

**ANRE**

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# **ANNUAL REPORT TO THE EUROPEAN COMMISSION 2006**

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## **1. FOREWORD**

The document is the first annual report sent by the Romanian Energy Regulatory Authority (ANRE) to the European Commission in order to fulfil the reporting obligations in compliance with the provisions of the Directives 2003/54/CE and 2003/55/CE and with the commitments assumed by Romania as a new member state of the European Union starting 1<sup>st</sup> of January 2007.

According to the agreement signed by The Council of European Energy Regulators (CEER) and by The European Commission, the report contains information on electricity and gas markets for the period 1<sup>st</sup> of January 2006 – 1<sup>st</sup> of June 2007.

Regulatory authorities as autonomous public bodies were established in Romania for both electricity and gas sectors as follows: October 1998 – the electricity regulator (ANRE) and 2000 – the gas regulator (ANRGN). At first, both ANRE and ANRGN were under the coordination of the energy minister, and later under the direct coordination of the Prime Minister.

The regulatory authorities operated on the grounds of the Electricity Law 318/2003 and, respectively, the Gas Law 351/2004, with the subsequent amendments. Their mission is to create and implement the appropriate regulatory system to ensure the proper functioning of the electricity and gas sector and market in terms of efficiency, competition, transparency and customer protection.

In April 2007, ANRE took over the attributions, budget, financing sources, staff and the rights and obligations of ANRGN, the unification of the two regulatory authorities being thus achieved. The new Regulation for the Organisation and Functioning was approved by the Government Decision (GD) 410/04.05.2007.

Consistent in their efforts to implement adequate secondary legislation for the developing of an efficient internal energy market, both ANRE and ANRGN continued in 2006 to improve and complement the regulatory framework in order to harmonize it with the Romanian and European legislation requirements and to continuously adapt it to the developing of the electricity and gas sectors.

In the field of electricity, the year 2006 was marked by two major projects: promoting the new electricity law and assuring the proper conditions for the legal unbundling of the distribution and supply activities with effect from July 1, 2007.

The new electricity law was approved by the Romanian Parliament at the end of 2006 and promulgated by the President of Romania on 23 January 2007. The law transposed the provisions of the Directive 2003/54/ EC to enable the amendment of the regulatory framework in order to create the proper conditions for the full opening of the electricity market.

As a result, on 1<sup>st</sup> of July 2007, E.ON Moldova, CEZ Electrica Oltenia, ENEL Electrica Banat and ENEL Electrica Dobrogea completed the unbundling of their distribution and supply activities by setting up distinct distribution and supply undertakings. Following the legislative measures that the state-own distribution and supply companies promoted for the unbundling of their activities, the Government Decision 675/28.06.2007 regarding the reorganisation through partial unbundling of the electricity distribution and supply undertakings, branches of S.C. Electrica S.A, was issued and published in the Romanian Official Gazette Part I, no. 462/09.07.2007.

The full opening of electricity and gas markets was set through GD 638/20.06.2007, all the customers having the right to choose their electricity or gas supplier starting 1<sup>st</sup> of July 2007.

In the natural gas field, the transposition of Directive 2003/55/EC and the preparation of the natural gas market for its full opening, as of 1 July 2007, further advanced.

To this purpose, the natural gas regulatory framework was developed following the adoption, in 2006, of the Regulation regarding the supplier of last resort. The supplier of last resort is meant to guarantee the safe performance of customers' activity in view of the full opening of the market as of 1 July 2007. The supply of last resort aims mainly at protecting the household customers, the medical and educational units, as well as the small commercial customers (with an annual consumption below 12,400 cm). To this purpose, ANRGN decided to make the supply of last resort mandatory for these types of customers because they have a rather limited capability to react to change.

Also, considering that another permanent goal of the regulatory activity consists in ensuring an appropriate quality level for the services delivered in the gas sector, Performance Standards for natural gas distribution and transmission were issued and approved in 2006. The Standards set commercial quality criteria, defined by performance standards/indicators, for the transmission and distribution services and other affiliated services performed by the transmission and distribution operators. A similar Performance Standard for natural gas supply was drafted and is currently under public debate with a view to approval by end 2007.

A major component of the gas sector regulation consisted in proceeding with the elaboration of the Network Code. The draft of the Network Code is about to be submitted to public debate. After receipt and processing of observations/proposals/comments received, the document will enter the internal approval procedures with a view to its adoption as a regulation. In a preliminary stage, the Network Code will have an interim status and will follow the fundamental principles on capacity booking and balancing (in compliance with ERGEG Guidelines on gas balancing ), thereby establishing the following major elements:

- Types of contracts and agreements
- Capacity booking and transmission contracts
- Nomination procedures and communication between gas actors
- Available information and their delivery
- Balancing routines and exchange of information between the Transmission System Operator and network users (provisional and final)

The proposed market model envisages that SNTGN TRANSGAZ SA is financially neutral vis-à-vis the costs for the balancing of the National Transmission System, which will be operated under a residual balancing concept with a view to ensuring the safe operation of the system. The operation of the market, currently based on the monitoring of the import/total consumption quota, will remain in place only until the gap between the import and the domestic price is covered.

Imbalance charges applied to network users shall generally reflect the costs generated by the imbalance, and the wholesale prices may vary during a year in relation to the marginal cost and to other major aspects of the market.

The alignment of the domestic price to levels comparable to the import price will further advance, with the domestic price being yearly increased in relation with the evolution of the

import price. The aim is to reach the parity between the domestic and import price as soon as possible, based on a realistic calendar, in compliance with EU regulations on subsidies and state aid.

The natural gas regulatory process also attached high importance to ensuring the pre-requisites for implementation of the requirements on accounting, legal, functional and organizational unbundling. In this respect, in 2006, the regulator approved the Regulation on accounting, legal, functional and organizational unbundling of gas regulated activities, thereby detailing the unbundling requirements. Also, the regulator provided assistance to the TSO, DSOs and SSOs on accomplishing the unbundling requirements. As a result, accounting unbundling is in place. Also, legal unbundling is in place for E.ON Gaz Romania, one of the two largest DSOs. The procedures for accomplishment of the legal unbundling of the TSO – Transgaz, of one SSO – Romgaz, and of the other large DSO, Distrigaz Sud, are underway. The other DSOs are exempted from the obligation of legal unbundling for they serve less than 100,000 connected customers.

With a view to supporting vulnerable customers and taking into account the need for a more efficient use of gas used as household heating fuel, the Romanian Government set up the Programme on granting financial aid to low-income customers using gas for household heating. Natural gas customers can benefit from this financial aid when buying individual heating boilers or up to 3 automated burners.

**Gergely Olosz**

**President**

## **2. SUMMARY/Major developments in the reported period of time**

### *Organisational structure*

In 2006, the regulatory activity in the field of electricity and gas unfolded separately, within the two existing regulatory authorities, namely the Romanian Electricity and Heat Regulatory Authority (ANRE) and, respectively, the Romanian Gas Regulatory Authority (ANRGN). In April 2007, ANRE took over the tasks, rights and obligations, budget, financing and staff of ANRGN as per the provisions of the Government Decision (GD) No. 410/04.05.2007 on the reorganisation of the regulatory activity. As a result, through Government Emergency Ordinance (GEO) No. 33/04.05.2007, the Electricity Law and, respectively, the Gas Law were amended and complemented accordingly.

Under its new structure, ANRE is an independent public legal body of national interest financed from funds outside the state budget and under the co-ordination of the Prime Minister through the Office of the Prime Minister.

ANRE mission is to create and implement the appropriate regulatory system to ensure the proper functioning of the electricity and gas sectors in terms of efficiency, competition, transparency and protection of the customer.

### *Management*

ANRE management consists of a President and three Vice-presidents appointed and revoked through decision of the Prime Minister. Both the President and the Vice-presidents have a 5-year mandate. The president represents ANRE in the relationship with the thirds.

A Regulatory Committee made up of the President, the three Vice-presidents and seven regulators is set up in order to approve the regulations issued. The seven regulators selected from ANRE staff upon the proposal of ANRE President are appointed through decision of the Prime Minister for a period of 5 years. The Regulatory Committee approves ANRE orders and decisions by a majority vote.

### *Objectives*

Activities in the electricity and gas sector have the following objectives:

- To ensure the sustainable development of the national economy;
- To diversify the primary energy resources;
- To ensure the gas storage capacity to cover the regular as well as the strategic demands;
- To ensure the safety fuel stocks for the generation of electricity as well as of heat produced from co-generation;
- To create and ensure the proper functioning of the competitive energy markets;
- To ensure non-discriminatory access to gas sources;
- To ensure regulated and non-discriminatory access of all parties to the energy markets and to the public electricity networks; to ensure non-discriminatory access of third parties to the gas upstream pipelines, storage facilities, transmission and distribution systems;

- To ensure transparency of energy tariffs, prices and taxes with a view to increasing energy efficiency in the electricity and gas sectors;
- To ensure the safety and continuity of energy supply to the customers;
- To protect the legitimate interests of the customers;
- To ensure the secure operation of the Romanian Power System (RPS) and the interconnected operation of the RPS and of the National Gas Transmission System (NTS) with the national systems of the neighbouring countries and with the European systems;
- To ensure the protection of the environment at local and global level, in accordance with the legal regulations in force;
- To promote the use of new and renewable energy sources;
- To promote electricity produced in high efficiency co-generation systems, associated to the heat energy delivered to cover a justified economic consumption.

### *Tasks and competencies*

#### **ANRE main tasks and competencies in the electricity sector:**

- Set up mandatory regulations for undertakings in electricity sector;
- Issue, grant, suspend or withdraw authorisations and licenses for undertakings in electricity sector, including for the producers generating heat in co-generation;
- Issue and approve calculation methodologies for regulated prices and tariffs;
- Set up tariffs/prices for captive customers until the full opening of the electricity market. After the full opening of the market, only the householders and the small undertakings with a maximum approved power of up to 100 kVA will have regulated tariffs/prices, until the first use of their eligibility rights.
- Issue and approve the Regulation to appoint the supplier of last resort, establish the criteria and the rules to set up the tariffs applied by the supplier of last resort;
- Approve, based on consultation in order to ensure the protection of the final customer, the prices and tariffs applicable among undertakings from the electricity sector on the regulated electricity market, the tariffs for system services and for services related to electricity transmission and distribution, the prices and tariffs applied to activities and services related to the production of heat from co-generation supplied for residential consumption;
- Set up the framework contracts for electricity supply and the framework contracts for electricity selling, purchase, transmission, dispatch and distribution that operate among undertakings as well as the contracts for the sale of heat produced in co-generation;
- Issue the Regulation for electricity supply to the customers subject to Government approval;
- Approve technical and commercial norms for undertakings in the sector;
- Perform control activities in order to assess the undertakings' compliance with the existing regulations, with the pricing and tariff system in force and levy penalties for non-compliance;
- Set up the procedure for the resolution of pre-contractual disputes and settle possible disputes occurring upon the conclusion of contracts among undertakings in electricity sector, of electricity supply contracts and of network connection contracts;
- Set up its own monitoring and control procedures in order to assess compliance of undertakings with the existing pricing and tariff system;
- Issue, as per the provisions of the law, its own regulation for the identification, notification and penalisation of violation of sector regulations;
- Monitor the enforcement of the specific electricity sector regulations;

- Notify the competent ministry and the Competition Council with respect to the abuse of the dominant position on the market and of the breach of the legal provisions referring to competition whenever non-compliance with the regulations on competition and transparency is found;
- Create and implement, based on data transmitted by the undertakings, a national data basis required for the unfolding of its own regulatory activity and for the dissemination of information to other authorities involved in the drawing up of the sector development strategy as well as in connection with the international trade and practices in the field;
- Issue the Regulation for the connection of users to public electricity networks subject to Government approval;
- Publish annual reports on its activity and on the lawful monitoring activity developed;
- Organise, monitor and control the procedures for the construction of new electricity generating capacity if the security of the supply for internal consumption is not guaranteed through the authorisation procedure;
- Collaborates with the regulatory authorities of neighbouring countries with a view to harmonizing the regulatory framework for the development of the regional electricity market, including the cross-border exchanges of electricity and the rules regarding the management of interconnection capacities;
- Monitors, based on its own rules, the electricity market in order to assess its level of efficiency, of transparency and of competition and present the Prime Minister quarterly monitoring reports on the problems encountered and on the solutions applied.

ANRE monitoring activity covers mainly the following domains:

- Regulations for the management and the allocation of interconnection capacity, in cooperation with regulatory authorities in countries that are interconnected with the RPS;
- Congestions management in the RPS;
- Duration of the works for the connection to the transmission and to the distribution networks by the involved operator and the duration for the re-connection after repairs;
- Publication by the transmission system operator and by the distribution operator of relevant information regarding interconnection capacities, network use and allocated capacity, while maintaining confidentiality of the commercially sensitive information;
- Actual separation of accounts to avoid cross-subsidies among electricity generation, transmission, distribution and supply;
- Terms, conditions and tariffs for connection of new electricity producers, in order to guarantee that these are objective, transparent and non-discriminatory, especially taking into in consideration the costs and benefits of various technologies related to electricity renewable sources, the supplied production and the production of heat in co-generation;
- Ways in which the transmission system operator and the distribution operator fulfil their obligations under the current law;
- Level of transparency and of competition related to the functioning of the electricity market.

#### **ANRE tasks and competencies in the gas sector:**

- Issue and submit the Government for approval the Regulations on the granting of licenses and authorisations in the gas sector;
- Set up the conditions for the validity of the licenses and authorisations granted;



- Issue and approve regulations and technical norms at national level to establish the technical safety criteria, the minimum technical requirements for the design, execution and exploitation necessary for the safe and efficient operation of the gas sector objectives;
- Issue and submit the Government for approval the regulations on third parties access to upstream lines, to storage facilities, to gas transmission and distribution systems;
- Issue, approve and implement the regulations for the organisation and functioning of the gas market in order to ensure continuity and security of gas supply to the customers;
- Ensure the full liberalisation of the domestic gas market;
- Approves the regulation for the programming, functioning and dispatching of the NTS and gas storage facilities at the proposals of the sector operators;
- Issues, approves and implement criteria and methods for approving the prices and for establishing regulated tariffs in the gas sector;
- Issue and approve the framework contract for gas supply, the framework contracts for performing storage, transmission and distribution services, as well as the framework contracts for ancillary activities, developed based on regulated tariffs;
- Issue, approve and monitor the implementation of compulsory technical, commercial, economic, operational regulations referring to quality service parameters for gas transmission, transit, storage, dispatching, distribution and supply;
- Endorse, under the law, the relevant clauses and conditions in concession contracts of assets, activities and services in the gas sector;
- Monitor the:
  - Gas internal market;
  - Compliance with the rules on gas market organisation and functioning;
  - Compliance with the rules regarding the access to upstream pipelines, to storage facilities and to the transmission and distribution systems;
  - Compliance with the criteria and the methods for approving the prices and for establishing the regulated tariffs in the gas sector;
  - Implementation of the rules regarding management and allocation of interconnection capacities, together with the regulatory authority or authorities with which there is interconnection;
  - Management of congested capacity in the gas NTS;
  - Publication, by the transmission and distributions operators, of the relevant information regarding the interconnectors, the use of the network and the allocation of capacity to interested parties, taking into account the necessity to maintain confidentiality on commercial data;
  - Effective unbundling of accounts for the gas storage, transmission, distribution and supply activities and LNG- liquefied natural gas, LPG- liquefied petroleum gas, CNGV – compressed natural gas for vehicles, to avoid cross subsidisation;
  - Compliance by the licensed operators with the validity terms of the license;
  - Activity of licensed operators for ensuring the gas supply security and continuity.
- Settles the disputes on refusal of access to the NTS/distribution systems;
- Mediates pre-contractual disputes, according to its own procedures;
- Issue, approve and implement the Regulation for the identification, notification and sanction of breaches from the regulations issued in the gas sector;
- Protects the legitimate interests of the gas customers;
- Creates the database required to develop its activity and for providing information to other bodies involved in the issuing of the gas sector strategy and in the international gas trading activity, as well;

- Issue and implement, for licensed operators, the objectives for ensuring the security and continuity of gas supply as well as the conditions and the procedures for appointing the supplier of last resort;
- Endorse, for each regulatory period for which tariffs and prices are established, the investment programmes of licensed operators with a view to recognising the costs in the approved tariffs and prices.

*Independence of the regulator. Accountability. Reporting. Overlapping of jurisdictions (with the competent ministry, the competition council, etc. both national or supranational).*

ANRE tasks and competencies are clearly defined in the primary legislation. Its activity is financed from funds outside the state budget through fees obtained for licenses, authorisations and other regulatory activities levied upon the regulated companies and through funds provided by international organisations. The primary legislation provides distinct criteria under which the mandate of ANRE management and of the Regulatory Committee members ceases. ANRE has implemented consultation mechanisms and information procedures in order to increase the interested parties involvement in the decision making process. Regulations of general interest are approved through ANRE orders and published, subsequently, in Romanian Official Gazette.

Orders and decisions issued by ANRE president in exercising his duties can be appealed in Courts, in the Administrative Litigation Division with the Bucharest Court of Appeal, within 30 days following publication in the Romanian Official Gazette, part I, respectively from the date of notification of the parties involved. The orders and decisions are mandatory for all parties until the final irrevocable court judgment is pronounced.

ANRE publishes annual reports on the performance of its regulatory activities and on the lawful monitoring activities it develops.

In discharging its tasks, ANRE works together with the Competition Council, with the National Authority for Customer Protection, with the ministries and other public local or central administration bodies, with the electricity customer associations, with undertakings delivering services in the sector, with the professional associations and the employer and trade union associations in the energy field, with regulatory authorities from other countries.

*Main developments in the electricity and gas markets*

### **The electricity market**

The electricity sector restructuring started in 1998 and progressively continued in implementing the *acquis communautaire*, to reach the following configuration by January 1, 2007:

- 67 generation license holders
- 1 transmission system operator
- 1 market operator
- 8 regional distribution operators (4 state-owned undertakings and 4 undertakings with majority private shareholding) which concurrently deliver supply services at regulated prices for captive customers and for eligible customers not exercising their eligibility rights.
- Around 130 supply license holders, of which 51 are active on the electricity market by delivering supply services to eligible customers and by performing commercial activities on the wholesale electricity market. Almost all of them are independent private suppliers.

The total electricity production in 2006 was TWh 62.43, with about 5% higher than in 2005. The internal consumption was TWh 53.02, with about 2% higher than in 2005.

Five producers hold more than 5% of the total installed capacity and the total weight of the installed capacity of the first three largest producers is **65.1%**. Seven generating undertakings delivered more than 5% of the net electricity production in the system and the total market quota of the first 3 largest producers was **58.5%**.

The new market platform became operational on July 1, 2005. According to the new platform, wholesale electricity has been traded through contracts (regulated, for the supply quota for captive customers and grid losses, and negotiated for the remaining quota) and through trades on the voluntary day-ahead-market (DAM). By accepting the offers on the Balancing Market (BM), the system operator solves the gap occurring in real time between offer and demand and the market participants accept their financial responsibility for the generated imbalances. The Centralised Market of Bilateral Contracts (CMBC) was organised in December 2005 to ensure transparent mechanisms for the transactions.

In 2006, about 46% from electricity sold by the producers was traded on the regulated market and 54% on the competitive market.

On the **regulated market**, the producers' sales were directed as follows:

- For captive customers consumption - about 32.7%;
- For network losses – 9.5% to cover losses in the distribution network and 1.4% to cover transmission network losses;
- The remaining energy sold by the producers on the regulated market was traded based on option contracts (contracts meant to cover the non-delivery risk due to unfavourable hydrological conditions, long outage periods, etc.).

The electricity average price per the total of regulated contracts concluded by the producers with dispatchable units was about 154 RON/MWh (43.7 Euro/MWh).

On the **competitive market**, electricity was traded as follows:

- about 5% of electricity through negotiated bilateral contracts with eligible customers;
- 5.4% with external partners (exports);
- 39% with the competitive suppliers or with other producers; and
- 1% with the captive customers' distributors-suppliers.
- Quotas traded through contracts signed following the bids organised on the CMBC were about 1% and about 3% was traded on the DAM.

The volume of trades on CMBC showed an increasing trend during the year, important volumes being noticed within November – December 2006 for delivery in 2007.

The total volume traded on DAM reached 4106 GWh in 2006, which represents about 8% of the internal consumption. This means an acceptable liquidity of this market given the fact that it became a voluntary market in July 2005. Taking into account the volumes traded on other markets, one can consider that there is still room for improvement.

The average price on DAM showed a significant increasing trend in the second half of 2006, which was mainly due to pessimistic forecasts regarding the lack of resources, also generated by a particularly droughty period. Thus, in December 2006, the maximum value of the monthly average price for the entire DAM trading period (July 2005 – December 2006) was about 215 RON/MWh (61 Euro/MWh) while the lowest values were obtained in May-June, a period with

an increased hydrological regimes. The monthly average value in 2006 was 161.06 RON/MWh (45.7 Euro/MWh).

The monthly volume of electricity traded on the Balancing Market (BM) for the period July 2005 – December 2006 was 5-13% of the internal consumption. The 2006 values show that comparable volumes were traded on DAM and on BM, which indicate an efficiency potential by increasing the volumes on DAM and diminishing the volumes on BM.

The role of the system services market is to provide the TSO, at any moment, the adequate generation capacities to ensuring the regulation. It operates by types of regulations: secondary, fast tertiary and slow tertiary. Producers are paid on this market in order to maintain at the TSO's disposal the contracted reserves and have the obligation to offer the respective capacity on the balancing market within which they are paid for the energy generated for the regulations. In order to be able to participate on the system services market, the TSO qualifies the participants from the point of view of their technical capability.

Given the high concentration degree noticed on the system services market (the hydro producer performing the vast majority of system services at high quality standards), the reserves have been predominantly ensured through regulated contracts the TSO and the producers signed for the required quantity. The remaining quantity was ensured through contracts on the competition market following negotiations/bids organised by the TSO.

The customers (demand) can actively participate on the market within the day-ahead-market (through the participation of the customers' suppliers) and through the increasing/decreasing offers made by the dispatchable customers on the balancing market. As no such customers existed in 2006, a storage pump was considered to be built in order to fulfil this role in the future.

By means of bilateral export/import contracts that producers/suppliers signed with external partners, Romania integrated its electricity market into the regional market in 2006. Additionally, support exchanges between TSOs were performed through offsetting. Imports reached 1011 GWh and exports 5248 GWh. According to the TSO reports, these values are the result of the commercial exchanges achieved, transit excluded.

The allocation of interconnection capacities through the interconnection lines of the neighbouring power systems for electricity import/export transactions and transit started in July 2005, by means of explicit bids. Bids are generally organised on monthly or on annual basis or whenever required, but not periods that are shorter than a week. The net interconnection capacity is determined by the TSO and is equally distributed for import and export among the neighbouring TSOs.

Mainly 8 major electricity suppliers delivered supply services to captive customers in 2006, namely: 4 state-owned undertakings, branches of Electrica SA and 4 undertakings with majority private shareholding; the total number of captive customers was 8,633,571 and the electricity supplied to the latter totalled approximately 23,302 GWh. The market quotas of the captive customers' suppliers ranged between [9%...17%].

The legal unbundling of the distribution and supply activities was achieved for 7 distribution and supply undertakings. Electrica Muntenia Sud, branch of Electrica SA privatised in July 2007, will legal unbundled its activities until the end of 2007.

At the end of 2006, the number of eligible customers that changed their supplier or that re-negotiated their supply contracts (by renouncing the regulated tariff) represented 47% of the

internal consumption of the final customers. Customers that exercised their eligibility right were mainly industrial. The electricity supplied to the eligible customers totalled 20,592 GWh.

34 independent suppliers not holding electricity networks activated on the **competitive** retail market, the HHI index being 885, which indicates that the market was not concentrated.

According to Government Decision No 638/2007 (published in Official Gazette 427/June 2007) all electricity customers have the right to choose their suppliers. To sustain this process, ANRE joined the information campaign launched by the European Commission at the same date.

In the period ranged January 2006 – January 2007, through ANRE Order 32/20.11.2006, the electricity tariff to captive final customers increased by 4.72%. Following the price adjustments within the aforementioned period, the average electricity price to final captive customers is 316.19 lei/MWh (89,7 Euro/MWh), without VAT

Through ANRE Order No 6/2007, electricity prices to final captive customers increased by 3.95%, starting April 1, 2007.

The unitary value of electricity excise duty was increased by the new Fiscal Code, in compliance with the commitments made during the EU accession negotiations, to 0.26 Euro/MWh for industrial customers and to 0.52 Euro/MWh for householders, starting with January 2007.

An important stage in the development of the South-East European Energy Community was the ratification by the Parliaments of the signing countries and by the European Parliament of the Community Treaty to enter into force from July 1, 2006. Also, starting December 2006, the Energy Community Regulatory Board was established, a body which , together with The Ministerial Council and The Permanent High Level Group, monitors the harmonisation of the regional legal frame with the *acquis communautaire* in order to promote the regional trading. ANRE appointed its representatives in the Working Groups organised within the Board.

Starting January 1, 2007, ANRE is a member of ERGEG, and following the collaboration protocol signed with ANRGN, ANRE appointed its representatives in the CEER Working Groups.

### **The natural gas market**

The Romanian gas market comprises the competitive market, on one hand (trading of gas between suppliers and between suppliers and customers making use of their eligibility), and the regulated market (management of commercial contracts and of the contracts for market contractual balancing; activities of natural monopolies – transmission, distribution, and storage; transit, except for the transit through dedicated pipelines; regulated and framework contracts-based supply; and any other activities resulting from these ones).

In the competitive market, prices are freely established, based on the supply and demand, as a result of competition-based mechanisms. In the regulated market, tariffs and prices are set by the regulator based on the methodologies established to this purpose.

The Romanian natural gas market has been gradually liberalized from 2001 onward. The gradual liberalization came to an end on 1 July 2007, when it was fully opened for all customers that now have the possibility to choose their own supplier.

The gradual opening of the natural gas market to competition was accompanied by measures aimed at developing the Romanian natural gas market and facilitating its participation to the upcoming EU Internal market, and consisting of:

- Licensing and authorization of natural gas economic operators
- Authorization of gas specialized staff
- Drafting of specialized natural gas - related technical and commercial regulations
- Implementation of new pricing methodologies aiming at stimulating the licensees to make investments and curb operating costs
- Monitoring and surveillance of authorized and licensed economic operators' activity

ANRGN granted, in 2006, the following authorizations and licenses to the gas companies acting in the Romanian gas market:

- 55 authorizations for the setting up of natural gas distribution
- 27 authorizations for the modification of natural gas undertakings/distribution systems
- 20 authorizations for the functioning of natural gas distribution
- 2 authorizations for the functioning of ground technological devices for gas production
- 2 authorizations for the setting up of natural gas production capacities
- 15 licenses for natural gas distribution
- 31 licenses for natural gas supply
- 1 license for natural gas dispatching
- 2 licenses for natural gas storage
- 42 changes of authorizations for the functioning of the natural gas distribution
- 35 changes of licenses for natural gas distribution
- 39 changes of licenses for natural gas supply

The result of the above-mentioned measures is reflected in the current structure of the Romanian natural gas market, currently comprising:

- One National Transmission System Operator – SNTGN Transgaz SA Mediaș
- 6 producers: Petrom, Romgaz, Amromco, Toreador, Wintershall Mediaș, Aurelian Oil&Gas
- 3 underground storage operators: Romgaz, Amgaz, Depomureș
- 34 companies for gas distribution and supply to captive customers - Distrigaz Sud and E.ON Gaz România are the largest ones
- 76 suppliers on the wholesale market.

With a view to implementing the requirements on accounting, legal, functional and organizational unbundling, the regulator approved, in 2006, the Regulation on accounting, legal, functional and organizational unbundling of gas regulated activities (ANRGN Decision No. 1139/2006), thereby detailing the unbundling requirements. Also, the regulator provided assistance to the TSO, DSOs and SSOs on accomplishing the unbundling requirements. As a result, accounting unbundling is in place. Also, legal unbundling is in place for E.ON Gaz Romania, one of the two largest DSOs. The procedures for accomplishment of the legal unbundling of the TSO – Transgaz, of one SSO – Romgaz, and of the other large DSO, Distrigaz Sud, are underway. The other DSOs are exempted from the obligation of legal unbundling for they serve less than 100,000 connected customers.

In 2006, the final regulated prices for captive customers were adjusted on a quarterly basis, as follows:

- 1 January 2006 - average of 17%, with variation on categories of customers (ANRGN Orders No. 1052-1079/14.12.3005)

- 1 April 2006 – average of 3.8 %, with variation on categories of customers (ANRGN Order No. 272/14.03.3006)
- 1 July 2006 – average of 1.54% for captive household customers, and 1.65% for captive non-household customers (ANRGN Order No. 636/08.06.3006)
- November 2006 - between 8.1% and 8.5% (ANRGN Orders No. 1137/16.10.2006, 1138/16.10.2006, 1172/26.10.2006).

The main causes that determined the above-mentioned adjustments in the natural gas price consisted in one or more of the following elements: increase in the oil price on the international market, increase in the import natural gas price, annual recalculation of the transmission tariffs or adjustment of the domestic price.

In order to avoid additional burdens on customers, the domestic price for the first three quarters of 2006 remained unchanged at the level of the 4<sup>th</sup> quarter of 2005 (RON 330/1,000 cm). By end October 2006, the domestic price was adjusted from RON 330/1,000 cm to RON 397.5 /1,000 cm, which, correlated with the appreciation of the national currency, allowed for the fulfillment of the commitment taken during the EU accession negotiations, aiming at reaching parity with the import price, and regarding the gradual increase of the domestic wellhead price with an yearly average of USD 25/1,000 cm.

On 1 January 2007, the final regulated prices for captive customers were adjusted following the removal of the tax on domestic gas, the decrease with around USD 12/1,000 cm in the import price, the favorable evolution of the leu/USD exchange rate and the application of the new distribution tariffs for 2007. As a result, the final regulated prices in place since 1 January 2007 are, in average, with 3% to 5% lower than the prices of December 2006. The domestic price used for the calculation of the final regulated prices was identical to the domestic price of December 2006, namely RON 397.50/1,000 cm.

Also, as of 1 January 2007, the natural gas taxation system changed following the enforcement of the new Fiscal Code. The excise duty on natural gas is clearly presented in the bill, separately from the regulated price approved by the regulator for natural gas supply. The unitary value of the excise duty is Euro 0.17/GJ, and the total amount to be paid to this account is calculated based on the calorific value of the gas delivered to customer.

At present, there are no imbalance charges applied on the Romanian gas market. Imbalance charges will be introduced following the implementation of the Gas Network Code, document which is under elaboration by ANRE, together with the transmission system operator and the other gas actors, with a view to finalization and adoption by end 2007.

*Main issues dealt with the regulator*

## **Electricity sector**

Within January 2006-July 2007, ANRE brought its contribution to:

- **Promoting the draft to amend the Electricity Law 318/2003, finalised by the publication in the Romanian Official Gazette No. 51/23.01.2007, Part I, of the new Electricity Law No. 13/2007.** The modifications brought by the new electricity law aim mainly at the harmonisation of the national provisions with the provisions of the Directives 54/2003/CE and 8/2004/CE through measures that encourage competition, increase security of electricity supply and attract capital by: introducing the bidding procedure for the construction of new energy capacities, as an alternative for cases in which insufficient investments for new

generation capacities are attracted by the authorisation procedure; simplifying the authorisation procedure by maintaining the authorisation procedure only for generation, transmission and distribution capacities up to 110kV; introducing the possibility for various categories of undertakings to perform metering activities; eliminating the administrative barriers and facilitating the access to the market of electricity produced in high efficiency cogeneration installations or from renewable energy sources, and introducing the support schemes to promote the latter. The social component is also addressed by: the introduction of the vulnerable customer category –residential customers who, for reasons of health, age or of other nature benefit from certain facilities regarding the electricity supply service; the introduction of the supplier of last resort – suppliers assigned by the competent authority to take over the supply of the customers if the default suppliers fail to fulfil their obligations (bankruptcy, licence withdrawal etc.); introduction of the public service obligations.

- **Encouraging competition on electricity market through:**
  - Granting licenses and establishment authorisations for electricity generation and supply. The license and authorisation conditions establish the criteria, the parameters and the obligations required for an undertaker to develop its activity in the sector. The conditions aim at protecting the public interest starting with the protection of the final customer to more general interests, at national economy level. The objective, transparent and non-discriminatory rules for the granting of licenses and authorisations set up in the *Regulation for the granting of electricity sector licenses and authorisations*, approved by GD 540/2004, with the subsequent modifications, are prerequisites for boosting the investors' confidence and for encouraging privatisation;
  - Implementing a new transparent and efficient system to set up electricity prices and electricity quantities that are sold through negotiated bilateral contracts by introducing the **centralised market of bilateral contracts**, operational from December 2005 (ANRE Order no. 42/2005).
  - **Electricity market opening**, one of the most important political decisions regarding this sector was gradually implemented starting 1999, in compliance with the existing legal provisions and commitments that Romania assumed in the Energy negotiation chapter with the European Union. The gradual opening of the market was a prudent approach to allow monitoring and amendment of the impact on the supply conditions of captive customers, on the producers and suppliers' behaviour and to perfect the new market administration tools.
  - In order to fully liberalise the electricity market, the terms and obligations to be followed in the process of switching the electricity supplier have been finalised (ANRE Order no. 4/2006) and **Regulation regarding the supplier of last resort** for have been issued (ANRE Order no. 14/2007);
  - **The unbundling of distribution and supply activities;**
  - **The development and complementing of the regulatory framework with regulations regarding the organisation and functioning of the green certificates market**, enabled the proper functioning of this market, established in November 2005. Of all the orders issued by ANRE in this respect the following are worth mentioning: the orders to approve the procedures for the issuing of the guarantees of origin for the electricity produced from renewable energy sources; ANRE Order 22/2006 for the approval of the Regulation for the green certificates market organisation and functioning; ANRE Order 38/2006 on the approval of the green certificates market monitoring; ANRE Order 39/2006 on the approval of the Regulation for the qualification of priority electricity produced from renewable energy sources;
  - **Promoting electricity from high efficiency cogeneration capacities**, by introducing certain financial support mechanisms to attract investors and by initiating the process of



transposing into the national legislation of the Directive 2004/8/EC provisions, process that was finalised by GD 219/2007, published in the Romanian Official Gazette, Part I, no. 200/23.03.2007.

- The development of commercial exchanges with the neighbouring countries was another important goal. To this purpose, regulations to support the creation of a regional South-Eastern European electricity market were introduced and the signing of the South-East European Energy Community Treaty by the European Parliament and six of the nine signing countries and its coming into force on July 1, 2006 was a significant progress in this respect.

## Natural gas sector

Over the reporting period, the transposition into national legislation of Directive 2003/55/EC and the preparation of the natural gas market for full liberalization, starting with 1 July 2007, further advanced.

In this respect, the regulatory framework was developed following the approval, in 2006, by the regulatory authority, of the following regulations:

- **Regulation on the supplier of last resort** (ANRGN Decision No. 1.000/2006)  
The supplier of last resort is meant to guarantee the safe performance of customers' activity in view of the full opening of the market as of 1 July 2007, when all customers, including households, will be able to choose their supplier. The supply of last resort aims mainly at protecting the household customers, the medical and educational units, as well as the small commercial customers (with an annual consumption below 12,400 cm). To this purpose, ANRGN decided to make the supply of last resort mandatory for these types of customers because they have a rather limited capability to react to change.
- **Performance Standards for natural gas distribution and transmission** (ANRGN Decision No. 1.361/2006) – aiming at ensuring an appropriate level of quality for the services delivered in the gas sector.  
The Standards set commercial quality criteria that gas operators must guarantee to their customers. For natural gas distribution, the Standard sets minimum quality indicators. Starting with 1 January 2008, in case of non-fulfilment of these minimum indicators, natural gas distributors shall make direct compensatory payments towards users. Also, a similar Performance Standard for natural gas supply was drafted and is currently under public debate with a view to approval by end 2007.
- **Regulation on accounting, legal, functional and organizational unbundling of gas regulated activities** (ANRGN Decision No. 1139/2006) – aimed at ensuring the prerequisites for implementation of the requirements on accounting, legal, functional and organizational unbundling of gas regulated activities. The Regulation details the unbundling requirements.  
Also, the regulator provided assistance to the TSO, DSOs and SSOs on accomplishing the unbundling requirements. As a result, accounting unbundling is in place. Also, legal unbundling is in place for E.ON Gaz Romania, one of the two largest DSOs. The procedures for accomplishment of the legal unbundling of the TSO – Transgaz, of one SSO – Romgaz, and of the other large DSO, Distrigaz Sud, are underway. The other DSOs are exempted from the obligation of legal unbundling for they serve less than 100,000 connected customers.

Also, the regulatory authority drafted and approved in 2006 the **Conditions on validity of natural gas transmission license** (ANRGN Decision No. 1362/2006), that provides, among others, the legal framework for the application of penalties for non-compliance with the

provisions of Regulation 1775/2005/EC, especially the ones referring to the transparency requirements.

**The gradual liberalization of the Romanian natural gas market** further advanced so that, as of 1 July 2007, the gas market is fully opened for all customers, that now have the possibility to choose a gas supplier from those licensed by the regulator and to negotiate directly with them the clauses and price for the supply of natural gas. The customer is able to make use of its eligibility quality in a direct manner, no administrative formality being necessary.

ANRGN, and, respectively, ANRE following the institutional reorganization, continued to grant **licenses for the supply of natural gas**, so that, at present, on the Romanian natural gas market 76 companies are licensed to supply natural gas.

Also, in 2006, two new companies, Toreador and Falcon, received authorization for the functioning of ground technological installations for natural gas production, and, respectively, authorization for the setting up of natural gas production facilities for the exploitation of new gas reserves.

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

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

##### 3.1.1 General

The market opening degree in România is set through Government Decision (GD). The market liberalisation development is given in Table 3.1.1.1.

Table 3.1.1.1

##### *Opening of electricity market*

Year	Eligibility [GWh/year]	Official opening degree %	Real opening degree %	Government Decision
February 2000	≥ 100 Gwh/year	10	5	GD 122 /2000, published in the Romanian Official Gazette No. 77/21.02.2000, Part I
October 2000	≥ 100 Gwh/year	15	6	GD 982 /2000, published in the Romanian Official Gazette 529/ 27.10.2000, Part I
2001	≥ 40 Gwh/year	25	7	GD 1272 /2001, published in the Romanian Official Gazette No. 832/ 21.12.2001, Part I
February 2002	≥ 40 Gwh/year	33	9	GD 48 /2002, published in the Romanian Official Gazette No. 71/31.01.2002, Part I
December 2003	≥ 20 Gwh/year	40	15	GD 1563 /2003, published in the Romanian Official Gazette No. 22/12.01.2004, Part I
November 2004	≥ 1 GWh/year	55	20	GD 1823 /2004, published in the Romanian Official Gazette No. 1062/16.11.2004, Part I
July 2005	All customers except householders	83.5%	34	GD 644 /2005, published in the Romanian Official Gazette No. 684 /29.07.2005, Part I
July 2007	All customers	100	47	GD 638/2007, published in the Romanian Official Gazette No. 427/27.06.2007, Part I

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

Congestion management and allocation of interconnection capacity are performed in accordance with the *Methodology to setting up the monthly net firm interconnection capacity* and the procedure entitled *Allocation of the Romanian Power System (RPS) Transfer Capacity to the Neighbouring Power Systems* that was issued by the Romanian Transmission System Operator – TSO and approved by ANRE.

The methodology used by the TSO to calculate the net transfer capacity (NTC) is published, in Romanian, on the TSO website [www.ope.ro](http://www.ope.ro), the heading: *Other markets/ATC allocation procedure*.

The fourth review of the allocation procedure was endorsed by ANRE in November 2006. The revised procedure is published in both Romanian and English on the same website heading, along with the ATC Allocation Framework Contract between the TSO (CN Transelectrica SA) and the capacity contracting party.

The procedure has been reviewed in order to be in line with the provisions of the Regulation 1228/2003 issued by the European Parliament and the EU Council, the main amendments being:

- a) The right of legal persons not holding a license issued by ANRE to participate in auctions
- b) Organisation of bids for long-term import/export contracts
- c) Modification of the conditions under which one may renounce the allocation capacity obtained through bids.

Starting July 1 2005, the right to use interconnection capacities for import/export transactions and for the transit of electricity is allocated through explicit bids. The bids are generally organised on monthly or yearly basis, but not for periods that are shorter than a week.

The RPS includes the following sections:

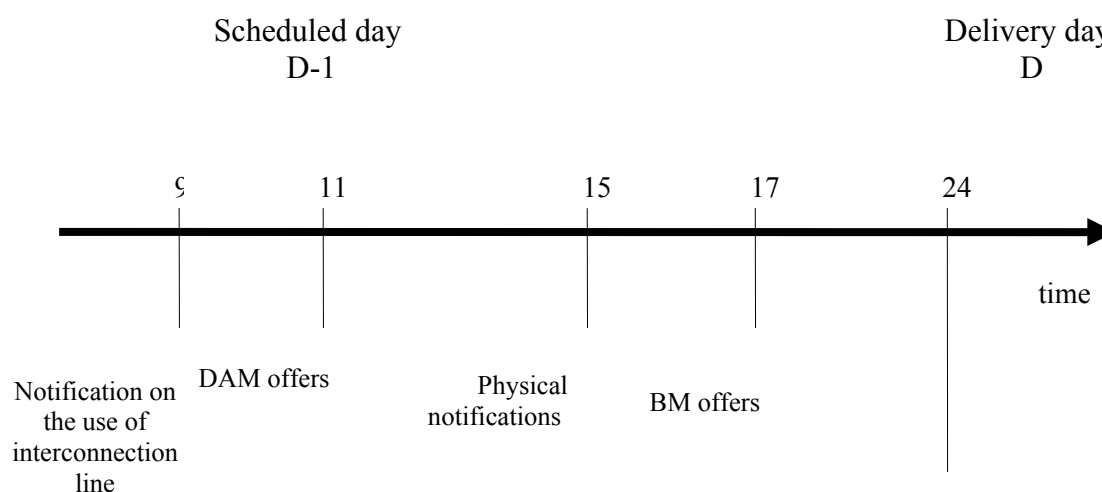
1. the Romania – Bulgaria section:
  - LEA 400 kV Isaccea – Dobrudja
  - LEA d.c. 400 kV Țânțăreni – Kozlodui
  - LEA 750 kV Isaccea – Varna (following the commissioning at 400 kV)
2. the Romania – Serbia 400 kV section:
  - LEA 400 kV Porțile de Fier – Djerdap
3. the Romania – Serbia 110 kV section:
  - LEA 110 kV Ostrovul Mare – Kusjak
  - LEA 110 kV Gura Văii – Șip
  - LEA 110 kV Jimbolia – Kikinda
4. the Romania – Hungary section:
  - LEA 400 kV Arad – Sandorfalva
5. the Romania – Ukraine section:
  - LEA 400 kV Roșiori – Mukacevo
6. the Romania – Republic of Moldova section:
  - LEA 400 kV Isaccea – Vulcănești (the line allows only imports through passive consumption island schemes with the consent of the distribution operator within that respective island or through tie lines under UCTE conditions)
  - LEA 110 kV Stâncă – Costești
  - LEA 110 kV Cioara – Huși
  - LEA 110 kV Țuțora – Ungheni

The NTC is agreed upon by the TSO together with the peer operators from the neighbouring countries and is equally distributed for import and export among the neighbouring TSOs. Before each bid that is associated to a certain allocation period, the TSO determines the interconnection

capacities that are available and identifies the possible congestions in compliance with the Transmission Grid Code approved through ANRE Order 35/2004, the UCTE rules and the ETSO practices.

TSO defines the interconnection line groups, determines and publishes the values of the NTC for the interconnection line groups, taking into consideration the safety criteria when verifying the operation regimes of the RPS (thermal, voltage and steadiness limits, the N-1 criterion, the safety margin of the international interconnection – TSM, the capacity already allocated – AAC).

Any participant with rights to use the interconnection capacity from the Romanian TSO or from the neighbouring TSOs and which intends to use these rights shall send TSO, with at the most 5 days prior to the starting of the allocation period, a notification of the capacities obtained from the neighbouring TSOs and/or from the external partners that obtained capacities from the neighbouring TSOs for the Romanian participant. The holder of the right to use the interconnection capacities shall send TSO a notification to include the interconnection line groups within a section, the direction of the exchange (import or export) and the delivery chart for the day D by 8:00 CET of the preceding day (D-1) at the latest.



Note: Reference hours - Romanian time

*Figure 3.1.2.1 Electricity market operation time-chart*

Cross-border transactions carried out according to the allocated transfer capacity are also notified as block exchanges, thus being integrated in mechanisms that are associated to the balancing market.

The TSO publishes, before each auction, the values of the TTC, TRM, NTC, AAC and ATC, in compliance with the aforementioned procedure. Following the bid, TSO publishes, for each border and direction, the codes and names of the winning participants, the value of the capacity allocated to each participant and the allocation price within that respective auction.

The TSO has to keep separate evidence of the income obtained from the capacity bidding. These proceeds are included in the regulated income of the TSO diminishing the unitary transmission tariffs.

Analyses performed on the results of the annually and the monthly interconnection capacity auctions for 2006 showed that:

- From the commercial viewpoint, on the export segment, congestions have been found almost all year long on the interconnection lines with Hungary, Bulgaria and Serbia/Montenegro, the capacity price reaching even RON 57.85/MWh/h (about Euro 16/MWh/h);
- Congestion rarely occurred on the import segment on the interconnection line with Bulgaria, Hungary and even Serbia;
- Priority allocation of export capacities corresponding to exports made by a Romanian producer based on long-term contracts was carried out by November 2006.

The number of days per month and the yearly total in which congestions occurred on each interconnection line and direction are given in Table 3.1.2.1.

Table 3.1.2.1

Interconnection		Ian	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2006	
		days	days	days	days	days	days	days	days	days	days	days	days	Total	%
Bulgaria	exp	31	0	31	30	31	30	0	31	30	31	30	31	306	84
	imp	0	0	0	0	31	0	0	31	30	31	3	0	126	35
Hungary	exp	31	28	31	0	31	30	31	31	30	31	16	0	290	79
	imp	0	0	31	30	31	0	0	0	0	0	19	0	111	30
Serbia	exp	31	0	31	30	31	30	31	31	30	31	16	31	323	88
	imp	0	0	0	0	31	0	0	0	0	0	0	0	31	8
Ukraine	exp	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	imp	31	0	0	0	0	0	0	0	0	0	0	0	31	8

Provisos are stipulated in the *Commercial Code of the Wholesale Electricity Market* (which establishes the market operation rules) to enable, if a regional market develops, the implicit allocation of the interconnection capacity with other power systems through the “market splitting” mechanism.

The NTC aggregated import/export values agreed with the external partners and the exchange scheduled for each direction in 2006 are given in figure 3.1.2.2

Congestion on the internal lines are, generally, of a lesser magnitude and are solved on the balancing market: TSO orders the up-ward and/or down-ward regulation of the dispatchable units other than the ones that would follow in the merit order (if the operation of the latter leads to internal congestion) and the costs associated to these modifications are covered by the TSO and are not included in the imbalances price.

The monthly electricity levels that TSO engages for the internal congestions management together with its associated c/value for the year 2006 are given in figure 3.1.2.3.

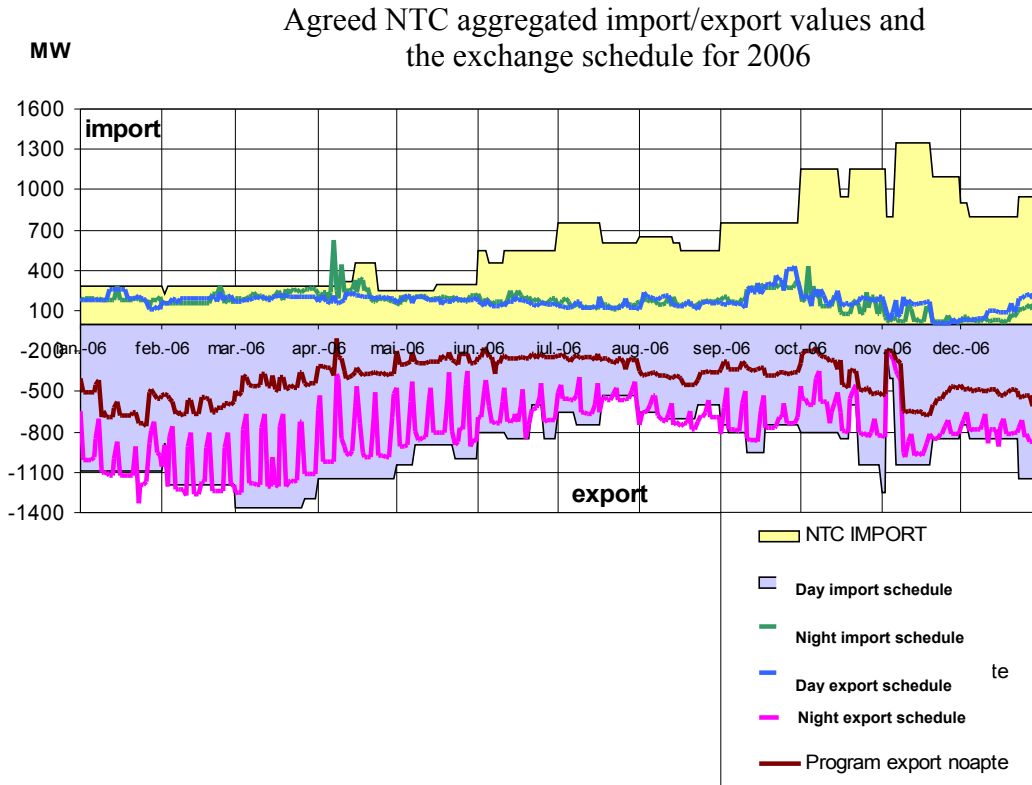


Figure 3.1.2.2

### Monthly evolution of the volume and value of the electricity delivered for the congestion management

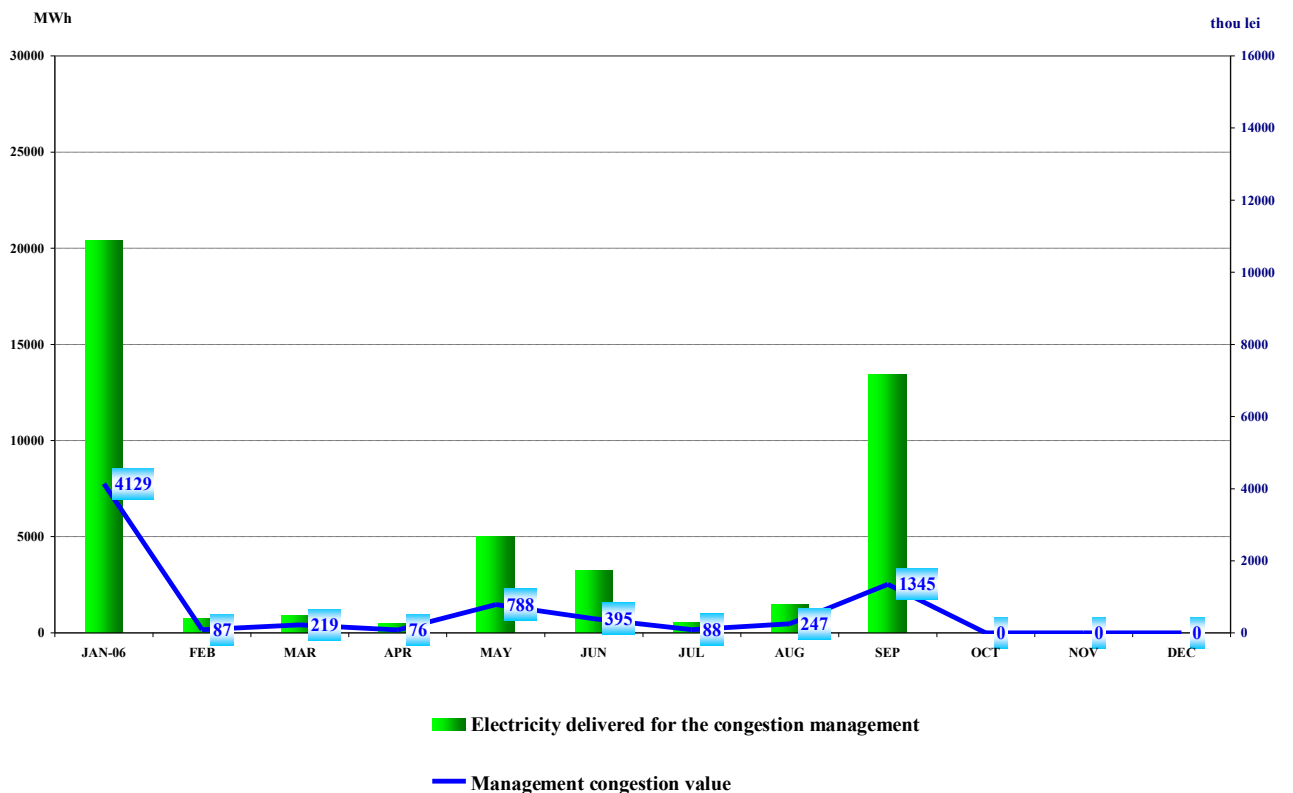


Figure 3.1.2.3

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

The unbundling of electricity generation, transmission, distribution/supply activities in Romania was made according to GD 627/2000 and, as a result, the following undertakings were established: CN Transelectrica SA – Romania's sole transmission system operator; SC Electrica SA – distribution and supply operator; SC Termoelectrica SA and SC Hidroelectrica SA – generation companies. Added to these is SNN Nuclearelectrica SA, which was set up according to GD 365/1998.

The subsequent restructuring process of CN Transelectrica SA consolidated the company's position as the unbiased independent transmission system operator. In its capacity of TSO, the company: is the concessionaire of the transmission system service and of the public assets associated to the electricity transmission grid; ensures the safe and stable functioning of the RPS at the required quality standards; and, at the same time, ensures, in a transparent, non-discriminatory and impartial manner, the regulated access of all market participants to the public electricity network. CN Transelectrica SA is a member of UCTE since May 2003 and of ETSO since November 2004.

According to the provisions of the Electricity Law, the TSO performs the following activities, mainly:

- operate, retrofit, rehabilitate and develop: equipment in the electricity transmission networks, equipment for the metering of electricity flow in the transmission network and to the interface with the assigned electricity network users, transmission networks IT and telecommunication equipment relating to RPS
- ensure the public electricity transmission service and the electricity transit on the Romanian territory, according to the contracts concluded;
- examine and endorse the compliance of the electricity transmission network users with the network connection technical conditions, as per the technical regulations in force;
- ensure the transmission of the electricity metering results to the operator of the corresponding centralised market and the access of the transmission service beneficiaries to verify the metering units;
- carry out RPS operational scheduling and operative control through its dispatch centres at central and regional level based on its own forecasts according to the electricity market legal regulations in force;
- authorise the operative control staff according to regulations in force;
- collect, keep records and store statistical data regarding RPS operation;
- exchange information with the interconnection partners and with other collaborators in the energy field, as per the UCTE regulations regarding the information exchange protocols, reports, structure and the access procedures to databases;
- qualify the ancillary services suppliers according to its own procedure that shall be subsequently approved by the competent authority;
- draw up and submit to the competent authority for approval the technical norms and the specific regulations for the operative control activity, after consultation with the electricity market participants;
- draw up, under the terms of the law, the plan for the protection of RPS against major disturbances;
- draw up the studies, programmes and works regarding RPS development;



The restructuring process of SC Electrica SA began with the implementation of GD 1342/2001. According to the provisions of the GD, the company was divided into eight distribution and supply entities, branches of SC Electrica SA, having the obligation stipulated in the license conditions to ensure the separation of accounts, of the distribution and the supply activities. The eight distribution and supply undertakings became fully operational in 2003, five of them (Enel Electrica Banat, Enel Electrica Dobrogea, E.ON Moldova, CEZ-Electrica Oltenia, Electrica Muntenia Sud) being privatised within 2004-2007. Privatisation of the three remaining state-owned undertakings, namely Electrica Muntenia Nord, Electrica Transilvania Nord and Electrica Transilvania Sud are underway, as well.

Seven of the existing distribution and supply undertakings completed the unbundling of their distribution and supply activities by setting up distinct distribution and supply undertakings. It is estimated that, by the end of 2007, the unbundling process of the 8<sup>th</sup> undertaking, which is the recently privatised Electrica Muntenia Sud, will be complete.

There are 27 distribution license owners in Romania holding small distribution networks with less than 100,000 customers.

The distribution operators deliver distribution services for all electricity distribution network users, in a non-discriminatory manner, and ensure the access to its distribution networks of every applicant meeting the lawful requirements and observing the existing performance norms and standards.

The distribution operator has the following main tasks:

- operate, retrofit, rehabilitate and develop electricity distribution networks, observing the technical regulations in force;
- ensure, upon the request of and by informing the TSO, the transit of electricity through the electricity distribution networks to areas where the transmission operator has not enough network capacity to receive power injection from the power plants, respectively co-generation plants, with a view to interconnecting with a neighbouring power system, under an existing bilateral agreement signed in this respect, in cases when RPS incidents occur and operation, maintenance or new works in the transmission network are carried out that render transmission in that zone temporarily unavailable;
- perform, upon consultation with the transmission operator, as adequate, works for the development of the electricity distribution networks through optimal development programmes according to long term studies and through specific modernisation programmes for installations;
- ensure the operative control according to the distribution license;
- disseminate, in a non-discriminatory manner, information on the unfolding of their distribution activities required by the network users while maintaining the confidentiality of the commercially sensitive data;
- submit, to the transmission system operator for approval, the repair and maintenance programme scheduled for the 110 kV;
- monitor the electricity distribution networks safe operation as well as the performance indicators of the distribution service.

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### Network tariffs

*The Methodology to setting up tariffs for the electricity transmission service* was approved through ANRE Order 30 /2004 and revised through ANRE Order 42/2006. The methodology sets up the method to determining the income and to calculating the electricity transmission tariffs.

Transmission tariffs are determined based on a revenue-cap methodology which was implemented with a view to ensuring:

- fair allocation, between the TSO and the transmission service beneficiaries, of the proceeds obtained from the increase in efficiency beyond the target set by the competent authority;
- efficient operation of the transmission company, prevention of any possible benefits the transmission system operator may gain from its monopolistic position
- promotion of efficient investments in the electricity transmission grid;
- promotion of efficient maintenance and operation practices;
- efficient use of the existing infrastructure, continuous improvement of the transmission service quality
- financial viability of the transmission company
- public and transparent information on the regulatory process.

The methodology is used by the TSO Transelectrica in order to calculate the regulated income and the transmission tariffs within a certain regulatory period, transmission tariffs that are to be applied to all the beneficiaries of the electricity transmission service: generators, customers, suppliers, distributors.

The regulated income for the transmission service is ex-ante determined by ANRE for a regulatory period of 5 years, with the exception of the first regulatory period of 3 years. The impact of inflation over costs is covered through the annual retail price index applied to tariffs in real terms.

Transmission tariffs differ by nodes (zones) depending on the impact of the injection or extraction of electricity into/from the nodes of the transmission grid. This impact is expressed as the transmission nodal marginal cost.

Transmission tariffs are approved annually by ANRE and come into force at the beginning of each fiscal year.

The following data are requested by the regulator to justify the TSO costs:

- regulated assets base;
- controllable and uncontrollable operation and maintenance costs;
- depreciation of the existing assets and of the investments commissioned annually;
- acquisition costs to cover electricity losses;
- acquisition of electricity costs associated to congestion elimination through re-dispatching;
- costs with the electricity cross-border exchanges.

Regulated revenue cap for the transmission service is ensured taking into consideration the:

- provisions stipulated in the performance quality standards imposed to the TSO through the Transmission Grid Code, the Romanian legislation or the contracts signed with the transmission service beneficiaries;
- evolution of the transmitted electricity quantity, estimated by the TSO;
- modification of losses level in the transmission grid;
- profitability of the regulated assets base.
- tariffs evolution, expressed in a smooth manner, within a regulatory period;
- all the transmission service fees paid by the TSO;
- financial viability of the TSO.

As there is only one TSO in Romania, no internal comparison with other similar operators can be performed in order to determine the efficiency factor applied to controllable costs. The regulator takes into consideration the followings, in order to determine the efficiency factor: improvement of TSO productivity; modification of initial data regarding costs; investment programmes approved by the competent authority and the regulated assets base, smooth revenues within the regulatory period.

In terms of quality of the regulated service, the *Methodology to setting up tariffs for the electricity transmission service* considers a correction factor with respect to the compliance with the minimum performance parameters for the second regulatory period (2008-2012). This factor will be introduced in the calculation formula for the yearly revenues. The level of revenues associated to the penalty-bonus risk due to non-compliance with the quality indicator, will not exceed 2% of the revenues.

In 2006, the average time of interruptions at the transmission network level was 1.187 min.

The performance standard for the electricity transmission service was reviewed in 2007 and approved through ANRE Order 17/2007.

The TSO provides the market participants information regarding the average transmission tariff, zone tariffs for the injection (Generation) and extraction (Load) of the electricity in the transmission network (see figures 3.1.3.1 and 3.1.3.2), regulations for the connection of users to public electricity networks.

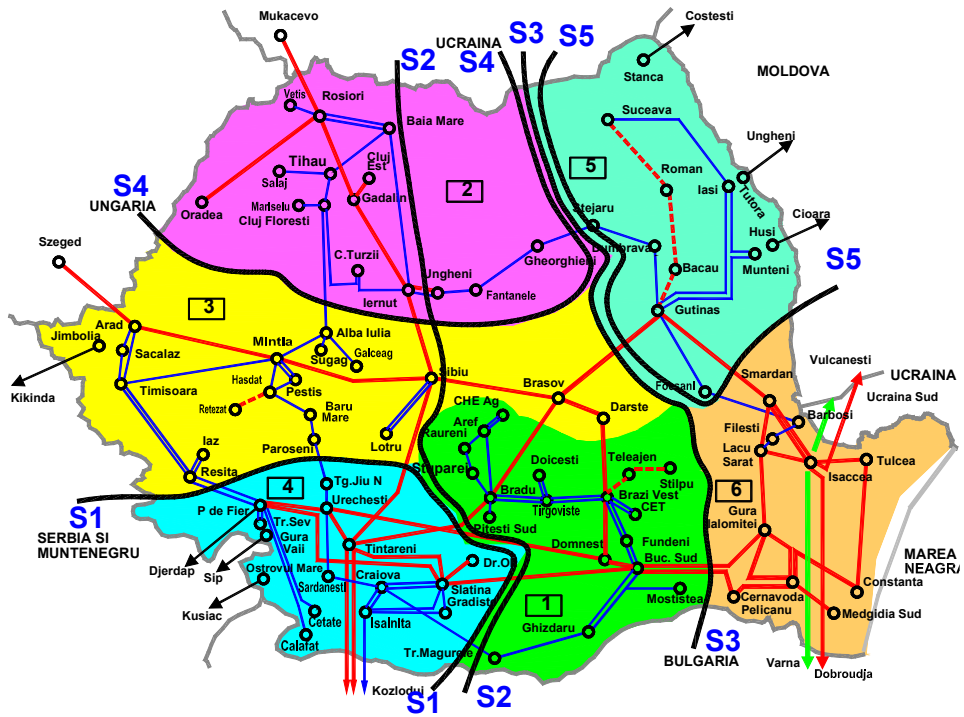


Figure 3.1.3.1. Zone tariffs for injection (Generation) of electricity in the transmission network.

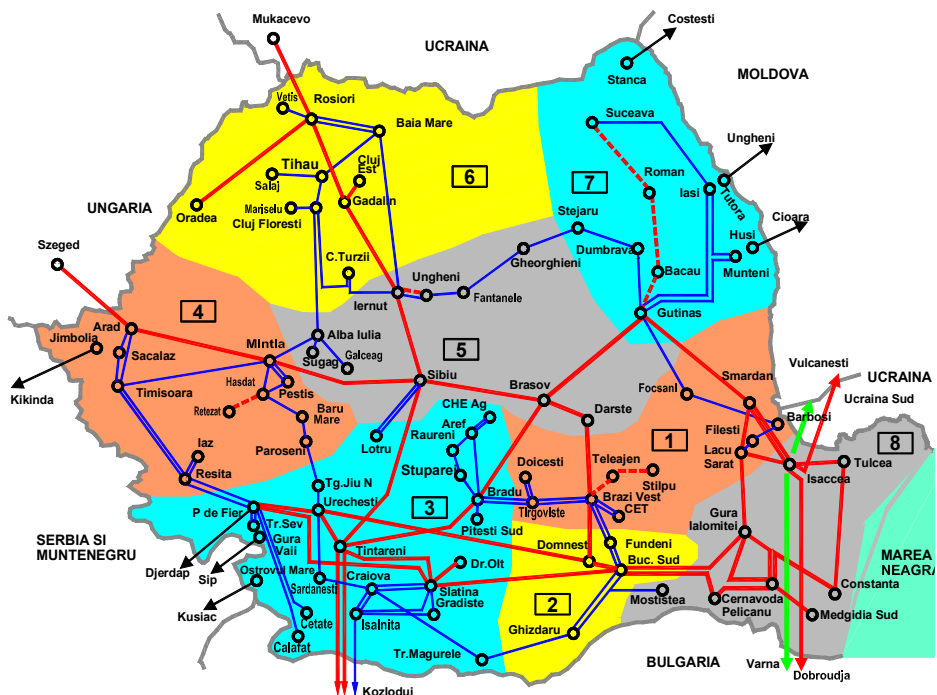


Figure 3.1.3.2. Zone tariffs for extraction (Load) of electricity from the transmission network

According to ANRE Order 7/2007, the average injection tariff ( $T_G$ ) is 7.40 RON/MWh (2.09 Euro/MWh). The  $T_G$  value for the six injection zones is ranged within [4.63 ... 8.67] RON/MWh, respectively [1.31...2.46] Euro/MWh. The average extraction value ( $T_L$ ) for the 8 extraction zones is 7.45 lei/MWh (2.11 Euro/MWh) with values ranged within [5.92 ... 10.79] RON/MWh, respectively [1.68...3.06] Euro/MWh. Producers pay about 50% of the network costs while the customers pay the remaining 50%.

The *Methodology to setting up tariffs for the electricity distribution service*, which was approved through ANRE Order 31/2004, sets up the method to determining and calculating the revenues, respectively, the tariffs for the electricity distribution service. The method used is the tariff basket - price-cap regulation, the tariffs covering the justified operation and maintenance costs, the network losses, the depreciation, the capital costs, etc. The methodology was implemented in January 2005. The first regulatory period is 3 years; the second one is 5 years beginning 2008. The tariff cap for the first regulatory period is 18% and 12% for the second regulatory period. Additionally, distribution tariff caps may be imposed by the regulator for each voltage level.

Distribution tariffs (RON/MWh) are of monomial type and are differentiated by three voltage levels: high voltage (110 kV), medium voltage, low voltage and by distribution operators. The regulator sets up distribution tariffs for each distribution operator.

This type of incentive regulation was implemented in order to:

- a) Ensure an efficient regulatory environment;
- b) Ensure fair allocation of revenues obtained from the increase of the efficiency beyond the targets set by the competent authority between the distribution operator and the distribution service beneficiaries.
- c) Ensure financial viability of the distribution companies;
- d) Ensure efficient operation of the distribution companies;
- e) Prevent the distribution operator's abuse of dominant position;
- f) Promote efficient investments in the electricity distribution network;
- g) Promote efficient practices for the electricity distribution network operation and maintenance;
- h) Ensure the efficient use of the existing infrastructure;
- i) Ensure the distribution network safe operation;
- j) Improve the quality of the distribution service;
- k) Ensure a transparent approach regarding the regulatory process.

The value of the X factor that applies to the controllable operation and maintenance costs was set by the regulator at 1% for the first regulatory period.

The regulated rate of return (RRR) is calculated in real terms based on the average weighted cost of capital before tax. For the distribution operators with majority private capital, in accordance with the privatization commitments, the RRR value in real values before tax will be 12% for each year of the first regulatory period (2005–2007) and 10% for each year of the second regulatory period (2008-2012). For distribution operators with full state-owned capital, the RRR value is set in compliance with the distribution tariff methodology.

The distribution network investment programme is assigned by voltage levels and by three types of categories for investment works as follows : essential fixed assets, required fixed assets and justifiable fixed assets.

The essential fixed assets are involved in the solving of the high risk problems of the distribution system, including the ones related to the safe operation of the distribution network.

The required assets are necessary for the development and the modernizing of the distribution system, for the performance and quality ratios laid down in the existing legislation. The justified assets are those assets for which analyses are performed considering the benefit to the customer.

For the annual approval of the distribution tariffs, the distribution operator submits ANRE, by October 1 of the current year, the following data and information:

- a) prices (by each tariff types) and the tariffs used;
- a. quantities of electricity distributed in the last year  $t$  (8 months actual and 4 months forecast)
- b) semestrial Balance Sheet
- c) semestrial Profit and Loss Account
- d) tariffs requested for the following year  $t+1$ , subject to regulator's approval.

Before the beginning of each regulatory period, the distribution operators prepare and submit, by October 1 of the last year of the preceding regulatory period, the following information:

- a) Balance Sheet
- b) Profit and Loss Account
- c) Investments value for the next regulatory period
- d) Depreciation regulated value for the next regulatory period
- e) Energy Balance data
- f) Other data
- g) Description and justification of the methods used for costs allocation and the associated support documentation;
- h) Investments plan detailing the estimated costs, the financial sources and the investments schedule (to be submitted on April 1; by September 1, distribution operators have the possibility to amend their investment plans to range within the annual values proposed on April 1).
- i) A notification signed by the manager consenting to the publication of the submitted data or specifying which data are classified according to the existing legislation.
- j) Tariff approval application

The average values of the network tariffs (transmission, distribution) for three major customer categories are given in Table 3.1.3.1 .

*Table 3.1.3.1.*

<b>Customer category</b>	<b>Euro/MWh Network tariffs</b>
Dc: household customer with an annual consumption of 3 500 KWh/year	65.38
Ib: commercial customer with an annual consumption of 50 MWh / year	65.38
Ig: industrial customer with an annual consumption of 24 GWh/ year and 4000 KW maximum power.	20.89

As a country average, the average interruption frequency in 2006 (the ratio between the number of customers affected by the accidental interruption and the number of supplied customers, the SAIFI index - System Average Interruption Frequency Index) was **2.26** interruptions/customer.

As expected, the highest number of interruptions (96.88%) occurred in the low voltage networks and the most affected customers were the householders (2.28 per householder as compared to

2.03 per industrial customer). In 80.57% of the cases, the electricity supply was restored in less than 4 hours as compared to 76.81% in 2005.

The Performance Standard for the Electricity Distribution Service is to be reviewed and penalties are to be introduced both through tariffs and individually.

The *Regulation for the Connection of Users to the Public Electricity Networks*, approved through GD 867/2003 and by the secondary legislation issued by ANRE, regulates the network connection procedures and stages and the connection tariff. In calculating the connection tariffs the costs with the construction of the facility proper and the costs with the enhancement of the network are considered. The conditions for connection to the networks are stipulated in the network codes and the terms for issuing the technical permits for connection are set through regulations.

The *Methodology to setting up the system service tariff* lays down the rules to determining the income used by C.N. Transelectrica S.A. for the procurement of resources in order to carry out system services and provides the calculation method for the tariff associated to this service.

The annual income required to ensure appropriate system services is assessed according to the principle of avoiding costs in RPS and to the customers and is made up of: the annual revenue for services provided by the system operator itself and the annual revenue for the procurement of ancillary services.

The annual income required to provide services by the system operator is determined by C.N. Transelectrica S.A. based on the justified costs associated to dispatching activities (operational control, scheduling and operational planning) and to the management of the balancing market, to congestions management, protections and of the safety works. The activities performed are the ones specific to the system operator. ANRE recognises as justified costs the followings: operation and maintenance costs, depreciation of the existing assets and of the new investments, profitability of the regulated assets base.

The annual income that CN Transelectrica SA requires for the ancillary services procurement is destined to the acquisition of the following resources: secondary regulation, spinning reserve, fast tertiary regulation, slow tertiary regulation, power reserve ensured by the efficient generation capacities of the co-generation units, reactive power required for the voltage control of the electricity transmission network. CN Transelectrica SA determines and contracts the required quantities of ancillary services. .

#### Balancing Market (BM), Balance Responsible Party (BRP)

On the Balancing Market, TSO performs in real time the balancing between the electricity production and consumption, on commercial bases. In order to ensure sufficient energy for the system balancing, TSO contracts reserves (ancillary services market) for periods of maximum one year.

Each transaction concluded on the BM establishes the obligation of the respective BM participant to supply the adequate service hourly to the TSO and make the corresponding balancing energy available on BM.

BM starts in the previous day, after the approval of the physical notifications for the delivery day and ends when the delivery day is over. BM is a mandatory market, meaning that each BM participant holding dispatchable units must offer on the BM all the production capacities and dispatchable loads available. The balancing energy related to secondary regulation, fast tertiary regulation and slow tertiary regulation is traded on the BM.

The balancing energy is ensured through:

- a) Up-ward regulation, by increasing the production of a dispatchable unit or by decreasing the consumption of a dispatchable load or a pumping storage plant which is registered as a dispatchable load;
- b) Down-ward regulation, by decreasing the production of a dispatchable unit or by increasing the consumption of a dispatchable load or a pumping storage plant which is registered as a dispatchable load.

The BM participants must submit daily offers for each dispatch interval (60 minutes) corresponding to the balancing energy which they can make available for up-ward regulation and down-ward regulation. Each daily offer may contain up to ten (10) price-quantity pairs to be submitted by 5:00 p.m. (BM closing time) on the trading day that precede the delivery day with maximum one (1) week before the respective delivery day.

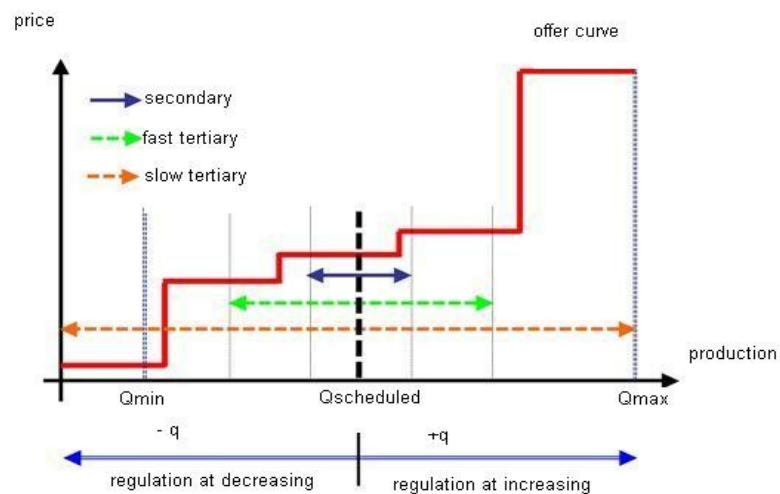


Figure 3.1.3.3. Functioning of the Balancing Market

All the validated offers on BM establish the BM participant obligation to deliver the offered quantity on BM corresponding to the dispatch instructions issued by TSO.



On BM only the actually delivered energy is remunerated. Secondary regulation is paid at the offers marginal price and the tertiary regulation is paid to the offer. Each licensed party must take financial responsibilities towards TSO in order that the physical balance between metered production, scheduled purchases and electricity imports, on one hand and the metered consumption, scheduled sales and electricity exports, on the other hand, for one or more connection points and/or for one or more transactions may be ensured. The licensed parties taking the balance responsibility towards TSO must register as Balance Responsible Party (BRP) or is allowed to transfer the balance responsibility to a licensed party registered as a BRP.

When a BRP is in negative imbalance will pay the balancing energy which was purchased from TSO for system balancing at the hourly imbalance deficit price and when a BRP is in positive imbalance will sell to TSO the surplus energy at the hourly imbalance surplus price.

The imbalance surplus price is calculated for each dispatch interval as a ratio between the incomes resulted from the system balancing and the actually delivered balancing energy for downward regulation in that dispatch interval. The imbalance deficit price is calculated for each dispatch interval as a ratio between the payments for the system balancing and the actually delivered balancing energy for upward regulation in that dispatch interval.

The settlement of the BRP imbalances is performed after the determination of the meter values for all the metering points of the market participants, appealing/solving the appeals/approval of meter values and aggregation of meter values by BRP, according to the aggregation algorithm communicated to the Metering Operator; in these circumstances, the settlement of the imbalances is made two (2) months after the delivery month. Taking into account that the market model leads to residual income/costs for TSO resulted from the balancing system, the calculation of the residual income/costs and their redistribution to the suppliers in ratio according to the consumption supplied by each one of them, are made at the same date.

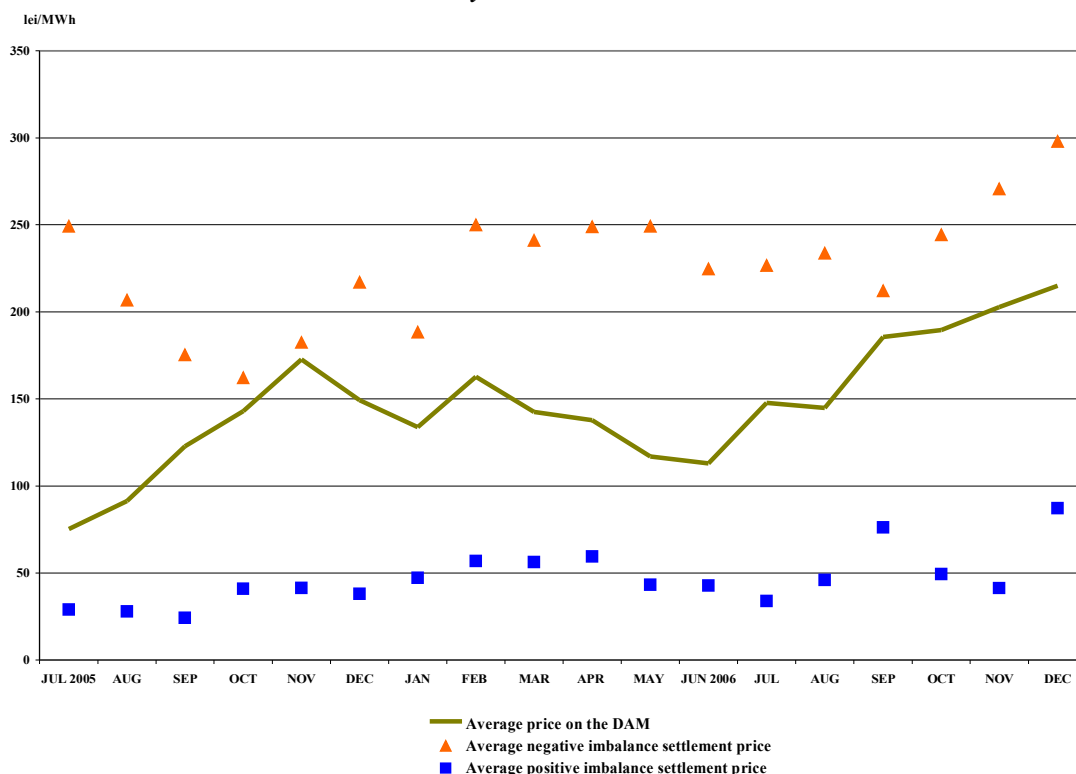
There is only one balancing zone defined for Romania, operated by a single licensed system operator/ Balancing Market Operator (BMO) - CN Transelectrica SA. The interactions with other control zones is made through the mutual aid exchanges inter – TSO, not by accepting offers to be included in a common merit order.

At this stage of electricity market developing an intra-day market was not considered necessary; although, bilateral transactions intra-day are allowed, concluded before the BM closing time, as no change of the physical notifications can be made after 17:00 the day before the delivery day. On the day ahead market the transactions are concluded on hourly basis, the same with the transactions on BM.

#### *Representative prices applied to the market participants for the registered imbalances*

The evolution of the average monthly settlement prices (the imbalance surplus price and the imbalance deficit price) for the period July 2005 – December 2006, are presented by comparison, in the graph 3.1.3.4. The annual average values of the settlement prices for 2006 were: imbalance deficit price 248,77 RON/MWh (70,58 EURO/MWh), and the imbalance surplus price 52,89 RON/MWh (15 EURO/MWh). The monthly average values for the whole operation period are in a normal structure (imbalance surplus price < average price DAM < imbalance deficit price) and the trend is the improving of this structure especially by imbalance surplus price increasing.

**Monthly average prices on the DAM and BM**  
*July 2005 - December 2006*



*Figure 3.1.3.4*

*Information regarding the balancing mechanism to be put by the TSO at the market participants' disposal:*

According to the provision of the *Commercial Code of the Electricity Wholesale Market*, the TSO should disclose as possible in real time the following information regarding the balancing mechanism:

1. the total (aggregated) notified electricity production;
2. the total national electricity consumption:
  - corresponding to the physical notifications made by the suppliers
  - corresponding to the TSO forecast;
3. net export in each borderline transaction zone;
4. net import in each borderline transaction zone;
5. the needed reserve, for secondary, fast tertiary and slow tertiary regulation;
6. the available band for the secondary regulation;
7. the available balancing amount corresponding to the fast and slow tertiary regulation;
8. the amount of the balancing energy, total and with respect of types of balancing, in every dispatchable interval, for the system balancing;
9. the amount of the balancing energy, total and with respect of types of balancing, in every dispatchable interval, for congestions management;

10. the marginal price of the total balancing energy corresponding to the upward (downward) power regulation;
11. the highest/lowest accepted price for the balancing energy corresponding to the fast tertiary upward (downward) regulation;
12. the highest/lowest accepted price for the balancing energy corresponding to the slow tertiary upward (downward) regulation.

The TSO sends on monthly basis to every balancing market participant:

- the amount of the balancing energy, total and with respect of types and sense of balancing, which the market participant should have submitted in every dispatchable interval, from every dispatchable unit
- the amount of the balancing energy, total and with respect of types and sense of balancing, which the market participant effectively submitted in every dispatchable interval, from every dispatchable unit.

After finishing the settlement of the balancing market, every BRP and balancing market participant is sent by the Settlement Operator SC OPCOM SA (different from TSO) all the needed information about the hourly remuneration for the participation in the balancing market, their positive and negative imbalances in every dispatchable interval, the imbalance surplus price and the imbalance deficit price, and information regarding the penalties applied on account of the dispatchable units' unnotified deviations from the notified production schedules (de notification imbalances) and the penalties for the unfulfillment of the Dispatcher Orders (the latter have not been required in 2006).

The Settlement Operator publish a monthly settlement statement regarding the residual incomes, comprising the balance account corresponding to every BRP, and the system balancing additional costs or incomes, respectively.

In 2006, the system balancing additional costs/ incomes have been fully allocated to the BRP that had assumed the balancing responsibility; the TSO has not kept any quota from this mechanism.

### **3.1.4 Effective unbundling**

As mentioned before, the unbundling of electricity generation, transmission, distribution/supply was achieved in 2000. The functional separation and the separation of accounts between the activities of distribution and supply was ensured by July 2007 and in July 2007 seven of the exiting distribution/supply operators completed the unbundling of their distribution and supply activities by setting up distinct distribution and supply undertakings. It is estimated that the unbundling process of the 8<sup>th</sup> distribution operator - the recently privatised Electrica Muntenia Sud - will be complete by the end of 2007.

Romania has one TSO (CN Transelectrica SA) and 8 distribution operators: Electrica Distribution Muntenia Nord, Electrica Distribution Transilvania Nord, Electrica Distribution Transilvania Sud, Electrica Muntenia Nord, CEZ Distribution, E.On Moldova Distribution, Enel Electrica Banat și Enel Electrica Dobrogea.

Romania also apply the 100000 customer rule, as distribution undertakings with less than customers are not compelled to carry out the unbundling of their activities. Currently, 27 such distribution operators are distribution license holders.

CN Transelectrica SA is the concessionaire of the transmission service and of the public assets associated to the electricity transmission grid (>110 kV) while the eight distribution undertakings are the concessionaires of the distribution service and of the public assets of the distribution network ( $\leq 110$  kV).

The number of CN Transelectrica SA employees is 2156. The total number of employees working for the eight distribution undertakings is 13647. Of the total number of employees working in the electricity sector, the network companies' workforce represents 37.7%.

CN Transelectrica SA ownership structure is as follows: 76.5% of the social capital – the Ministry of Economy and Finance, 13.5% - The Property Fund, 10 % - private ownership. Since August 2006, the company is also listed to the Stock Exchange.

The ownership structure for the distribution operators following the legal unbundling of the distribution and supply activities is as follows:

**1. SC CEZ Distribution SA:** CEZ a.s : 51.0062 % S.C. Electrica S.A. ; 36.99378 % the Property Fund ; 11.9999 % Severomoravská energetika a.s. ; Vzhodočeská energetika a.s. and Západočeská energetika a.s. hold one share each, representing 0.0000014 % of the social capital.

**2. SC Enel Distribution Banat SA și SC Enel Distribuție Dobrogea SA:** Enel Distribuzione SpA, holder of 51,003 % of the shares, S.C. Electrica S.A., holder of 36,9970 % of the shares, the Property Fund S.A., holder of 12 % of the shares.

**3. SC E.ON MOLDOVA DISTRIBUTION SA:** 50,97 % - E.ON Energie Romania S.A.; 37,05 % S.C. Electrica S.A.; 11,95 % the Property Fund SA ; 0,03% the companies within the E.ON Group holding one share each, whose weight in the social capital is 0,01% (E-ON Sales & Trading GmbH, E-ON Energie 31. Beteiligung GmbH, E-ON Energie 21. Beteiligung GmbH).

**4. SC FDFEE Electrica Transilvania Sud SA, SC FDFEE Electrica Transilvania Nord SA, și SC FDFEE Electrica Muntenia Nord SA,** have the following shareholding structure: 88 % S.C. Electrica S.A.; 12 % the Property Fund S.A.

**5. After privatisation of SC FDFEE Electrica Muntenia Sud SA,** ENEL will hold 67,5% of the shares.

Both the TSO and the distribution/supply operators have their own offices, logos and internet websites. The new undertakings that followed the unbundling of the distribution and supply activities are in process of creating their own logos and internet websites.

The TSO and DSOs financial reports are published separately.

The regulator set up detailed rules on the separation of costs. These rules are included in the conditions of the transmission and distribution licenses and in the methodologies for network tariff calculation. Sanctions for non-compliance with the unbundling requirements are laid down in the Electricity Law.

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

### **3.2.1 Description of the wholesale market**

#### ***Structure of the electricity generation sector***

At the end of 2006, there were 67 electricity generation license holders. Of these 67, only 22 have dispatchable units, units that can adjust power on system operator demand (installed power of more than 20 MW in thermal units, excluding back-pressure cogen units, and of more than 10 MW in hydro units).

13 producers with dispatchable units have only cogeneration units, the heat is used for the towns in which are located via the district heating pipes. These producers, municipalities-owned, are confronted with non-optimal operating regimes, high operating costs, because the industry heat consumption has continuously decreased since 1990, and because of people savings and disconnections.

The most important electricity producers are

- SC HIDROELECTRICA SA, the hydro producer that in 2006 sold a large number of their micro hydro power plants
- SN NUCLEARELECTRICA SA, the nuclear power producer,
- SC CE TURCENI SA, SC CE ROVINARI SA and SC CE CRAIOVA SA, three major electricity producers holding condensing turbines and boilers using the local lignite from their own mines
- SC ELECTROCENTRALE DEVA SA, a producer with condensing turbines and pit coal fired units
- SC ELECTROCENTRALE BUCURESTI SA – producing electricity either on cogen or on condensing units, hydrocarbon fired
- SC TERMOELECTRICA SA, that holds condensing and cogen units; this operator is the owner of SC ELECTROCENTRALE BUCURESTI and of one cogen producers.

During time different restructuring scenarios of power generation have been considered, having in mind the imbalance between the size, technology and costs, still existing numerous pros and cons. The present situation reflects the successive reorganizations that took place during 2000-2004 with the consequence of gradual reduction of the electricity wholesale market concentration, as indicated by the Herfindahl-Hirschman (HHI) index evolution. The value of HHI, computed based on installed capacity, was in 2006 of 1890, slightly higher than the threshold between the moderately concentrated and highly concentrated markets. The values of the concentration index take into account the participations of the operators in the shares of others, for instance TERMOELECTRICA's full ownership of the SC ELECTROCENTRALE BUCURESTI SA and SC Electrocentrale Galati SA.

The maximum net generating capacity was 15501 MW (corresponding to the existing capacities at 31.12.2006). The maximum peak demand was 8151 MW.

The number of producers that hold, as installed capacity, more than 5% of the total capacity, was of 5, and the percentage of the installed capacities of the first three largest producers was of 65.1% (the calculus respects the dominance principle previously explained).

The breakdown of net electricity generation, delivered into grid in 2006 (corresponding to the dispatchable units' participation) is given in the table 3.2.1.1.

In the same conditions as specified in the computation of the market concentration indicators, 7 generating companies delivered more than 5% of total national net generation, the cumulative market shares of the largest three producers was of 58.5%.

The national gross consumption was in 2006 of 53.02 TWh (including the losses in the transmission and distribution networks).

Table 3.2.1.1.

*Net electricity generation*

Producător	Net electricity generation	
	TJ	GWh
S.C. „Termoelectrica” S.A.	6310	1753
S.C. „Electrocentrale București” S.A.	22268	6186
S.C. „CE Rovinari” S.A.	23082	6412
S.C. „CE Turceni” S.A.	23066	5407
S.C. „CE Craiova” S.A.	15321	4256
S.C. „Electrocentrale Deva” S.A.	11928	3313
S.C. „Hidroelectrică” S.A.	64282	17856
S.N. „Nuclearelectrică” S.A.	18428	5119
Self producers	5737	1593
Other producers	13328	3702
<b>TOTAL</b>	<b>203750</b>	<b>56597</b>

Table 3.2.1.2. presents the annual average values of structure indicators C1 and HHI calculated based on electricity delivered into grids by generators with dispatchable units during 2006.

Table 3.2.1.2.

*Annual average values of C1 and HHI calculated based on electricity delivered by generators*

Year	C1	HHI
2006	31.1	1673

Table 3.2.1.3. presents the values of the same concentration indicators, calculated based on gross energy and all the generators, including those with non-dispatchable units:

Table 3.2.1.3.

*Annual average values of C1 and HHI calculated based on generated electricity (gross)*

Year	C1	HHI
2006	29.2	1534

The conclusion of the presented data is that the Romanian electricity market is average concentrated.

The electricity structure by primary sources and for several levels of consumption is presented below:

Fuel type	off-load (MW)	peak-load (MW)	average load (MW)
Coal	1322	3663	2703
Hydrocarbons	478	2050	1154
Nuclear	656	660	594
Hydro	2142	2343	2053

### Description of wholesale electricity market

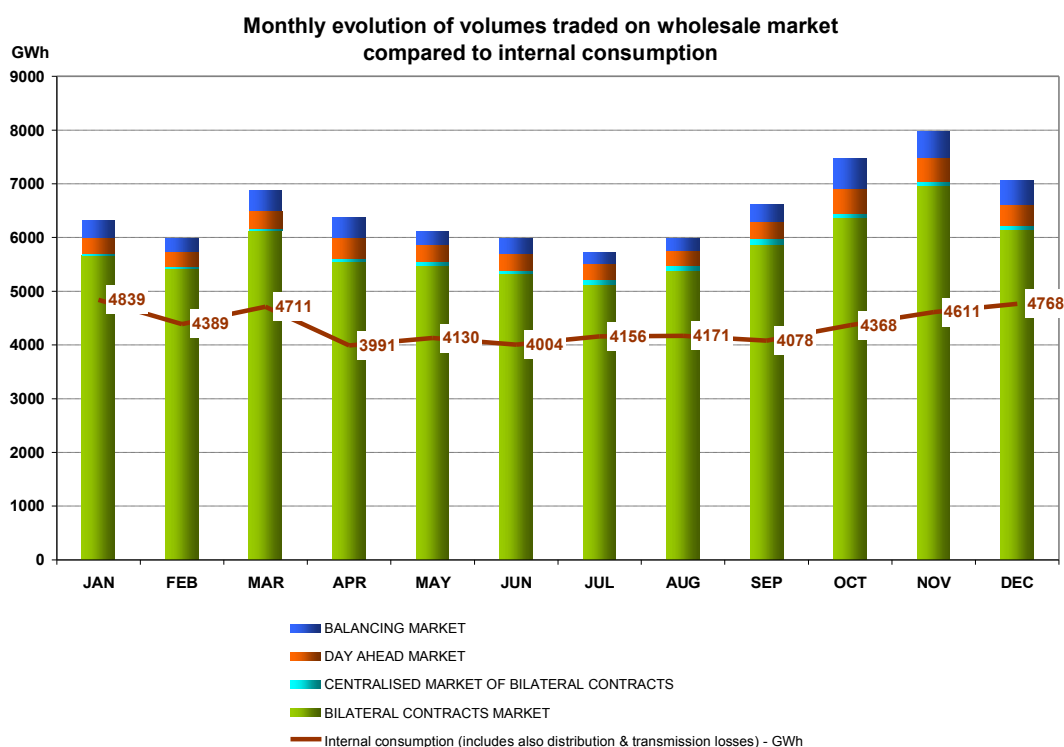
On 1<sup>st</sup> July 2005, the new market model was launched, according to which the electricity is traded through contracts (regulated, for captive customers and grid losses and negotiated for the rest) and through transactions concluded on a voluntary day-ahead market - DAM (with both side offers and bilateral settlement). The real time difference between demand and offer are covered by the TSO, by accepting offers on the balancing market – BM. The participants are financially responsible for the imbalances which they created. In order to use transparent mechanisms for contract transactions on the competitive market, starting with December 2005 a new mechanism was put in place – the centralized market for bilateral contracts (CMBC).

In Romania there is no market for standardized contracts except the transactions on DAM, made on each hourly intervals; on CMBC the participants offer their own framework-contracts, the daily delivery intervals, the quantities on each interval, the start and the end of the intervals.

However, participants have a natural tendency to standardize their offers. Therefore, SC Opcom SA organised another market in 2007, called centralized market for bilateral contracts with continuous trading (CMBC – CT), where the traded contracts have a higher level of standardization.

The size of the wholesale electricity market is determined by all the transactions performed by generators and suppliers exceeding the quantities physically transmitted from generation to consumption; the total transactions include reselling performed with a view to adjusting the contractual position and to gaining financial benefits.

As resulting from the figure 3.2.1.1, in 2006 the most used transactions were those on bilateral contracts, representing approx. 133% from internal consumption (approx. 55% from internal consumption were traded based on regulated contracts). Furthermore, 8% from the internal consumption were traded on DAM, approx. the same percent on BM and 1.6% from the internal consumption were traded on CMBC with delivery in 2006.



*Figure 3.2.1.1.*

### Bilateral contracts market

In 2006, 46% from the electricity sold by generators was traded on the market with regulated prices and quantities and 54% on the competitive market.

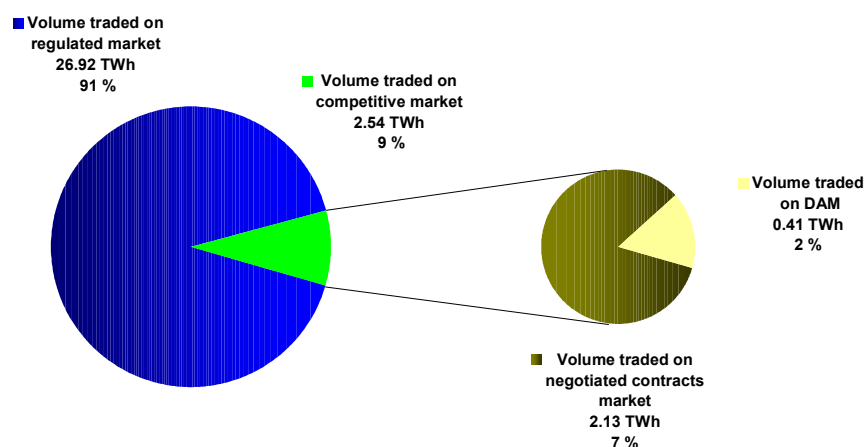
On the regulated market, the generators' sales was directed to:

- captive customers at regulated tariffs – approx. 32.7%;
- grid losses – 9.5% for distribution losses and 1.4% for transmission losses;
- transactions between generators, on option contracts (contracts designed for covering the hydro risks or the long-term decommissioning).

The average price of electricity on regulated contracts concluded by generators with dispatchable units was 154 lei/MWh (43.7 Euro/MWh).

The distributors/suppliers for captive customers traded on the wholesale market 106063 TJ (29462 GWh) for regulated activities. The structure on contract types is presented in figure 3.2.1.2.

**Aquisition structure for electricity delivered by suppliers for captive consumers  
- 2006 -**



*Figure 3.2.1.2. Structure of electricity transactions of suppliers for captive customers on regulated market*

Consequently, the electricity acquisitions on regulated market represented 91%, the rest being traded on the competitive market. The average acquisition price (AAP) was 150.15 lei/MWh (42.6 Euro/MWh).



<b>Supplier for captive customer/distributor</b>	<b>AAP regulated contracts</b>	<b>AAP negotiated contracts</b>	<b>AAP global</b>
	lei/MWh	lei/MWh	lei/MWh
S.C. DFEE Electrica Banat S.A.	138,15	133,20	137,12
S.C. DFEE Electrica Dobrogea S.A.	130,41	132,09	130,20
S.C. E.ON Moldova S.A.	130,67	132,29	132,70
S.C. FDFEE Electrica Muntenia Nord S.A.	153,55	132,60	151,59
S.C. FDFEE Electrica Muntenia Sud S.A.	182,07	131,70	176,65
S.C. FDFEE Electrica Oltenia S.A.	130,18	132,85	129,37
S.C. FDFEE Electrica Transilvania Nord S.A.	164,80	132,23	161,90
S.C. FDFEE Electrica Transilvania Sud S.A.	166,52	126,99	165,85
<b>Total</b>	<b>151,41</b>	<b>131,90</b>	<b>150,15</b>

On competitive market, the generators traded 5% from the electricity with eligible customers on bilateral negotiated contracts, 5.4% with external partners (on export contracts), 39% with competitive suppliers or other generators and 1 % with distributors/suppliers for captive customers; the percentage of electricity traded on CMBC with the competitive suppliers was about 1 % and approx. 3% was traded on DAM.

In 2006, the reduced liquidity on CMBC was due to:

- the conclusion of contracts for a high percentage of electricity before the starting of the year
- the participants' preference to negotiate directly (this possibility was restricted by the Ministry of Economy and Trade Order no. 408/2006 which require the state-owned generators to sell all their available electricity on CMBC) and the existence of long-term contracts for large electricity quantities;
- low level of contracts standardization;
- insufficient transparency on CMBC due to the lack of publication of the transactions clearing price.

The volume of transactions concluded on CMBC showed an increasing trend over the year, large volumes being traded during November-December 2006 with delivery in 2007.

### Day-Ahead Market – DAM

DAM is a voluntary market with both sides' offers, opened to all licensed participants in order to sell the additional electricity and adjust, with a day ahead the delivery, the contractual position as against the possibilities/ necessity of generation /consumption.

The analysis of HHI index, calculated taking into account the sales of each DAM participant indicates a non-concentrated market or an average concentration on monthly level but with daily variations, the index reaching in certain days maximum values of 5400.

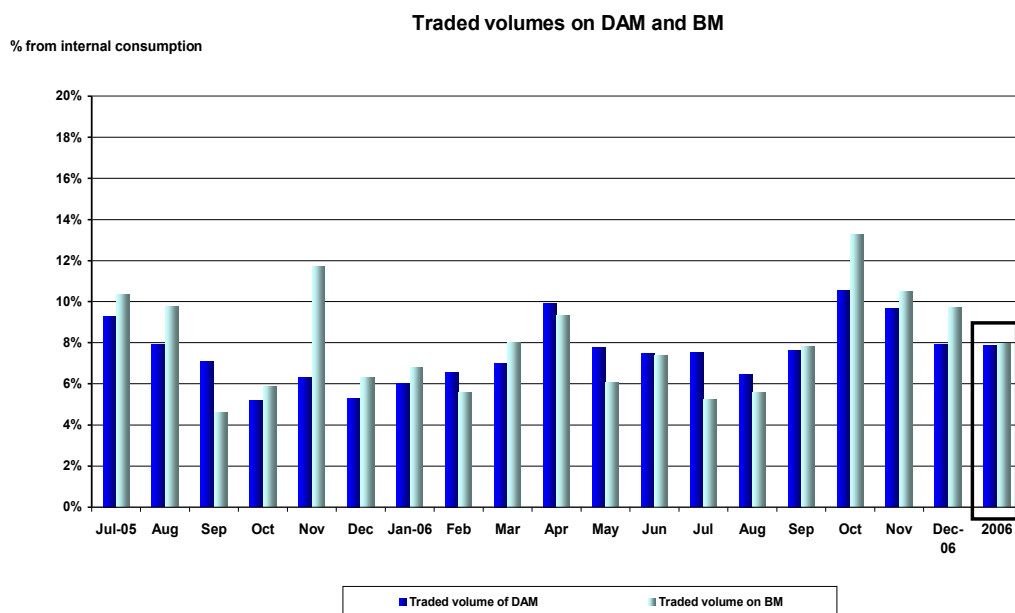
On the buying side, there are monthly average indexes which indicate a lack of concentration; in the last quarter of 2006 the monthly HHI reached even 3800 (high concentration market on buying); moreover, some daily values indicate a high concentration of market power.

Generally, the high level of HHI corresponds to excessive hydro conditions (floods/very-dry weather) which determined an excess of electricity from the hydro generator or a shortage from his contractual position. Therefore, the hydro generator tried to cover its contracts from DAM; this type of behavior is considered normal and beneficial for the optimal use of resources.

Figure 3.2.1.3. presents the evolution of DAM traded volumes, as compared with BM traded volumes, as percentages from internal consumption – starting with July 2005 – the date the new market model was launched.

Total DAM volume traded in 2006 was 4106 GWh, representing 8% from the internal consumption. This figure signifies an acceptable liquidity of this market if considering that, from July 2005, this is a voluntary market. As compared with the volumes traded on other markets, this market has an important growth potential.

In the second half of 2006, the average price on DAM showed a significant increasing trend in the context of pessimist prognosis regarding the availability of the resources, also due to the dry weather conditions.

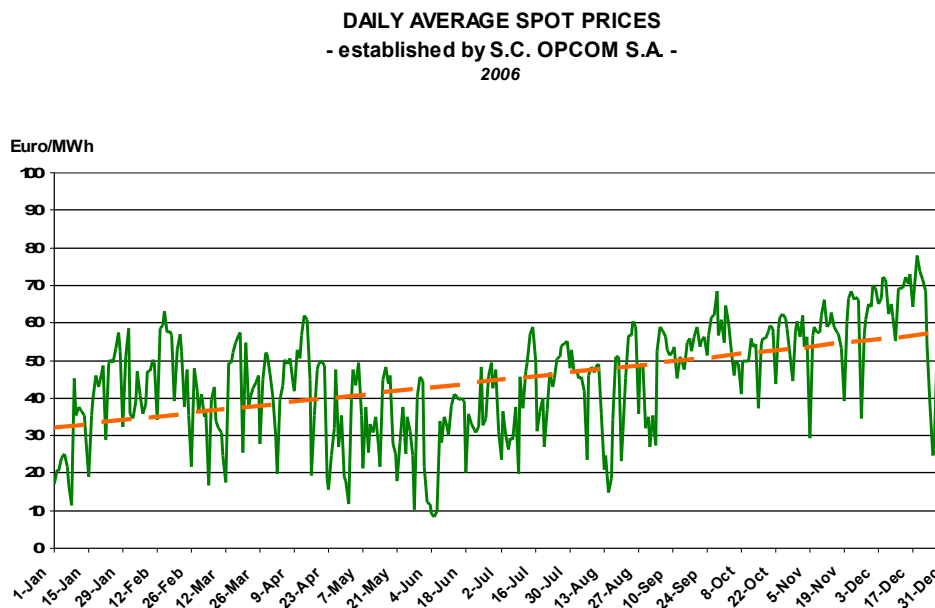


*Figure 3.2.1.3.*

Therefore, in December 2006, the monthly average price reached the maximum value for July 2005 – December 2006 period, 215 lei/MWh (61 Euro/MWh), while the lowest values were obtained during May-June 2006, a period with a high hydrological volumes. The monthly average value in 2006 was 161.06 lei/MWh (45.7 Euro/MWh).

Thus, it may be considered that DAM gave the right signal on the market, integrating the available information regarding the level of resources. The correlation level between the hourly values of clearing price and the internal consumption in 2006 was 0.62.

Figure 3.2.1.4. presents the evolution of daily average values of spot price in 2006.



*Figure 3.2.1.4.*

### Balancing Market – BM

The way the Balancing market works was described in section 3.1.3.

The Balancing market entered into force in July 2005. 79 BRP were active in December 2006 and 20 generators with 136 dispatchable units operated on BM.

The monthly volume traded on BM during July-December 2006 (see figure 3.2.1.4) ranged between 5 and 13% from the internal consumption. The real values for 2006 show comparable volumes trade on DAM as on BM, which indicates a growing efficiency potential, by increasing DAM volumes and decreasing the BM volumes.

The overall evolution of the BM traded volumes and of the imbalance shows that BM is actually in the process of reaching maturity.

The values of concentration indicators, calculated based on real electricity delivered by generators on BM during 2006, indicates a participant with a dominant position for the secondary and fast tertiary regulations (C1 is in general over 60%). These values correspond to a market with a high concentration level, no matter the direction and type of regulation (monthly values of HHI vary between 2097 and 8263); the competition level of the slow tertiary regulation is slightly higher.

In 2006, electricity was traded as follows:

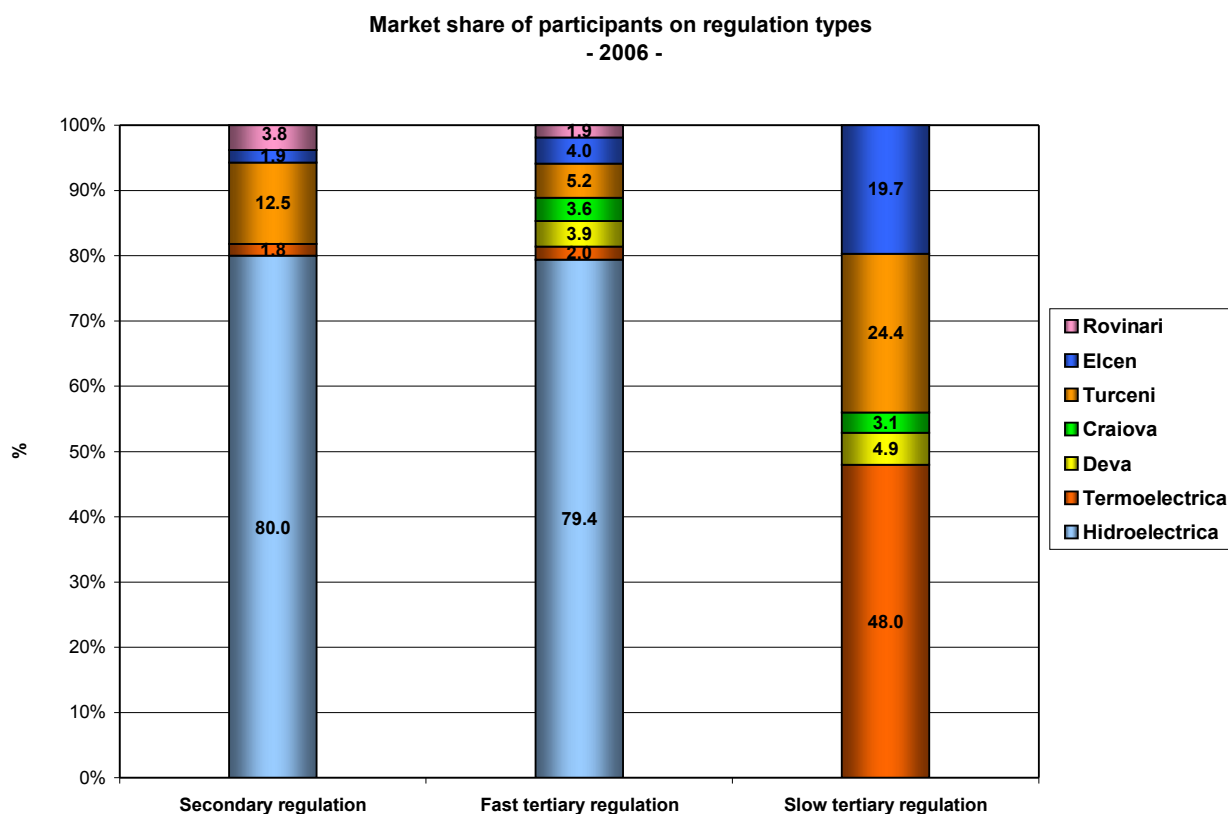
	Total electricity traded		Of which on regulated contracts
	GWh	%	%
Electricity traded on day-ahead market (DAM)	4106	5.1	0
Electricity traded on non-standardized bilateral contracts for less than 1 year	14710	18.1	0
Electricity traded on non-standardized bilateral contracts with duration more than 1 year and less than 5 years	49842	61.4	36
Electricity traded on bilateral contracts with duration more than 5 years	12523	15.4	0
<b>Total</b>	<b>81181</b>	<b>100</b>	<b>0</b>

#### Ancillary services market

The ancillary services market ensures that in every moment, TSO has at its disposal certain generation capacities capable of ensuring the required regulation. This market is designed to work on reserve types: secondary, fast tertiary and slow tertiary; the generators are paid, on this market for keeping the contracted reserves at TSO disposal, having the obligation to offer that capacity on the BM. Within the BM, they are paid for the electricity delivered for the regulations performed by TSO. From the technical viewpoint, participants have to be qualified by the TSO in order to participate on the ancillary services market.

Due to the high concentration of this market (the hydro generator being capable to perform most part of the needed regulation and at high standards), the reserves on this market were ensured predominately through regulated contracts concluded between generators and the TSO for a portion of the required quantity, the remaining quantity being ensured on the competitive market, following bid/negotiation procedures performed by TSO. The clearing prices on different types of reserves for regulated and competitive contracts ranged between 58.39 – 58.83 lei/MWh (16.6 – 16.7 Euro/MWh) for secondary control, 26.02-32.22 lei/MWh (7.38-9.14 Euro/MWh) for fast tertiary control while the price for slow tertiary control came only from regulated contracts, the average price being 26.35 lei/MWh (7.47 Euro/MWh).

Figure 3.2.1.5. presents the market shares of participants for ensuring the regulation reserves.



*Figure 3.2.1.5.*

In 2006, the rules for calculating and applying of penalties for the non-fulfillment of contracts were modified (penalties were calculated at a tariff that is double as against the tariff of reserves).

#### ***The active participation of demand to the wholesale electricity market***

The active participation of customers is possible within DAM (due to the suppliers which deliver to customers and participate at DAM) and through up-ward/down-ward offers on BM made by dispatchable customers. Even if no such dispatchable customers existed in 2006, a pumping-storage power plant is envisaged to be build in the near future.

In 2006, the integration of the Romanian electricity market within the regional electricity market was made only through bilateral export/import contracts concluded between Romanian generators/suppliers and external partners; these contracts follow the allocation of interconnection capacities through mechanisms described in section 3.2.1. In addition to these contracts, flows-exchanges between TSOs are carried out based on offset mechanisms.

In 2006, 1,011 GWh was imported and 5,248 GWh was exported. According to the TSO reports, these values are the result of the commercial exchanges without the transits rather than the result of the physical flows.

As neither of Romania's neighbouring countries holds spot markets, no correlation between the prices on the Romanian spot market and the prices on the spot markets of these neighbouring countries can be made. The degree of correlation as against the other EU countries, is given below:

	Austria	Czech Republic	Italy	Lithuania
Romania	0,23	0,27	0,43	0,25

### 3.2.2 Description of the retail market

Supplying electricity to customers consists in supplying on the *regulated* market (which includes all the small customers and eligible customers that choose to be supplied at regulated tariffs) and in supplying on *competitive* market (which includes the customers other than householders that switched their supplier or that negotiated supply contracts with their suppliers of captive customers).

In Romania, about 140 suppliers are holders of supply licenses. The monthly evolution of the structure and of the number of commercial operators that developed supply activities for 2005 and 2006 is given in Figure 3.2.2.1. The total includes the suppliers on the competitive market, the suppliers of captive customers and the producers that hold a supply license.

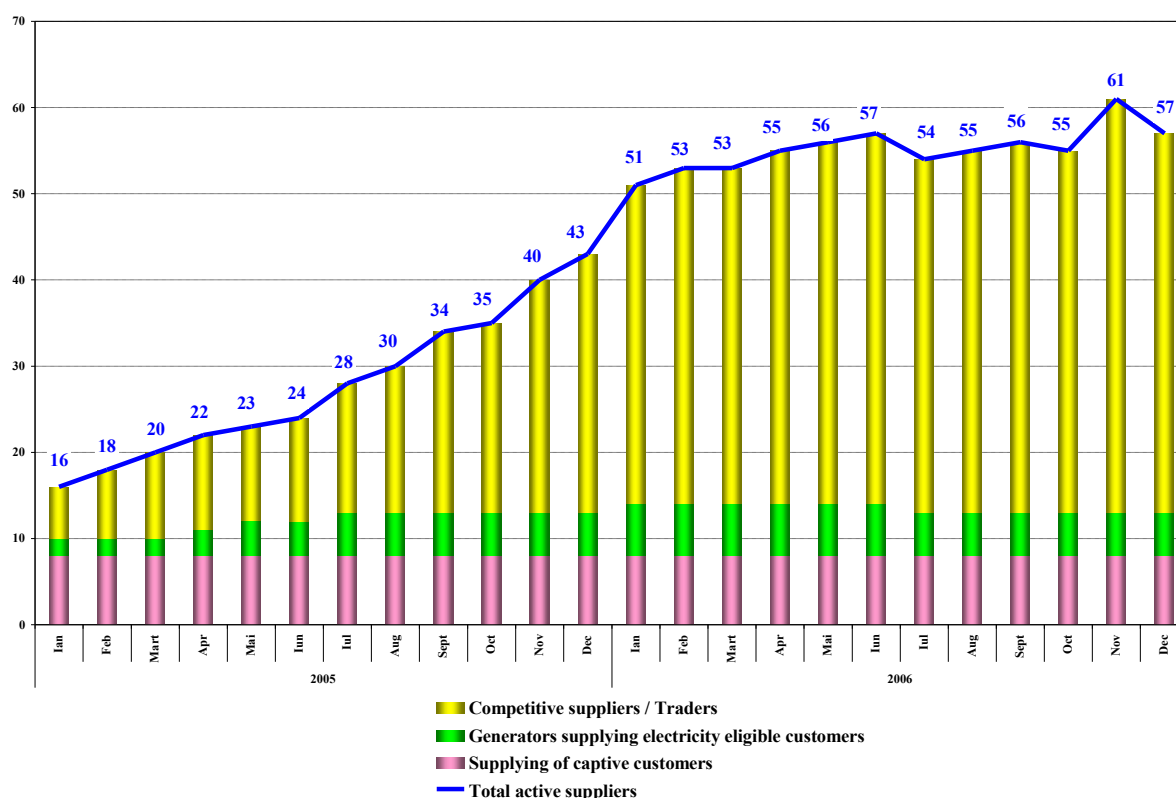
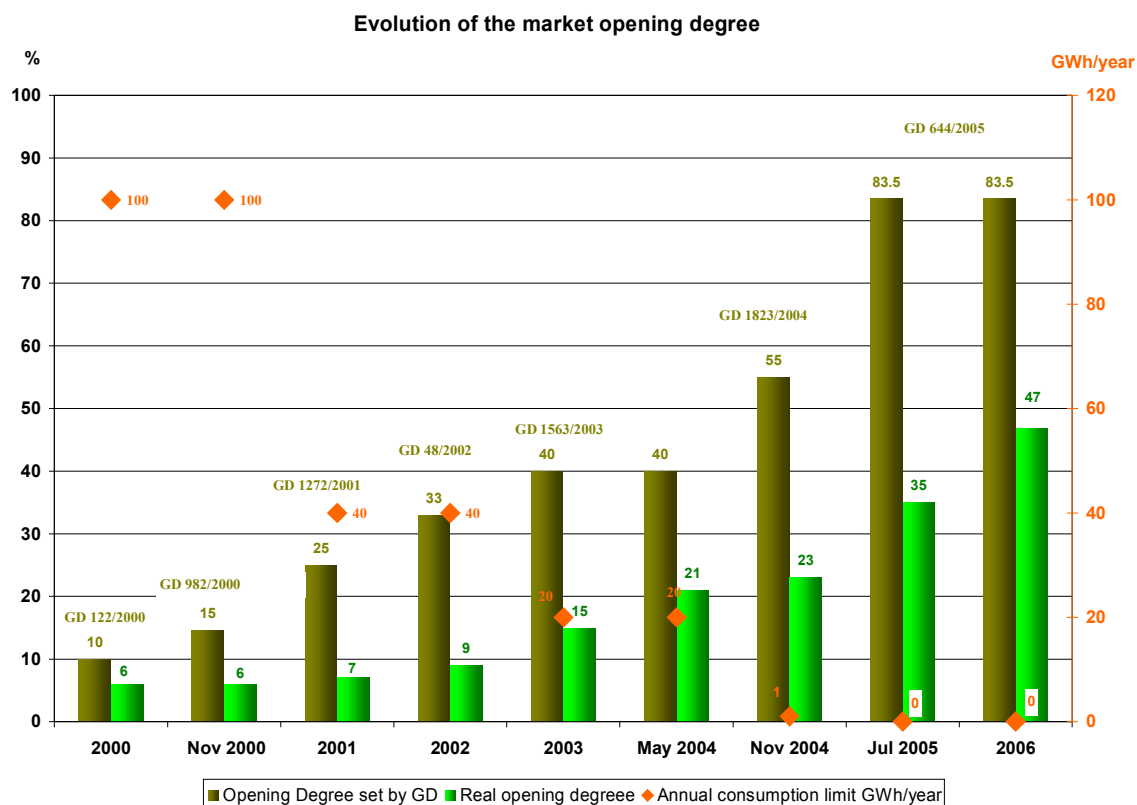


Figure 3.2.2.1. The evolution of the number and structure of electricity suppliers in 2005 and 2006

Figure 3.2.2.2 shows the annual evolution of the consumption weight of customers who switched their supplier or who negotiated their contracts (by renouncing the regulated tariff) as against the market opening degree set through Government decision.



*Figure 3.2.2.2*

In the year 2006, on the regulated market, the captive customers had mainly 8 suppliers: 4 state-owned commercial operators, branches of SC DFEE Electrica SA and 4 commercial operators with majority private ownership; the total number of captive customers was 8.633.571 and the supplied electricity was approximately 23.302 GWh.

The market shares owned on this market by the captive customers' suppliers are shown in table 3.2.2.1.

*Table 3.2.2.1.*

Supplier – Distributor	Market share residential (%)	Total captive consumption GWh
SC DFEE Muntenia Sud SA	17	<b>23302</b>
SC DFEE Muntenia Nord SA	13	
SC CEZ Electrica Oltenia SA	13	
SC DFEE Transilvania Sud SA	13	
SC DFEE Transilvania Nord SA	12	
SC EON Moldova SA	11	
SC ENEL Electrica Banat SA	11	
SC ENEL Electrica Dobrogea SA	9	

The market shares of the captive customers' suppliers depending on the form of propriety are shown in table 3.2.2.2.

The monthly evolution of the cumulative value of the number of customers that used their eligibility starting January 2005 is presented in fig. 3.2.2.3.

Table 3.2.2.2.

Supplier – Distributor	Market share residential (%)	Total captive consumption GWh
ELECTRICA	55	23302
ENEL	20*	
CEZ	13	
EON	12	

\*- By purchasing the branch SC FDFEE Muntenia Sud SA, the market share of ENEL will raise to 37 %, comparable in this moment with the one of Electrica.

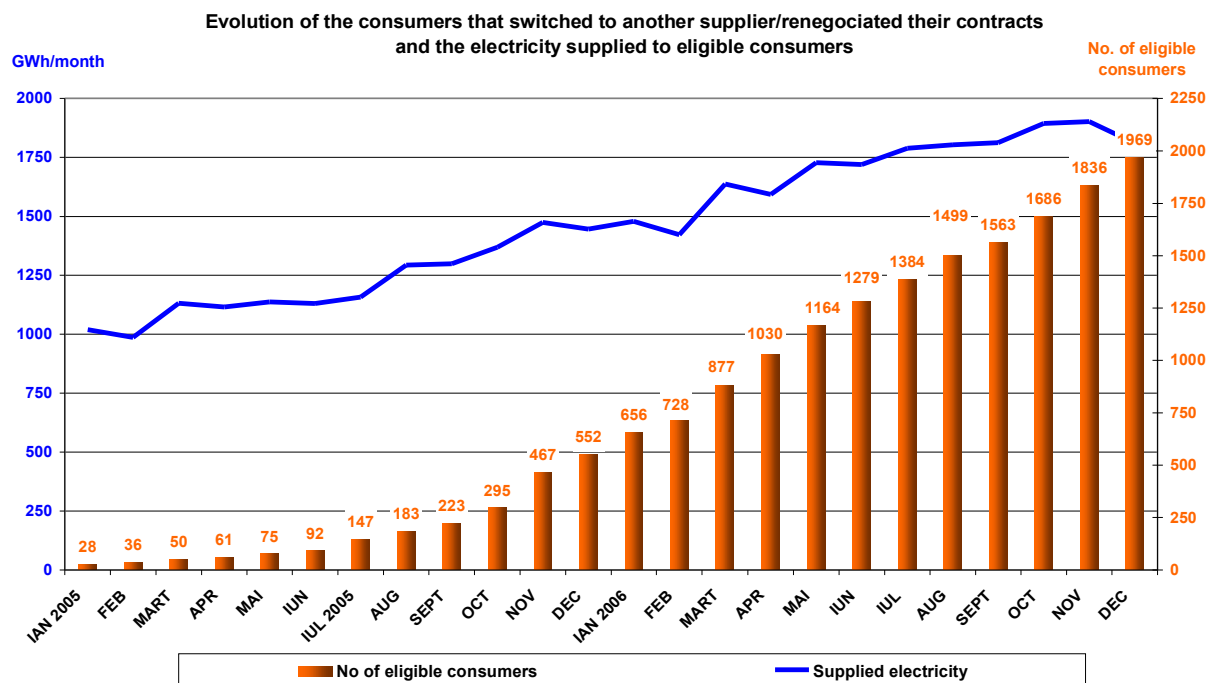


Figure 3.2.2.3.

In December 2006, the consumption of eligible customers who switched their supplier or who renegotiated their contracts (i.e. renouncing the regulated tariff) had the value of 47% of the internal consumption of the final customers. The customers that used their eligibility rights are mostly industrial customers.

On the competitive segment of the retail market activated 34 independent suppliers that do not own networks. The value of 885 of the HHI structure index determined for this market segment shows a non-concentrated market. Table 3.2.2.3. shows the eligible customers' suppliers whose market shares are higher than 5%, one of them being also a producer.

Table 3.2.2.3

Supplier	Market share eligible (%)	Total eligible consumption GWh
SC Energy Holding SA	20	20592
SC Alro SA*	17	
SC Petprod SA	6	
SC Electrica SA	6	
SC Hidroelectrica SA	6	

\* - is also the biggest eligible customer



The market shares of the final customers' suppliers (the residential ones included) that own more than 5% are presented in table 3.2.2.4:

Table 3.2.2.4

Supplier	Market share residential + eligible (%)	Own a network	Total final consumption GWh
SC FDFEE Muntenia Sud SA	9	YES	43894
SC Energy Holding SA	9	NO	
SC Alro SA	8	NO	
SC FDFEE Muntenia Nord SA	7	YES	
SC CEZ Electrica Oltenia SA	7	YES	
SC FDFEE Transilvania Sud SA	7	YES	
SC EON Moldova SA	6	YES	
SC FDFEE Transilvania Nord SA	6	YES	
SC ENEL Electrica Banat SA	6	YES	
SC ENEL Electrica Dobrogea SA	5	YES	

Table 3.2.2.5 shows, for 2006, the information on the number of suppliers that have a market share higher than 5% for the categories of industrial customers (small, medium and large), as well as the shares for the first three suppliers. The suppliers' market shares were set up taking into consideration only the consumption of the eligible customers, because only for them the existing data allows such a processing.

Table 3.2.2.5

Item	Type of customers	No. of suppliers with market share higher than 5%	Shares for the first three suppliers
1	Small industrial (< 50 MWh/an)	6	1. 25% 2. 22% 3. 12%
2	Medium industrial (< 2 GWh/an)	9	1. 15% 2. 13% 3. 13%
3	Large and very large industrial (> 2 GWh/an)	4	1. 20% 2. 18% 3. 6%

According to the *Regulation to switching electricity supplier*, approved by ANRE Order 21/2005, with subsequent amendments and complements, the process of switching the supplier normally lasts 30 to 60 days and is free of charge, provided there are no debts due to the current supplier. The process of switching the supplier complies with the Eurelectric Recommendations on the European model of switching the supplier.

According to the provisions of the Electricity Law 318/2003, the tariffs of the captive final customers are uniform all across the country. Therefore, for this customer category the regulatory authority sets the quantities and prices for the selling/buying contracts to be signed by the main producers with the suppliers of the respective residential customers. The tariffs for the captive customers are revised twice a year by ANRE and approved through order of ANRE President. In the Electricity Law 13/2007, the provision according to which uniform tariffs for final customers are to be nationally applied is repealed.

For the categories of customers mentioned at 3.1.3, the value of the electricity selling price is specified in table 3.2.2.6.

Table 3.2.2.6

Type of customer	Selling price (Euro/MWh)	
	Without VAT	All taxes included
Dc: residential customer with an annual consumption of 3 500 KWh	82.3	97.9
Ib: commercial customer with an annual consumption of 50 MWh, with a maximum power of 50 KW	95.3	113.4
Ig: industrial customer with an annual consumption of 24 GWh/ an, with a maximum power of 4000 KW	64.2	76.4

The selling price for the two categories of industrial customers was determined by analysing the data of the eligible and the captive customers.

For the same categories of customers, an estimation of the selling price components is given in Table 3.2.2.7.

Table 3.2.2.7

Type of customer	Euro/MWh				
	Network tariffs	Taxes applied to network tariffs	Price Electricity acquisition	Taxes	Total price
Dc: residential customer with an annual consumption of 3 500 KWh	65.38	0	16.92	15.6	97.9
Ib: commercial customer with an annual consumption of 50 MWh, with a maximum power of 50 KW	65.38	0	29.92	18.1	113.4
Ig: industrial customer with an annual consumption of 24 GWh/, with a maximum power of 4000 KW	20.89	0	43.31	12.2	76.4

The average price for the transmission activity was calculated taking into account the 6 zone tariffs for injection (generation) and the 8 zone tariffs for extraction (load). The average price for the distribution activity was calculated taking into account the 3 tariffs that are associated to the three voltage levels (HV, MV and LV) for each of the 8 distribution operators.

Within January 2006 - January 2007, electricity tariffs for captive final customer increased by 4.72% (ANRE Order 32/20.11.2006 with effect from December 1, 2006). Prices for the final captive customers raised again by 3.95% (ANRE Order 6/2007), with effect from April 1, 2007.

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

In 2002, ANRE established an in-house specialised department with a view to permanently monitoring the functioning of the wholesale and the retail electricity markets by means of technical, commercial and accounting data and information that all the electricity sector participants, including the operators of the centralised markets are reporting periodically to ANRE.

According to the provisions of the Commercial code of wholesale electricity market, approved by ANRE Order 25/2004, the activity of centralised electricity markets is monitored by ANRE together with SC Opcom SA (the electricity market operator) and CN Transelectrica SA (the balancing market operator).

The *Methodology for the monitoring of the wholesale electricity market with a view to assessing the level of competition on the market and preventing the abuse of dominance* (ANRE Order 57/2005) was issued in order to establish the methods for the monitoring and the assessment of the electricity markets in order to estimate the level of efficiency, competition and transparency and to prevent/discourage anti-competition practices and practices that may affect the safe operation of the national power system. The methodology was reviewed under the technical consultancy of Kema Consulting, through a Phare Programme financed by the European Union and was approved through ANRE Order 35/7.12.2006.

As a prerequisite for the development of the monitoring activities, the monitoring units of ANRE, of SC Opcom SA and of CN Transelectrica SA have permanent access to all the data resulting from the operating of the centralised markets under their administration and/or supervision. Based on in-house procedures, the market supervising departments of SC Opcom SA and of CN Transelectrica SA are in the process of putting in place their own systems for the collection, storing, processing and dissemination of data resulting from the centralised market operation.

For the safe and the efficient storage and processing, templates are used to collect data /information that are subsequently published on ANRE website. The monthly reports are made according to the current regulatory framework, and are updated accordingly.

In compliance with the above mentioned methodology, the monitoring departments of ANRE, SC Opcom SA and CN Transelectrica SA have the following tasks:

- a) define the efficiency indicators concerning the operation of electricity markets under their administration, the structure/concentration of markets and the behavior of electricity market participants;
- b) determine the evolution of the defined indicators;
- c) compare and analyse the national indicators with similar international indicators;
- d) store up the defined indicators.

The methodology also comprises the steps to be followed in order to observe the rules of transparency on the electricity markets, which are defined in the Draft Commercial Code of the Wholesale Electricity Market according to the guidelines on transparency issued by ERGEG.

The results of the monitoring activity are registered in reports, analyses or informative bulletins that are issued periodically by ANRE competent departments, to include, as appropriate:

- a) comments on the structure and performances of the electricity markets under monitoring, based on the above mentioned indicators;
- b) possible cases of inadequate functioning of the markets and the possible reasons which caused them;
- c) analysis of abnormal, inadequate or anti-competitive behaviour of the market participants, together with the actions taken/information gathered in order to evaluate the situation, until the report is issued;
- d) possible solutions for correcting the underlined situations;
- e) analyses performed on electricity markets issues, in a specific context.

The monitoring reports are brought to the attention of the management of the respective undertakings for analysis and compliance. According to the responsibilities set in the Commercial Code and in the Monitoring methodology, the market monitoring departments of SC Opcom SA and CN Transelectrica SA issue and submit ANRE weekly/monthly reports on the functioning of the supervised electricity markets and on the behavior of market participants and report ANRE the occurrence of any major/serious event on the supervised market.

According to the monitoring methodology, ANRE monitoring department examine any abnormal/inadequate/anticompetitive behavior of one or several market participants and take the necessary steps in compliance with the Commercial Code provisos.

If the analyses confirm that there are serious reasons to suspect a possible infringement, by one or more market participants of the legal provisions on competition and transparency or the existence of an abuse of dominant position, ANRE inform the Competition Council.

Data on the availability/unavailability of generation units were not published in 2006 as no parties were explicitly appointed in the Commercial Code to have this responsibility and because of the controversy on the confidentiality of this type of information. Given the situation, ANRE intends to introduce, in the revised version of the Commercial Code, explicit obligations and clearly defined responsibilities regarding the information to be made public by the producers and the TSO. Mention should be made that, upon the drafting of ANRE report to the Commission, the reviewing of the Commercial Code was underway.

SC Opcom SA, the administrator and supervisor of the electricity market made no reports so far regarding the infringement by any market participants of the competition rules during the periods when the market had high concentration levels that might have led the market participants to exercise their market power.

Regarding the participants behavior on the BM, where the concentration level is high, ANRE has taken some actions in order to prevent the exercise of the dominant position by imposing cap and floor on prices offered by various categories of producers. As this method determined the transfer of the aforementioned limits on the DAM, thus causing economic inefficiency regarding the use of resources, a maximum difference was introduced between the maximum and minimum price of each producers' daily offer concurrently with the raising of the established cap.

As mentioned before, the prevention of the dominant position and of the collusions on the ancillary services market, which is also a highly concentrated market, was achieved especially through regulated contracts signed by the generators with the TSO for a significant part of the necessary reserves.

There are no restrictions on the Romanian electricity market for the duration of the negotiated bilateral contracts; the only existing limitation relates to the duration of the regulated contracts (a 3-year period for the recent ones) with the possibility of extension through ANRE Order depending on the evolution of the opening degree of the market. The prices and quantities are analysed each year so that the significant discrepancies between in-data and prognosis-data (fuel price, hydrological conditions, real opening degree of retail electricity market) may be identified.

In order to increase the transparency on the bilateral contracts, in June 2006 the Ministry of Economy and Trade issued Order No. 408, which compelled the state-own producers to sell all their available quantities on the CMBC (centralized market of bilateral contracts), a market introduced by ANRE and administrated by SC Opcom SA, which is organised based on first offer to buy at minimum prices and first offer to sell at maximum prices and on the participants' auctions on price.

The increase in the number and volumes of the contracts concluded through transparent bids on CMBC determined a high degree of convergence between bilateral contracts prices and DAM prices, which indicates an increase of efficiency in the functioning of electricity market and in eliminating the disturbances, as well.

#### **4. Regulation and Performance of the Natural Gas market**

##### **4.1. Regulatory Issues [Article 25(1)]**

###### **4.1.1 General**

The liberalization of the natural gas market further advanced with the full opening of the market on 1 July 2007, as per Gas Directive 2003/55/EC.

The market model proposed to be developed has the following features:

- SNTGN TRANSGAZ SA shall be financially neutral towards the costs for the balancing of the national transmission system;
- The national transmission system shall be operated under a concept of daily residual balancing with a view at ensuring the safe operation of the system;
- The operation of the market, currently focused on the monitoring of the import/total consumption quota, shall be maintained only until the gap between the import price and the domestic price is removed;
- The imbalance charges applied to network users shall generally reflect the costs generated by imbalances;
- Wholesale prices may vary during the year, in accordance with the marginal cost and other fundamental aspects of the market;
- Wholesale prices shall not be regulated and shall reflect both long term contracts, and the market value of short term flexible supplies.

The development of the natural gas market over the coming years shall aim at:

- Developing the competition between gas suppliers;
- Further implementation of “cap” type pricing methodologies;
- Stimulating the setting up and/or rehabilitation of gas reserves with a view at increasing the volumes of gas coming from domestic production and curbing the dependency on imported gas;
- Licensing of new suppliers to do transactions on the wholesale market with a view at diversification of import sources.

The alignment of the domestic price to levels comparable to the import price will further advance, with the domestic price being yearly increased in relation with the evolution of the import price. The aim is to reach the parity between the domestic and import price as soon as possible, based on a realistic calendar, in compliance with EU regulations on subsidies and state aid.

The gradual liberalization of the Romanian natural gas market further advanced so that, as of 1 July 2007, the gas market is fully opened for all customers, that now have the possibility to choose a gas supplier from those licensed by the regulator and to negotiate directly with them the clauses and price for the supply of natural gas. The customer is able to make use of its eligibility quality in a direct manner, no administrative formality being necessary.

The evolution of the Romanian gas market opening degree and the related eligibility thresholds are presented below:

<i>Steps of opening of the Romanian natural gas market</i>		
<b>Year</b>	<b>Eligibility threshold</b>	<b>Market opening degree</b>
2001	5 million c.m./year	10%
2002	5 million c.m./year	25%
2003	4 million c.m./year	30%
2004	3 million c.m./year	40%
2005	3 million c.m./year	50%
1 January 2006	124,000 c.m./year	65%
1 July 2006	12,400 c.m./year	75%
1 January 2007	All non-household customers	100% for all non-household customers
1 July 2007	All customers	100% for all customers

By end 2006, there were 531 eligible customers accredited, with a consumption of 9,062,486 thousand cm, corresponding to a real market opening degree of 53%. By April 2007, the real market opening degree was 53.4%.

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

The Romanian natural gas National Transmission System (NTS) has the following features:

- 12,990 km high pressure pipelines (with diameters between 150 and 800 mm and pressure between 6 and 50 bar)
- 6 compression stations
- Around 1,200 adjusting and measuring stations
- Over 800 cathodical protection stations
- Over 570 gas odorization facilities.

The pipelines were built during 1927 and 2004, and 8,158 km of them, representing 68.89% of the total length, have exceeded the normal functioning duration.

Also, there are three transit pipelines with a total length of 500 km, pressures of up to 55 bar and diameters of 1,000 mm, 1,200 mm and, respectively, 1,400 mm. Total capacity of these dedicated pipelines amounts to 28 billion c.m./year.

Total capacity of the NTS is of above 30 billion c.m./year.

The development through Romania's territory of gas international transit aims at:

- Developing the transit capacity from the Russian Federation to Bulgaria, Turkey, Greece, Macedonia;
- Upgrading the existing measuring stations of Isaccea and Negru Voda;
- Upgrading the compression station in Cogealac;
- Rehabilitating DN 1,000 mm transit pipeline;

- Setting up on the Romanian territory of transit capacities integrated into the corridor for transmission of gas from the Caspian Sea area to Western Europe;
- Continuing the works on Szeged (Hungary) – Arad (Romania) pipeline with a view at eliminating the dependency on a sole gas source and connecting the NTS to the European gas grid;
- Performing the interconnection on the route Cernăuți (Ukraine) – Siret (Romania) with a view at improving the supply of natural gas to North-Eastern Romania;
- Developing a new import point, around Negru Vodă, in order to supply gas to Southern Dobrogea.

The 6 gas compression stations are located on the main transmission routes and have an installed power of about 65,000 CP, with a yearly compressing capacity of 5.5 billion cm.

All these components of the NTS secure the take off of gas from producers/suppliers and transmission to customers/distributors or storages.

In order to manage contractual congestions, the regulatory authority approved the Regulation on management of contractual congestions occurring in the National Transmission System (ANRGN Decision No. 757/2005). The aim of the Regulation was to set up mechanisms for the management of contractual congestions occurring in the National Transmission System. The Regulation does not apply in the case of transit of natural gas through dedicated pipelines.

The applicant notifies to the TSO its intention to book transmission capacity by submitting an application. The TSO notifies to the applicant the booking of capacity in the NTS or the reasons for total or partial refusal of capacity booking by 1 June at the latest. The applicant may contest the total or partial refusal of capacity. The TSO shall respond to the appeals in maximum 5 working days from the date of sending the notification.

In order to settle contractual congestions, approved and unused capacity may make up the object of:

- a) Voluntary return to the TSO;
- b) Capacity transfer facility (CTF);
- c) Mandatory transfer by the TSO from one user to another user or applicant/user.

In case there are several applicants requesting capacity, the applications are dealt with in the framework of each level of priority, under the „first come – first serve” principle. In case there are several users requesting voluntary return of capacity, the requests shall be dealt with under the „first come – first serve” principle.

The TSO will register the applications in a register of applications for capacity booking, in the order of their submission. The register is public and may be consulted by anyone interested.

TSO shall submit on a yearly basis, by 15 September at the latest, a report on congestions in the NTS.

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

In Romania there is one **natural gas transmission system operator**, which is also system operator. By Government Decision No. 334/2000, SNTGN Transgaz - S.A. Mediaș was designated the transmission system operator and is responsible for the functioning of the system

in compliance with the principles of quality, safety, economic efficiency and environmental protection.

According to the Gas Law No. 351/2004, with subsequent amendments, the NTS operator shall ensure:

- a) NTS operation and physical balancing, namely programming, dispatching and safe functioning of the NTS;
- b) Maintenance, rehabilitation, upgrading and development of NTS whilst observing the principles of safety, efficiency and environmental protection;
- c) Setting up, maintenance and development of an IT system for surveillance, control and acquisition of data, that will allow for the monitoring and real time management of the functioning of the gas transmission system;
- d) Third party access to the NTS in compliance with the specific regulations, in a non-discriminatory manner, in the limits of the transmission capacities and observing the technological regimes;
- e) Elaboration and implementation of optimal transmission and delivery regimes for the volumes of gas notified by producers, suppliers, storage operators and/or customers, for a certain period, in accordance with signed contracts;
- f) Elaboration and update of the technical agreements for exploitation at the border, in case the supplier is an exporter or beneficiary of the transit of gas through Romanian territory;
- g) Drafting and surveillance of the balance of the gas that got in and out of the system;
- h) Drafting of SNT's own development programme – for the undertakings not mentioned in the concession agreement, in relation with the actual level of the consumption and taking into consideration the development of new consumption areas and the evolution of the existing ones under safe and economically efficient conditions;
- i) Storage in the underground storages of the volumes of gas needed to secure NTS permanent physical balance, as per specific regulations issued by ANRGN;
- j) The level of odorisation of gas in compliance with the regulations in force.

Also, the regulator drafted and approved in 2006 the Conditions on validity of the license for gas transmission (ANRGN Decision No. 1.362/2006), detailing the rights and obligations of the transmission system operator. Transmission licensee's obligations mainly refer to:

- Exploitation of the natural gas National Transmission System
- Contracting of the gas transmission service in a non-discriminatory manner to all market participants, on the basis of the framework-contracts issued by the regulator
- Access to the natural gas National Transmission System, under equal and non-discriminatory terms
- Development of the natural gas National Transmission System, according to the clauses and terms of the concession agreement, and to NTS's own development programme
- Measurement of gas volumes
- Delivery of information to applicants/users with a view to efficient development of system access
- Observance of the transparency requirements as provided by Regulation 1775/2005/EC
  - Observance of the Performance Standard for gas transmission
  - Ensuring of a competitive environment and non-discriminatory treatment of system users
  - Unbundling of the financial-accounting registers, as well as legal, functional and organizational unbundling
  - Ensuring the confidentiality of the information gathered during the performance of activity



**Distribution operators** are holders of distribution license, having as subject matter natural gas distribution in one or more delimited areas. At present, 34 companies are licensed for natural gas distribution in the Romanian gas market.

The total length of the distribution network is around 32,000 km. The status-quo on the operation of the Romanian distribution networks is presented below:

No.	Distribution network operated by:	Length of the distribution network (km)	Property regime
1.	Amarad	19	Private
2.	Ben & Ben	36	Private
3.	Berg Sistem Gaz	13	Private
4.	Congaz	847	Private
5.	Contract P&G	14	Private
6.	Cordun Gaz	32	Private
7.	Coviconstruct 2000	209	Private
8.	CPL Concordia Filiala Cluj Romania	699	Private
9.	Design Proiect	3	Private
10.	Distrigaz Sud	10,611	Mostly private
11.	Distrigaz Vest	57	Private
12.	EON Gaz Romania	13,690	Mostly private
13.	Euroseven Industry	13	Private
14.	Gaz Est	69	Private
15.	Gaz Nord Est	30	Private
16.	Gaz Sud	396	Private
17.	Gaz Vest	1,172	Private
18.	Grup Dezvoltare Retele (GDR)	184	Private
19.	Hargita Gaz	165	Private
20.	Intergaz	1	Private
21.	MM DATA	29	Private
22.	Megaconstruct	6	Private
23.	Nord Gaz	2	Private
24.	Oligopol Brasov	11	Private
25.	Ottogaz	45	Private
26.	Petrom	2,023	Mostly private
27.	Progaz Distribution	371	Private
28.	Romgaz	3	Mostly private
29.	Salgaz	79	Private
30.	Timgaz	110	Private
31.	Tulcea Gaz	3	Private
32.	Vega 93	67	Private
33.	Vital gaz	410	Private
34.	Wirom	45	Private

As per Gas Law No. 351/2004, with subsequent amendments, the natural gas distribution system operators have mainly the following obligations:

- a) To operate, maintain, repair, upgrade and develop the distribution system, whilst observing the principles of safety, economic efficiency and environmental protection. The activities shall be performed on the basis of specific authorizations for the design and

execution of gas supply systems, and the operation on the basis of the distribution license;

- b) To ensure the gas odorization level according to regulations in force, on the basis of service rendering contracts, signed with NTS operator, and, where appropriate, by additional odorization in gas adjusting stations;
- c) To perform interconnections with other systems, as the case may be, and ensure the long term capacity of the distribution system;
- d) To ensure third party access to the distribution systems, under non-discriminatory terms, within the limits of the distribution capacities, observing the technological regimes, in compliance with the specific regulations issued by ANRGN;
- e) To draft and oversee the balance between the gas that got into and out of the system;
- f) To avoid cross subsidization between categories of customers with regard to the division of costs for the booking of distribution capacity;
- g) To take over, for an undetermined period, upon request and in compliance with ANRGN regulations, the operation of a certain distribution system, whose initial operator was penalized with withdrawal of the license;
- h) To ensure the permanent balancing of the system operated;
- i) To ensure the conditions for security of natural gas supply.

As per Gas Law No. 351/2004, with subsequent amendments, the regulatory authority draws up, approves and applies criteria and methods for gas price approval and regulated tariffs setting, including transmission and distribution tariffs.

For the setting of regulated tariffs, ANRGN drafted in 2003 a new methodology on calculation of gas prices and regulated tariffs - „Criteria and methods for approval of gas prices and setting of gas regulated tariffs”, approved by ANRGN Decision No. 1078/2003.

The mechanisms for calculation of prices and regulated tariffs are of „revenue-cap” type for regulated underground storage, and „price-cap” for regulated distribution and supply.

The regulatory period for any of the regulated activities is 5 years, except for the first regulatory period that is 3 years.

**The pricing system for transmission** comprises a set of *revenue cap* tariffs, establishing a overall regulated revenue covering the overall costs of one year of the regulated period.

For the first regulatory period, the tariff for transmission through the national transmission system is single and has a two-part structure as follows:

$$T_t = RC_t + V_t$$

where:

$T_t$  – transmission tariff

$RC_t$  – fixed component for booking of capacity in the transmission system, expressed in lei/1,000 cm/h

$V_t$  – volume-related component for the use of the transmission system, expressed in lei/1,000 cm.

The fixed component for the booking of capacity in the transmission system ( $RC_t$ ) covers fixed costs, related to the development of the transmission system capacity. The volume-related component for the use of the transmission system ( $V_t$ ) covers the costs generated by the use of

the system, including the costs generated by the performance of services ancillary to the use of the system.

**The pricing system for distribution** comprises tariffs that are differentiated on categories of customers and homogeneous distribution systems, in relation with the technical characteristics and exploitation regime of each distribution system.

A unitary regulated revenue is established for distribution, covering the unitary costs of one year of the regulated period.

Distribution tariffs are “one-part” type and cover fixed and variable costs related to distribution activity. Distribution tariffs apply to distributed volumes of gas.

The efficiency increase rate of the regulated activity reflects regulator’s estimations with regard to the improvement over time of operators’ economic performance. The X term of the adjusting formula reflects the estimated annual efficiency increase rate and ensures the transfer of economic efficiency raise achieved by each operator towards customers.

The efficiency increase rate of the regulated activity is established in the beginning of each regulatory period, for each regulated activity and for each operator. The rate remains unchanged over the regulatory period.

Economic efficiency raise related to the regulated activity is determined separately for each operator using the methods described below:

- a) extrapolation of the increase rate of efficiency resulted from the long-term gas sector productivity, plus an elasticity factor reflecting each operator’s specific situation;
- b) detailed technical analysis of operators’ operation and capital costs, highlighting additional savings that may be achieved by the operator.

When establishing regulated activity’s efficiency increase rate - X, for each operator, the following are taken into consideration:

- a) economic efficiency raise highlighted by the methods presented and generated by the increase in the performance of operator’s management;
- b) efficiency increase rate of the related industry and national economy;
- c) full deduction by the operator of economic efficiency raise from investments.

For the first regulatory period, regulated activity’s efficiency increase rate is null for all activities and operators.

The substantiation of the regulated revenue in the first regulatory period requires the assessment of operation and capital costs generated by the performance of the regulated activity. From this point of view, the regulator’s methodology aims at ensuring the recovery of invested funds, including associated capital costs provided they are generated in a cautious manner and within a optimal financing structure.

The assessment of the capital cost and the establishment of the regulated rate of return - RoR, recognized by ANRGN for each regulated activity, uses the “weighted average cost of capital” (WACC) methodology. WACC is determined in nominal terms, after the tax on profits, and RoR in real terms, prior to the tax on profit. RoR (real, prior to taxation) was determined as equivalent to WACC (nominal, after taxation) using a equivalent formula, ensuring the equality between

invested capital and cash flow (in present values), available for the period of regulated depreciation of tangible and intangible assets, discounted with WACC.

For the second regulatory period, certain calculation elements taken into consideration for the first regulatory period remain unchanged. Because the companies performing regulated activities in Romania are not quoted on the stock exchange, WACC is calculated using the information available for other companies used as buyers. These companies are selected from the ones quoted on the international markets, that perform as main activity a regulated activity and that operate under a regulatory regime similar to the Romanian one.

In 2006, the regulatory authority drafted and approved Performance Standards for natural gas distribution and transmission (ANRGN Decision No. 1.361/2007).

The Standards set commercial quality criteria, defined by performance standards/indicators, for the transmission and distribution services and other affiliated services performed by the transmission and distribution operators.

For **natural gas transmission**, the Performance Standard sets performance standards for quality of service, and safety of service.

The performance standards regarding the quality of service refer to:

- Handling of access applications with a view to connection to the NTS
- Connection to the NTS of access applicants
- Notification regarding restoring of service
- Notification of planned interruptions and of service restoration following planned interruption
- Handling of NTS users' complaints regarding the measurement of natural gas
- Handling of complaints regarding the integrity and functioning of the NTS under safety conditions
- TSO obligation to inform applicants/users arising from other regulations issued by the regulatory authority

The performance standards regarding the safety of service are as follows:

- Annual percentage of network subject to control using gas leakages detecting devices
- Annual number of flaws causing losses localised per one kilometer of checked network
- Annual number of flaws causing losses signaled by third parties per one kilometer of active network
- Annual number of flaws causing losses generated by third party actions signaled by third parties per one kilometer of active network

In performing the service, the transmission system operator shall carry out its activity so that the performance indicators regarding the quality of service fall within the percentages set in the Standard, and the safety standards are below the values set in the regulation.

For **natural gas distribution**, the Performance Standard sets guaranteed and overall performance standards.

The guaranteed performance standards set minimum performance levels in delivering the service. In case of non-observance of these standards, the distribution system operator shall pay to the affected customer penalties in amount and the terms specified in the regulation. This rule shall apply as of 1 January 2008.

The guaranteed performance standards refer to:

- Handling of access applications with a view to connection to the distribution system
- Connection of access applicants to the distribution system
- Reinstatement of locations affected by the works performed on distribution system undertakings
- Obligation to notify about the service resumption date and time
- Service resumption following unplanned interruption
- Notification of unplanned interruption
- Service resumption following planned interruption
- Payment of the penalties due under the Performance Standard

The general performance standards relating to natural gas distribution, mentioned in the Performance Standard, refer to the quality of service and safety of service, respectively.

The performance standards regarding the quality of service refer to:

- Handling of access applications with a view to connection to the distribution system
- Obligation to notify customers about planned or unplanned interruptions of the service
- DSO obligation to inform applicants/customers arising from other regulations issued by the regulatory authority
- Information on the Performance Standards

The safety standards set for the DSO are as follows:

- Annual percentage of network subject to control using gas leakages detecting devices
- Annual number of flaws causing losses localised per one kilometer of checked network
- Annual number of flaws causing losses signaled by third parties per one kilometer of network
- Annual number of flaws causing losses generated by third party actions signaled by third parties per one kilometer of network

In performing the service, the distribution system operator shall carry out its activity so that the performance indicators regarding the quality of service fall within the percentages set in the Standard, and the safety standards are below the values set in the regulation.

Transmission and distribution tariffs for the most relevant categories of customers are as follows:

Custo mer Tariff	I4 – annual consumption 418.6 TJ		I1 – annual consumption 418.6 TJ		D3 – annual consumption 418.6 TJ		Household	
	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm
Transmission tariff	40,89	12,09	40,89	12,09	40,89	12,09	40,89	12,09
Distribution tariff	147,58	43,64	175,51	51,90	184,37	54,52	184,27	54,49

At present, no imbalance charges are applied on the Romanian gas market. Imbalance charges are provided for in the Gas Network Code, document under elaboration by ANRE, together with

the TSO and the other market participants. This document is envisaged to be finalized and approved by end 2007.

The Gas Network Code will comprise requirements and rules on access to the natural gas National Transmission System, with particular focus on:

- Detailed description and regulation of the TSO, DSOs, SSOs functions, differentiating between normal operation and emergency operation
- Description of services delivered by infrastructure operators
- Establishment of mechanisms on capacity allocation
- Establishment of communication and nomination procedures
- Elaboration of manuals and procedural norms on management of potential crisis in the market
- Elaboration of procedures on gas system balancing (A high profile will have the setting up of the Gas Balancing Operator – independent body, that will manage in a non-discriminatory and impartial manner the interests of all market participants, observing the competitive rules, applied through regulations issued by the regulatory authority, based on mandatory framework-contracts on balancing)
- Elaboration of procedures to be applied for the communication between TSO, other operators and users
- Elaboration of detailed rules on the exchange of information between suppliers and distribution companies with regard to customer migration.

As regards the balancing of the gas system, it is envisaged the introduction of weekly balancing, with daily tolerance margins.

#### **4.1.4 Effective unbundling**

As per Gas Law No. 351/2004, gas operators performing regulated activities (transmission, storage, distribution) shall ensure accounting, legal, functional and organizational unbundling of these activities. Distribution companies serving less than 100,000 customers are exempted from the provisions on legal unbundling.

Also, in accordance with the legal provisions in force (Gas Law No. 351/2004), in order to ensure the independence of the transmission system operator and distribution system operator, minimum criteria shall apply, as provided by EU legislation. For the TSO:

- a) those persons responsible for the management of the transmission system operator may not participate in company structures of the integrated natural gas undertaking responsible, directly or indirectly, for the day-to-day operation of the supply of natural gas;
- b) the transmission system operator shall have effective decision-making rights, independent from the integrated gas undertaking, with respect to assets necessary to operate, maintain or develop the transmission network.
- c) the transmission system operator shall establish a compliance programme, which sets out measures taken to ensure that discriminatory conduct is excluded, and ensure that observance of it is adequately monitored.

For the DSO:

- a) those persons responsible for the management of the distribution system operator may not participate in company structures of the integrated natural gas undertaking responsible, directly or indirectly, for the day-to-day operation of the production and supply of natural gas;

- b) the distribution system operator shall have effective decision-making rights, independent from the integrated gas undertaking, with respect to assets necessary to operate, maintain or develop the distribution network.
- c) the distribution system operator shall establish a compliance programme, which sets out measures taken to ensure that discriminatory conduct is excluded, and ensure that observance of it is adequately monitored.

With a view to implementing the requirements on accounting, legal, functional and organizational unbundling, the regulator approved, in 2006, the Regulation on accounting, legal, functional and organizational unbundling of gas regulated activities (ANRGN Decision No. 1139/2006), thereby detailing the unbundling requirements. Also, the regulator provided assistance to the TSO, DSOs and SSOs on accomplishing the unbundling requirements.

The transmission system operator, Transgaz, shall ensure accounting, legal, functional and organizational unbundling between transmission and supply. Accounting unbundling is in place. Procedures on legal unbundling are underway.

The two big distribution system operators, E.ON Gaz România and Distrigaz Sud shall ensure accounting, legal, functional and organizational unbundling between distribution and supply. Accounting unbundling is in place. Also, legal unbundling is in place for E.ON Gaz România. Following the legal unbundling of E.ON Gaz România, two legally independent companies are currently operating - E.ON Gaz România S.A., specialized in the supply of gas and E.ON Gaz Distribuție S.A., specialized in the distribution of gas, as well as operation and maintenance of the distribution network. The two new companies have separate headquarters. The procedures on the legal unbundling of the other large DSO, Distrigaz Sud, are underway.

The other 32 DSOs, serving less than 100,000 connected customers, are exempted from the legal unbundling obligation.

The transmission system operator is entirely owned by the state. It currently has 4,800 employees.

The two large distribution system operators, E.ON Gaz România and Distrigaz Sud, are mostly (51%) private companies, with Gaz de France, and E.ON Ruhrgas Germania respectively as main stakeholders. The Romanian Government holds the rest of shares through the Authority for State Assets Recovery (AVAS) – 37% and Property Fund (Fondul Proprietatea) – 12%. With the exception of Romgaz, fully owned by the state, the other small distribution companies are fully private. E.ON Gaz România currently has 9,000 employees. Distrigaz Sud currently has 8,023 de employees.

Transmission and distribution operators draw up, submit for verification to the regulatory authority and publish annual accounting reports.

The regulatory authority did not establish detailed guidelines on the organization of the unbundled accounting registers.

Prior to submission to the regulatory authority, requested registers are audited/checked in compliance with the legal provisions in force. The observance of the obligation on avoiding cross subsidies between activities performed is particularly monitored.

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

### 4.2.1. Description of the wholesale market

2006 natural gas consumption amounted to 17.26 billion cm, out of which 69.94% (12.07 billion cm) came from domestic production and 30.06% (5.19 billion cm) from import. The sole import source is the Russian Federation.

Romanian average gross calorific value is 9,943.65 Kwh.

Five companies account for shares above 5% from the gas available on the market.

In the Romanian gas market, all foreign companies acting in the natural gas sector are registered in Romania's Trade Register.

5.5 billion cm of gas are supplied to the Romanian market through long-term contracts (for more than 1 year).

The peak of maximum consumption is 71,5 million cm/day. Daily production amounts to 32,876 million cm.

Four companies have a share of above 5% of the domestic gas supply capacity.

The share of top 3 suppliers, calculated on the basis of the number of transactions on the wholesale and retail market, is 90.6%.

11 independent, ownership unbundled suppliers are active on the market.

The status of the companies supplying gas to the most relevant categories of customers is presented below:

<b>Suppliers</b> <b>Customers</b>	<b>Number of companies with a share of above 5%</b>	<b>Shares of top 3 companies (%)</b>
Gas fired power plants	5	75.42
Large industrial customers	5	67.57
Commercial customers	3	92.99
Household customers	2	95.28

The Romanian gas market is a national market.

In order to ensure an appropriate basis for a fair and non-discriminatory allocation of gas from domestic production and import, the Market Operator was set up within the Gas Dispatching Center located in Bucharest, as part of SNTGN Transgaz SA Mediaş. The current Market Operator:

- Establishes on a monthly basis the domestic production - import quota for all licensed suppliers/distributors, as well as for eligible customers
- Monitors on a daily basis the gas domestic/import purchases/consumptions



- Draws up on a monthly basis the report on gas purchases from domestic production and import of each Romanian gas operator and of each eligible customer, and sends them the import/total consumption quota for gas invoicing purposes

Natural gas production programmes originate in the energy strategy. The production activity is performed under the terms stipulated in the licenses granted to producers by the National Agency of Mineral Resources.

The regulatory authority drew up and approved the Methodology on monitoring the domestic natural gas market (ANRGN Decision No. 183/2007), establishing the following objectives:

- a) to monitor and control the observance by natural gas licensees of the criteria and methods for prices and regulated tariffs calculation;
- b) to secure that natural gas licensees observe the security, continuity and balance in the supply of gas to customers;
- c) to apply an equal and non-discriminatory treatment to all gas customers;
- d) to promote and secure competition on the domestic natural gas market;
- e) to secure the transparency of gas prices and tariffs;
- f) to set up a database and to submit information on the domestic market and natural gas foreign trade.

Also, the methodology establishes the unitary system based on which natural gas licensees report the following information:

1. the breakdown of natural gas customers, the volumes of gas supplied to different categories of customers and prices applicable;
2. system-related services provided to users of natural gas transmission, transit, storage and/or distribution systems;
3. fulfillment of obligations concerning third party access to transmission, distribution networks and/or underground storages;
4. the volumes of gas stored in underground storages and variations of linepack.

The procedure is applied in the relation between gas licensees and ANRGN with regard to submitting data on customer breakdown, prices and volumes of gas contracted according to the contracts for purchase, supply and/or sale-purchase, as well as data on the breakdown of beneficiaries of transmission, transit, storage and/or distribution, and data on services provided and tariffs applied.

#### **4.2.2. Description of the retail market**

The main suppliers and their shares in total demand are presented below:

<i>No.</i>	<i>Supplier</i>	<i>Share in total demand (%)</i>
1.	Romgaz	40.53
2.	Petrom	32.29
3.	Distrigaz Sud	9.20
4.	E.ON Gaz România	8.04
5.	Wiee	3.37
6.	Electrocentrale	3.34
7.	Amromco	1.05
8.	Transgaz	0.83
9.	Termoelectrica	0.62
10.	EGL Gas&Power	0.40
11.	Alpha Metal	0.10
12.	Toreador	0.08
13.	Aurelian Oil&Gas	0.08
14.	Wintershall Medias	0.08

At present, 11 independent suppliers are active on the Romanian gas market. Six companies perform at least one of the following activities: production, import, supply:

- Romgaz – production, import, supply
- Petrom, Amromco, Aurelian Oil&Gas, Toreador, Wintershall Mediaș – production and supply/import

As regards the customer switching rate, given the recent full liberalization of the market, on 1 July 2007, relevant data is currently collected and processed.

Final prices applied to the most relevant categories of customers are presented below:

<b>Custo mer Tariff</b>	<b>I4 – annual consumption 418.6 TJ</b>		<b>I1 – annual consumption 418.6 TJ</b>		<b>D3 – annual consumption 418.6 TJ</b>		<b>Household customer</b>	
	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm	RON/ 1,000 cm	EUR/ 1,000 cm
Regulated price (VAT not included)	820.26	242.57	863.73	255.42	873.77	258.38	873.67	258.36
Transmission tariff	40.89	12.09	40.89	12.09	40.89	12.09	40.89	12.09
Distribution tariff	147.58	43.64	175.51	51.90	184.37	54.52	184.27	54.49
Regulated price (VAT included)	976.10	288.65	1,027.84	303.95	1,039.78	307.48	1,039.66	307.44

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As per Decision No. 1368/2006 on the full opening of the gas domestic market for non-household customers, the non-household customers wishing to make use of their eligibility may sign negotiated contracts for gas purchase with any licensed supplier, without any administrative formality necessary. The non-household customer making use of its eligibility is not allowed to simultaneously develop, for the same consumption site, a contract for regulated supply, and a negotiated contract. The non-household customer making use of its eligibility shall renounce the regulated supply contract prior to commencement of the contracts signed as eligible customer. The non-household customer is entitled to request the supplier the delivery of services, after the period when it made use of its eligibility ended and with 30 days prior to the date envisaged for commencement of the regulated supply contract.

The supplier receiving an application for the signing of a regulated supply contract is not allowed to turn down the signing of the contract, except where the signing of the contract significantly impedes on the fulfillment of obligations arising from the already signed regulated supply contracts. Any refusal of the signing of a regulated supply contract shall be justified to the non-household customer in maximum 10 days from the receipt of the application. Within the same timeframe, the supplier shall inform the regulatory authority about the refusal, as well as the justification submitted to the applicant.

It is also provided that the distribution system operator, ensuring, under the license, the gas distribution to the administrative and territorial area where the non-household customer has its consumption site, shall, upon request from the non-household customer or a third party appointed by this one, to make available, free of charge, information on booked capacity and monthly consumption over the last 12 months.

## 5. Security of supply

### 5.1. Electricity [ Article 4]

The responsibility to ensure the generation/system adequacy on medium and long-run falls to the Ministry of Economy and Finance which is the issuing body of the national energy strategy. The strategy creates the appropriate framework for strategic investments in electricity generation and in networks and provides energy efficiency and demand side management actions with a view to ensuring the security of supply.

The draft energy strategy for 2007-2020 is currently under public debate and is posted on the competent ministry website.

According to the Electricity Law 13/2007, the TSO issues the Development Transmission Plan on medium and long – run (10 years). The Development Transmission Plan is endorsed by the regulator and approved by the ministry. On short run, the TSO is also responsible for the transmission networks operational planning and running while meeting the criteria set in the Transmission Grid Code. The code is issued by the TSO and approved by the regulator (ANRE Order 20/2004, amended and complemented through ANRE Order 35/2004).

Through the licenses and authorisations granted, though the tariff & prices methodologies issued or approved, through its commercial and technical regulations and through its rules for network connection and access, the Romanian Energy Regulatory Authority (ANRE) provide the necessary framework to promote investments in the sector.

The total electricity generation in 2006 was 62.43 TWh, with about 5% higher than in 2005. The gross domestic consumption was 53.02 TWh, with about 2% higher than in 2005.

Certain difficulties in covering the electricity demand occurred at the end of 2006, due to the prolonged drought and to the low level of fuel stocks.

The decrease in hydro power generation was offset through thermal power generation, and because of that the fuel consumption increased by 13.3% in 2006 as compared to 2005.

These data shows that the Romanian power system still has enough available generation capacities but due to the high generation costs they run the risk to be closed and, after having a capacity in excess, the system may face a deficit of capacity.

Evolution of the total electricity consumption and of the peak consumption in the past years are given in table 5.1.1.

*Table 5.1.1*

	2002	2003	2004	2005	2006
Total electricity consumption, without pumping (GWh)	47524*	49443*	50746*	51889*	53020
Pumping storage (GWh)	n.a.	n.a.	n.a.	n.a.	154
Peak power (in MW)	7641	7542	8016	8102	8151
Peak power registered data and hour (CET)	11.12.2002, 17:00H	17.12.2003, 17:00H	15.12.2004, 17:00H	15.12.2005 , 17:00H	13.12.2006, 17:00H

\*)These values include pumping

The forecast of the total installed capacity values, of the peak consumption values and of the total annual consumption values is given in Table 5.1.2..

Table 5.1.2

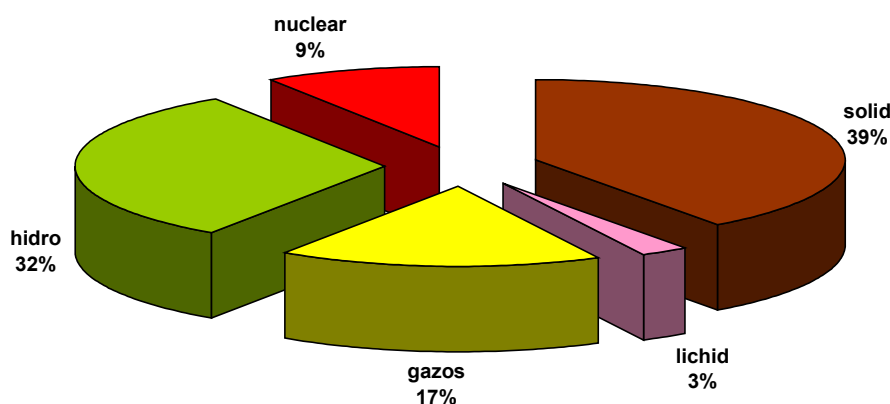
	2007	2008	2010
Installed capacity (in MW)	17201	17622	17134
Peak power (in MW) – according to UCTE definition	8435	8698	9359
Generated electricity (in TWh)	55,900	57,910	62,500
Of which:			
Thermal	33,600	32,700	34,300
Hydro and renewable	15,000	15,100	18,100
Nuclear	7,300	10,100	10,100
Electricity consumption without pumping consumption (in TWh)	54,400	55,889	59,500

The structure by types of fuels for electricity injected in the networks by the Romanian producers in 2006 is given in figure 5.1.1.

In 2006, 208 MW were put into operation in hydropower plants, 20 MW in thermal power plants and 2 MW in wind power plants. An installed power of 160 MW in thermal power plants was withdrawn from operation. For 2007, the following power increases are expected: 69 MW in hydropower plants, 172 MW in thermal power plants and 10 MW in wind power plants. In the last quarter of 2007 the second nuclear power unit with the same available power as the first unit (about 655 MW) is scheduled for commissioning.

The Government energy strategy to be approved envisages the development of generation capacities based on renewable energy sources (hydro, wind, biomass) as well as on nuclear sources (works to another 2 nuclear units are to be continued, under various financing and ownership systems).

**Electricity structure by primary sources  
2006**



*Figure 5.1.1*

Establishment of new capacities and the retrofitting of the existing capacities are carried out based on establishment authorisations issued by ANRE. The granting procedure as well as the conditions of the establishment authorisations (criteria, power levels, approvals, differentiated by categories of powers and by activities) are stipulated in the *Regulation for the granting of authorisations and licenses in the electricity sector*, issued by the regulator and approved by the Government (GD 540/2004, amended and complemented by GD 553/2007). Refusal to grant an authorisation, lack of response within deadline and any ruling of the Regulatory Authority which might be considered illegal and prejudicial by the applicant, can be appealed in the Administrative Litigation Division within the Bucharest Court of Appeal, according to the law.

In developing their activities, the holders of establishment authorisations shall observe the public service obligations regarding safety, quality, continuity of supply, energy efficiency and environment protection as well as the conditions of the contracted services.

If, following the authorisation procedure, the generation capacities under construction or the actions taken in terms of energy efficiency/demand side management are not enough to ensure the security of supply for the internal consumption, the ministry can decide to call for a tender procedure or for any other contract granting procedures that are transparent and non-discriminatory and based on published criteria, through which new commercial operators or incumbent license holders may place offers for the construction of new generation capacities.

ANRE is also working on a regulation to introduce a capacity reserve mechanism so that the maintaining under operation of the reserve capacities and the construction of new capacities may be remunerated.

To promote energy produced from renewable energy sources (E-RES) such as wind, solar, geothermal, biomass, waves, hydrogen and in hydropower units with installed powers of 10

MW or below, put into operation or modernised after 2004, a green certificates market was introduced that became operational in November 2004.

Through GD 443/2003, that was amended and complemented by GD 958/2005, Romania transposed the provisions of the EC/2001/77 Directive into the national legislation. The national target representing the E-RES ratio in the final consumption was set to 33% of the final consumption for the year 2010. E-RES producers can sell the produced energy on the market and the difference between the selling price and the total costs of the generation is covered through the commercialisation of the green certificates either through bilateral contracts or on the green certificates market organised and administrated by SC Opcom SA. The suppliers purchase a mandatory E-RES quota, the compliance with this quota being reflected in the number of the green certificates they acquired.

A “bonus-type” support mechanism is intended to be introduced for co-generation capacities starting with 2008.

The planning for the development of the electricity transmission grid (ETG) is based on the provisions of the Transmission Grid Code. The Code details the tasks, competencies and responsibilities of CN Transelectrica SA and determines the principles, the criteria and the obligations regarding the unfolding of the transmission service. CN Transelectrica SA shall provide the transmission service so as to fully comply with the technical conditions required for the synchronous interconnected operation under UCTE requirements by endowing the electricity transmission grid with protection, automation, transmission and primary switching facilities in order to allow the fast and efficient isolation of the network hazards and avoid spreading.

The transmission grid development planning seeks to:

- Ensure the appropriate sizing of the transmission grid for the transmission of the generated, imported, exported or transited electricity and determine the prospective development plan;
- Ensure the safe operation of the RPS and the transmission of electricity at high quality standards in compliance with the Grid Code requirements;
- Ensure the development planning activities by: initiating the procedures required for the promotion of new investments in the transmission networks, estimating the marginal costs on long run for each node of the transmission network, providing information for the design of the transmission tariff systems.

The company’s strategy is based on the:

- Prospective plan for the development of the electricity transmission grid; to this purpose, CN Transelectrica SA issues every 2 years a prospective 10-year plan to become a public document subject to ANRE endorsement and to the approval of the competent ministry.
- Energy sector road map
- Government strategy for the energy sector.

The works & modernisation programme is a major factor in the company’s investment policy. The hierarchical order of the power stations rehabilitation works is based on multi-criteria analyses having in view the: interconnection with the neighbouring power systems under UCTE requirements, technical state of the power stations with a view to increasing the quality of the delivered service and of the operation efficiency, significance of the stations, volume of the transmitted electricity, etc.

The prospective transmission grid development plan must ensure the:

- Covering of the safe electricity consumption at least-costs by observing the national energy policy.
- Correlation of the activities of the TSO and of the electricity market participants with respect to any requested service that may affect the safe operation of the RPS.
- Zone opportunities for the electricity transmission network connection and use depending on the consumption forecast and on the need for new installed capacities required for an efficient and safe operation.
- Setting up the reserve level in RPS for electricity generation and transmission under peak load conditions according to the sizing requirements.

Other technical sizing criteria are the steady-state stability criterion and the technical criteria for the verification of the sizing from the point of view of the RPS stability and the verification and determining of the short-circuit ceiling and of the rated equipment current.

The TSO planning process has to take into account congestion solving through new investments considered in a hierarchical order to depend on the equipment life expectancy and the contribution to the safe operation of the RPS.

The ETG sizing is performed in compliance with the requirements of the N-1 criterion. Verification of the N-1 criterion is performed for the maximum forecasted power transfer through the ETG. For the transmission grid (400, 220 kV), the N-1 criterion is applied to the sizing of the RPS sections for a time interval corresponding to the most difficult operating conditions, by taking into consideration: the unplanned outage of the largest generating unit in an area with power deficit and the maximum power generated in an excess area. The N-2 criterion is used upon the sizing of the NPP power eviction.

System or zone studies, pre-feasibility, feasibility studies and technical projects are carried out for each identified objective.

In determining the technical and organisational solutions for investment in new transmission capacities one must take into consideration the system restrictions that may occur in order to avoid them.

Yearly analyses are performed consisting of:

- Simulated specific regimes of the optimal functioning of the generation units through the running of the PowrSym3™ software;
- An annual planning of both the transmission grid lines and the power plants' units according to the Transmission Grid Code requirements.

Finally, through scheduling based on the prospective plan and on the yearly or quarterly plans, solutions are found in order to spread out the works to avoid system congestion. Deviations from the initial schedules may however occur with respect to the functioning of the network elements as well as to the functioning of the generators, deviations that cannot be accurately identified and which can lead to congestions that are solved by using the existing reserves activated through the balancing market.

The main investments in the transmission infrastructure envisaged for the period 2008-2025 are given in Table 5.1.3.



Table 5.1.3.

Overhead Electric Lines - LEA	Voltage level (kV)	Commissioning year	km
Upgrading to 400 kV of 220kV LEA Gutinaş - Bacău *	400	2010	55
Upgrading to 400 kV of 220kV LEA Bacău – Roman *	400	2010	59
Upgrading to 400 kV of the 220kV LEA Roman – Suceava*	400	2010	99
LEA Oradea- Nadab(RO) – Bekescsaba (HU)	400	2008	85
	400	2008	60
LEA Nadab – Arad	400	2008	30
LEA Portile de Fier II - Cetate	220	2010	30
LEA Portile de Fier I- Cetate	220	2010	71
LEA Portile de Fier I- Portile de Fier II	220	2010	92
LEA Portile de Fier I – Resita	400	2010	117
LEA Resita – Timisoara - Arad (double-circuit line currently operating at 220kV)	400	2010	73
LEA Timisoara (double-circuit line currently operating at 220kV)	400	2010	54
LEA (RO) – (Serbia Montenegro)	400	2015	60
LEA Suceava (RO) – Bălți (MO)	400	2015	150
LEA Suceava – Gădălin	400	2015	260

\* - including power stations rehabilitation

A submarine cable to be built between Romania and Turkey (600 MW) is currently under study.

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

Total gas consumption in 2006 amounted to 17.2 billion cm, out of which 2.65 billion cm was household consumption (15.4%). Domestic gas production in 2006 was 12.1 billion cm, and import 5.911 billion cm (30.2% of the total consumption).

In March 2007, there were 2,589,308 gas customers, out of which 2,462,566 were households.

The evolution of the national gas consumption, national production and import is presented below:

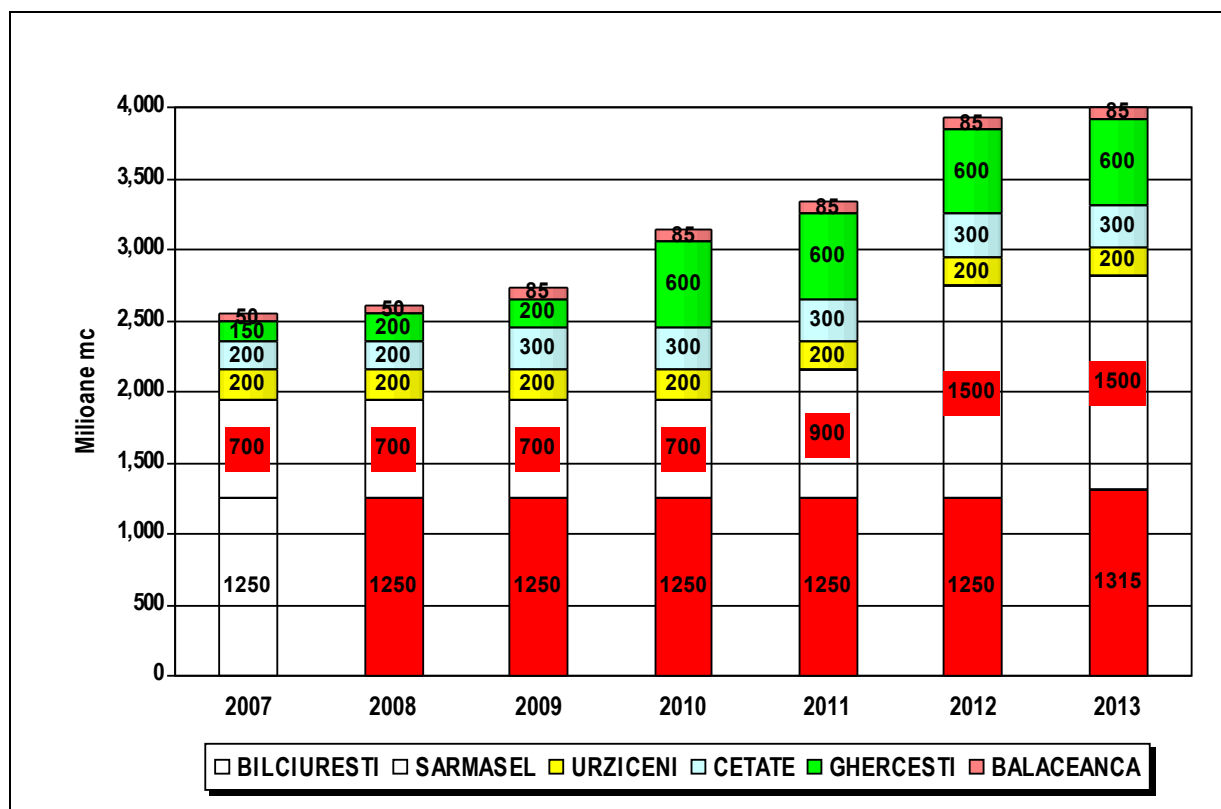
Year	2007	2008	2009
Consumption (billion cm)	17.8	17.9	18
Domestic production (billion cm)	11.7	11.3	11
Import (billion cm)	6.1	6.6	7

In Romania there are 8 underground storages with a total capacity, in 2006, of 2.85 billion cm.

Their situation is presented below:

No.	Storage	Capacity (million cm)
1.	Bălăceanca	50
2.	Bîlciurești	1,250
3.	Cetatea de Baltă	150
4.	Ghercești	150
5.	Sărmășel	700
6.	Târgu Mureș	300
7.	Urziceni	200
8.	Nadeș	50

The forecast of the gas underground storage capacity evolution is presented below:



In order to improve the security of supply and reduce the dependency on a sole import source, new import routes are taken into consideration as follows:

- Building a pipeline in order to interconnect the Romanian national transmission system to the Bulgarian transmission system, in Russe – Giurgiu area
- Continuing the works on the Szeged (Hungary) – Arad (Romania) pipeline
- Building a new import point, around Negru Vodă, in order to supply gas to Dobrogea

*Medium-term development of gas interconnection capacities (2007 – 2013)*

<b>Objective</b>	<b>Physical dimension</b>	<b>Monetary dimension</b>	<b>Deadline</b>
	Km	Million lei	Year of putting into function
Romania-Bulgaria, Russe-Giurgiu interconnection pipeline	8	3.40	2008
Nădlac-Arad transmission pipeline	27	35.00	2008
Romania-Ukraine interconnection pipeline	41	36.20	2009
Negru-Vodă IV measuring station	-	5.50	2008
<b>Total</b>		80 (Eur 25 million)	

Given the security of supply goal and Directive 2004/67/CE, with a view to ensuring the consumption of all categories of customers and removing the malfunctioning in the gas market that occurred during 2005-2006 winter, the interruptible customer concept was promoted. The interruptible customer has a significant contribution towards maintaining the safe functioning of the natural gas National Transmission System and distribution systems, by accepting a decrease in consumption up to full stop.

The regulatory authority elaborated and approved (ANRGN Decision No. 1000/2006), with a view to ensuring the security and continuity in natural gas supply, as per the Gas Law No. 351/2004, with subsequent amendments, and Directive 2003/55/CE, a Regulation regarding the conditions and procedures on the appointment of the supplier of last resort. The Regulation is applicable to gas supply and distribution licensees, as well as to gas customers.

The supply of last resort represents the supply of natural gas by a gas supply licensee, appointed or selected under the terms of this Regulation, with a view to supplying a customer entered into a gas supply negotiated contract, whose current supplier is about to have its license withdrawn by the regulator.

Mandatory supply of last resort represents the supply of natural gas by a gas supply licensee, appointed under this Regulation, with a view to supplying gas to customers falling into the following categories:

- Household customers;
- Hospitals, schools, kiddengardens;
- Public institutions;
- Non-household customers, other than the ones above-mentioned, with a consumption of up to 12,400 cm<sup>3</sup>/year/consumption site.

The mandatory supply of last resort shall not prevail over current contractual obligations of the appointed supplier of last resort.

Voluntary supply of last resort represents the supply of natural gas by a gas supply licensee, selected under this Regulation, with a view to supplying gas to non-household customers with a consumption of above 12,401 cm<sup>3</sup>/year/consumption site.

Public service obligations apply correspondingly to the mandatory supply of last resort.

Distribution operators shall keep track of all customer switchings in their distribution area and submit to ANRGN, on a quarterly basis, a report in this respect, drafted in compliance with the template included in the Regulation. The data included in the report is public information.

In the context of ensuring the volumes of gas needed to fulfill the public service obligation, in accordance with the energy programme for the cold season (October current year – March the following year), suppliers performing regulated supply shall store in underground storages, until the end of the injection cycle, a minimum stock of gas. The minimum gas stock is determined by the Market Operator of the Gas National Dispatcher, for each supplier, so that it covers about 12.5% of the volume of gas to be supplied to captive customers.

The volume of gas to be yearly supplied by each supplier, underlying the calculation of the minimum stock, is the one taken into consideration when establishing the unitary regulated revenue and the unitary overall revenue related to gas regulated supply, and that is included in the individual Orders on the setting of the regulated tariffs for gas regulated supply.

After the Decision enters into force, the suppliers compelled to set up minimum stocks shall send the data needed by the Market Operator. Also, in order to ensure the security of the gas national transmission system functioning, SNTGN “Transgaz” S.A. Mediaş shall undertake the necessary measures so that, during the cold season, it has free and operative access to a minimum volume of gas meant to ensure NTS physical balance.

Internationally, the most important interconnection project Romania is participating in is the Nabucco project. The latest stage in the development of this project consisted in the submission of the request for exemption from the provisions on third party access, as per article 22 of Directive 2003/55/EC (transposed into national legislation). According to the legal provisions in force, in Romania, the regulatory authority is the body responsible for granting the exemption. The request for exemption was submitted and is under consideration with the Romanian regulatory authority.

The Ministry of Economy and Finance is responsible for establishing the priority gas-related investments.

ANRE provides for the regulatory framework needed to promote investments by issuing authorizations and licenses, issuing and approving methodologies on prices and tariffs setting, issuing commercial and technical regulations, elaborating rules on network access and connection of users.

In the gas sector, the regulator approves, for each regulatory period for which regulated tariffs and prices are established, licensees’ investment programmes, with a view to recognizing the costs and framing them into approved tariffs and prices.

In 2006, two new companies, Toreador and Falcon Oil & Gas, received authorization for the functioning of ground technological facilities related to gas production, as well as authorization for the setting up of gas production capacity for the exploitation of new gas reserves.

## 6. Aspects regarding the public service [Article 3(9) electricity and 3(6) gas]

### 6.1. Electricity

According to the provisions of the Directive 54/2003/CE, the Romanian primary and secondary legislation imposes the electricity market participants to observe the public service obligations. The public service obligations are set in the Electricity Law 13/2007, in the *Regulation for electricity supply*, approved by GD 1007/2004, in the electricity supply framework contracts, in the conditions of electricity supply licenses and in the *Methodology for setting up tariffs to residential customers*, approved by ANRE Order 11/2005. The applicants go through rigorous verification procedures within the license granting process and, after obtaining the license, ANRE monitors the compliance with the conditions of licenses and with the system of regulations.

The Electricity Law defines the default electricity supplier who has the obligation to deliver supply services at regulated tariffs to the residential or to the final customers with less than 100 kVA contracted power that are within their assigned area, until the customer first turns to the free market. The costs of the default supplier incurred with the obligation of supply services to residential and to small customers are recognized in the tariffs, in a pass-through system.

Provisos are also stipulated in the Electricity Law on the Supplier of Last Resort (SoLR) obligation to supply the eligible customers whose supplier is unable to fulfil its supply obligations and on the regulator's responsibility to issue the Regulation to appoint the supplier of last resort (ANRE Order 14/2007).

Estimations show that 98% of the customers benefit from the service of electricity supply. For the remaining 2%, representing the remote and difficult to reach areas, the Romanian Government, together with the Minister of Economy and Finance, has developed an electrification plan for the next 5 years.

According to the Electricity Law, the regulator has the obligations to set up minimum requirements regarding the continuity and quality of electricity supply for customers supplied through isolated power systems and to establish local prices where regulated prices to captive customers supplied from RPS are not applicable.

Residential customers and the customers that choose not to exercise their right to change the supplier are supplied with electricity at regulated tariffs. Once the full opening of the electricity market is achieved (GD 638/2007), all the customers are free to choose their supplier. Household customers and customers with contracted power of less than 100 kVA continue to benefit from regulated tariffs until the first supplier switching.

ANRE sets up regulated tariffs based on its methodologies and on the data transmitted by the suppliers of captive customers. *The Methodology to setting up regulated tariffs to captive customers*, approved by ANRE Order 11/2005 stipulates:

- the passing-through in the final customers' tariffs of the justifiable costs of the acquisition, transmission, distribution, of the system services, market operation and the supply of electricity
- the acquisition of electricity for captive customers through regulated bilateral contracts and through DAM and BM transactions

- the ex-post adjustment of tariffs every 6 months;
- the regulated quantities reduction if captive customers exercise their eligibility right.

In 2006, the suppliers of captive customers supplied electricity to all residential customers, to 95% of the commercial operators and to 10% of the industrial customers. Of the total amount of supplied electricity, about 40% was delivered to residential customers, 20% to commercial operators and 40% to industrial customers.

The full opening of the electricity market requires hourly meters for the customers, wide internet access and the introduction of standard consumption profiles. It also involved the review of the rules to switching the supplier in order to meet the household customers' specific needs.

Electricity supply for residential customers and for small commercial/industrial customers is supplied based on framework contracts. The contracts are issued by the regulator for every category of customers and contain minimum required clauses regarding the: duration of the contract, conditions for renewal or for termination of the contract, applicable tariff, date of reading, billing period and available payment parameters and facilities, compensation if contracted service quality levels are not met, obligation of the supplier to inform the customer about the scheduled interruptions.

Vulnerable customers needing financial aid for the payment of their electricity bills (i.e. customers with an average income per family member that is less than the national minimum income) also benefited in 2006 from a sub-category of regulated tariffs for residential customers – the social tariffs. Thus, in 2006, 16% of the residential customers were invoiced on social tariffs.

ANRE regulations stipulate that if the customer fails to pay the electricity bill within 30 days from the due date, the supplier charges a percentage of the sum due as a penalty. If the dues are not paid within 45 days from the date of payment, the supplier is entitled to cut the electricity supply of the said customer, after sending a 5 days' notice prior to the disconnection date.

In 2006, 360,892 customers (4.2% from the total number of customers) were disconnected for non-payment, as follows: 315,337 residential customers (3.9% from the total number of residential customers) and 45,555 industrial and commercial operators (8,3% from the total number of industrial and commercial operators).

The network operator re-connects the customer disconnected for non-payment the next working day following the full payment of the sums due to the supplier. In addition, the disconnected customer shall pay the network operator for the connection-disconnection works performed.

The suppliers must have their own internet site so that customers may find general information regarding the supply activity. Likewise, the license conditions for supply stipulate the suppliers' obligation to organise meetings with the representatives of the main customer associations/organisations. The number of summons cannot exceed 6 per year. If no such summonses occur, the license holders will organise a meeting with the representatives of the customer associations/organisations at least one a year.

The customers' right to information is also addressed in the obligation imposed to the active electricity suppliers who must send their clients, by 15<sup>th</sup> of April of every year, a label containing information on the electricity structure and on the environmental impact of the electricity supplied in the year before.

ANRE monitors and publishes the CO<sub>2</sub> emissions resulting from the electricity generated by the large electricity producers. In 2006, the country's average CO<sub>2</sub> emissions reached 547 g/ kWh as compared to 485 g/ kWh in 2005.

In Romania, the radioactive wastes resulted from the generation of electricity reached 0.02 g/ kWh, the same amount as in 2005.

The customers play an active role in the regulation issuing process. Prior to the regulatory committee approval, ANRE submits all the draft regulations to the attention of the Advisory Council members who are representatives of both the license holders and the customer association/organisations. The draft regulations of general interest are then published on ANRE web site in order to be submitted to public debate.

Provisos regarding the customer complaints management are stipulated in the conditions of the license, in the framework contracts and in the *Standard for electricity supply at regulated tariffs*.

The supply license holders must register, investigate and solve all the customer complaints relating to the quality of the delivered service, the calculation and/or the billing of the electricity consumption. To this purpose, a Customer Service must be organised by each license holder in order to register all the complaints of the customers who deem that the actions of the said license holder are prejudicial to him. The Customer Service keeps records of all the complaints, petitions and requests submitted by the customers and of the way in which they were solved.

Through the control activities it develops, the regulator must ensure that license holders comply with the conditions set in the licenses. If a customer is not satisfied with the answer received from the commercial operator, he can petition ANRE on the grounds of GD 27/2002.

## **6.2. Natural Gas**

A minimum set of public service obligations was provided for in the Gas Law No. 351/2004, with subsequent amendments.

Natural gas storage, transmission, distribution and supply licensees have the following public service obligations:

- a) to ensure the security and continuity of supply, in compliance with the legal provisions in force;
- b) to deliver the service observing the principles of energy efficiency and environmental protection;
- c) to observe the Performance Standards;
- d) to ensure third party access to the system.

Apart from the above-mentioned legal provisions, the public service obligation is provided for in the Framework Conditions on the validity of distribution and supply licenses, in the Framework Conditions on the validity of the authorization for the functioning of gas distribution undertakings/systems (ANRGN Decision No. 1271/2004), as well as in the Conditions on validity of gas transmission license (ANRGN Decision No. 1362/2006).

With a view to supporting vulnerable customers and taking into account the need for a more efficient use of gas used as household heating fuel, the Romanian Government set up the Programme on granting financial aid to low-income customers using gas for household heating. Natural gas customers can benefit from this financial aid when buying individual heating boilers or up to 3 burners.

Also, given the increase in the gas price and in order to support vulnerable customers, the following were gradually increased: financial aids granted for the purchase, installation and setting into function of individual heating boilers or, as the case may be, of automatic burners, as well as the aid for household heating granted to low-income customers using gas.

The mechanisms for calculation of regulated final prices are „price-cap”.

The value of the distribution services delivered for a distribution system user, are invoiced on a monthly basis, using the following formula:

$$VT^d = T_d * Q$$

where:

VT<sup>d</sup> – total value of the bill, VAT not included, representing the value of the distribution service, expressed in lei;

T<sub>d</sub> – regulated distribution tariff, expressed in lei/1,000 cm.

Q – distributed volume, expressed in 1,000 cm.

The value of the regulated supply services, delivered to an end customer, is invoiced on a monthly basis, using the following formula:

$$VT^f = P_f * Q$$

where:

VT<sup>f</sup> – total value of the bill, VAT not included, representing the value of the regulated supply service, expressed in lei;

Q – supplied volume, expressed in 1,000 cm;

P<sub>f</sub> – regulated final price, expressed in lei/1,000 cm.

The regulator is entitled to refuse to operators the recognition of certain costs or of part of these costs in case the costs are not incurred in a cautious manner, given the conditions and the information available at the time the costs were incurred.

The categories of customers for which differentiated regulated final prices and distribution tariffs are set are the following:

A. Final customers connected directly to the transmission system

A.1 final customers with an annual consumption of up to 124,000 cm

A.2 final customers with an annual consumption between 124,000 cm and 1,240,000 cm

A.3 2 final customers with an annual consumption between 1,240,000 cm and 12,400,000 cm

A.4 2 final customers with an annual consumption between 12,400,000 cm and 124,000,000 cm

A.5 2 final customers with an annual consumption of above 124,000,000 cm

B. Final customers connected to the distribution system

B.1 2 final customers with an annual consumption of up to 2,400 cm

B.2 2 final customers with an annual consumption between 2,400 cm and 12,400 cm

B.3 2 final customers with an annual consumption between 12,400 cm and 124,000 cm

B.4 2 final customers with an annual consumption between 124,000 cm and 1,240,000 cm



B.5 2 final customers with an annual consumption between 1,240,000 cm and 12,400,000 cm  
B.6 2 final customers with an annual consumption of above 12,400,000 cm

With regard to the transparency of contractual terms, in the regulated market, contracts are concluded in compliance with the Framework-contracts, elaborated and approved by the regulatory authority, published in Romania's Monitorul Oficial, as follows:

- ANRGN Decision No. 182/2005 approving the Framework-contract for natural gas regulated supply to captive customers, with subsequent amendments and ANRGN Decision No. 308/2005 approving the General Contracting Conditions for natural gas captive customers, with subsequent amendments
- ANRGN Decision No. 183/2005 approving the Framework-contract for natural gas distribution, with subsequent amendments and ANRGN Decision No. 309/2005 approving the General Contracting Conditions for natural gas distribution, with subsequent amendments
- ANRGN Decision No. 460/2006 approving the Framework-contract for natural gas transmission with booking of capacity in the National Transmission System, with subsequent amendments and ANRGN Decision No. 528/2006 approving the Framework-contract for natural gas interruptible transmission services through the National Transmission System, with subsequent amendments
- ANRGN Decision Nos. 480/2004 approving the Framework-contract for natural gas underground storage, with subsequent amendments

The above-mentioned regulations include mainly provisions regarding: regulated final price, length of the contract, rights and liabilities, contractual responsibility.