

# **NATIONAL CONTROL COMMISSION FOR PRICES AND ENERGY (LITHUANIA)**

## **ANNUAL REPORT TO THE EUROPEAN COMMISSION**

### **SUMMARY**

#### **Introduction**

In the Republic of Lithuania, energy and gas prices are regulated by the National Control Commission for Prices and Energy (“NCC”) formed in 1997 under the Law on Energy 1995. This law establishes that an independent commission should be in charge of energy pricing. As amendments were made to the law in July 1997, granting NCC the right to agree upon or unilaterally fix prices for electric power, district heating, hot water and natural gas, the year 1998 was practically the first year of real activities of NCC.

In 2000 the legal framework for liberalisation of the natural gas and electricity markets was laid by the Seimas (Parliament) of the Republic of Lithuania, which adopted the Law on Electricity and the Law on Natural Gas. In essence, provisions of these laws comply with the EU directives requiring gradual opening of the electricity and natural gas markets, definition of eligible customers, ensuring non-discriminatory third-party access to monopolised systems, and setting tariffs for the systems’ use. As a result of adoption of these laws, NCC was transformed from a Price Commission in charge of pricing and price setting and application into an economic regulator of energy, with the functions similar to most Western (and not only Western) regulators.

A new area of activities – licensing and surveillance of licensees’ operations was assigned to NCC in 2000.

On 1 July 2002, a considerably updated Law on Energy came into effect. The law explicitly defines NCC’s functions and responsibilities, NCC independence, responsibility of individual members, procedure for appointment of members etc. According to the new edition of the Law on Energy, five members of NCC are appointed by the President of the Republic on proposal of the Prime Minister for a period of 5 years and NCC Regulations are approved by the Government. This law has established the new role of NCC as a regulator of the liberalised energy market. The main task of NCC is to exercise supervision over the electricity, natural gas, heating and water markets. This is reflected in the annual reports of NCC to be prepared by 1 May. These reports are published and submitted to the President of the Republic, the Seimas and the Government.

Lithuania was obligated to transpose provisions of two EU directives: the Directives of the European Parliament and of the Council concerning common rules for the internal market in electricity and natural gas 2003/54/EC and 2003/55/EC of 26 June 2003 (the Electricity Directive and the Natural Gas Directive respectively), which provide for a speedy opening of the markets, increasing role of energy regulators in market surveillance, customer protection etc. The new edition of the Law on Electricity adopted by the Seimas on 1 July 2004 complies with the provisions of the EC Electricity Directive concerning market opening and surveillance.

In 2004 a discussion on the new edition of the Law on Natural Gas took place; it continued also in 2005 after the election of the new Seimas. The discussion centres on the issue of whether regulation of natural gas to eligible customers is required when there is no competition; building of direct pipelines is also a matter of concern.

On adoption of the new edition of the Law on 1 July 2004, NCC approved new prices for public services of electric power supply and methodologies for the setting of energy transmission and distribution prices and of their ceilings. The methodologies take account of the guidelines formulated after a review of the legal and regulatory framework of the Lithuanian electricity sector in 2004. In accordance with these legal acts, in 2004 NCC fixed the ceilings of prices for energy transmission, distribution and supply services for a 3-year regulatory period. The ceilings of public prices for 2005 were also approved.

The application of the principles of competition in the electricity generation and supply sectors stimulates efficiency; customers are enabled to choose the supplier/producer of electricity. From 1 July 2004, all customers (except for household customers) may negotiate with independent suppliers over electricity generation and supply prices.

In the natural gas sector, amendments to the Law on Natural Gas drafted by the Ministry of Economy were in the centre of attention in 2004. The purpose of amendments was to harmonise the legal rules governing the Lithuanian natural gas sector with the latest principles of organisation and regulation of the EU natural gas market.

The draft law provides for a gradual opening of the gas supply market: at first, non-household customers will have the right to select a supplier of their choice, and from 1 July 2007 all customers will become eligible customers. Compared with the law currently in force, additional measures have been provided for to ensure security of customers, reliability of gas supply, transparent structure of regulated enterprises; to harmonise regulatory functions with functions of peer institutions in the EU; to ensure provision of information to the European Commission.

### **Electricity Sector**

Before 2002, the Lithuanian electricity sector could be described as dominated by a single vertically integrated monopolistic undertaking (Lietuvos Energija AB), with the Ignalina Nuclear Power Plant as the largest producer.

Today the electricity sector of Lithuania has undergone reforms and transition to a market-based system conforming to the requirements of the EU directives has been completed.

The new edition of the Law on Electricity adopted by the Seimas on 1 July 2004 is substantially in line with the provisions on market opening and surveillance laid down in the Electricity Directive.

Legally, 74% of the market has been opened in Lithuania, however, the right is practically used by the same market players which were able to do this before. Electricity consumption by such customers accounts for 15% of total useful supply of electricity in the country. In 2004, just as before, customers whose facilities are connected to the distribution networks purchased electricity from public suppliers.

Dynamics of number of the market participants since the beginning of opening of the market is shown in Table 1.

**Table 1. Numbers of Potential and Active Participants in the Electricity Market**

No.		Recognised/No. licences	Active participants
-----	--	-------------------------	---------------------

	Participants in the market	2002	2003	2004	2002	2003	2004
1.	Eligible customers	12	25	45 095	6	6	6
2.	Electricity producers	-	-	-	6	8	8
3.	Transmission system operators	1	1	1	1	1	1
4.	Distribution system operators (excl. local systems)	2	2	2	2	2	2
5.	Electricity suppliers	20	21	24	4	8	8
5.1	Public suppliers (incl. local distribution systems)	7	7	7	2*	3*	3*
5.2	Independent suppliers	13	14	17	2	5	5
6.	Total:	35	49	45 122	19	25	25

Note: \* Public suppliers that have entered into electricity supply agreements with independent suppliers or producers.

Table 2 characterises the development of the Lithuanian electricity market.

**Table 2. Degree of Market Opening**

Indicator	2002	2003	Before 1 July 2004	From 1 July 2004	By 1 July 2007
Electricity consumption by eligible customers as a share of total customer consumption, %	20	23	25	74	100
Electricity consumption by eligible customers that have chosen independent suppliers as a share of total customer consumption, %	17	17	15	15	-

Trends of sales of electricity by auction are similar to those in 2003. The largest quantity of extra electricity was sold by auction by the Ignalina Nuclear Power Plant (INPP); other producers sold only in winter season (co-generation plants) or in the period when INPP was under repairs.

INPP being the dominant producer there were no marked auction price fluctuations and the average price for extra electricity even decreased by 0.5% compared with previous year. Only in July 2004, when sales by Lithuanian Power Plant accounted for almost one half of extra electricity sales in that month, the auction price went up by 1 ct/kWh on average.

Quantities of electricity bought under direct contracts with freely chosen producers continued to increase in 2004. The share of electricity bought on contractual basis was gradually increasing

during past 3 years: from 43% to 67% and 70%. Trends of purchasing of other types of electricity remained unchanged and annual purchasing quantities seem to have settled compared with the figures of the first year of market-based operations.

As regards electric power generation sector, the Ministry of Economy included a new producer, Šiaulių Energija AB, in the list of power stations from which buying of electricity is compulsory in 2005. In 2004, 866 GWh of electricity was bought in 2004 in the form of compulsory purchasing for the purpose of provision of public services. 8 producers participated in such sales.

In 2004, the majority (70%) of trade on the electricity market took place under bilateral contracts (contractual energy). 14% of electricity was sold by auction and 16% - on the basis of obligation to provide public services.

The largest quantities of electricity were sold under bilateral contracts and at auction by INPP. Co-generation plants supply electricity to the market as part of fulfilment of their obligation to provide public services, with Lietuvos Elektrinė AB, Vilniaus Energija UAB and Kauno Termofikacijos Elektrinė UAB being major suppliers. Furthermore, Vilniaus Energija UAB and Kauno Termofikacijos Elektrinė UAB have sold large quantities of electricity under bilateral contracts.

To sum up, one may conclude that no significant changes have taken place in the electricity market in 2004 compared to the first or second year of market operation except that all non-household customers have become eligible customers.

INPP, a state enterprise, is the largest producer of electricity in Lithuania with a market share of around 75%. In 2004 it produced 15.1 TWh of electricity, 6.6 TWh of which were sold in the domestic market, while 7.4 TWh were supplied to Lietuvos Energija AB for export.

Fuel of several types was used for the generation of electricity in 2004. INPP uses nuclear fuel, while natural gas is mainly used by co-generation plants. The latter also use fuel oil and orimulsion. The share of renewable energy sources is small. The structure of fuel use in the energy production in Lithuania is as follows:

- 67% of electricity is produced using nuclear fuel,
- 27% of electricity is produced using fossil fuel, mainly natural gas (including orimulsion 4.4% and fuel oil around 1.3 %)
- 5 % - generation at hydroelectric power stations.

19.3 TWh of electricity was generated in Lithuania in 2004. It should be noted that excessive power generating capacities will remain in Lithuania in 2005-2007 (also taking account of potential exports). Substantial changes in the Lithuanian energy sector may only be expected in 2010, after the closure of INPP.

In 2004, total capacities of all Lithuanian power generating plants amounted to over 6 GW including nuclear power plant 42% and co-generation plants 41%. The share of hydroelectric power stations amounts to 15%. The first unit of INPP was decommissioned in 2005, resulting in the decrease in INPP capacity down to 1300 MW.

There were 4 power plants in Lithuania in 2004 with the capacity not lower than 5% of the installed disposable capacity: INPP, Lithuanian Power Plant, Kruonis HPSPP (hydroelectric pumped storage power plant), and Vilniaus Energija UAB. INPP, the one with the largest capacities, uses nuclear fuel for power generation. Lithuanian Power Plant is a thermal power plant which uses mainly

natural gas but also orimulsion and fuel oil. Vilniaus Energija UAB is a co-generation plant with natural gas prevailing in its fuel structure. Kruonis HPSPP, operated by a transmission system operator, secures the availability of the country's electricity reserve and for this reason does not directly participate in the electricity market.

The capacity proportions of the three largest companies are as follows: 49.7% / 34.4% / 7.4% (INPP, Lietuvos Elektrinė AB, Vilniaus Energija UAB).

In 2004 the maximum gross required power of the Lithuanian energy system was 1952 MW. Given the indispensable long-term power reserve, in 2003 the power demand amounted to 3252 MW and the power surplus amounted to 2875 MW (excluding export requirement). In 2004 national consumption (excluding own production, transmission and distribution needs) amounted to around 8.11 TWh of electricity.

There were 6 active eligible customers in Lithuania, with the electricity consumption totalling 1.07 TWh.

Lietuvos Energija AB is a transmission system operator. In 2004 the company transported 8.37 TWh of electricity to satisfy the national needs, which is by 2.4% more than in 2003. Exports by the company amount to 7.3 TWh (decrease by 3.3% compared to 2003): 53% to Russia and 35% to Belarus. The reason for such export structure is that the Lithuanian transmission system is quite well integrated with Belarus, Latvia and Kaliningrad Region, which creates favourable conditions for exporting electricity. However, at present there is no connection with the energy system of the neighbouring Poland.

Two distribution system operators - Vakarų Skirstomieji Tinklai AB (VST) and Rytų Skirstomieji Tinklai AB (RST) dominated in the Lithuanian market in 2004.

In 2004, VST sold 3302.6 m kWh of electricity to customers, which is a 5.2% increase compared to 2003, including 1043.2 m kWh to households and 2269.8 m kWh to industrial etc. customers (including major customers purchasing electricity from 110 kV system – 10.3 m kWh). Consumption of electricity by households increased by 8.8% compared to 2003.

RST sold 3531 m kWh of electricity in 2004 (increase by 6.1% compared to 2003). 1084.9 m kWh was sold to households – by 10% more than in 2003.

In 2004, VST and RST connected electric facilities with the total permissible power of 157.4 MW for 13393 new customers including 12356 at monomial tariffs and 1092 at binomial tariffs set depending on capacity and distance.

The number of new customers increased by 20.2% in 2004 compared to 2003, while the average newly installed capacity decreased by 5%.

As the number of eligible customers (since 1 July 2004, any non-household customer can become an eligible customer) that had chosen independent suppliers is very small in Lithuania, most consumers purchase electricity from two main public suppliers at regulated public tariffs. The regulated public tariffs cover all customer categories: households, small businesses, medium-size businesses and large businesses. The regulated public tariff rates set by NCC are provided in the table below.

**Table 3. Public Tariff Ceilings Applied by Rytų Skirstomieji Tinklai AB and Vakarų Skirstomieji Tinklai AB (EUR/MWh)**

<i>Rytų Skirstomieji Tinklai</i>	2004	2005
<i>&gt;110 kV</i>	35.45	36.00
<i>Average voltage</i>	48.51	54.65
<i>Low voltage 0.4 kV</i>	74.49	85.15
<i>Vakarų Skirstomieji Tinklai</i>		
<i>&gt;110 kV</i>	35.51	35.97
<i>Average voltage</i>	48.86	58.04
<i>Low voltage 0.4 kV</i>	72.06	85.32

Within the framework of implementation of the Electricity Directive 2003/54/EC, in 2004 NCC focussed attention on the reliability of electricity supply and regulation of service quality to ensure minimum quality level to customers and liability of licensees for failure to comply with quality requirements. In 2004, the average length of non-scheduled supply interruptions per VST customer was 231 minute, RST customer – 150 minutes. At VST, the majority of interruptions occurred for unclear reasons (73 minutes) and at RST – due to effects of natural phenomena (71 minute).

NCC has exercised control over effective separation of billing in order to avoid cross subsidising of production, transmission, distribution and supply operations. The Republic of Lithuania Law on Electricity establishes that a distribution system operator must ensure separation of these activities if, in addition to distribution operations, it also performs functions of a public supplier. Until 1 July 2007, public suppliers that supply electricity both to customers not entitled to select a supplier and to eligible customers must record, group and summarise information about both groups of customers in separate accounts and billing records.

The following actions will be taken in order to further develop the Lithuanian energy market, to create favourable conditions for competition, to increase reliability of supply and to fulfil Lithuania's obligations to the European Union:

- build a 25 MW co-generation plant in Panevėžys;
- install additional ~ 100 MW generating capacities using renewable energy sources, mainly wind energy;
- connect the Lithuanian and Polish energy systems (such connection to the Polish electric power system is indispensable in order to ensure reliable electricity supply after closure of Unit 2 of INPP. Upon such connection, the Baltic electric power systems would be connected to the European Union electric power systems, a rather small electricity market of the Baltic countries would be expanded, and favourable conditions for competition in electricity generation and for market efficiency would be created);

- gain access to the electricity market of the Nordic countries (Lietuvos Energija AB, a Lithuanian transmission system operator, takes part in the project on construction of a 350 MW electric power line between Estonia and Finland);
- examine the feasibility of connecting Lithuanian and Swedish electricity systems by a constant-current cable line (SwindLit project).

### **Natural Gas Sector**

Lietuvos Dujos AB is the sole holder of a licence to engage in gas transmission operations in Lithuania. The company owns a gas transmission pipeline system, which is 1600 km long. 3517 m<sup>3</sup> of gas were transported by gas mains in 2004, which is a 2% increase compared to 2003. 637 m<sup>3</sup> of gas were transported through Lithuania by transit (570 m<sup>3</sup> in 2003).

There are 6 licensed gas distribution operators in Lithuania. Lietuvos Dujos AB has the largest market share: it operates around 6600 km of distribution networks and distributes 98% of natural gas. All other gas distribution companies account for 2% of total gas distribution volume. 1088 m<sup>3</sup> of natural gas were transported through the distribution system in 2004.

Supply of natural gas is a licensed activity under the Republic of Lithuania Law on Natural Gas. Since June 2002, companies supplying gas only to eligible customers must hold a natural gas supplier's licence. NCC has issued 14 such licences. In 2004, 7 licensed companies supplied natural gas to customers in 2004.

Opening of the Lithuanian natural gas market started in 2001 after the Law on Natural Gas came into effect. The law established a category of eligible customers entitled to buy natural gas from suppliers of their choice. The criteria for eligible customers were approved by order of the Minister of Economy. The following customers have been recognised as eligible customers since 1 January 2004:

1. customers consuming over 1 m<sup>3</sup> of gas in a year;
2. electric power plants;
3. customers directly connected to gas mains;
4. gas distribution companies directly connected to gas mains.

There are 27 approved eligible customers in the Lithuanian gas sector, with 3 of them having received the status of an eligible customer in 2004. Gas consumption by eligible customers accounts for 81% of total gas consumption (2004). 82 more customers were entitled to become eligible customers, however, they did not exercise this right. The degree of opening of the Lithuanian gas market reached 90%. The process of liberalisation of the natural gas market has been negatively affected by the competitive situation in the non-regulated market: eligible customers could choose from only two gas suppliers – Lietuvos Dujos AB and Dujotekana UAB, which purchased gas from the sole external supplier, a Russian company Gazprom, and which had a set gas quota.

Further opening of the market in the future will depend on market situation, natural gas supply sources and conditions of supply.

In 2004, a new Law on Natural Gas was drafted, the purpose of which is to harmonise the legal rules governing the Lithuanian natural gas sector with the principles of organisation and regulation of the natural gas internal market laid down in the Directive 2003/EC/55. Prolonged discussions have led to a conclusion that there are conditions for full opening as yet and the adoption of the law was postponed. The draft law is to be reconsidered at the end of 2005.

Interstate system connections with the Russian Federation, Republic of Belarus and Republic of Latvia will be regulated by agreements. Capacities of such interstate connections are limited by establishing limit overload per month +/-5% of the average daily consumption in the month.

Natural gas is transported through the territory of Lithuania to the Kaliningrad Region (Russia) under a long-term (till 2015) agreement on gas transit signed in 1999 by the Russian company Gazprom and Lietuvos Dujos AB. The reserve transit capacity for 2006-2015 as stipulated in the agreement amounts to 1050 m<sup>3</sup> per year, i.e. around 18% of the total amount of gas transported through the transmission system in 2004.

The methodology for the calculation of prices for natural gas transportation (transmission and distribution) is approved by NCC in accordance with the Law on Natural Gas. The gas transmission and distribution prices are applied according to the “postal stamp” principle irrespective of transmission/distribution distance.

In 2005, NCC set a 3.67 EUR/MWh ceiling of transportation prices for Lietuvos Dujos AB, the largest transmission and distribution system operator, for a 3 year period (from 1 July 2005 till 30 June 2008).

The Ministry of Economy establishes quality requirements for licensed activities (gas transmission, distribution, supply, storage) in accordance with the Rules Governing the Licensing of Natural Gas Transmission, Distribution, Supply and Storage approved by the Government of the Republic of Lithuania. NCC is responsible for exercising control over compliance with the set requirements by the licensees. Drafting of quality requirements is underway.

In 2004, Lietuvos Dujos AB has revised the principles of collection and classification of data on schedule and non-schedules interruptions of gas supply and has updated the system of accounting for such data. Available information on non-scheduled interruptions shows that often they take place due to third party actions, e. g. lack of due care in carrying out earthworks. In 2004 the average number of non-scheduled supply interruptions was 0.005 per system user, while the average length of such interruptions was 0.064 minutes per system user.

In 99.8% of cases, supply of natural gas to Lietuvos Dujos AB’s customers was renewed within 8 hours, in the rest cases – within 24 hours. In case of scheduled interruptions the natural gas supply was renewed earlier than scheduled.

Lithuania has no underground gas storage facilities. No underground structure suitable for this purpose has been found and investigated as yet. Earlier investigations did not yield positive result despite sizeable investment.

Lietuvos Dujos AB as Lithuania’s largest gas company keeps separate accounting for the gas transmission, distribution and supply to regulated customers, for gas supply to eligible customers, and for non-core operations in accordance with the provisions of the Law on Natural Gas and the Gas Directive. The company draws up separate balance sheets and profit and loss accounts for these operations. These financial statements are not published. No legal separation of operations has been implemented as yet.

Lithuania has no natural gas resources of its own. The country's natural gas supply system is connected only to the system of the Russian Federation, therefore, the latter is the only source of gas import.

Upon privatisation of Lietuvos Dujos AB by Gazprom, a long-term gas supply agreement until the year 2015 was signed. Under the agreement Gazprom must ensure long-term supply of gas to Lithuania according to an agreed price formula. 2.93 billion m<sup>3</sup> of natural gas was imported to Lithuania in 2004. Gas consumption by Lithuanian customers amounted to 2.90 billion m<sup>3</sup>.

Natural gas was supplied to Lithuania by 5 suppliers. Achema AB and Kauno Termofikacijos Elektrinė UAB purchased gas directly from Gazprom and used it for their own needs. The rest 3 companies supplied gas to customers and minor gas distribution firms. Haupas UAB has a very small part of the gas supply market. Dujotekana UAB and Lietuvos Dujos AB were the main gas suppliers in 2004, the former supplying gas only to eligible customers and the latter – to both eligible and regulated customers.

Power plants using natural gas as fuel are main consumers of gas in Lithuania, accounting for 53% of the total amount of gas supplied to customers in 2004. Households and small commercial undertakings account for 10%, medium-sized businesses and commercial undertakings 10%, and large industries 27% of the market.

The Lithuanian gas system has sufficient capacities and there should be no problems concerning pipeline capacity in the nearest future. It is estimated that the gas import will amount to 3.09 billion m<sup>3</sup> in 2006, 3.140 billion m<sup>3</sup> in 2007, and 3.56 billion m<sup>3</sup> in 2008 (an increase of around 21.5% compared to 2004).

Supervision over safety of gas supply is exercised through monitoring of the companies' operations, observing supply and demand, and NCC surveillance of compliance with licence terms. Companies supplying gas to customers must obey the Rules Governing the Licensing of Natural Gas Transmission, Distribution, Supply and Storage, which detail the issues of interruption of natural gas supply, billing etc.

In order to increase safety and reliability of natural gas supply, a gas billing system was installed and commissioned in gas mains crossing the Lithuanian-Latvian border. The billing station is a point of connection of the Lithuanian and Latvian gas networks and enables Lithuania to use Inčukalnas underground gas storage facility in Latvia. However, in order to make use of this connection, agreements must be concluded by Lithuanian and Latvian gas transmission operators. Such agreements have not been signed as yet and the connection may only be used in case of emergency in the energy system. It should be noted that no commercial supply of gas is possible through this channel as supply agreements with Gazprom forbid all Lithuanian gas suppliers to resell natural gas to third parties.

No specific projects or studies providing for the Lithuanian gas system's connection with trans-European networks exist at the present moment.

Relations among energy undertakings and relations between energy undertakings and consumers of energy resources or energy are based on agreements. Energy is supplied to regulated consumers and natural persons, transmitted and distributed upon entering into an agreement on mandatory standard terms. The Government or an institution authorised by it establishes standard conditions to gas customers and standard terms of gas transmission and distribution agreements, which are mandatory to both operators and customers.