million m^3), i.e. 97.2 % of the total sold gas amount.

Haupas UAB sold 150.56 GWh (16.17 million m^3) of natural gas. The company supplied natural gas only to two non-household consumers. One of them is a gas supply company Druskininkų Dujos UAB.

Fortum Joniškio Energija UAB purchased 46.91 GWh (5.04 million m^3) of natural gas from Lietuvos Dujos AB, of which 26.53 GWh (2.85 million m^3) were used for its own needs (heat generation) and 26.53 GWh (2.85 million m^3) were sold to other customers.

Druskininkų Dujos UAB purchased from Haupas UAB 3.45 GWh (370.82 million $m^{3)}$ of natural gas and supplied it to household consumers.

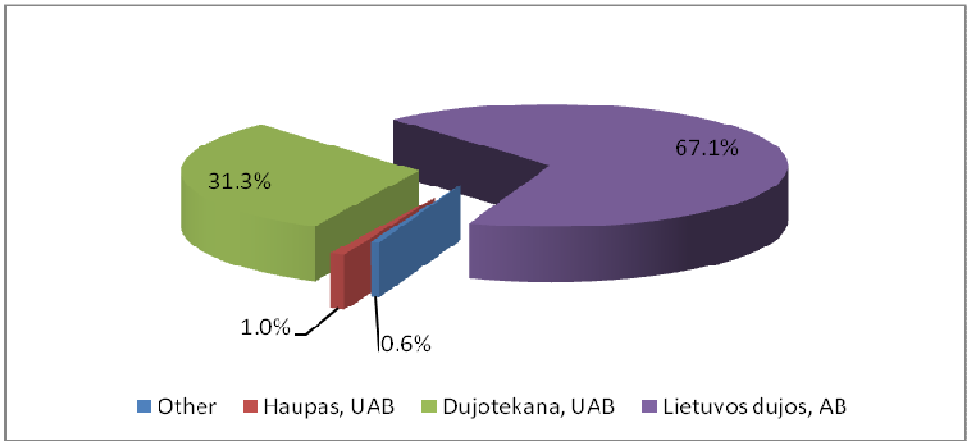
Agrofirma Josvainiai AB purchased from Dujotekana UAB 39.15 GWh (4.2 million $m^{3)}$ of natural gas and supplied it to household and non household consumers.

Intergas UAB engaged in supply activities only in Mažeikiai Region Municipality. In 2008 the company sold 3.59 GWh (0.386 million m^3) of natural gas to both household and non household consumers.

The main natural gas supplier to residential consumers is Lietuvos Dujos AB. This company in 2008 supplied 99.9 percent of natural gas consumed by household consumers.

In the non-household market there two main suppliers: Lietuvos Dujos AB and Dujotekana UAB. A market share in the non-household consumer market is presented in Figure 14.

Figure 14. Market Share in the Non-household Consumer Market



As from 1 July 2007, all natural gas consumers are eligible customers, i.e. consumers may choose their supplier. To purchase gas, customers must file an application with a gas supply undertaking two months prior to the beginning of a calendar year. A customer must file a prior written request, no later than 14 calendar days before the commencement of gas supply, to a supply undertaking to conclude a gas supply (sales and purchase) contract. Upon the evaluation of whether the requested gas quantity can be supplied, the supply undertaking shall, within 14 calendar days from the receipt of the request, notify the applicant of full or partial approval of the requested quantity or refusal to meet the request. Refusal to meet the

customer's request must be objective, non-discriminatory and well-grounded. The NCC must also be informed of such refusal to meet the customer's request.

There were no consumers in 2008 that changed the supplier in the retail market.

In 2008 the NCC approved a new Natural Gas Supply Price Cap Calculation Methodology (hereinafter referred to as the Supply Methodology).

The key difference between the previous Natural Gas Price Cap Calculation Methodology and the Supply Methodology is that the latter enforces new gas supply price cap calculation principles which to the opinion of the NCC will allow establishing a reasonable profit margin for gas suppliers.

Under the previous methodology the gas supplier profit was calculated as a percentage of the supply activity and gas import costs. Gas import cost-based profit accounted for the main share of gas supplier profits. When in October 2007 gas supply price caps were set the gas import price equalled 530 LTL per 1000 m^3, and in August 2008 it exceeded 1000 LTL per 1000 m^3. In this case under the-then methodology upon import (i.e., gas purchasing) costs having almost doubled supplier profits would also double.

As in 2008 the gas import cost increased significantly, the NCC have decided to modify the gas supply price cap calculation principles, and the new Supply Methodology prescribes that gas supplier margin shall practically not change subject to gas import prices, and only its minimum reduction is allowed subject to price fluctuations of oil and other fuel types.

Natural gas supply price caps in 2008 - 2009 are presented in Table 23.

Table 23. Natural Gas Supply Price Caps in 2008 and 2009

Company	Price, EURMWh		Change, %
	2008	2009	
Lietuvos Dujos AB	1.66	1.67	0.6
Dujotekana AB	1.46	1.38	-5.4
Haupas AB	2.94	2.94	0
Fortum Joniškio Energija UAB	0.52	0.30	-42.3
Druskininkų Dujos UAB	1.54	3.70	140.3
Intergas Mažeikių Municip. UAB	0.19	0.23	21.0
Agrofirma Josvainiai AB	0.15	0.17	13.3
Achema AB	1.18	1.22	3.4

In 2009 with the decreasing gas import price gas supply companies decided to reduce gas prices for household customers by lowering the very gas component in the price. The NCC had no objections to this suggestion and since 1 July 2009 the gas price for household customers has been adjusted. Setting natural gas price for household customers once per year is expedient in case of no significant fluctuations in oil and at the same time - gas prices. Upon significant changes in imported gas prices setting gas prices for household customers would be more precise, if set for a shorter time period, therefore the NCC proposed amendments to the Natural Gas Law to prescribe half-yearly recalculations of natural gas prices for household customers. Table 24 shows the natural gas price structure for household customers.

Table 24. Natural Gas Price Structure to Customers, EUR/MWh

Consumer group. / Price	Price from 1st January 2009			Price from 1st July 2009		
	D3	I1	I4-1	D3	I1	I4-1
Natural gas import	31.84	32.92	32.92	24.03	17.49	17.49
Gas transmission	1.76	1.61	1.61	1.76	1.61	1.61
Gas distribution	7.84	7.84	3.67	7.84	7.84	3.67
Supply	1.02	1.36	1.36	1.02	1.36	1.36
Margin	1.07	-	-	1.07	-	-
In total:	43.53	43.73	39.56	35.72	28.3	24.13
Taxes (VAT – 19 %)	8.27	8.31	7.52	6.79	5.38	4.58
In total:	51.80	52.04	47.08	42.51	33.68	28.71

Investigation of Complaints and Applications

The Energy Company Information Provision Rules regulate submission of data and reports on regulated energy company activities in the natural gas sector to the NCC. These rules are applicable to companies licensed by the NCC. To improve customer protection and transmission and supply service requirements of gas companies, at the end of each year companies submit annual reports on received complaints analysis to the NCC. In 2008 Lietuvos Dujos AB received and analyzed 42 complaints and 415 applications. Table 25 provides data on complaints (applications) settlement by Lietuvos Dujos AB.

Table 25. Report on Complaints (Applications) Settlement by Lietuvos Dujos AB in 2008

Complaints (Applications) Subject	**Complaints**	**Applications**
Due to discrimination		5
Due to prices and tariffs	7	23
Due to contracts	7	134
Due to connection to the grid	8	102
Due to authorization to use the system	1	6
Due to supply reliability and service quality	4	5
Other	15	140
IN TOTAL:	**42**	**415**

Lietuvos Dujos AB have investigated 40 complaints and 415 applications within 30 days or less, 2 complaints were analyzed longer than within 30 days. 6 complaints were reasonable while 36 complaints and 222 applications – not reasonable.

In 2008, 144 consumers were disconnected from the system due to outstanding debts (in 2007-232), out of them – 129 household consumers and 15 – non-household consumers.

5. Security of Supply

5.1. Electricity [Article 4 and 2005/89/EC Article 7]

5.1.1. Electricity Generating Capacities, Demand, Generation and Promotion of Generation

In 2008, the total installed electricity generating capacity (nuclear and non-nuclear) amounted to almost 5,000 MW (Table 26) and more than twice exceeded the domestic needs of Lithuania (Table 27).
The main source of electricity in the country is state enterprise Ignalina Nuclear Power Plant, which generates cheaper electricity than thermal power plants using fossil fuel.

Table 26. Installed/Available Capacity of Lithuanian Power Plants as of 01 01 2009, MW

Power Plants	Installed/Available Capacity
Ignalina NPP	**1300 / 1183**
Lithuanian Power Plant	1800 / 1732
Mažeikiai Power Plant	160 / 148
Vilnius Power Plant	372 / 355
Kaunas Power Plant	170 / 161
Kaunas Energija	8 / 7
Klaipėdos Energija	11 / 9
Panevėžys Power Plant	35 / 33
Companies' Power Plants	98 / 96
Thermo Power Plants, in total:	**2675 / 2561**
Kaunas Hydro Power Plant	101 / 51
Kruonis PSP	900 / 760
Small hydro power plants	26 / 26
Hydro power plants, in total:	**1027 / 837**
Biomass power plants	21 / 20
Wind power plants	68 / 68
Renewable sources power plants, in total	**89 / 88**
In total:	**5070 / 4648**

Table 27. Maximum Capacity Demand (Gross) in 2008, MW

Month	Maximum demand
January	2050
February	1878
March	1860
April	1719
May	1576
June	1545
July	1538
August	1518
September	1705
October	1837
November	1885
December	1918

Per year	2050

Table 28. Planned Capacity Balances of the Lithuanian Energy System at Peak Demand Times in 2009-2011, MW

Indicator	2009	2010	2011
Installed/disposed capacity of power plants (excluding half of capacities disposed by Kruonis PSP, wind power plants, biomass power plants and small power plants)	5070 / 4650	3543/3290	3615/3362
Maximum system-demanded capacity under the maximum growth of demand (net)	2030	2060	2100
Export	~340	0	0
Mandatory long-term reserve	1300	350	350
Capacity balance (surplus)	***223***	***-78***	***-124***

As data provided show, in 2009 Lithuania has minor surplus generating energy capacity; however during the 2010-2011 winter peak it may possibly experience a capacity deficit.

With respect to the planned decommissioning of Ignalina NPP and the obligation of Lithuania to the European Union to increase electricity generation in thermo power plants and from renewing energy sources, the 35 MW cogeneration plant in Panevėžys was commissioned in 2008, furthermore electricity purchase prices for electricity generation capacities using renewable energy sources such as biomass and hydro power were increased.

Jointly with the neighbouring states there were plans to build a new nuclear power plant up to 2020. Therefore, in May 2008 a national investor company LEO LT AB was incorporated. The value of the new about 3 GW nuclear power plant may reach 6 billion EUR. Therefore in 2009, the transparency of the said company caused some uncertainties and it is planned to review further strategy development of the energy sector.

The Law of the Republic of Lithuania on Electricity stipulates that generation of electricity, expansion of electricity generating capacities, electricity export and import, as well as construction of direct lines are subject to authorisations. Authorisations for electricity undertakings and eligible customers to engage in non-licensed activities in the electricity sector are issued and revoked in accordance with the Rules for Issuing Authorisations for Activities in the Electricity Sector

Authorisation to generate electricity is mandatory for every undertaking which was engaged in electricity generation according to its registered Articles of Association or other equivalent documents adopted before the entry into force of the Law of the Republic of Lithuania on Electricity and wishes to continue this activity using its available technological facilities upon the entry into force of the new Law; or wishes to restart suspended electricity generation using its available technological facilities if the previous authorisation was revoked; or has built new technological electricity generating facilities in accordance with the authorisation to expand electricity generating capacities.

Authorisation to expand electricity generating capacities is mandatory for every undertaking wishing to construct a power plant in a new location and/or to increase its existing generating

capacities by reconstructing (replacing) its current or constructing additional technological electricity generating facilities.
Electricity production subject to energy resources is presented in Table 29.

Table 29. Electricity Supplied to the Network by Lithuanian Power Plants in 2008

Power Plants	Quantity, GWh
Ignalina NPP	9140.0
Lithuania Power Plant	779.7
Mažeikiai Power Plant	131.6
Vilnius Power Plant	586.4
Kaunas Energija	0
Kaunas Thermo Power Plant	616.8
Panevėžys Energija and Lifosa	164.4
Other power plants connected to DN	129.2
Wind power plant connected to TN	117,2
In thermo power plants, in total:	*2,317.9*
Kaunas Hydro Power Plant	325.7
Kruonis PSP	586.4
Power plants using renewable energy resources (excluding KPSP)	266.3
Power plants using renewable energy resources , in total:	592.0
In total:	12,577.4

General criteria, conditions and requirements for the promotion of the generation and purchase of electricity generated from renewable energy sources in the Republic of Lithuania are laid down in the Procedure for Promoting the Generation and Purchase of Electricity Generated from Renewable Energy Sources approved by Resolution No. 1474 of the Government of the Republic of Lithuania of 5 December 2001 (as amended by Resolution No. 897 of the Government of the Republic of Lithuania of 18 September 2006). This Procedure is mandatory for natural and legal persons generating or planning to generate electricity in a power plant using renewable energy sources, as well as for persons connecting electricity facilities of producers to the electricity system and/or purchasing electricity generated by producers into distribution and transmission networks. The provisions of this Procedure promote electricity generation by wind, biomass and solar power plants, as well as small hydro power plants with the maximum capacity up to 10 MW. Since the costs of electricity generation from renewable energy sources are higher than using conventional energy resources, such electricity is purchased at higher tariffs approved by the NCC. Electricity generated from bio fuel is purchased at the price of 86.9 EUR/MWh, from hydro-power – at the price of 75.3 EUR/MWh and from wind power – at the price of 86.9 EUR/MWh. Purchasing prices may change due to the increase of equipment and maintenance costs. Power plants are connected to the existing systems of energy undertakings in accordance with the procedure established by law at a 40% connection fee discount applied to producers.

5.1.1. Electricity Forecasts

After the decommissioning of the second unit of Ignalina Nuclear Power Plant at the end of 2009, the current generating capacities, including small capacity co-generation plants that are planned to be constructed, will be sufficient to meet the national demand until 2013 in all cases of the growth in national economic needs and supply with systemic services necessary for the functioning of the system. Nevertheless, there is an urgent need to modernise the Lithuanian Power Plant and the existing co-generation plants with the lowest electricity generation cost

during the heating season. Furthermore, with the increasing capacity demand and subject to economic feasibility, new co-generation plants able to generate electricity at a price that would be competitive on the open electricity market.

Pursuant to the Procedure for Promoting the Generation and Purchase of Electricity Generated from Renewable Energy Sources, the share of electricity generated from renewable energy sources in the total electricity consumption in the country should amount to 6.9% at the beginning of 2008, and to 7.7% at the beginning of 2009. At the beginning of 2008, the planned output of electricity from renewable energy sources should reach 862.6 GWh (of which 259.6 GWh – by wind power plants, 448 GWh – by hydro-power plants, and 153.5 GWh – by biomass power plants), and at the beginning of 2009 the output should amount to 995.2 GWh (of which 320.4 GWh – by wind power plants, 452 GWh – by hydro-power plants, and 219.5 GWh – by biomass power plants).

Forecasts for changes in the installed/available capacities of Lithuanian power plants for 2010–2012 are given in Table 30.

Table 30. Forecasts for Changes in the Installed/Available Capacities of Lithuanian Power Plants, MW

Title	2010	2011	2012
Ignalina NPP	0/0	0/0	0/0
Lithuanian Power Plant	1500/1448	1500/1448	1920/1848
Mažeikiai Power Plant	160/148	160/148	160/148
Vilnius Power Plant	372/352	372/352	372/352
Kaunas Power Plant	170/161	170/161	170/161
Kauno Energija	8/7	8/7	8/7
Klaipėdos Energija	11/9	11/9	31/26
Panevėžys Energija	35/33	35/33	35/33
Thermal power plants, in total::	2256/2158	2256/2158	2696/2575
Kaunas HPP	101/90	101/90	101/90
Kruonis PSP	900/190	900/190	900/190
Small private hydro-power plants	29	30	30
Hydro-power plants, in total:	1030/309	1031/310	1031/310
Power plants of industrial enterprises and other power plants, including:	257/253	328/324	363/359
biomass	21	23	25
wind	131	200	233
Total:	3542/2492	3614/2792	4090/3244

The maximum capacity demand in 2008–2013 is given in Table 31.

Table 31. Forecasted Maximum Capacity Demand in 2008–2012, MW

Year	Maximum demand (net)*
2008	1930
2009	2080
2010	2130

2011	2180
2012	2230
2013	2280

Table 32. Forecasted Sale and Purchase Balances in 2008-2013

Sales	2008	2009	2010	2011	2012	2013
	thous. kWh	thous. kWh	thous. kWh	thous. kWh	thous. kWh	thous. kWh
Ignalina NPP	9,140,038	9,745,531				
Out of: it to auction	1,344,752	1,379,635				
Out of: it to export	5,668,096	2,887,221				
Out of it: contractual	2,127,190	5,478,674				
Lithuanian Power Plant	779,708	935,651	3,000,000	2,780,000	2,740,668	2,922,947
Out of: it to auction	779,708	805,645	0	0	0	0
Out of it: contractual	0	130,006	3,000,000	2,780,000	2,740,668	2,922,947
Vilnius Power Plant	581,130	613,438	565,233	974,029	974,609	974,029
Out of: it to auction	-11,595	1,438	8,604	8,604	9,184	8,604
Out of it: contractual	592,725	612,000	556,629	965,425	965,425	965,425
Kauno Energija (Petrašiūnai Power Plant)	-3,971	9,907				
Out of: it to auction	-3,971	-2,093				
Out of it: contractual	0	12,000				
Kaunas Thermo Power Plant	658,213	412,707	317,731	667,731	658,349	674,216
Out of: it to auction	382,247	369,155	24,288	24,288	14,906	30,773
Out of it: contractual	0	5,360	293,443	643,443	643,443	643,443
Out of: it to export	275,965	38,193				
Panevėžio Energija	109,740	181,100	196,812	286,812	286,812	286,812
Out of: it to auction	109,740	180,100	0	0	0	0
Out of it: contractual	0	1,000	196,812	286,812	286,812	286,812
Wind power plants	117,131	122,100	225,030	225,030	225,030	225,030
Out of: it to auction	117,131	122,100	0	0	0	0
Out of it: contractual	0	0	225,030	225,030	225,030	225,030
Mažeikių Nafta	125,682	143,430	143,430	143,430	143,430	143,430
Out of: it to auction	-106,331	0	0	0	0	0
Out of it to Mažeikių Nafta	232,014	143,430	143,430	143,430	143,430	143,430
Lifosa (PSO)	49,465	55,586	41,281	41,281	41,281	41,281
Out of: it to auction	11,981	0	1,340	1,340	1,340	1,340
Out of it: contractual	28,558	21,000	39,941	39,941	39,941	39,941
Out of: it to export	8,926	34,586				
Import	1,279,788	559,000	4,305,945	4,305,945	4,405,945	4,392,520
Out of: it to auction	1,279,788	559,000	1,003,987	1,086,562	1,101,562	1,105,137

Out of it: contractual			3,301,958	3,219,383	3,304,383	3,287,383
Kaunas HPP	325,716	273,096	337,435	337,435	337,435	337,435
Tech. costs of transmission grid	296,339	260,092	337,435	337,435	337,435	337,435
Internal market demand	29,378	13,004	0	0	0	0
Kruonis PSP generation	586,361	463,653	143,811	143,811	143,811	143,811
Producers connected tto DN	129,186	180,569	182,955	280,431	280,431	280,431
ERC (balancing, the regulating net)	52,855	0	0	0	0	0
In total	13,931,041	**13,695,768**	**9,459,662**	**10,85,934**	**10,237,801**	**10,421,941**

Acquisitions	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
	thous. kWh	**thous. kWh**	**thous. kWh**	**thous. kWh**	**thous. kWh**	**thous. kWh**
Rytų Skirstomieji AB	4,638,522	4,417,116	3,975,405	4,220,488	4,245,087	4,334,444
Out of it: contractual	2,856,915	2,877,668	3,577,864	3,798,439	3,820,578	3,900,999
Out of it : ancillary at auction	1,781,607	1,539,449	397,540	422,049	424,509	433,444
VST AB	4,384,861	4,195,996	3,776,396	4,060,658	4,067,705	4,153,534
Out of it: contractual	2,695,645	2,730,770	3,398,757	3,654,592	3,660,934	3,738,181
Out of it : ancillary at auction	1,689,216	1,465,226	377,640	406,066	406,770	415,353
Independent suppliers	1,298,871	1,202,559	1,072,798	1,268,694	1,288,913	1,297,867
Out of it: contractual	1,059,114	935,124	911,879	1,078,389	1,095,576	1,103,187
Out of it : ancillary at auction	239,757	267,435	736,076	736,076	736,076	736,076
Visagino Energija PE	66,031	66,031	68,933	69,967	69,967	69,967
Out of it: contractual	38,906	42,863	51,700	52,475	52,475	52,475
Out of it : ancillary at auction	27,125	23,168	17,233	17,492	17,492	17,492
TN technological costs	351,912	350.413	350,413	350,413	350,413	350,413
Out of them: via Kaunas HPP	296,339	260,092				
Out of them: from internal market	55,574	90,321				
Export, regulation, balancing	2,370,956	3,000,000	0	0	0	0
Kruonis PSP demand	819,888	463,653	215,717	215,715	215,717	215,717
Demand in total	**13,931,041**	**13,695,768**	**9,459,662**	**10,185,934**	**10,237,801**	**10,421,942**

Planned Development and Renovation of the Transmission System

Technical status of the main transmission system elements, the electricity transmission lines (ETL) and transformer substations (TS), has a major impact on operational reliability of the electrical system. Though Lithuania has a quite well developed 110 – 330 kV electricity transmission network, the bulk of electricity network was built more than 25 – 30 years ago, and operational service time has already reached or even exceeded the design service time. This is a major concern of the reliable electricity system operations. To ensure the reliable transmission network operations TS and ETL are regularly reconstructed by replacing the old equipment with the new one and by installing modern equipment security and control technologies, and new and TS and ETL are installed.

In terms of reliability the weakest is the Western Lithuanian part of 330 kV transmission network. Klaipėda 330 kV TS is connected to the system only by two 330 kV inter-system lines Klaipėda – Sovetsk (Russia) and Klaipėda – Grobinia (Latvia). Telšiai 330 kV TS connected to the energy system only by one 330 kV branch line to the line Šiauliai – Jelgava (Latvia). To increase the 330 kV transmission network reliability the new 330 kV lines Klaipėda – Telšiai and Panevėžys – *Mūša* will be installed with a new 330 kV distribution station (switch-board) on the line Šiauliai – Jelgava (in Joniškis area) and Klaipėda and Telšiai TS will be expanded. Upon building the line Panevėžys – Mūša, the transit via Latvian energy system will be reduced, thus the dependency on the neighbouring countries and Lithuanian energy system reliability will improve

Another problematic 330 kV transmission network location is Vilnius 330 kV TS, which is now connected with two 330 kV lines Vilnius – Lithuanian Power Plant and Vilnius – Molodecno (Belarus). As the dominating part of the Vilnius – Molodecno is located in Belarus and for Belarus energy system it is too expensive to operate it they want to demount it. In this case Vilnius TS will be connected to the 330 kV transmission network only by one 330 kV line and Vilnius city supply security will reduce. There are plans to install a new 330 kV line Vilnius – *Neris*, with a branch line connecting to Naujoji Vilnia TS.

The development of the 110 kV transmission network is predominantly related to the development of major cities and construction of large-scale industrial sites. In the nearest future following new 110/10 kV TS will be installed (in some places the installation has started already) in Vilnius, Kaunas and other Lithuanian cities, and named *Nemunas, Šnipiškės, Vingis, Lazdėnai, Lypkiai*, etc. New 110 kV substations are also under installation to connect wind power plants to the transmission network.

To increase the 110 kV network throughput capacity and reliability the following new 110 kV overhead and cable lines are planned: Klaipėda – Marios, Neris – Baltupis, Kaunas – Eiguliai, Palanga – Kretinga, Panevėžys – Pasvalys, Ukmergė – Širvintos, as well as lines needed to connect the above mentioned new 110 kV TS.

The existing Lithuanian energy system is not connected to the neighbouring Central European countries. To ensure electricity supply reliability, the operational system stability and energy source diversification on both Lithuanian and the Baltic region scale construction opportunities of a new electricity bridge between Poland and Lithuania, and Sweden are analyzed.

On July 31, 2008 a working group consisting of representatives of the Lithuanian energy company Lietuvos Energija AB and the Polish energy company PSE Operator (Poland) officially finalized updating of the feasibility study of the Lithuanian and Polish electric power system interconnection, *Report Summarizing a Study Assessing the Feasibility of the Project of Interconnection of Lithuanian and Polish Electric Power Systems*, and signed the final feasibility

study document confirming the technical, legal and economical project justification, if minimum 75% of it is funded by the European Union. 154 km high voltage (400 kV) double-circuit power transmission line from Alytus to Ełk (Poland) is planned to interconnect the energy systems. As estimated the project may be finalized in 2012 – 2018. EUR 237 million investments are needed to implement it – EUR 71 million in the territory of Poland and EUR 166 million in Lithuania. To ensure inter-system flows both Lithuanian and Polish domestic electric power systems need expansion. This needs extra investment, EUR 371 million in Poland and EUR 95 million in Lithuania. Upon implementing this project the Baltic energy ring infrastructure would be completed and connect Lithuanian, Latvian, Estonian, Finnish, Swedish, Norwegian, Danish and Polish energy systems, and facilitate ensuring the functional security and reliability of the Baltic electric power networks. The project has been prioritized on the European Union project list.

The Project on the Lithuanian-Swedish inter-system connection significantly made headway especially when in fisrt half of 2009 the agreement concerning the project conditions and financing was reached with the partial support from the European Commission.
The Stockholm meeting of February 5, 2008, approved the Feasibility Study outcomes and its final findings. The Study was done in two stages: the first stage included the initial feasibility assessment, as based on previous studies and other data the project was scoped, electric power interconnection capacity and costs identified, the best route selected, the financial and economic interconnection properties analyzed, the design task plans for the seabed study developed, and feasible Swedish–Lithuanian project funding assessed. The second stage featured a more detailed technical analysis, drafting recommendations for selecting the electric power interconnection cable technology and connecting to Lithuanian and Swedish energy systems, and how the wind power plant park connected to the electric power interconnection would impact the connection and Lithuanian and Swedish energy systems.

There are plans to connect the Lithuanian and Swedish energy systems with a continuous current cable of approximately 350 km length and of 700 – 1000 MW capacity, laid on the Baltic seabed. Subject to the selected cable technology and capacity the investment would amount to approximately EUR 516 – 637 million. Completion of the Lithuanian-Swedish inter-system connection is planned in 2015.

Bilateral relations with the third countries did not change. Market integration issues are in the initial phase due to structural energy changes taking place in the third countries. There were no problems related to social and environmental electricity trading consequences, and no network use issues were captured.

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

5.1.2. Natural Gas Supply Contracts

One of the main supply security elements is long-term natural gas supply contracts. The total natural gas consumed in Lithuania is extracted in Russia and delivered to Lithuania via pipelines. Since there are no alternative gas supply possibilities, Gazprom AAB is the single natural gas supplier to the Republic of Lithuania, with the exception of LT Gas Stream AG AB.

Gazprom AAB and Lietuvos Dujos AB have signed long-term gas sales and purchase agreement for 2000-2015 (inclusive).The Agreement signed in 1999. From 1st October 2008 Dujotekana UAB broke a contract with Gazprom AAB and purchased natural gas from a company LT Gas Stream AG AB, with the main office in Switzerland. The said contract has been signed for 2008-2012.

Another important element of ensuring supply security is the increase of transit flows to Kaliningrad area. The total volume of natural gas is supplied to Lithuania through the territory of Belarus. There is a potential gas import (supply) disruption risk due third party acts. Such disruptions are hardly feasible as Gazprom AAB is a shareholder of Beltransgaz AAB (Belarus transmission system operator), and moreover, gas transits Lithuania to reach Kaliningrad area of the Russian Federation. In case of a gas import disruption through the territory of Belarus natural gas would be supplied to Lithuania through the territory of Latvia. Cooperation of Lithuanian, Latvian and Estonian transmission system operators is facilitated by the fact that in these countries operator functions are performed by companies with the same key shareholders.

Lithuanian gas transmission systems are not interconnected with the West European natural gas system. The transmission system has a single interconnection with Latvia. However natural gas from Latvia may be transported only upon disruption of gas supply via the Republic of Belarus. We believe that interconnection of Lithuanian and Polish gas systems should be aimed at to implement Lithuanian energy supply security improvement policy.

Natural gas supply (import), consumption and forecasts are provided in Table 33.

Table 33. Natural Gas Import, Consumption and Forecasts until 2011

Unit	YEAR			
	2008	2009	2010	2011
IMPORT				
million. m^3	3,125	3,350	4,250	4,350
toe	2,500	2,680	3,400	3,480
CONSUMPTION				
million. m^3	3,213	3,320	4,200	4,300
toe	2,570	2,656	3,360	3,440

The stable supply of natural gas to Lithuanian consumers was provided in 2008, consumers demand was fully met.

The provisions of the Description of Measures Ensuring Natural Gas Supply Security approved by the Government of the Republic of Lithuania by the Resolution No. 163 as of 26 February (Official Gazette, 2008, No. 27-966) provide for that:

1) All customers shall be grouped into two categories: the ones with continuous gas supply and ones with interruptible gas supply. Gas reserves shall be formed and stored for the continuous gas supply customers. All household customers shall be attributed to this group. Non-household customers (except companies supplying energy to household customers, education and health care institutions and foodstuff production) shall choose the category to their discretion.
2) Supply companies shall be responsible for continuous gas supply to household customers. They shall form gas reserves for household customers, and the reserve formation costs shall be included into the gas supply price (provisions of the Law on Natural Gas). Non-household customers shall choose the reserve formation option: a) they may store natural gas in storages themselves; b) agree with a gas supply company on gas reserve formation; c) may replace gas reserves with other type of energy resources (e.g., furnace fuel); d) become interruptible supply customers and then in case of gas supply failure have gas supply disconnected immediately. Non-household customers shall cover the reserve formation costs.

3) A new requirement for gas supply companies shall be established: form gas reserves for household customers under the set schedule. Such gas reserves-forming schedule was approved by the Government Resolution No.163 of February 26, 2008: 10 days since September 1, 2008, and afterwards 10 extra days shall be added each year until the 60 day level is reached. Non-household customers using gas for energy generation when such energy is sold or used for meeting public or residential needs must have reserves satisfying a monthly need (type of reserves to be selected by companies). This is not an absolutely new provision, as it is applicable by virtue of the Law on Energy, however for equipment exceeding 5 MW capacities. The novelty now is that under the Law on Natural Gas this provision shall be applicable to all the above non-household customers irrespective of their equipment capacity.
4) Priorities applicable for interruption or limitation of gas supply to customers in case of a gas supply failure are specified with greater detail and clarity
5) Established control mechanism for gas supply reliability (functions for NCC and State Energy Inspectorate for controlling measure for gas supply security).

Under this Resolution Lietuvos Dujos AB, Druskininkų Dujos UAB, Agrofirma Josvainiai AB and Intergas UAB shall have reserves for household customers.

In 2008 Lietuvos Dujos AB as the main natural gas supplier of household customers had the prescribed natural gas reserve volume for 10 consumption days stored in Inčiukalnis Gas Storage Facility. Intergas UAB has developed the Preventive Measure Plan to Ensure Gas Supply Reliability and Technical Gas System Safety. In case of the maximum natural gas demand the company can supply natural gas to household customers in Mažeikiai municipal territory for up to 54 days using its reserves accumulated in its natural gas system.

In line with requirements of the Description of Means to Ensure Natural Gas Supply Security, in case of a partial gas supply disruption, gas supply to all interruptible supply customers shall be limited in proportion to their consumption level. Gas supply to such customers and system users shall be limited by transmission and (or) system operators. In case of a gas supply interruption when gas is supplied from the Storage Facility such supply shall be limited subject to the gas volume available in and supplied from the Storage Facility.

In case of a major gas supply disruption gas supply to customers shall be temporarily stopped in the following sequence:

1. customers with interruptible supply contracts,
2. industrial companies able to use reserve fuel (obliged by law to have reserve fuel volumes),
3. industrial companies without reserve fuel available,
4. industrial companies using gas for uninterruptible technological processes and customers generating electricity and producing heat energy able to use reserve fuel,
5. household customers and persons ensuring that staple needs of customers are met.

Companies also regularly implement means ensuring gas supply security. In line with requirements of the Description of Means to Ensure Natural Gas Supply Security, Lietuvos Dujos AB have developed lists of gas customers (system users) specifying the set natural gas supply and transportation priorities and the stated sequence of gas supply limiting and gradual termination in case of an emergency or gas supply disruptions. As there were no major gas supply disruptions, customers were not warned about them and later disconnected. Energy Emergency Readiness Plans by Lietuvos Dujos AB are revised on the annual basis. In 2008 the Energy Emergency Readiness Plan by Lietuvos Dujos AB was submitted to the Ministry of Economy. The Plan was revised this year and the revisited version was approved in April 2009.

Financing provided by Lietuvos Dujos AB to ensure gas supply reliability is compliant with the Description of Means to Ensure Natural Gas Supply Security approved by the Government of the Republic of Lithuania. In line with provisions of the Natural Gas Supply Price Caps Calculation Methodology approved by the NCC Resolution of 29 August 2008, uninterruptible gas supply costs for household customers shall be included into the gas supply price by setting an individual component for the supply price (gas supply reliability) which equals to 17.22 LTL/thousand m^3. Information on prices applicable to household customers shall be public. In 2009 costs planned by Lietuvos Dujos AB to ensure the supply security amount to 4.08 mln. LTL.

5.1.4. Natural gas storage

As Lithuania imports natural gas from a single country, namely Russia a very high disruption risk is faced in case of major breakdowns or political conflicts. An underground storage facility is a risk reduction measure. In many cases costs for an underground storage facility exceed our state and society capacities due to a very simple reason – lack of funds, as compared to the traditional way of supplying gas the facility operation costs would much increase natural gas prices to the end users.

Lithuania has no underground storage facility thus it uses services of such a storage located in Latvia. To ensure uninterruptible gas supply to household customers in case of gas supply disruptions a contract on natural gas storage with Latvijas Gaze AB of the Republic of Latvia was concluded on April 15, 2008. 10 million m^3 of gas reserves are stored in Inčukalnis Underground Gas Storage Facility in the Republic of Latvia. This reserve would have allowed ensuring 10 day gas supply (during the cold seasons of 2006-2008 the actual average daily gas consumption was 1 million m^3).

As a gas supply company Lietuvos Dujos AB shall be responsible for uninterruptible gas supply to household customers. In 2009 20 million m^3 of gas are stored in the Storage Facility which will ensure an uninterruptible 20 day gas supply to household customers.

Based on submitted orders Latvijas Gaze AB distributes capacities of the Gas Storage Facility. In the Storage Facility the company stores the gas quantity prescribed by the legislation of the Republic of Lithuania required to supply household customers and the gas volume required for non-household customers having uninterruptible gas supply contracts. Lietuvos Dujos AB receives required information on the Gas Storage Facility use capacities on Latvijas Gaze AB website. Lietuvos Dujos AB can use the Gas Storage Facility capacities in line with the storage norms defined by the legislation of the Republic of Lithuania and its needs. It has never been refused to receive gas in the Storage Facility. It has never also needed to order natural gas for system or supply balancing.

5.1.5. Technical System Maintenance: Quality and Degree

Lietuvos Dujos AB transmission system includes 1846.25 km gas lines, 270 gas tap sites, 65 gas distribution stations, 3 gas metering stations, and Panevėžys Gas Compressor Station.

The gas transmission system is operated in line with the Gas Pipelines Operation Rules approved on 15 May 2003 by the Minister of Economy of the Republic of Lithuania. The company ensures the transmission system quality by complying with annually drafted and approved gas line equipment technical maintenance schedules, repair and reconstruction works programs, and, if needed, by outsourcing technical maintenance and repair works to other companies.

In 2008 there were no disruptions or breakdowns in the gas transmission system. To ensure the required maintenance quality of the gas transmission system, its reliability and security, the company has extra group of measures ensuring the gas transmission system reliability:

- measures related to internal and external pipeline diagnostics (there are plans to diagnose a 170 km section of Panevėžys-Vilnius (DN700) gas line with the help of control devices (probes) and assess the overall technical status of a 115 km section of Šiauliai-Klaipėda (DN325) gas line),
- hydraulic gas line tests (in 32008 hydraulic tests were done on a 49.2 km section of Panevėžys- Šiauliai (DN400) gas line, and in 2009 its next 32.3 km section will be tested),
- gas line re-categorization as lower pressure lines to limit gas pressure (in 2009 a gas pressure limiting node will be installed on the gas line Ivacevičiai-Vilnius-Riga to lower this line pressure down to 45 bar maximum),
- other measures including tests outsourced to an equipment technical maintenance company.

5.1.6. Technical Maintenance of the Transmission System

Lietuvos Dujos AB, the single company in Lithuania functions as the transmission system operator and the operator of many distribution systems. In 2008 investments of this company into new transmission system construction amounted to 34.7 million LTL. In 2007 investments into transmission systems construction amounted to 34.24 million LTL. The following works were done: a new gas compressor station was designed in Jauniūnai, Širvintai District, a gas mains branch was laid to reach Rietavas town, and Rietavas gas distribution station was built (1.8 million LTL.). Partial funds were allocated to construction of the mainline segment from Šakiai gas metering station to Kaliningrad Area, Russian Federation, and to design Šakiai gas metering station development and the related preparatory works.

Investments into transmission system reconstruction amounted to 14.5 million LTL, with the majority allocated to the gas distribution station reconstruction (9.0 million LTL). The line part, telemetrics, SCADA, gas compressor station equipment and metering devices were renovated.

To improve supply security and reliability doing internal diagnostics of gas mainlines with the help of special probes is planned.

In 2008 the transmission system was operated in line with all the legislation, and there were no breakdowns or more significant disruptions. The planned repair and technical maintenance works were done. In the gas mains line part a 50 km long segment of Panevėžys-Šiauliai gas line was repaired. Technical design for doing repairs and hydraulic tests for a section of the gas line Ivacevičiai-Vilnius-Riga was made, tap nodes were replaced and repaired in the gas mains line part. Technological equipment and building repair works were planned for Panevėžys gas compressor station and gas distribution stations.

5.1.7. Technical Maintenance of the Distribution System

Lietuvos Dujos AB invested 50 million LTL into construction of new gas distribution systems and built 239 km of distribution gas lines. In 2008 the following projects were completed: construction of a distribution gas line up to and in Rietavas town (2.0 million LTL) and a distribution gas line up to Ramygala (2.0 million LTL). The total number of new connected customers was 5.9 thousand.

In 2008 investments into the distribution system reconstruction amounted to 8.3 million LTL. Investments were made into renovation of distribution gas lines and gas regulation points. Lietuvos Dujos AB have 7.8 thousand km of distribution gas lines. The company timely does gas line leakage tests, system inspections and technical check-ups.

In 2008 the NCC approved the Transmission and Distribution Activity Investment Programme 2009-2013 of Lietuvos Dujos AB. Within this time several major projects related to the system development and ensuring gas supply reliability are to be continued or implemented. Gas compressor station construction in Jauniūnai, Širvintai District, would make it possible to transport higher gas volumes after decommissioning of Ignalina Nuclear Power Plant, ensure stable functioning of the gas line Šakiai – Klaipėda, improve the transmission system functioning reliability and facilitate increasing gas transmission and transit volumes through the Republic of Lithuania.

Under the Program Jurbarkas - Klaipėda gas mainline (140 km long) will be connected with the existing Panevėžys – Klaipėda gas line to form a circle system. This project as a component of Lithuanian energy security ensuring program is included into the approved National Energy Strategy Implementation Plan 2008-2012.

The Description of Means to Ensure Natural Gas Supply Security approved by the Government of the Republic of Lithuania by the Resolution No.163 (Official Gazette, 2008, No.27-966), of 26 February 2008, is legislation implementing the Natural Gas Law aiming to improve gas supply reliability. The above legislation has no significant impact on market player competition.

While developing the national gas system infrastructure and relations between the European Union members as specified in the Annex I of the TEN Decision No.1364/2006/EC, the Ministry of Economy by the Letter No. (30. 7-63)-4059 of 27 June 2008, submitted a bid to the European Commission for the Feasibility Study "Seismic and Geophysical Investigations for the Installation of an Underground Gas Storage Facility".

The project on the Underground Gas Storage Facility installation in Lithuania is related to the priority axis NG. 5 (Annex I of the Decision No.1364/2006). It is also included into the common interest project list (Annex III of the Decision No. 364/2006) - 8.39. Storage Facilities in Lithuania.

This project complies with TEN – E work programme 2008 as it answers one of the programme aims – it improves underground natural gas storage facility capacities. Under this bid European Commission allocated 2 million EUR (6.9 million LTL) (out of TEN-T budget) amounting to 33% of the required amount. The balance 13.8 million LTL shall be the national budget allocation as the national project co-financing for 2009-2010. Currently effort is made to secure national Lithuanian co-financing funds to implement this project.

In 2008 scientific studies were done as provided for in the National Energy Strategy Program Implementing Measure Plan predominantly focusing on international projects between the European Union countries:

- Contracted by the Ministry of Economy and Achema AB, ILF BERATENDE INGENIEURE GmbH did the Scientific Study "Installation of a Liquefied Natural Gas Import Terminal in Lithuania". The study results are positive and its findings state that installing an LNG terminal in Klaipėda Sea Port territory is technically possible;

- In 2008 contracted by the Ministry of Economy, AF-Enprima UAB developed the feasibility study of Polish and Lithuanian gas system interconnection.

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

6.1. Electricity Sector

The Law on Electricity defines public interests in the electricity sector as any act or omission in the electricity sector, directly or indirectly related to public security and environmental protection, as well as to electricity generation from renewable energy sources at combined heat and power generation plants.

The list of public service obligations in the electricity sector, their suppliers and supply procedure are established by the Government or an institution authorised by it. Market participants include the costs of the provision of the said services into their operating costs.

The transmission system operator, distribution network operator and public suppliers fulfilling public service obligations shall keep separate accounts and ledgers specifying the revenue and costs related to these obligations.

The expansion of the existing electricity generating capacities or installation of new generating capacities in a new location shall be subject to authorisation for the expansion of electricity generating capacities. Authorisations are issued to all applicants guaranteeing that their activities will satisfy certain conditions, one of them being the requirement to comply with public interests.

The Ministry of Economy has approved the list of public service obligations in the electricity sector. Pursuant to the Order of the Minister of Economy, the following services are considered public service obligations in the electricity sector:

1. electricity generation:

1.1. from renewable energy sources;

1.2. in the co-generation mode at combined heat and power generation plants, where these plants supply heat to urban district heating systems;

1.3. at specified power plants where electricity generation is necessary for ensuring reserves of the energy system;

2. ensuring nuclear operational security, waste storage and disposal;

3. connection of electricity generating facilities using wind, biomass, solar or hydro-power to transmission or distribution electricity networks.

The fulfilment of public service obligations specified in this list is regulated by the Rules on Public Service Obligations approved by the Ministry of Economy. At the end of 2006, they were revised by applying a more flexible taxation mechanism that would facilitate trading on the electricity market. The Rules entered into force in 2008.

6.1.1. Labelling of Primary Energy Sources

For the purpose of implementing Order No 4-346 of the Minister of Economy of the Republic of Lithuania of 7 October 2005 on the approval of the Rules for Issuing Guarantees of Origin of Electricity Generated from Renewable Energy Sources (*Official Gazette,* No. 122-4375, 2005), Lietuvos Energija AB, as the transmission system operator, is responsible for the issue of guarantees of origin of electricity generated from renewable energy sources and for the administration of the database.

A guarantee of origin database was created before 31 December 2005. The following information is recorded, collected and stored on the website of Lietuvos Energija AB

http://www.le.lt the list of persons who were issued guarantees of origin; data on the facilities owned by the participant; the total volume of electricity generated from renewable energy sources broken down by energy sources from which the electricity was generated. Information is updated at least on a monthly basis. Participants, i.e. producers and/or suppliers registered in the guarantee of origin database and given a code, have the right to view their data.

The volume of electricity generated from renewable energy sources is the total output of electricity produced by power plants using only renewable energy sources, as well as the proportion of electricity generated from renewable energy sources in hybrid power plants also using non-renewable energy sources. The proportion of electricity generated from renewable energy sources in these power plants is determined by subtracting the amount of electricity produced from non-renewable energy sources from the gross electricity output. The amount of electricity produced from non-renewable energy sources is determined on the basis of the consumed fuel balance and the normative consumption of conventional fuel for the generation of 1 kWh of electricity established by the Minister of Economy of the Republic of Lithuania.

The producer must, not later than within seven days after the end of each month, provide the following information to the institution issuing guarantees of origin (producers whose facilities are connected to the distribution network – to the distribution network operator of their relevant region) in respect of every facility registered in the database:

1) the amount of electricity generated from renewable energy sources during the previous month (in kWh), where this amount is measured by electricity metering devices complying with the requirements set by the Law of the Republic of Lithuania on Metrology and other legal acts, specifying the renewable energy source;

2. the amount of electricity generated from renewable energy sources and supplied to the network during the previous month (in kWh), specifying the renewable energy source;

3. the amount of electricity sold with guarantees of origin that were not used (in kWh), and the purchaser.

The distribution network operator must, not later than within seven days after the end of each month, submit the following information to Lietuvos Energija AB (the institution issuing guarantees of origin) in respect of each producer separately:

1. amounts of electricity supplied to the network during the previous month from producers generating electricity from renewable energy sources (in kWh);

2) amounts of electricity purchased from producers during the previous month under public service obligations (in kWh), and the amount paid (in LTL).

Participants shall be responsible for the accuracy and reliability of the data provided.

6.1.2. Implementation of the Criteria Set out in Annex A to the Directive

While carrying on their activities, companies operating in the electricity sector must inform customers about efficient electricity consumption, the services provided by the company, conditions of the provision of services, prices and tariffs of services and electricity, fees and terms for the connection of customer equipment to the grid and expected modifications to contractual conditions. Companies of the electricity sector must notify household customers of an increase in prices and tariffs in writing or by other means at least one month prior to such increase. Public suppliers are prohibited from discrimination between customers or categories of customers. Any customer receiving electricity from a public supplier is obliged to settle all payments with the public supplier for electricity and its transportation in a timely manner. A customer has the right to unilaterally withdraw from the contract with the public supplier without paying any charges, giving written notice 30 calendar days in advance and settling all payments for the supplied electricity and its transportation service by the day of withdrawal from the contract.

Household customers have the right to:

1) freely and without any charges choose a supplier;

2) receive information from suppliers concerning the supplier's name, registered address, company code and legal form, the services provided and conditions of their provision, prices and tariffs of services and electricity, the means of notifying about prices, the duration of the contracts, the conditions for conclusion and termination of the contracts, dispute settlement procedures;

3) unilaterally withdraw from the contracts without paying any charges, if contractual conditions are modified and they are not acceptable to household customers;

4) be offered a choice of payment methods by companies operating in the electricity sector and choose a payment method.

Pursuant to the approved Electricity Supply and Consumption Rules, supply may be interrupted or limited through the customer's fault. The operator or supplier has the right, subject to a prior warning at least 15 calendar days in advance in the case of household customers or 10 days in advance in the case of other customers, interrupt or limit electricity supply to them on the date specified in the warning or any later date, when within the set period of time the customer concerned fails to pay or pays in part for the electricity consumed.

Throughout 2008, VST AB temporarily interrupted electricity supply to 1% of the total number of household customers for non-payment for the services provided.

Where electricity transmission and/or supply to a customer are interrupted or limited or where electricity quality parameters at the point of the provision of the electricity transmission service or the purchase and sales of electricity do not comply with the set requirements, the operator or public supplier must compensate the customer upon the customer's request for direct damages incurred through the fault of the operator or public supplier. Indirect damages are not subject to compensation. The customer must file a claim for compensation for direct damages within 10 calendar days after the damages have been incurred. The operator or public supplier must hear the customer's claim within 30 calendar days. Damages incurred due to electricity transmission and/or supply interruption or limitation must be compensated within 30 calendar days from the establishment of their amount and the validity of the customer's claim, unless otherwise agreed by the customer and the public supplier or operator.

Since an independent supplier was chosen by a very small percentage of eligible customers in Lithuania (all customers can become eligible customers from 1 July 2007), the majority of electricity customers purchase electricity from two main public suppliers according to the regulated public tariffs. The regulated public tariffs are applicable to all categories of customers, i.e. residents, small, medium and large businesses. Thus from 2010 the situation may change because there will be no large producer in the electricity market and end users gradually will be eliminated.

A public supplier is obliged to conclude contracts and supply electricity upon request to all customers within the territory specified in the supplier's licence, who have not chosen an independent supplier. This activity is carried out by customer service related separate departments of two main distribution companies.

A customer has the right to unilaterally withdraw from the contract with the public supplier without paying any charges. The customer must notify the public supplier in writing 30 calendar days in advance and settle all payments for the supplied electricity and its transportation service by the day of withdrawal from the contract.

Before concluding or terminating the electricity supply contract with an eligible customer located in the territory specified in the public supplier's licence, the independent supplier must communicate a written notification thereof to the public supplier 30 calendar days in advance.

Before concluding or withdrawing from the electricity supply contract with the independent supplier, an eligible customer located in the territory specified in the public supplier's licence must communicate a written notification thereof to the public supplier 30 calendar days in advance.

Customers may change their electricity supplier without paying any charges.

Price caps of public tariffs (Table 34) are set annually for each specific public supplier. The revenue level for transmission services through high voltage networks and distribution services, as well as for public supply services is set for a three-year period, with annual adjustment by the following coefficients: indexation, impact of electricity volume, unpredicted changes and correlation; price caps for distribution and supply services are calculated in respect of the amount of electricity planned to be transmitted, distributed or sold during that year. Price caps of public tariffs consist of the price caps of the generation cost, the price of transmission services, as well as the price of distribution services through medium and low voltage networks and supply services. The level of public tariffs depends on fluctuations of the generation cost. As the price of the main Lithuanian producer, which has a share of over 70% of the market, is regulated, and other producers sell the major share of their electricity as public service obligations, the NCC estimates the generation cost which is included in the calculation of price caps of public tariffs.

Table 34. Cap Levels of Public Tariffs of Rytų Skirstomieji Tinklai AB and VST AB, EUR/MWh

Rytų Skirstomieji tinklai AB	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
High voltage (330-110 kV)	35.45	36.00	35.88	39.91	50.1	57.84
Medium voltage (35-6 kV)	48.51	54.65	54.30	58.16	70.9	78.95
Low voltage (0,4 kV)	74.49	85.15	83.79	87.29	103.1	111.07
VST AB						
High voltage (330-110 kV)	35.51	35.97	35.83	39.85	50	57.81
Medium voltage (35-6 kV)	48.86	58.04	57.55	61.20	73.9	81.38
Low voltage (0,4 kV)	72.06	85.32	84.29	87.75	103.9	111.01

The breakdown of all customers covered by public tariffs in 2008 is presented in Table 35.

Table 35. Share of Customers Paying According to Public Tariffs, %

Residents	Industry	Others
96.5	0.1	3.4

Electricity is supplied to customers as a good. Electricity consumption is allowed only subject to a contract between a customer (including eligible customer) and a public electricity supplier, transmission or distribution network operator. The grounds for executing contracts are established in the Civil Code. Disputes are settled by mutual agreement or in court. Compliance with the mandatory requirements is stipulated in licences issued to energy companies.

The State Consumer Rights Protection Authority holds preliminary extra-judicial hearings of complaints lodged by natural persons concerning the application of unfair conditions in energy purchase-sale or service contracts.

The State Energy Inspectorate under the Ministry of Economy holds preliminary extra-judicial hearings of complaints concerning the malfunctioning and breakdowns of energy facilities, equipment and metering devices, breaches of requirements for maintenance, energy quality, accounting of energy and payment for the consumed energy, accidents, the interruption, suspension or restriction of energy supply.

The NCC holds preliminary extra-judicial hearings of complaints concerning acts or omissions of energy enterprises in supplying, distributing, transmitting, storing energy, refusal to grant them the right of access to networks and systems, connection, balancing of energy supply flows, as well as application of prices and tariffs.

Social electricity tariffs in Lithuania are not applicable. Social support is provided under legal acts approved by the Government.

6.2. Natural Gas Sector

During 2008 no significant changes took place in the regulation of the public service obligations. The following public service obligations are established by legislation regulating activities in the national natural gas sector:

a) natural gas supply price regulation for all customers by setting supply price caps.

The obligation has been established under Article 23.1.5 of the Law. Article 23.1.5 of the Law prescribes that: *1.The following prices shall be regulated in the gas sector by setting their price caps: <..> supply.*

b) the requirement for supply companies to be the supplier of the last resort for household customers.

This obligation has been established under Article 16.3 of the Law:

3. The supply of the last resort may be provided to household customers and users to sites with the energy generation capacity less than 5 MW and having no fuel reserve stocks. Eligible customers shall be entitled to select another company than the company providing the supplier of the last resort services. Observing the last provision the customer's right to choose a suitable gas supply company is not restricted. This provision is non-discriminatory as various obligations are applicable to supply companies but without restricting customer choices.

The supply of the last resort is clearly regulated in the Law and the implementing legislation as they establish licensing and other procedures.

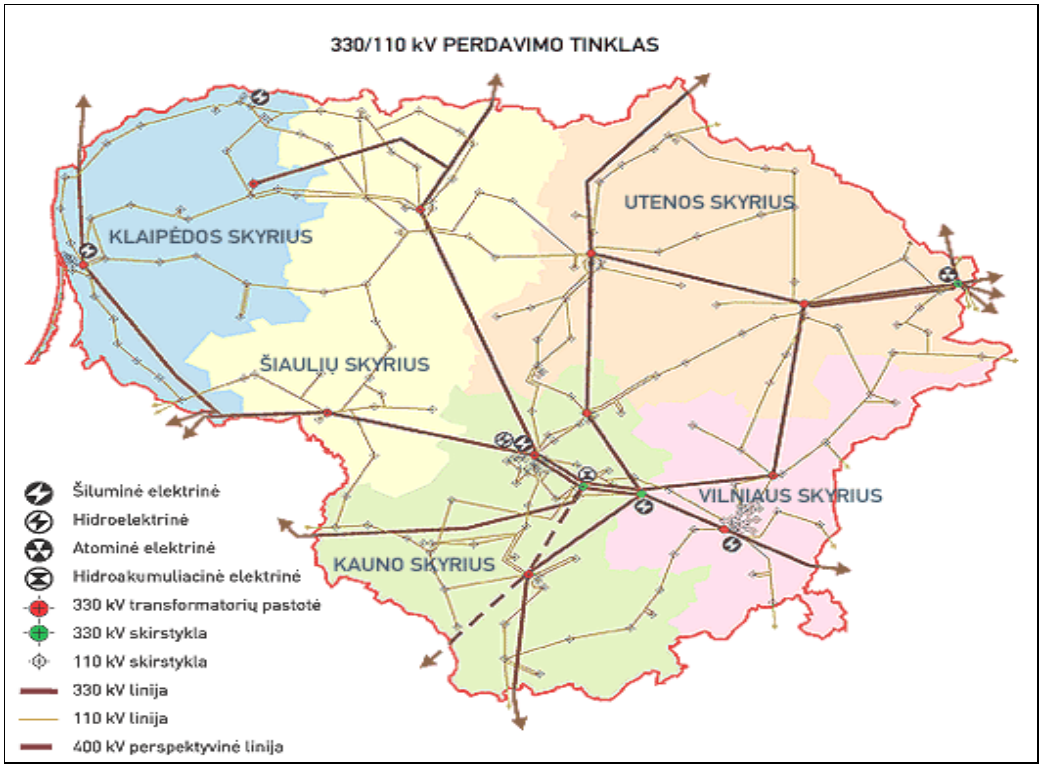
7. Report on the Pricing Structure and G Values

The electricity transmission service price has been applicable since 2002, following the splitting of the vertically integrated electricity company and the start of the functioning of the electricity market. Lithuania has one company holding the transmission system operator's licence, namely, Lietuvos Energija AB, the main company in the Lithuanian electricity sector, functioning as the owner of the electricity transmission grid (110-330 kV), system operator and market operator. It:

- maintains and develops the electricity transmission system;
- ensures a balance between electricity generation and consumption, as well as electricity transmission from Lithuanian power plants to distribution companies;
- co-ordinates the operation of the Lithuanian energy sector to ensure reliable electricity supply to consumers. Together with the neighbouring energy systems, it is engaged in electricity exports, imports and transit;
- organises trade in electricity.

The structure of the transmission system is shown in Figure 15.

Figure 15. Lithuanian Electricity Transmission System



The company owns 222 transformer substations and switchyards, over 6,000 km of 330 and 110 kV electric lines, Kaunas Hydro-Power Plant and Kruonis Pumped Storage Plant, the Dispatch Centre and the ITT centre. Kaunas HPP and Kruonis PSP ensure capacity balances and the regulation of modes.

The transmission system managed by Lietuvos Energija AB is interconnected by four 330 kVelectric lines with Latvia, five lines with Belarus and three lines with Russia (Kaliningrad). One of the primary objectives of Lietuvos Energija AB is the integration of the Lithuanian energy system into the Western European electricity market as well as the development of regional co-operation. The expansion of the transmission grid is planned in the near future by interconnecting it with the Polish electricity networks. The Lithuanian-Polish interconnection project is vitally important in developing a common EU electricity market and enhancing the reliability of energy supply. The exploitation of joint capabilities of the electricity systems of the Baltic States is aimed at creating a common Baltic electricity market ensuring successful integration of the Baltic States into Western European and Scandinavian electricity markets.

The general pricing principles applicable to electricity transmission services are defined in the Law on Electricity, i.e. prices for transmission services are regulated by setting the price cap. The specific procedure for calculating price caps for these services is established in the Methodology for Setting Prices for Electricity Transmission and Distribution Services and their Price Caps. It is described in the Section on *Network Tariffs in this Report*. The prices for electricity transmission services are calculated according to several voltage levels: 330-110 kV (high) and 35-6 kV (medium). The prices for lower voltage transmission services are close to those charged for the services provided by the twice higher voltage grid. However, the transmission system has only several medium voltage electric lines, which do not have particular importance to the system.

The transmission service price consists of the following components:

1. price for the transmission system operator's service;
2. price for additional (capacity reserve) services;
3. price for public service obligations (applicable from 1st January 2008).

The average transmission service price is differentiated into capacity and energy components according to voltage levels. The average price for additional services is differentiated only on the basis of capacity component.

Transmission service prices (excluding VAT) effective from 2008 by types of services provided to distribution networks and customers receiving electricity from the transmission grid are given in Table 36.

Table 36. Components of Transmission Service Prices

No.	Tariff (1 LTL = 3.4528 EUR)	Tariff, excluding VAT	
		when the ownership boundary is between 330-110 kV voltage equipment	when the ownership boundary is between 35-6 kV voltage equipment
1.	Differentiated two-component prices charged by the transmission system operator:		
1.1.	capacity component	6.74 LTL/kW per month	12.28 LTL/kW per month
1.2.	energy component	1.32 ct/kWh	1.34 ct/kWh
2.	Differentiated price for the capacity reserve service – capacity component	6.93 LTL/kW per month	6.93 LTL/kW per month

When paying for transmission services, distribution network operators and customers whose equipment is connected to the transmission grid make the following payments:

- A differentiated price of the transmission system operator's service in ct/kWh for the actual amount of electricity transmitted to them from the transmission grid and in LTL/kW per month for the maximum actual hourly demanded capacity per month (including electricity generated with own resources and received from producers, except for those using renewable and waste energy sources);
- A differentiated price of the capacity reserve service in LTL/kW per month for the maximum actual hourly demanded capacity per month (including electricity generated with own resources and received from producers, except for those using renewable and waste energy sources);
- A set price of public service obligations in LTC/kWh for the actual amount of electricity transmitted to them.

Public suppliers selling electricity to customers whose equipment is connected to the transmission grid apply public tariffs less the prices charged for electricity transmission and capacity reserve services.

It is evident that producers are not charged the transmission service price or a part thereof, i.e. G component is equal to zero. Furthermore, no charges are applied on the basis of the location of producers or customers.

The equipment of new customers and producers is connected to the grid in accordance with the Rules for the Connection of Energy Facilities (Networks, Equipment, and Systems) of Electricity Customers and Producers to the Existing Facilities (Networks, Equipment, Systems) of Energy Companies approved by the order of the Minister of Economy.

Pursuant to the Law on Energy and the Law on Electricity, the NCC approves connection fees (see Table 37).

Table 37. Effective Fees for the Connection of Customer Equipment to the Grid, Excluding VAT

Tariffs	Measurement unit	One-phase branch line	Three-phase branch line
1.1. Monomial tariff for allowed capacity	LTL/kW	108.0	142.8
1.2. Binomial tariff for: - allowed capacity - taxable distance	 LTL/kW LTL/m	 108.0 14.8	 142.8 19.2

These fees are set at the rates so as to cover 40% of the operators' costs needed to provide the services specified in the aforementioned Rules, except where:

1. a customer wishes to enhance the reliability of electricity supply;
2. the price for the service provided by the operator as calculated in accordance with the approved fees for the connection of customer equipment to the grid is more than 2.5 times lower than the estimated amount for this service;
3. a customer wishes to replace the one-phase branch line with the three-phase one, without changing the allowed capacity;

4. a customer, as a result of the transfer of part of its immovable property to another person (new customer), waives its allowed capacity or a part thereof, while the new customer's electrical equipment, the allowed capacity whereof equals to the waived one, is connected at the same grid address as the equipment of the customer that has waived its allowed capacity;
5. the allowed capacity of the customer's electrical equipment that is newly connected is above 1000 kW;
6. the customer's electrical equipment is connected to the 35 kV voltage grid and the ownership boundary is at the side of 35 kV voltage;
7. the connection of electrical equipment to the grid is requested for one-off events, construction period or other short-term purposes, except for the cases when the electricity grids constructed and installed for construction needs will be used for continuous electricity supply, as well as the connection of electrical equipment in temporary constructions is requested;
8. a customer, producer or other persons wish to move or reconstruct the energy facilities (electricity networks and equipment) owned by the operator, when these facilities impede the construction of buildings or for other reasons;
9. customer equipment is connected to the transmission grid in the cases prescribed by the Law of the Republic of Lithuania on Electricity;
10. the price for the connection of electrical facilities of producers to the grid is equal to the estimated project amount. Producers using renewable and waste energy sources for electricity generation pay for the connection of their equipment in accordance with the Procedure for Promoting the Generation and Purchase of Electricity Generated from Renewable and Waste Energy Sources;
11. this service is free of charge in the event of a customer reducing the allowed capacity of its electrical equipment.

The following procedure for applying fees for the connection of customer equipment to the grid has been established by the resolution of the NCCPE:

1) monomial tariff (for allowed capacity) is charged, where $L \leq Lv$ or $k \leq x\ L$.

2) binomial tariff (for allowed capacity and distance) is charged, where $L > Lv$ and $k > x\ L$.

where:

$k = L / P$;

P – newly connected (additional) allowed capacity of the customer (kW);

Lv and xL – electricity network development estimation values;

L – shortest geometrical distance from the customer's metering cabinet (boundary of the ownership of the electricity network) to the calculated connection point (m).

The following network development estimation values have been set:

Lv = 38 m, x L = 4.49 m/kW.

Based on the allowed capacity, the connection point is determined in accordance with the conditions specified in Table 38.

Table 38. Determination of the Connection Point

Customer's additional allowed	Connection point for the requested branch line (L) is

capacity (P), kW	determined as follows:
P ≤10	a) the nearest point in the 0.22 – 10 kV voltage electricity grid; b) when installing a new three-phase branch line, the nearest point in the 0.38 – 10 kV three-phase voltage electricity grid.
10 < P ≤ 500	the nearest point in the 10 kV voltage electricity grid. In cases where the allowed capacity may be connected to the 0.38 kV voltage electricity grid without any reconstruction, the nearest point in the 0.38 kV voltage electricity grid.
500 < P < 1000	the nearest 110 kV transformer substations or 10 kV buses of the 10 kV distribution point.
P ≥ 1000	in accordance with technical conditions.

Connection fee is calculated according to the following formulas:

- monomial when a one-phase branch line is installed M = 108,0 x P (LTL);
- monomial when a three-phase branch line is installed M = 142,8 x P (LTL);
- binomial when a one-phase branch line is installed M = 108,0 x P +14,8 (L – 4,49xP) (LTL);
- binomial when a three-phase branch line is installed M = 142,8 x P + 19,2 (L – 4,49xP) (LTL).

Fees for the connection of customer equipment to the grid and the procedure for their application are applied to customers of all electricity network operators, who conclude contracts for the connection of their equipment to the grid after 1 January 2003.

Connection does not entail any additional charges. However, privileges are granted to producers using renewable energy sources pursuant to the Procedure for Promoting the Generation and Purchase of Electricity Generated from Renewable Energy Sources. When paying for the services of the transmission system operator, such producers are not charged the capacity component of the transmission service and the price for the capacity reserve service.

Annex A: Indicators with definitions

This Annex A contains the structure (indicators with definitions) of the final questionnaire of the indicators for the 2009 National Report. This questionnaire will be launched electronically (online web questionnaire -> CEER Database) by the URB TF at the end of May. **The data must be filled in online by 31 August 2009.**

The data/contents should refer to 31 December 2008 or the reporting period 2008 unless otherwise stated.

Classification of the indicators:
A mandatory for the European Commission
B mandatory for CEER
C optional
The classification is listed beside the numbering of each indicator.

The questionnaire can be found on the CEER website in the restricted Area (Database/National Reports - Indicators/Questionnaire).

The red asterisks beside the indicators mean that these indicators are part of the CEER database.

1. General Regulatory Issues (Electricity)

1.**A** Electricity market opening threshold *

Threshold of eligibility of customers to choose supplier

2.**A** Proportion (%) of market open to competition *

Eligible consumption (GWh) divided by annual consumption (GWh) in the country

3. Interruptions

SAIDI = System average interruption duration index. It indicates the total duration of interruption for the average customer during a pre-defined period of time. It is commonly measured in customer minutes separated for planned and unplanned interruptions and cleared for extreme weather.

3.1.**A** SAIDI (planned and unplanned interruptions) *

3.2.B SAIDI (planned interruptions) *

3.3.B SAIDI (unplanned interruptions) *

4. Length of network in the country in km

4.1.B Length of network (sum of all TSO) in km *

4.2.B Length of network (sum of all DSO) in km *

2. Effective unbundling (Electricity)

Report on unbundling requirements on the network companies. It is suggested to report average figures for representative TSOs and DSOs. Representativity means that they should reflect typical unbundling regimes as well as a minimum coverage of the market of at least 50% of energy distributed.

1. Transmission System Operators (TSOs)

1.1.**A** TSOs in the country *

Number of TSOs in the country

1.2.**A** Ownership unbundled TSOs *

Number of TSOs that are ownership unbundled

1.3.C Name and market share of largest TSO *

% of total TSO network (by km) in the country managed by the largest TSO

1.4. Ownership structure of largest TSO

1.4.1.C Indicate % of public ownership *

1.4.2.C Indicate % of private companies ownership * (1.4.1 + 1.4.2. = 100%) *

1.5. B TSOs with network assets *

Number of legally unbundled TSOs that own network assets

1.6. B TSOs w/o network assets *

Number of legally unbundled TSOs that do not own network assets

2. Distribution System Operators (DSOs)

2.1.**A** DSOs in the country *

Number of DSOs in the country

2.2.B Ownership unbundled DSOs *

Number of DSO that are ownership unbundled

2.3.**A** Legally unbundled DSOs *

Number of DSOs that are legally unbundled

2.4.**A** 100 000 customer exemption *

Application of the 100 000 customer exemption in the country

2.5.**A** Small DSOs (< 100 000 customers) *

Number of DSOs with less than 100 000 customers

2.6.B DSOs with network assets *

Number of legally unbundled DSOs that own network assets

2.7.B DSOs w/o network assets *

Number of legally unbundled DSOs that do not own network assets

3. Separate location of network business

3.1 C % of TSOs (by number) that are located separately (i.e. that access restrictions to the facilities of the network company are in place) from both production and supply affiliates *

3.2. C % of DSOs (by number) that are located separately (i.e. that access restrictions to the facilities of the network company are in place) from both production and supply affiliates *

4. Separate identity of network business

4.1.C % of TSOs (by number) that present themselves to customers as separate entities: name of company, logos, websites, emails, etc. *

4.2.C % of DSOs (by number) that present themselves to customers as separate entities: name of company, logos, websites, emails, etc. *

3. Description of the wholesale market - generation (Electricity)

This section serves to describe the structure of the generation and the wholesale market.

1. Generation and consumption figures

1.1.**A** Demand/consumption *

Annual final total demand including losses without pumped storage

1.2.B Peak load in the system of the TSO *

- The highest simultaneous demand for electricity satisfied during the year.
- The electricity supply at the time of peak demand may include demand satisfied by imported electricity or alternatively the demand may include exports of electricity.
- The total peak load on the national grid is not the sum of the peak loads during the year on every power station as they may occur at different times.

1.3.**A** Maximum net generating capacity *

The capacity should be reported at 31st December of the relevant reported year.
Includes electrical capacity of both electricity (only) and CHP plants.
The Net Maximum Electrical Capacity is the sum of the net maximum capacities of all stations taken individually throughout a given period of operation. The period of operation assumed for present purposes is continuous running: in practice 15 hours or more per day. The net maximum capacity is the maximum power assumed to be solely active power that can be supplied, continuously, with all plant running, at the point of outlet to the network.

1.4.**A** Total net generation volume *

The gross electricity production less the electrical energy absorbed by the generating auxiliaries and the losses in the main generator transformers
(Gross Electricity Production: the sum of the electrical energy production by all the generating sets concerned - including pumped storage - measured at the output terminals of the main generators)

1.5.B Network interconnection *

Total sum of NTC for import: The total sum of NTC for import for all borders is defined as the average of Summer-NTC (summer 2008) and Winter-NTC (winter 2008-2009) for import for each border according to ETSO standards (see http://www.etso-net.org/NTC_Info/general_information/e_default.asp)

1.6.B Load Flows

Amounts of electricity are considered as imported or exported when they have crossed the political boundaries of the country, whether customs clearance has taken place or not. If electricity is transited through a country, the amount should be reported as both an import and an export.

1.6.1.B Load flows (Imports) *

Total sum of physical Import Quantity

1.6.2.B Load flows (Exports) *

Total sum of physical Export Quantity

2. Market dominance figures

For groupings the domination principle should be used: Where one generation firm owns (controls) 50% or more of another generation firm, they are counted as one company. If exactly 50% are owned only 50% are added to the one company.

2.1.**B** Generation companies >=5% by capacity *

Number of companies running more than 5% of national net generating capacity

2.2.**B** Generation companies >=5% by volume *

Number of companies running more than 5% of national net generation volume

2.3.**A** Share of three biggest generators by capacity *

Share of three largest generation companies by net generating capacity

2.4.**A** Share of three biggest generators by volume *

Share of three largest generation companies by net generation volume

2.5.B HHI by capacity *

Sum of squared shares of individual companies. The threshold should be set in a way to guarantee 80% coverage

2.6.B HHI by volume *

Sum of squared shares of individual companies. The threshold should be set in a way to guarantee 80% coverage

4. Description of the wholesale market (traded electricity)

1 **A** Electricity traded (power exchange - spot) *

Volume of electricity traded at power exchange spot market (day ahead). Trade of standardised products for physical delivery the next day.

2 **A** Electricity traded (power exchange - future) *

Volume of electricity traded at power exchange future markets. Trade of standardised products.

3 B Electricity traded (OTC-Clearing at power exchange) *

OTC contracts that are cleared at power exchange

4 **A** Number of companies active at power exchange *

Companies exchanging volumes of electricity (financial and/or physical trades) at power exchanges

5. Description of the retail market (Electricity)

1. Suppliers

1.1 B Total number of electricity suppliers in the country *

1.2 C Independent suppliers *

Number of independent suppliers (electricity network operators in the country must not be direct/indirect shareholders of the independent supplier or vice versa)

2. Share in the retail market

For groupings the domination principle should be used: Where one supplier owns (controls) 50% or more of another supplier, they are counted as one company. If exactly 50% are owned only 50% are added to the one company.
(large, medium and small industry as usually defined in the individual country)
The final retail market should be split into eligible and not eligible and the share calculated on the basis of consumption quantity of eligible customers

2.1. B No companies >= 5% market share in the whole retail market *

2.2. B Market share of the three largest companies in the whole retail market *

2.3. B Market share of the three largest companies in large industry *

2.4. C Market share of the three largest companies in medium-sized industry *

2.5. C Market share of the three largest companies in small industry and households *

3. Switching rates

Switching supplier is defined as "the action through which a customer changes supplier". More detailed: A switch is essentially seen as the free (by choice) movement of a customer (defined in terms of an overall relationship or the supply points and quantity of electricity or gas associated with the relationship) from one supplier to another. It involves some activity by the customer. (So changes of supplier resulting from a merger are excluded). Switching activity is defined as the number of switches in a given period of time.

A switch additionally includes:

- A re-switch: when a customer switches for the second or subsequent time, even within the same measured period of time.
- A switch-back: when a customer switches back to his/her former or previous supplier.
- A switch to a competitive company of the incumbent and vice versa

Switching and moving: When a customer moves, a switch should only be recorded if a customer switches to a supplier other than the supplier which is incumbent in the area where he/she is moving to.

Changes of tariffs: A change of tariff with the same retailer is not equivalent to a switch (this exclusion extends to: changing to a new tariff; changing from a regulated to a non-regulated tariff or vice versa with the same supplier or a subsidiary of the same supplier).

Switching by volume: The yearly consumption of a switched customer should be counted without consideration of the switching date.

Reference figures for calculating the switching rates are either the number of customers on
31 December 2008 (switching rates by number) or the consumption of the customers during the reporting period 2008 (switching rates by volume)

3.1. **A** Annual switching rate in the whole retail market (by number of eligible meter points) *

% of customers having changed supplier

3.2. A Annual switching rate of household customers (by number of eligible meter points) *

% of household customers having changed supplier

3.3. B Annual switching rate of non-household customers (by number of eligible meter points) *

% of non-household customers having changed supplier

3.4. **B** Annual switching rate in large industry (by number of eligible meter points) *

% of large industrial customers having changed supplier

3.5. **B** Annual switching rate in medium-sized industry (by number of eligible meter points) *

% of medium industrial and commercial customers having changed supplier

3.6. **A** Annual switching rate in small industry and households (by number of eligible meter points) *

% of small commercial customers and households having changed supplier

3.7. **A** Annual switching rate in the whole retail market (by eligible volume) *

% of customers having changed supplier

3.8. B Annual switching rate of household customers (by eligible volume) *

% of household customers having changed supplier

3.9. A Annual switching rate of non-household customers (by eligible volume) *

% of non-household customers having changed supplier

3.10. **A** Annual switching rate in large industry (by eligible volume) *

% of large industrial customers having changed supplier

3.11. **A** Annual switching rate in medium-sized industry (by eligible volume) *

% of medium industrial and commercial customers having changed supplier

3.12. **B** Annual switching rate in small industry and households (by eligible volume) *

% of small commercial customers and households having changed supplier (by customers)

3.13. D Annual rate of customer re-negotiating in the whole retail market (by eligible volume) *

Customer renegotiating means changing the contractual terms with the existing electricity supplier resulting in a price reduction for the customer

4. Households and non-household customers

4.1. B Total number of household customers in the country *

4.2. B Total number of non-household customers in the country *

4.3. B Total consumption of household customers in the country *

4.4. B Total consumption of non-household customers in the country *

5. Regulated end-user prices

5.1. B Application of end-user price regulation for household customers in the country *

5.2. B Application of end-user price regulation for non-household customers in the country *

5.3. B Number of household customers in the country supplied under regulated end-user prices *

5.4. B Number of non-household customers in the country supplied under regulated end-user prices *

5.5. B Consumption of household customers in the country supplied under regulated end-user prices *

5.6. B Consumption of non-household customers in the country supplied under regulated end-user prices *

6. Level of choice for customers

6.1. B Number of nationwide suppliers in the country *

6.2. B Average number of suppliers in the DSO networks *

6. Retail market prices (Electricity)

1. Prices for standard consumer Ig (Eurostat old methodology)

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

1.1.B Ig - Network Charges *

Including

- system operators costs
- commercial and billing costs related to transmission and distribution activities
- congestion management costs
- excluding taxes.

1.2.B Ig - Levies *

Either charged to customers or suppliers – renewables, stranded cost, chp levies, concession levies

1.3.B Ig - Taxes *

VAT, energy taxes, local taxes

1.3.1.B Ig – Recoverable Taxes *

Part of the taxes that are recoverable (e.g. VAT)

1.4.B Ig - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price

2. Prices for standard consumer Ib (Eurostat old methodology)

Standard consumer Ib = annual consumption of 50 MWh and maximum demand of 50kW

2.1.D Ib - Network Charges *

Including

- system operators costs
- commercial and billing costs related to transmission and distribution activities
- congestion management costs
- excluding taxes

2.2.D Ib - Levies *

Either charged to customers or suppliers – renewables, stranded cost, chp levies, concession levies

2.3.D Ib - Taxes *

VAT, energy taxes, local taxes

2.3.1.D Ib – Recoverable Taxes *

Part of the taxes that are recoverable (e.g. VAT)

2.4.D Prices (Ib) - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price

3. Prices for standard consumer Dc (Eurostat old methodology)

Standard consumer Dc = annual consumption of 3 500 kWh of which 1 300 kWh by night

3.1.B Dc - Network Charges *

Including

- system operators costs
- commercial and billing costs related to transmission and distribution activities
- congestion management costs
- excluding taxes

3.2.B Dc - Levies *

Either charged to customers or suppliers – renewables, stranded cost, chp levies, concession levies

3.3.B Dc - Taxes *

VAT, energy taxes, local taxes

3.4.B Dc - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price

4. Prices for typical household in the country

4.1.B Typical household consumption *

Typical household consumption = energy (kWh) consumed by households divided by number of households or household metering points
Describe the composition of the average consumption of the typical household in the field for comments (e.g. summer/winter, day/night, etc.)

4.2.B Typical household - Network Charges *

Including

- system operators costs
- commercial and billing costs related to transmission and distribution activities
- congestion management costs
- excluding taxes

4.3.B Typical household - Levies *

Either charged to customers or suppliers – renewables, stranded cost, chp levies, concession levies

4.4.B Typical household - Taxes *

VAT, energy taxes, local taxes

4.5.B Typical household - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price

7. General Regulatory Issues (Gas)

1.**A** Gas market opening threshold *

Threshold of eligibility of customers to choose supplier

2.**A** Proportion (%) of market open to competition *

Eligible consumption (TWh) divided by annual consumption (TWh) in the country

3. Length of network in the country in km

3.1.B Length of network (sum of all TSO) in km *

3.2.B Length of network (sum of all DSO) in km *

4. Balancing

4.1.**A** Balancing model applied *

TSO buys balancing gas on the regular gas market/TSO contracts sources of balancing gas/TSO uses storage for balancing

4.2.B Tolerance in balancing *

Balancing model allows tolerances/ balancing model does not allow tolerances

5.**A** Tariff model *

entry exit (coupled/uncoupled)/point to point

6.**A** Capacity allocation mechanism *

First come first served/ auction/ pro rata/ allocation on deadline / capacity goes with the customer

7.**A** Congestion management *

auction/pro rata/ lottery/ capacity buy back /UIOLI/ secondary market/ interruptible capacity/ use it or sell it

8. Effective unbundling (Gas)

Report on unbundling requirements on the network companies. It is suggested to report average figures for representative TSOs and DSOs. Representativity means that they should reflect typical unbundling regimes as well as a minimum coverage of the market of at least 50% of energy distributed.

1. Transmission System Operators (TSOs)

1.1.**A** TSOs in the country *

Number of TSOs in the country

1.2.**A** Ownership unbundled TSOs *

Number of TSOs that are ownership unbundled

1.3.C Name and market share of largest TSO *

% of total TSO network (by km) in the country managed by the largest TSO

1.4. Ownership structure of largest TSO

1.4.1.C Indicate % of public ownership *

1.4.2.C Indicate % of private companies ownership * (1.4.1 + 1.4.2. = 100%)

1.5.B TSOs with network assets *

Number of legally unbundled TSOs that own network assets

1.6.B TSOs w/o network assets *

Number of legally unbundled TSOs that do not own network assets

2. Distribution System Operators (DSOs)

2.1.**A** DSOs in the country *

Number of DSOs in the country

2.2.B Ownership unbundled DSOs *

Number of DSO that are ownership unbundled

2.3.**A** Legally unbundled DSOs *

Number of DSOs that are legally unbundled

2.4.**A** 100 000 customer exemption *

Application of the 100 000 customer exemption in the country

2.5.A Small DSOs (< 100 000 customers) *

Number of DSOs with less than 100 000 customers

2.6.B DSOs with network assets *

Number of legally unbundled DSOs that own network assets

2.7.B DSOs w/o network assets *

Number of legally unbundled DSOs that do not own network assets

3. Separate location of network business

3.1.C % of TSOs (by number) that are located separately (i.e. that access restrictions to the facilities of the network company are in place) from both production and supply affiliates *

3.2.C % of DSOs (by number) that are located separately (i.e. that access restrictions to the facilities of the network company are in place) from both production and supply affiliates *

4. Separate identity of network business

4.1.C % of TSOs (by number) that present themselves to customers as separate entities: name of company, logos, websites, emails, etc. *

4.2.C % of DSOs (by number) that present themselves to customers as separate entities: name of company, logos, websites, emails, etc. *

9. Description of the wholesale market incl. production, import, export, transit and storage (Gas)

This section serves to describe the structure of the production, import, export, transit and storage in the wholesale market.

1. Production, import, export, transit and consumption figures

1.1.**A** Demand/Consumption[1] *
(Unit modification in Database: TWh/yr)

Gross Inland Consumption = Production + Imports - Exports + Storage variations
NB Storage variation reflect the difference between opening stock level at the first day of the year and closing stock level at the last day of the year of stocks held on national territory. A stock build is shown as a negative number and a stock draw as a positive number.

1.2.**A** Peak *

Maximum quantity of gas consumed in a day during the year (Unit modification: TWh/day)

1.3.**A** National production quantity *

National production per year (Unit modification: TWh/yr)
Indigenous Production: All dry marketable production within national boundaries, including offshore production. Production is measured after purification and extraction of NGLs and sulphur.
Excludes extraction losses and quantities reinjected, vented or flared.

1.4.**A** National production capacity *

Production capacity (maximal technical availability) per day (Unit modification: TWh/day)

Amounts of gas are considered as imported or exported when they have crossed the political boundaries of the country, whether customs clearance has taken place or not. If gas is transited through a country, the amount should be reported as both an import and an export.

1.5.**A** Pipeline import quantity per year (Unit modification: TWh/yr) *

1.6.**A** Pipeline import capacity (maximal technical availability) total (Unit modification: TWh/h) *

1.7.B Export quantity per year (Unit modification: TWh/yr) *

1.8.B Export capacity (maximal technical availability) total (Unit modification: TWh/h) *

1.9.B Transit quantity per year (Unit modification: TWh/yr) *

1.10.D Firm pipeline import capacity reserved to domestic or foreign LT contracts *

Long term contract to supply domestic or foreign market (≥ 1 year) (Unit modification: TWh/h)

1.11.D Firm export capacity reserved to foreign LT contracts *

Long term contract to supply foreign market (≥ 1 year) (Unit modification: TWh/h)

1.12 D Firm pipeline import capacity not reserved to domestic or foreign LT contracts *

Open to short term transport (< 1 year) (Unit modification: TWh/h)

1.13. Free pipeline import capacity

1.13.1.**A** Peak hourly import gas flow (TWh/h) within the year *

1.13.2.**A** Maximum pipeline utilisation *

Calculate: [1.13.1]/[1.6] *100 (peak hourly import gas flow within the year/pipeline import capacity (maximal technical availability) (Unit percent)

1.13.3.**A** Free pipeline import capacity total *
Calculate: (100-[maximum pipeline utilisation]) (Unit: percent)

1.14 D Firm export capacity not reserved to foreign LT contracts *

open to short term transport (< 1 year) (Unit modification: TWh/h)

1.15.**A** LNG import capacity (maximal technical availability) total (Unit: TWh/h) *

1.16.**A** LNG Gas volume flow into the country (Unit: TWh/yr) *

[1] Units in database were converted from m³ to kWh as gas qualities and energy content of the gas differ significantly throughout Germany and within Europe. Reference to m³ results in incomparable results.

1.17.**A** Maximum peak outflow rate of all LNG terminals (Unit: TWh/h) *

Maximum peak outflow rate of all LNG terminals in the country

1.18.**A** Gas import flows to the EU *

Total gas volume imported via cross-border interconnections with countries outside EU-27 (TWh/yr)

1.19.**A** Gas export flows from the EU *

Total gas volume exported via cross-border interconnections with countries outside EU-27 (TWh/yr)

2. Storage figures

2.1.**A** LNG Gas Storage Capacity (Unit: Nm3) *

2.2.**A** Underground gas storage – Working gas volume (Unit: Nm3) *

2.3.**A** Underground gas storage – Maximum withdrawal capacity (Unit: Nm3/h) *

3. Market dominance figures

For groupings the domination principle should be used: Where one firm owns (controls) 50% or more of another firm, they are counted as one company. If exactly 50% are owned only 50% are added to the one company.

3.1.**A** No of companies >= 5% available gas *

available gas = gross inland consumption (production + net imports + storage variations)
Net imports=imports-exports

3.2.**A** Share of three biggest companies by available gas *

3.3.B HHI by available gas *

Sum of squared shares of individual companies. The threshold should be set in a way to guarantee 80 % coverage.

3.4.D Share of three largest wholesalers *

Share calculated on volumes traded in wholesale markets (the number includes resales)

4.B Calorific value *

Average calorific value in the country
(Unit modification: kWh/m3)

10. Description of the wholesale market (traded gas)

1.**A** Gas traded (gas exchange - spot) *

Volume of gas traded at gas exchange spot market (day ahead). Trade of standardised products for physical delivery the next day.
(Unit modification: TWh/yr)

2.**A** Gas traded (gas exchange - future) *

Volume of gas traded at gas exchange future markets. Trade of standardised products
(Unit modification: TWh/yr)

3.B Gas traded (OTC-Clearing at gas exchange) *

OTC contracts that are cleared at gas exchange
(Unit modification: TWh/yr)

4.**A** Number of companies active at gas exchange *

Companies exchanging volumes of gas (financial and/or physical trades) at gas exchanges

11. Description of the retail market (Gas)

1. Suppliers

1.1 B Total number of gas suppliers in the country *

1.2 C Independent suppliers *

Number of independent suppliers (gas network operators in the country must not be direct/indirect shareholders of the independent supplier or vice versa)

2. Share in the retail market

For groupings the domination principle should be used. Where one supplier owns 50% or more of another supplier, they are counted as one company. If exactly 50% are owned only 50% are added to the one company..
(large, medium and small industry as usually defined in the individual country)
The final retail market should be split into eligible and not eligible and the share calculated on the basis of consumption quantity of eligible customers

2.1.B No of companies >= 5% market share in the whole retail market *

2.2.B Market share of the three largest companies in the whole retail market *

2.3.B Market share of the three largest companies in power plants *

2.4.B Market share of the three largest companies in large industry *

2.5.C Market share of the three largest companies in medium-sized industry *

2.6.C Market share of the three largest companies in small industry and households *

3. Switching rates

Switching supplier is defined as "the action through which a customer changes supplier". More detailed: A switch is essentially seen as the free (by choice) movement of a customer (defined in terms of an overall relationship or the supply points and quantity of electricity or gas associated with the relationship) from one supplier to another. It involves some activity by the customer. (So changes of supplier resulting from a merger are excluded). Switching activity is defined as the number of switches in a given period of time.

A switch additionally includes:

- A re-switch: when a customer switches for the second or subsequent time, even within the same measured period of time.
- A switch-back: when a customer switches back to his/her former or previous supplier.
- A switch to a competitive company of the incumbent and vice versa

Switching and moving: When a customer moves, a switch should only be recorded if a customer switches to a supplier other than the supplier which is incumbent in the area where he/she is moving to.

Changes of tariffs: A change of tariff with the same retailer is not equivalent to a switch (this exclusion extends to: changing to a new tariff; changing from a regulated to a non-regulated tariff or vice versa with the same supplier or a subsidiary of the same supplier).

Switching by volume: The yearly consumption of a switched customer should be counted without consideration of the switching date.

Reference figures for calculating the switching rates are either the number of customers on
31 December 2008 (switching rates by number) or the consumption of the customers during the reporting period 2008 (switching rates by volume)

3.1.**A** Annual switching rate in the whole retail market (by number of eligible meter points) *

% of customers having changed supplier

3.2. A Annual switching rate of household customers (by number of eligible meter points) *

% of household customers having changed supplier

3.3. B Annual switching rate of non-household customers (by number of eligible meter points) *

% of non-household customers having changed supplier

3.4.**B** Annual switching rate of power plants (by number of eligible meter points) *

% of power plants having changed supplier

3.5.**B** Annual switching rate in large industry (by number of eligible meter points) *

% of large industrial customers having changed supplier

3.6.**B** Annual switching rate in medium-sized industry (by number of eligible meter points) *

% of medium industrial and commercial customers having changed supplier

3.7.**A** Annual switching rate in small industry and households (by number of eligible meter points) *

% of small commercial customers and households having changed supplier

3.8.**A** Annual switching rate in the whole retail market (by eligible volume) *

% of customers having changed supplier

3.9.B Annual switching rate of household customers (by eligible volume) *
% of household customers having changed supplier

3.10.A Annual switching rate of non-household customers (by eligible volume) *
% of non-household customers having changed supplier

3.11.B Annual switching rate of power plants (by eligible volume) *

% of power plants having changed supplier

3.12.**A** Annual switching rate in large industry (by eligible volume) *

% of large industrial customers having changed supplier

3.13.**A** Annual switching rate in medium-sized industry (by eligible volume) *

% of medium industrial and commercial customers having changed supplier

3.14.**B** Annual switching rate in small industry and households (by eligible volume) *

% of small commercial customers and households having changed supplier

3.15.D Annual rate of customer re-negotiating in the whole retail market (by eligible volume) *

Customer renegotiating means changing the contractual terms with the existing gas supplier resulting in a price reduction for the customer

4. Households and non-household customers

4.1. B Total number of household customers in the country *

4.2. B Total number of non-household customers in the country *

4.3. B Total consumption of household customers in the country *

4.4. B Total consumption of non-household customers in the country *

5. Regulated end-user prices

5.1. B Application of end-user price regulation for household customers in the country *

5.2. B Application of end-user price regulation for non-household customers in the country *

5.3. B Number of household customers in the country supplied under regulated end-user prices *

5.4. B Number of non-household customers in the country supplied under regulated end-user prices *

5.5. B Consumption of household customers in the country supplied under regulated end-user prices *

5.6. B Consumption of non-household customers in the country supplied under regulated end-user prices *

6. Level of choice for customers

6.1. B Number of nationwide suppliers in the country *

6.2. B Average number of suppliers in the DSO networks *

12. Retail market prices (Gas)

1. Prices for standard consumer I4-1 (Eurostat old methodology)

Standard consumer I4-1 = annual consumption of 418,6 TJ

1.1.B I4-1 - Network Charges *

Network tariff including metering costs excluding levies and taxes
(Unit modification: ct/kWh)

1.2.B I4-1 - Levies *

Either charged to customers or suppliers – concession levies
(Unit modification: ct/kWh)

1.3.B I4-1 - Taxes *

VAT, energy taxes, local taxes
(Unit modification: ct/kWh)

1.3.1.B I4-1 – Recoverable Taxes *

Part of the taxes that are recoverable (e.g. VAT)

1.4.B I4-1 - Energy price *

Total price
- network charges
- levies
- taxes
= Energy Price
(Unit modification: ct/kWh)

2. Prices for standard consumer I1 (Eurostat old methodology)

Standard consumer I1 = annual consumption of 0,4186 TJ

2.1.D I1 - Network Charges *

Network tariff including metering costs excluding levies and taxes
(Unit modification: ct/kWh)

2.2.D I1 - Levies *

Either charged to customers or suppliers – concession levies
(Unit modification: ct/kWh)

2.3.D I1 - Taxes *

VAT, energy taxes, local taxes
(Unit modification: ct/kWh)

2.3.1.D I1 – Recoverable Taxes *

Part of the taxes that are recoverable (e.g. VAT)

2.4.D I1 - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price
(Unit modification: ct/kWh)

3. Prices for standard consumer D3 (Eurostat old methodology)

Standard consumer D3 = annual consumption of 83,7 GJ

3.1.B D3 - Network Charges *

Network tariff including metering costs excluding levies and taxes
(Unit modification: ct/kWh)

3.2.B D3 - Levies *

Either charged to customers or suppliers – concession levies
(Unit modification: ct/kWh)

3.3.B D3 - Taxes *

VAT, energy taxes, local taxes
(Unit modification: ct/kWh)

3.4.B D3 - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price
(Unit modification: ct/kWh)

4. Prices for typical household in the country

4.1.B Typical household consumption *

Typical household consumption = energy (kWh) consumed by households divided by number of households or household metering points
Describe the composition of the average consumption of the typical household in the field for comments (e.g. summer/winter, day/night, etc.)
(Unit modification: kWh)

4.2.B Typical household - Network Charges *

Network tariff including metering costs excluding levies and taxes
(Unit modification: ct/kWh)

4.3.B Typical household - Levies *

Either charged to customers or suppliers – concession levies
(Unit modification: ct/kWh)

4.4.B Typical household - Taxes *

VAT, energy taxes, local taxes
(Unit modification: ct/kWh)

4.5.B Typical household - Energy Price *

Total price
- network charges
- levies
- taxes
= Energy Price
(Unit modification: ct/kWh)

5.D Storage charges *

Average value for the country (total cost of storage used in the respective country divided by total consumption)
Unit modification: ct/kWh

Annex B : Overview on reports required under the Electricity and Gas Directives and the Electricity Regulation

1. Reports required from the European Commission

a. Annual report

Article	Text	How often?
Article 28/1,2 Electricity Directive	The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council before the end of the first year following the entry into force of this Directive, and thereafter on an annual basis. The report shall cover at least: (a) the experience gained and progress made in creating a complete and fully operational internal market in electricity and the obstacles that remain in this respect, including aspects of market dominance, concentration in the market, predatory or anti-competitive behaviour and the effect of this in terms of market distortion; (b) the extent to which the unbundling and tarification requirements contained in this Directive have been successful in ensuring fair and non-discriminatory access to the Community's electricity system and equivalent levels of competition, as well as the economic, environmental and social consequences of the opening of the electricity market for customers; (c) an examination of issues relating to system capacity levels and security of supply of electricity in the Community, and in particular the existing and projected balance between demand and supply, taking into account the physical capacity for exchanges between areas; (d) special attention will be given to measures taken in Member States to cover peak demand and to deal with shortfalls of one or more suppliers; (e) the implementation of the derogation provided under Article 15(2) with a view to a possible revision of the threshold; (f) a general assessment of the progress achieved with regard to bilateral relations with third countries which produce and export or transport electricity, including progress in market integration, the social and environmental consequences of the trade in electricity and access to the networks of such third countries; (g) the need for possible harmonisation requirements that are not linked to the provisions of this Directive; (h) the manner in which Member States have implemented in practice the requirements regarding energy labelling contained in Article 3(6), and the manner in which any Commission Recommendations on this issue have been taken into account.	Annual Bi-annual for PSO issues

Article	Text	How often?
	Where appropriate, this report may include recommendations especially as regards the scope and modalities of labelling provisions including e.g. the way in which reference is made to existing reference sources and the content of these sources, and notably on the manner in which the information on the environmental impact in terms of at least emissions of CO2 and the radioactive waste resulting from the electricity production from different energy sources could be made available in a transparent, easily accessible and comparable manner throughout the European Union and on the manner in which the measures taken by the Member States to control the accuracy of the information provided by suppliers could be streamlined, and measures to counteract negative effects of market dominance and market concentration. 2. Every two years, the report referred to in paragraph 1 shall also cover an analysis of the different measures taken in the Member States to meet public service obligations, together with an examination of the effectiveness of those measures and, in particular, their effects on competition in the electricity market. Where appropriate, this report may include recommendations as to the measures to be taken at national level to achieve high public service standards, or measures intended to prevent market foreclosure.	
Article 31/1,2 Gas Directive	1. The Commission shall monitor and review the application of this Directive and submit an overall progress report to the European Parliament and the Council before the end of the first year following the entry into force of this Directive, and thereafter on an annual basis. The report shall cover at least: (a) the experience gained and progress made in creating a complete and fully operational internal market in natural gas and the obstacles that remain in this respect including aspects of market dominance, concentration in the market, predatory or anti-competitive behaviour; (b) the derogations granted under this Directive, including implementation of the derogation provided for in Article 13(2) with a view to a possible revision of the threshold; (c) the extent to which the unbundling and tarification requirements contained in this Directive have been successful in ensuring fair and non-discriminatory access to the Community's gas system and equivalent levels of competition, as well as the economic, environmental and social consequences of the opening of the gas market for customers; (d) an examination of issues relating to system capacity levels and security of supply of natural gas in the Community, and in particular the existing and projected balance between demand and supply, taking into account the physical capacity for exchanges between areas and the development of storage (including the question of the proportionality of market regulation in this field); (e) special attention will be given to the measures taken in Member States to cover peak demand and to deal with shortfalls of one or more suppliers;	Annual Bi-annual for PSO issues

Article	Text	How often?
	(f) a general assessment of the progress achieved with regard to bilateral relations with third countries which produce and export or transport natural gas, including progress in market integration, trade and access to the networks of such third countries; (g) the need for possible harmonisation requirements which are not linked to the provisions of this Directive. Where appropriate, this report may include recommendations and measures to counteract negative effects of market dominance and market concentration. 2. Every two years, the report referred to in paragraph 1 shall also cover an analysis of the different measures taken in Member States to meet public service obligations, together with an examination of the effectiveness of those measures, and in particular their effects on competition in the gas market. Where appropriate, the report may include recommendations as to the measures to be taken at national level to achieve high public service standards or measures intended to prevent market foreclosure.	

b. 2005 report

Article	Text	How often?
Article 28/3 Electricity Directive	The Commission shall, no later than 1 January 2006, forward to the European Parliament and Council, a detailed report outlining progress in creating the internal electricity market. The report shall, in particular, consider: – the existence of non-discriminatory network access; – effective regulation; – the development of interconnection infrastructure and the security of supply situation in the Community; – the extent to which the full benefits of the opening of markets are accruing to small enterprises and households, notably with respect to public service and universal service standards; – the extent to which markets are in practice open to effective competition, including aspects of market dominance, market concentration and predatory or anti-competitive behaviour; – the extent to which customers are actually switching suppliers and renegotiating tariffs; – price developments, including supply prices, in relation to the degree of the opening of markets; – the experience gained in the application of the Directive as far as the effective independence of system operators in vertically integrated undertakings is concerned and whether other measures in addition to functional independence and separation of accounts have been developed which have effects equivalent to legal unbundling.	By 1 July 2007

Article	Text	How often?
Article 31/3 Gas Directive	The Commission shall, no later than 1 January 2006, forward to the European Parliament and Council, a detailed report outlining progress in creating the internal gas market. The report shall, in particular, consider: – the existence of non-discriminatory network access; – effective regulation; – the development of interconnection infrastructure, the conditions of transit, and the security of supply situation in the Community; – the extent to which the full benefits of the opening of the market are accruing to small enterprises and households, notably with respect to public service standards; – the extent to which markets are in practice open to effective competition, including aspects of market dominance, market concentration and predatory or anti-competitive behaviour; – the extent to which customers are actually switching suppliers and renegotiating tariffs; – price developments, including supply prices, in relation to the degree of the opening of markets; – whether effective and non-discriminatory third party access to gas storage exists when technically and/or economically necessary for providing efficient access to the system; – the experience gained in the application of the Directive as far as the effective independence of system operators in vertically integrated undertakings is concerned and whether other measures in addition to functional independence and separation of accounts have been developed which have effects equivalent to legal unbundling. Where appropriate, the Commission shall submit proposals to the European Parliament and the Council, in particular to guarantee high public service standards. Where appropriate, the Commission shall submit proposals to the European Parliament and the Council, in particular to ensure full and effective independence of distribution system operators before 1 July 2007. When necessary, these proposals shall, in conformity with competition law, also concern measures to address issues of market dominance, market concentration and predatory or anti-competitive behaviour.	By 1 July 2007

c. Cross Border Issues

Article	Text	How often?
Article 14 Regulation	The **Commission** shall monitor the implementation of this Regulation. It shall submit to the European Parliament and the Council no more than three years after the entry into force of this Regulation a report on the experience gained in its application. In particular the report shall examine to what extent the Regulation has been successful in ensuring non-discriminatory and cost-reflective network access conditions for cross border exchanges of electricity in order to contribute to customer choice in a well functioning internal market and to long-term security of supply, as well as to what extent effective locational signals are in place. If necessary, the report shall be accompanied by appropriate proposals and/or recommendations	By 1 July 2007

2. Reports required from regulatory, "competent" or "relevant" authorities

a. Public Service Obligations

Article	Text	How often?
Article 3/6 Electricity Directive **Article 3/9 Gas Directive**	Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil universal service and public service obligations, including consumer protection and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from this Directive. They shall inform the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.	On implementation and then Bi-annual

b. Security of Supply

Article	Text	How often?
Article 4 Electricity Directive	Member States shall ensure the monitoring of security of supply issues. Where Member States consider it appropriate they may delegate this task to the regulatory authorities referred to in Article 23(1). This monitoring shall, in particular, cover the supply/demand balance on the national market, the level of expected future demand and envisaged additional capacity being planned or under construction, and the quality and level of maintenance of the networks, as well as measures to cover peak demand and to deal with shortfalls of one or more suppliers. The competent authorities shall publish every two years, by 31 July at the latest, a report outlining the findings resulting from the monitoring of these issues, as well as any measures taken or envisaged to address them and shall forward this report to the Commission forthwith.	Bi-annual, by 31 July
Article 7 Directive 2005/89/EC	Member States shall ensure that the report referred to in Article 4 of Directive 2003/54/EC covers the overall adequacy of the electricity system to supply current and projected demands for electricity, comprising: (a) operational network security; (b) the projected balance of supply and demand for the next five year period; (c) the prospects for security of electricity supply for the period between five and 15 years from the date of the report; and (d) the investment intentions, for the next five or more calendar years, of transmission system operators and those of any other party of which they are aware, as regards the provision of cross-border interconnection capacity. 2. Member States or the competent authorities shall prepare the report in close cooperation with transmission system operators. Transmission system operators shall, if appropriate, consult	Bi-annual, by 31 July

Article	Text	How often?
	with neighbouring transmission system operators. 3. The section of the report relating to interconnection investment intentions, referred to in paragraph 1(d), shall take account of: (a) the principles of congestion management, as set out in Regulation (EC) No 1228/2003; (b) existing and planned transmission lines; (c) expected patterns of generation, supply, cross-border exchanges and consumption, allowing for demand management measures, and (d) regional, national and European sustainable development objectives, including those projects forming part of the Axes for priority projects set out in Annex I to Decision No 1229/2003/EC. Member States shall ensure that transmission system operators provide information on their investment intentions or those of any other party of which they are aware as regards the provision of cross-border interconnection capacity. Member States may also require transmission system operators to provide information on investments related to the building of internal lines that materially affect the provision of cross-border interconnection. 4. Member States or the competent authorities shall ensure that the necessary means for access to the relevant data are facilitated to the transmission system operators and/or to the competent authorities where relevant in the development of this task. The non-disclosure of confidential information shall be ensured.	
Article 5 Gas Directive	Member States shall ensure the monitoring of security of supply issues. Where Member States consider it appropriate, they may delegate this task to the regulatory authorities referred to in Article 25(1). This monitoring shall, in particular, cover the supply/demand balance on the national market, the level of expected future demand and available supplies, envisaged additional capacity being planned or under construction, and the quality and level of maintenance of the networks, as well as measures to cover peak demand and to deal with shortfalls of one or more suppliers. The competent authorities shall publish, by 31 July each year at the latest a report outlining the findings resulting from the monitoring of these issues, as well as any measures taken or envisaged to address them and shall forward this report to the Commission forthwith.	Annual, by 31 July

Article	Text	How often?
Article 5 Directive 2004/67/EC	In the report published by Member States pursuant to Article 5 of Directive 2003/55/EC, Member States shall also cover the following: (a) the competitive impact of the measures taken pursuant to Articles 3 and 4 on all gas market players; (b) the levels of storage capacity; (c) the extent of long-term gas supply contracts concluded by companies established and registered on their territory, and in particular their remaining duration, based on information provided by the companies concerned, but excluding commercially sensitive information, and the degree of liquidity of the gas market; (d) the regulatory frameworks to provide adequate incentives for new investment in exploration and production, storage, LNG and transport of gas, taking into account Article 22 of Directive 2003/55/EC as far as implemented by the Member State.	Annual by 31 July

c. Regulatory Issues

Article	Text	How often?
Article 23 Electricity Directive	1. Member States shall designate one or more competent bodies with the function of regulatory authorities. These authorities shall be wholly independent from the interests of the electricity industry. They shall, through the application of this Article, at least be responsible for ensuring non-discrimination, effective competition and the efficient functioning of the market, monitoring in particular: (a) the rules on the management and allocation of interconnection capacity, in conjunction with the regulatory authority or authorities of those Member States with which interconnection exists; (b) any mechanisms to deal with congested capacity within the national electricity system; (c) the time taken by transmission and distribution undertakings to make connections and repairs; (d) the publication of appropriate information by transmission and distribution system operators concerning interconnectors, grid usage and capacity allocation to interested parties, taking into account the need to treat non-aggregated information as commercially confidential; (e) the effective unbundling of accounts, as referred to in Article 19, to ensure that there are no cross subsidies between generation, transmission, distribution and supply activities; (f) the terms, conditions and tariffs for connecting new producers of electricity to guarantee that these are objective, transparent and non-discriminatory, in particular taking full account of the costs and benefits of the various renewable energy sources technologies, distributed generation and combined heat and power; (g) the extent to which transmission and distribution system operators fulfill their tasks in accordance with Articles 9 and 14; (h) the level of transparency and competition. The authorities established pursuant to this Article shall publish an annual report on the outcome of their monitoring activities referred to in points (a) to (h).	Annual
Article 25 Gas Directive	1. Member States shall designate one or more competent bodies with the function of regulatory authorities. These authorities shall be wholly independent of the interests of the gas industry. They shall, through the application of this Article, at least be responsible for ensuring non-discrimination, effective competition and the efficient functioning of the market, monitoring in particular: (a) the rules on the management and allocation of interconnection capacity, in conjunction with the regulatory authority or authorities of those Member States with which interconnection exists; (b) any mechanisms to deal with congested capacity within the national gas system; (c) the time taken by transmission and distribution system operators to make connections and repairs; (d) the publication of appropriate information by transmission and	Annual

Article	Text	How often?
	distribution system operators concerning interconnectors, grid usage and capacity allocation to interested parties, taking into account the need to treat non-aggregated information as commercially confidential; (e) the effective unbundling of accounts as referred to in Article 17, to ensure there are no cross subsidies between transmission, distribution, storage, LNG and supply activities; (f) the access conditions to storage, line pack and to other ancillary services as provided for in Article 19; (g) the extent to which transmission and distribution system operators fulfil their tasks in accordance with Articles 8 and 12; (h) the level of transparency and competition. The authorities established pursuant to this Article shall publish an annual report on the outcome of their monitoring activities referred to in points (a) to (h).	

d. Competition Issues

Article	Text	How often?
Article 23/8 Electricity Directive	Until 2010, the **relevant authorities** of the Member States shall provide, by 31 July of each year, in conformity with competition law, the Commission with a report on market dominance, predatory and anti competitive behaviour. This report shall, in addition, review the changing ownership patterns and any practical measures taken at national level to ensure a sufficient variety of market actors or practical measures taken to enhance interconnection and competition. From 2010 onwards, the relevant authorities shall provide such a report every two years.	Annual, by 31 July Bi-annual from 2010 onwards
Gas Directive	No report	