ENTIDADE
REGULADORA DOS
SERVIÇOS ENERGÉTICOS

ANNUAL REPORT

TO THE

EUROPEAN COMMISSION

ENERGY SERVICES REGULATORY AUTHORITY

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1 INTRODUCTORY REMARKS

Year 2006 was marked by the (i) definition of a new framework for the electricity, natural gas and petroleum sectors, (ii) start of re-structuring in the natural gas sector, and (iii) developments in the implementation of the Iberian Electricity Market (MIBEL).

New legislative developments in Portugal's electricity and natural gas sectors stemmed from the transposition to Portuguese law of the 2003 EU directives governing these two sectors.

The Portuguese legal framework had to be changed after the incorporation of the Directive's provisions governing the electricity sector. In fact the transmission system operator could no longer develop any activities related to electricity buying and selling.

This unbundling of activities was made necessary by the existence of long-term Power Purchase Agreements (CAE) entered into by producers of electricity from conventional energy sources and the concession holder of the National Transmission System (REN). In 2007 the unbundling process led to the termination of the CAEs signed with companies of Group EDP. The two other CAEs (with TURBOGÀS and Tejo Energia) were transferred to a company legally separated from the transmission system operator, belonging to Group REN.

Reference should also be made to the legislative work done by the Government to establish rules for recovering the tariff deficit arising from the End-User Sale tariffs applied in 2006 and 2007 and for limiting to 6% de maximum tariff growth in 2007 for customers in Standard Low Voltage, versus the tariffs in force during 2006.

Both the bill that set these rules and other legislative instruments issued to define the electricity sector's new framework were used as standards for a new updating of the Tariff Code made by the Energy Services Regulatory Authority at the end of 2006. This update was required to support the definition of electricity tariffs for 2007.

As regards the natural gas sector, the new regulatory framework changed deeply the previous framework. In 2007 these changes will become more relevant, as they are materialized in practice as follows:

- Transfer of (i) assets associated with the infra-structure of reception, storage and re-gasification of the LNG terminal, (ii) natural gas underground storage facilities, and (iii) natural gas transmission facilities. Three new legally independent companies now belonging to Group REN will emerge from this change, which have been granted public service concessions for the respective field of operation (in October 2006). ERSE will henceforth regulated these activities.
- Natural gas distribution activities and all other unrelated activities – e.g. natural gas supply, will have to be legally unbundled until July 2007. This applies to all operators holding natural gas distribution concessions and public service licenses, supplying a minimum 100 thousand

customers – i.e. 4 of the 11 existing operators. ERSE will henceforth regulate the distribution activity.

- Supply of natural gas follows free market rules, albeit subject to a market opening schedule starting in January 2007 for the standard-regime power generators. Suppliers will have the right to access the natural gas infra-structure mentioned above, against the payment of regulated tariffs to be determined by ERSE.
- Last resort suppliers have also been established by law, whose purpose is to secure the supply of natural gas to consumers who chose not to switch suppliers, in conditions of quality and continuity-of-supply. These consumers will pay regulated tariffs to be determined by ERSE. In line with the market opening schedule, these tariffs will enter into force as from 2008.

The new legal framework also enabled ERSE to draft the codes applicable to the natural gas sector, after public consultation.

The Access to Grid, Infra-structure and Interconnection Code, the Infra-structure Operation Code, the Quality of Service Code, the Commercial Relations Code and the Tariff Code, published by ERSE in September 2006, in line with the provisions of the legislative bills currently in force, established rules and procedures for regulating different domains that fall within its remit.

In 2006 there was also a major boost to the Iberian Electricity Market (MIBEL), as the Council of Regulators – this market's top decision-making body, began to operate. Among decisions already taken, special reference should be made to the approval of (i) a mechanism for jointly managing interconnections between Portugal and Spain, and (ii) the conditions ruling power purchase by the distributors (Spain) and the last resort supplier (Portugal) and their obligation to purchase it at the Iberian Market Operator – Derivatives Market (OMIP).

Start-up of operations at OMIP in July 2006, and the signature with the Iberian Market Operator – Spot Market of an agreement aimed at integrating the two Iberian markets, also constituted a landmark in the construction of MIBEL.

Held in November 2006, the XXII Portuguese-Spanish Summit took steps to keep on implementing the Iberian Electricity Market (MIBEL). Special reference should be made to decisions aimed at rendering MIBEL's market platforms operational, during the first half of 2007.

The 4 September 2006 was a landmark in the liberalization process of the Portuguese electricity sector, in the retail area. On this day a computer platform began to operate, which enables the management of supplier-switching procedures for customers supplied in standard low voltage.

Nevertheless the value of consumption in the liberalized market decreased in 2006, a trend started in the late months of 2005 – when consumption growth in this market began to slow down. Increased costs of

electricity in the Spanish spot market account for this evolution in the Portuguese liberalized market, which is largely supplied by Spain.

ERSE remains actively involved in the construction of the Single Energy Market, namely by participating in the works of the Council of European Energy Regulators (CEER) and of the European Regulators Group for Electricity and Gas (ERGEG).

Political and administrative restrictions that had prevented ERSE from hiring new employees since 2002, mentioned in the 2006 ERSE Annual Report to the European Commission, have been removed and the hiring process was virtually completed by the end of 2006.

ACRONYMS

- HV – High Voltage (voltage between phases whose root mean square value is higher than 45 kV and lower than, or equal to, 110 kV).
- LV – Low Voltage (voltage between phases whose root mean square value is equal to, or lower than, 1 kV).
- SpLV – Special Low Voltage (voltage between phases whose root mean square value is equal to, or higher than, 1 kV and subscribed demand power higher than 41.4 kW).
- StLV – Standard Low Voltage (voltage between phases whose root mean square value is equal to, or higher than, 1 kV and subscribed demand power equal to, or lower than, 41,4 kVA).
- CAE – Power Purchase Agreement.
- CMVM – Securities Market Commission (Portugal).
- CENELEC – European Committee for Electro-technical Standardization.
- CNE – National Energy Commission (Spain).
- CNMV – Securities Market Commission (Spain).
- CR – Network Commercial Management Activity.
- CUR – Last Resort Supplier.
- DGEG – Directorate General for Energy and Geology.
- ERSE – Energy Services Regulatory Authority.
- LNG – Liquefied natural gas.
- VAT – Value Added Tax.
- VHV – Very High Voltage (voltage between phases whose root mean square value is higher than 110 kV).
- MIBEL – Iberian Electricity Market.
- LM – Liberalized Market.
- MV – Medium Voltage (voltage between phases whose root mean square value is higher than 1 kV and equal to, or lower than, 45 kV).
- NACE – Task Force of Support to Energy Users.
- OMEL – Operador del Mercado Ibérico de Energia – Pólo Español, SA.
- OMI – Iberian Market Operator.
- OMIClear – OMIClear – Sociedade de Compensação de Mercados de Energia, S.A.

- OMIE – Iberian Market Operator – Spot Market.
- OMIP – Iberian Market Operator – Derivatives Market.
- DSO – Distribution System Operator.
- TSO – Transmission System Operator.
- PRE – Special-Regime Generation.
- RAA – Autonomous Region of the Azores.
- RAM – Autonomous Region of Madeira.
- RMC – Code on Dispute Mediation and Conciliation.
- RND – National Electricity Distribution System (high- and medium-voltage).
- RNT – National Electricity Transmission System (Mainland Portugal).
- RPGN – Public Natural Gas Network.
- RQS – Quality of Service Code.
- SEN – National Electricity System.
- SENV – Non-binding Electricity System.
- SEP – Public Service Electricity System.
- SNGN – National Natural Gas System.
- TGCC – Combined-cycle gas turbines.
- TGCS – Single-cycle gas turbines.
- UAG – Unidade Autónoma de GNL.
- GUoS – Global Use of System.
- DUoS – Distribution Use of System.
- DUoS (HV) – Distribution Use of System in HV.
- DUoS (LV) – Distribution Use of System in LV.
- DUoS (MV) – Distribution Use of System in MV.
- TUoS – Transmission Use of System.

2 SUMMARY / LAST YEAR'S MAIN EVENTS

2.1 ORGANIZATIONAL FRAMEWORK OF ERSE

2.1.1 GOVERNING BODIES

2.1.1.1 BOARD OF DIRECTORS

The Board of Directors is composed of:

- One chairperson.
- Two members.

Members of the Board of Directors are appointed by the Council of Ministers for a five-year term that can be extended once, upon proposal made by the Minister of the Economy and Innovation. Selected people must have appropriate qualifications and well-established technical and professional skills. Their terms of office never start at the same time. People having served at the governing bodies of companies in the electricity and natural gas sectors in the previous two years (or having been permanent employees of the said companies, performing managing or executive functions in the same period) may not be appointed as members of the Board of ERSE. When they finish their term of office, members of the ERSE Board of Directors may not perform any functions in companies of the regulated sectors—nor provide any services to them. Members of the Board of Directors perform their functions on full-time dedicated basis, save that they may teach at higher education institutions on part-time basis.

2.1.1.2 ADVISORY BOARD AND TARIFF BOARD

The Advisory Board is ERSE's governing body in charge of advising, supporting and helping ERSE define its action guidelines. The Advisory Board gives advice on matters such as:

- ERSE's activity plan and budget.
- ERSE's Annual Report and Accounts.
- ERSE's advice on safety standards.
- Proposed regulation amendments.
- Other matters on which the Board of Directors may seek its advice.

Advice given by the Advisory Board is not binding. It is made public by ERSE and becomes available for consultation on its website.

The Advisory Board is composed of 28 members, including representatives from the Central Government (Economy, Finance, Environment and Consumer Protection), the Regional Governments of the Azores and Madeira, the Municipalities, Public Administration (Directorate General for the Consumer, Directorate General for Energy and Geology, Portuguese Environment Agency), the Competition Regulatory Authority, consumers and regulated companies. The Advisory Board has two sections, for the electricity sector and for the natural gas sector.

The Tariff Board is the governing body in charge of performing ERSE's functions in connection with tariffs and prices. It is called upon to give advice on:

- The approval and review of tariff codes.
- Tariffs and prices to be established.

Advice given by the Tariff Board is not binding. It is made public by ERSE and becomes available for consultation on its website. When advice given by the Tariff Board is not adopted, however, ERSE must justify its position in a document made public.

The Tariff Board is composed of 17 members, including representatives from the Directorate General for the Consumer, the Municipalities, consumers' associations and the regulated companies. The Advisory Board has two sections, for the electricity sector and for the natural gas sector.

2.1.2 MAIN STATUTORY OBJECTIVES

ERSE's main statutory objectives are to:

- Protect the rights and interest of consumers with regard to prices, services and quality of service, as well as to foster the provision of information and clarification to energy consumers, in co-ordination with the competent authorities.
- Ensure, while respecting the powers given to other entities, that natural gas and electricity operators comply with the public service obligations and other obligations laid down in the law and regulations, as well as in concession contracts and licenses.
- Arbitrate and settle disputes that may arise in the sectors of electricity and natural gas, according to the terms established by law.
- Implement the liberalization of the electricity and natural gas sectors and foster competition, so as to improve the efficiency of activities subject to its regulation.

- Make sure that regulation rules are objective and commercial relationships among the operators and between the operators and the consumers remain transparent.
- Help gradually improve technical, economic and environmental conditions in the regulated sectors, namely by encouraging the adoption of practices that promote the efficient use of natural gas and electricity and the creation of appropriate standards of service quality and environmental protection.
- Help gradually adapt the regulatory framework to the development of the electricity and natural gas sectors and to its timely compliance with the applicable EU legislation, with a view to fully achieving the single energy market.
- Co-ordinate with the Competition Regulatory Authority the enforcement of the competition law in the energy sector.
- Follow up the activities developed by other regulators, as well as the experience of foreign energy regulators, and create relationships with their counterpart regulators and with the relevant EU and international agencies.
- Promote research on the market of electricity and natural gas and its regulation, develop initiatives and establish the association and co-operation protocols deemed appropriate, while preserving its independence.

2.1.3 POWERS

ERSE has been given different kinds of regulatory, sanctioning, inspecting and consultative powers. The main instruments that ERSE has to fulfil its statutory objectives are described below.

2.1.3.1 CODES

Before making its codes public, ERSE must hold public hearings and seek advice from the Advisory Board or the Tariff Board.

In the context of the electricity sector, ERSE is in charge of preparing the following codes and checking their compliance:

- Access to Grids and Interconnections.
- Load dispatching.[1]

[1] Recent evolution of the legislation involved the replacement of the Load Dispatching Code by the Grid Operations Code.

- Commercial Relations.
- Tariffs.

It is also ERSE's duty to submit to the Directorate-General for Energy and Geology (DGEG) a proposal regarding the commercial provisions of the Quality of Service Code, as well as to ensure full compliance with this code – including its technical provisions.

ERSE is in charge, in the context of the natural gas sector, of preparing the following codes and checking their compliance:

- Access to Grids, Infra-structures and Interconnections.
- Infra-structure Operations
- Quality of Service.
- Commercial Relations.
- Tariffs.

2.1.3.2 TARIFFS AND PRICES

In the electricity sector**,** ERSE periodically establishes the values of tariffs and prices to be applied, according to the Tariff Code terms. Prior to their publication on the Official Journal (*Diário da República*), advice is sought from the Tariff Board and comments requested to the relevant administrative bodies and regulated companies.

Pursuant to Decree-Law no. 30/2006, of the 15 February 2006, ERSE has the power to approve the Tariff Code of the natural gas sector. Government Order no. 19624-A/2006, of the 25 September 2006, approved the Tariff Code, which established the criteria and methods for determining the tariffs and prices of natural gas and defining regulated tariffs and their respective structure, as well as the procedures to be adopted for establishing tariffs and amend them and make them public. Since the approval of the Tariff Code, under Decree-Law no. 140/2006, of the 26 July 2006, ERSE has been exercising the tariff powers laid down in its Statutes, as approved by Decree-Law no. 97/2002. By virtue of Article 6 of the said Decree-Law, such powers had been exercised so far by the Government and DGEG.

2.1.3.3 CONCESSIONS AND PUBLIC SERVICE LICENSES

While respecting DGEG's powers, ERSE has the power of checking compliance with concession contracts in matters of regulation, in line with the approved legal bases for such contracts, as laid down in Decree-Law no. 29/2006 and Decree-Law no. 30/2006, both dated 15 February 2006.

2.1.3.4 INSPECTION AND SANCTIONS

As regards consumer protection ERSE should regularly inspect the records of complaints and claims filed by consumers against concession- or license-holders. ERSE may also request the investigation of complaints or claims directly filed to it by consumers, as long as they fall within its powers.

ERSE may also recommend to concession- or license-holders that they take action to address any fair complaints filed by consumers.

In the scope of competition protection, ERSE should report to the Competition Regulatory Authority any offences to the competition law that may come to its knowledge while performing its functions.

As regards its sanctioning powers, ERSE may deal with administrative offences and apply fines and alternative sanctions.

In the legislative framework on the electricity and natural gas sectors, established by Decree-Law no. 29/2006 and Decree-Law no. 30/2006, both dated 15 February 2006, respectively complemented with Decree-Law no. 172/2006, of the 23 August 2006, and Decree-Law no. 140/2006, of the 26 July 2006, ERSE's sanctioning powers will be the object of specific legislation currently being drafted to be approved by the Government and the Parliament, the two sovereign bodies legally empowered to approve legislation.

2.1.3.5 INVESTIGATIONS AND AUDITS

ERSE may order, on its own initiative or at the request of the Ministry of the Economy and Innovation, any inquiries, investigations or audits to the concession or license holders, as long as they focus on matters falling under its powers.

2.1.3.6 DISPUTE SETTLEMENT AND VOLUNTARY ARBITRATION

ERSE's role in the area of dispute settlement essentially consists in lodging mediation and settlement processes. Mediation and conciliation are voluntary mechanisms for extrajudicial dispute settlement, whereby ERSE cannot impose a concrete solution to the case but may recommend it (mediation), or suggest that the parties jointly find a solution for the dispute that opposes them (conciliation).

Following the EU recommendations on principles applicable to entities that act on behalf of the extrajudicial settlement of consumer disputes, ERSE approved in October 2002 its Code on Dispute Mediation and Conciliation (RMC). This code establishes the rules applicable to procedures of mediation and conciliation of commercial and contractual disputes arising from the relationship among electricity and natural gas operators and between them and the respective consumers.

As regards the extrajudicial settlement of disputes, ERSE should also promote the voluntary arbitration for the settlement of commercial or contractual disputes among concession and license holders and between them and consumers. ERSE may also help create arbitration centres and sign agreements with arbitration centres.

2.1.4 INDEPENDENCE AND ACCOUNTABILITY

2.1.4.1 INDEPENDENCE

ERSE is a legal person governed by public law, with administrative and financial autonomy and its own assets. It is governed by its own Statutes, by legal provisions specifically applicable to it and, as subsidiary law, by the legal framework of state-owned enterprises, save any rules incompatible with its nature. ERSE performs its functions independently according to the Law, while taking stock of both the guiding principles of the energy policy established by Government in accordance with the Constitution and the Law, and the acts subject to ministerial oversight pursuant to the Law.

While safeguarding its organic and functional independence, ERSE is thus subject, pursuant to its by-laws, to the oversight of the Minister for the Economy and Innovation and, when applicable, the Finance Minister. As a consequence, the following require ministerial approval:

- Annual report and accounts.
- Regulation on services.
- Regulation on staff recruitment and the respective pay-roll.

Members of the Board of Directors can only be dismissed by the Government, in case of legal incapacity or proven serious misconduct.

ERSE's budget is part of the National Budget. This incorporation restricts the independence of ERSE, subjecting the Regulator, in general terms, to a financial scheme influenced by the government – dependent upon clearance by the Energy and Finance Ministers, namely as regards the acquisition of equipment and the recruitment of staff.

2.1.4.2 ACCOUNTABILITY

ERSE is accountable to the national organs of sovereignty, as follows:

- ERSE has to submit its draft budget (to be incorporated in the State Budget) to the appraisal of its Single Auditor, the Advisory Board and to the subsequent approval of the Ministry of the Economy and Innovation. The State Budget is approved by the National Parliament (*Assembleia da República*).

- The Annual Report and Accounts are also submitted to advice by ERSE's Single Auditor and the Advisory Board, being subsequently submitted to approval by the Economy and Finance Ministers.

- Every year an annual report on ERSE's regulation activities is sent to the Government, to be also appraised by the National Parliament.

- The Chairperson of the Board of Directors will answer, at all times, any hearing requests that may be made by the competent commission of the National Parliament, asking for information or clarifications on its activities.

- ERSE is also accountable to the Judiciary, as the holders of positions in ERSE's bodies, as well as its employees and agents, are liable in criminal and disciplinary terms for any acts and omissions practised while performing their functions, pursuant to the law.

- Administrative activities shall be subject to administrative jurisdiction, pursuant to administrative law. Generally speaking, sanctions for administrative offences imposed by ERSE can be impeached in a judicial court.

- ERSE is also subject to the jurisdiction of the Court of Auditors, pursuant to the competent legislation.

2.2 KEY DEVELOPMENTS IN THE ELECTRICITY SECTOR AND THE NATURAL GAS SECTOR

In 2005, Council of Ministers' Resolution no. 169/2005 (24 October 2005) established the new national strategy on energy, revoking the previous cabinet resolutions no. 63/2003 (28 April 2003) and no. 68/2003 (10 May 2003). Thus the Government established the following objectives for the national energy policy:

- Ensuring the security of energy supply, by diversifying primary resources and promoting energy efficiency.

- Encouraging and favouring competition, so as to promote consumer defence and company competitiveness and efficiency.

- Ensuring that the energy process is compatible with the environment.

In order to fulfil the above objectives, guidelines have been established as follows, to:

- Liberalize the electricity, natural gas and fuel markets. Such liberalization will be materialized by:

  - Adopting framework laws on electricity, natural gas and oil, as well complementary legislation.

  - Ensuring the earlier liberalization of the natural gas market.

- Rendering operational the Iberian Electricity Market (MIBEL).
- Re-structuring the corporate fabric of the energy sector.

• Create a structural framework for competition in the electricity and natural gas sectors, namely by:

- Vitalizing the creation of a company for holding the electricity and natural gas transmission systems, as well as the storage facilities and the liquefied gas terminal, while securing the legal separation of operators.
- Strengthening renewable energy sources.
- Promoting energy efficiency.
- Securing an «energy efficient and environmentally relevant public supply».
- Re-organizing the tax regime and the scheme of incentives for the energy system, namely by creating the carbon tax.
- Promoting a prospective outlook and innovation in the energy sector.
- Ensuring communication, awareness raising and evaluation of the national strategy on energy.

In 2006 a set of new legal bills materialized most of the above guidelines.

2.2.1 ELECTRICITY SECTOR

PORTUGUESE LEGISLATION

Decree-Law no. 29/2006, of the 15 February 2006, established the legal bases and principles on the organization and functioning of the National Electricity System (SEN), while revoking Decree-Law no. 182/95, of the 27 July 1995, as well as all subsequent revised versions laid down in Decrees-Law nos. 184/2003 and 185/2003, both dated of the 20 August 2003, Decree-Law no. 36/2003, of the 26 February 2003, Decree-Law no. 192/2004, of the 17 August 2004, and Decree-Law no. 240/2004, of the 27 December 2004.

Following Council of Ministers' Resolution no. 169/2005, of the 24 October 2005, Decree-Law no. 29/2006, of the 15 February 2006, was approved, establishing the following principles governing:

• The way in which SEN is organized and operated.

• The way in which electricity markets are organized.

• The activities of:

- Generation.
- Transmission.
- Distribution, and
- Supply.

This Decree-Law begins to transpose to Portuguese domestic law the principles of Directive no. 2003/54/CE of the European Parliament and Council, of the 26 June 2003, which established common rules for the single electricity market, revoking Directive no. 96/92/CE, of the European Parliament and Council, of the 19 December 1996. It materializes the strategic guideline of Council of Ministers' Resolution no. 169/2005, of the 24 October 2005, which aimed to increment a free competitive market. The activities of generation and supply are henceforth developed on the basis of free competition, following the award of a license.

Only operators that have been awarded public service concessions can develop transmission and distribution activities. Transmission in the framework of the SEN is totally unbundled from other activities – both in legal terms and as regards the assets of its operators. Distribution is legally unbundled from the transmission activity and from all other activities not related with distribution. Such unbundling is not however mandatory when low-voltage distributions supply less than 100 thousand customers.

Suppliers may freely buy and sell electricity. To this effect, they have the right to access the transmission and distribution grids, against the payment of regulated tariffs. Consumers may freely choose their supplier. In addition, supplier switching will not be encumbered in any way whatsoever in contract terms. In order to simplify and materialize supplier switching, the figure of the supplier-switching logistic operator is created.

Last resort suppliers have also been established by law, for consumer protection. Their purpose is to supply electricity, in conditions of quality and continuity-of-supply, to consumers – namely the less-favoured ones.

In this context, ERSE is responsible for regulating the activities of transmission and distribution, the activity of last resort suppliers and the activity of supplier-switching logistic operators, while respecting the competences of other administrative bodies. Accordingly ERSE must periodically draft a report on the sector's performance, to be submitted to the Government – who in turn will subsequently send it to the National Parliament and the European Commission.

The Directorate-General for Energy and Geology is in charge of monitoring the security of supply, in co-operation with the holder of the national transmission system concession.

Decree-Law no. 29/2006 also states that complementary legislation must be adopted to develop the principles applicable to the activities regulated therein, as well as the respective procedures. It also

foresees a set of regulations applicable to the same activities whose approval and enforcement are the competence of ERSE, in particular the following codes:

- Access to Grids and Interconnections Code.
- Grid Operations Code.
- Commercial Relations Code.
- Tariff Code.

The above Decree-Law has been complemented with Decree-Law no. 172/2006, of the 23 August 2006, which establishes, in particular, the procedures required to award standard generation licenses and electricity supply licenses, as well as to award the concession of the National Electricity Transmission System (RNT) and the concessions of electricity distribution in High Voltage (HV), Medium Voltage (MV) and Low Voltage (LV).

In addition to completing the transposition to Portuguese domestic law of a Directive establishing the common rules for the Single Electricity Market, this bill also makes the licensing procedure of the standard electricity generation activity simpler in administrative terms.

As regards the activities of transmission and distribution (in HV, MV and LV), this bill establishes its their operating legal regime and the procedures for drawing up the respective concession contracts – including municipal concessions (LV). It also establishes the transitional legal provisions governing these activities.

The bill establishes the procedure required to award the supply license and regulates the supply activity. It also regulates the activity of the last resort supplier, aimed at securing the universal service.

In its annexes, the bill establishes the new legal basis for the RNT concession, as well for the concession of the National System of Electricity Distribution in High and Medium Voltage (RND) and for the Low-Voltage (LV) electricity distribution grids.

Decree-Law no. 90/2006, of the 24 May 2006, established new rules on the allocation of the cost difference between standard electricity generation costs and administratively established costs of electricity produced from renewable energy sources.

The following legislation has subsequently been published:

- Decree-Law no. 237-B/2006, of 18 December, which established transitional provisions for 2007.
- Decree no. 481/2007, of the 19 April 2007, established a new rate for calculating leases payable for property belonging to the Hydraulic Public Domain Land, revoking Decree no. 96/2004, of 23 January 2004.

- Decree-Law no. 199/2007, of the 18 May 2007, amending provisions of Decree-Law no. 240/2004, of 27 December 2004, regarding the "Costs of Maintaining the Contractual Balance (CMEC) of Power Purchase Agreements" mechanism.

Also Decree-Law no. 392/2007 was approved on the 1 June 2007 and is currently waiting to be published. It established a number of provisions concerning a more in-depth development of the Iberian Electricity Market (MIBEL).

2.2.2 NATURAL GAS SECTOR

PORTUGUESE LEGISLATION

Following the Council of Ministers' Resolution no. 169/2005, of the 24 October 2005, which laid down the new national strategy on energy (revoking Council of Ministers' Resolutions no. 63/2003, of the 28 April 2003, and no. 68/2003, of the 10 May 2003), Decree-Law no. 30/2006, of the 15 February 2006, has been approved, which establishes the following general principles concerning:

- Organization of the National Natural Gas System (SNGN).
- Organization of the natural gas markets.
- Development of the following activities:
  - Reception, storage and re-gasification of natural gas.
  - Underground storage of natural gas.
  - Transmission.
  - Distribution.
  - Supply.

This Decree-Law began to transpose to Portuguese domestic law Directive no. 2003/55/CE of the European Parliament and Council, of the 26 June 2003, which established common rules for the single natural gas market, revoking Directive no. 98/30/CE, of the European Parliament and Council. The new Decree-Law revokes Decree-Law no. 14/2001, of the 27 January 2001, and Decree-Law no. 374/89, of the 25 October 1989, with the version drafted in Decree-Law no. 8/2000, of the 8 February 2000.

SNGN's organization relies on the operation of the natural gas public system, consisting of:

- Underground storage facilities.
- National Distribution Grid.
- National Transmission Grid.

- Terminal for LNG reception, storage and re-gasification.

This infra-structure is operated by means of public-service concessions – or by means of public-service licenses, in the case of local autonomous distribution grids.

Natural gas transmission is ensured by a single public-service concession concerning the operation of the National Natural Gas Transmission System. This activity is legally unbundled from other activities, in the framework of the SNGN – and so are its assets.

Distribution is ensured by means of:

- Concessions, based on exclusive dedicated operation and under a public-service legal regime.
- Distribution licenses in local autonomous grids, based on exclusive dedicated operation and under a public-service regime.
- Distribution licenses for the private use of natural gas (off-grid).

Distribution is legally unbundled both from the transmission activity and other activities not related with distribution. Unbundling however is not mandatory when the number of customers supplied by distribution operators is lower than 100 thousand.

Supply of natural gas follows free market rules, although subject to the award of a license. Suppliers will have the right to access, against the payment of regulated tariffs, the following infra-structures:

- Terminal for LNG reception, storage and re-gasification.
- Underground storage facilities.
- National Distribution Grids.
- National Transmission Grids.

Natural gas supply will none the less be governed by the provisional legal regime established for the gradual opening of the market, taking stock of the emerging market statute and the derogation associated with it, as established by the complementary legislation.

Thus consumers will gradually be given the possibility of freely choosing their supplier, according to the eligibility schedule. Furthermore, supplier switching will not be encumbered in any way whatsoever in contract terms. In order to simplify and materialize supplier switching, the figure of the supplier-switching logistic operator is created.

Last resort suppliers have also been established by law, for consumer protection. Their purpose is to supply natural gas, in conditions of quality and continuity-of-supply, to those consumers – namely the less-favoured ones – who do not choose to switch suppliers.

ERSE is responsible for regulating all activities pursuant to concessions and licenses included in the natural gas public system, the activity of last resort suppliers and the activity of supplier-switching logistic operators, while respecting the competences of other administrative bodies. Accordingly ERSE must periodically draft a report on the sector's performance, to be submitted to the Government – who in turn will subsequently send it to the National Parliament and the European Commission.

The Government is in charge of monitoring the security of supply. This power has been delegated to the Directorate-General for Energy and Geology, in co-operation with the national system of natural gas transmission.

Decree-Law no. 30/2006, of the 15 February 2006, was implemented by Decree-Law no. 140/2006, of the 26 July 2006, which established the legal regimes applicable to the activities of natural gas transmission, underground storage, reception, storage and re-gasification at liquefied natural gas (LNG) terminals and natural gas distribution, including the respective legal bases for concessions and the definition of the type of procedures applicable to the respective awarding. This bill also established the time frame for opening the marketing, advancing the deadlines determined for liberalization and defining the legal regime governing supply and the organization of the respective markets.

According to Article 64 of this bill, deadlines for opening the natural gas market will be the following:

a) Producers of electricity in standard generation, as from the 1 January 2007;

b) Customers whose annual consumption is equal to or higher than 1 million standard cubic meters, as from the 1 January 2008;

c) Customers whose consumption is equal to or higher than 10 thousand cubic meters, as from the 1 January 2009;

d) All other customers, as from the 1 January 2010.

In order to materialize the provisions of this bill, Cabinet Resolutions no. 1072006, 108/2006 and 109/2006, all dated 23 August 2006, approved the minutes for the concessions of RNTIAT – National System for LNG Transmission, Storage Infra-structures and Terminals.

2.3 KEY ISSUES ADDRESSED BY ERSE

IBERIAN ELECTRICITY MARKET

Following the Évora Summit held on 18-19 November 2005, key developments marked the implementation of the Iberian Electricity Market (MIBEL) in 2006. Special reference should be made to the

- Creation and operations start-up of the Council of Regulators.
- Approval by the Council of Regulators, on the 15 March 2006, of the mechanism for jointly managing interconnections between Spain and Portugal[2].
- Approval by the Council of Regulators, at its meeting of the 16 May 2006, of the negotiation code for the Iberian Market Operator – Derivatives Market (OMIP) and of the clearing code for OMIClear[2]. Both the codes and the circulars attached to them as annexes were registered by Portugal's Securities Market Commission (CMVM) in June 2006.
- Approval by the Governments of Spain and Portugal of the conditions ruling power purchase by the distributors (Spain) or the last resort supplier (Portugal) and their obligation to purchase it at the OMIP.
- Operations start-up of the OMIP, in July 2006.
- OMIP and the Iberian Market Operator – Spot Market (OMIE) signed an agreement for integrating the two markets, applicable to forward contracts with energy delivery.
- Drafting by the Council of Regulators of a paper called "Analysis and recommendations made by the Council of Regulators on the next steps towards the implementation of MIBEL (November 2006)" sent to the Governments of Portugal and Spain for appraisal at the Badajoz Summit.

The XXII Portuguese-Spanish Summit took place in Badajoz, on 24-25 November 2006. Its main conclusions were the following:

- Continue to define the itinerary of new interconnections in the South (Algarve-Andalucía) and in the North (Northwest International Axis), which should be completed in 2010, enabling an interconnection capacity between the two countries of approximately 3,000 MW.
- Ask the Directors-General for Energy to draw up a regulatory harmonization plan, to be submitted until the 28 February 2007, which shall include a common model of energy contracting for distributors and last resort suppliers in both countries.

[2] http://www.erse.pt/vpt/entrada/mercadoiberico/

- Keep a mandatory 10% share of electricity purchased by distributors or the last resort supplier in the OMIP during 2007.

In line with the terms agreed at this Summit, a "Plan on the Regulatory Harmonization of the Energy Sector in Portugal and Spain" was approved on the 8 March 2007 along the following main strands:

- Define general principles on the organization and management of the Iberian Market Operator (OMI) and respective implementation model.
  - The process for implementing the OMI management and organization model will be jointly detailed and given a time frame by OMIP and OMIE, to be materialized until October 2007.
- Strengthen the articulation between System Operators.
  - The governments of Portugal and Spain will support the cross-exchange of participations in the share capital of the two System Operators (REN and REE).
  - Interconnections between Portugal and Spain will be strengthened and the system operators should submit a plan for the sped-up construction of interconnection reinforcements.
- Adopt common rules for increasing competition in MIBEL.
  - The Council of Regulators should appoint, every year, the agents responsible for verifying the condition of dominant operator. Governments shall define the specific limitations and obligations governing the identified dominant operators.
  - Define powers to be auctioned in 2007, at virtual capacity auctions. It has been established that, as from June 2008, OMI will be in charge of these virtual capacity auctions.
  - Terminate power purchase agreements until July 2007, which correspond to 80% of the electricity generated in Portugal.
- Stimulate liberalization and define plan for the tariff convergence between the Iberian electricity systems.
  - A time frame will be defined for distributors and last resort suppliers to adapt their regulated tariffs. From July 2008 onwards, only VHV, HV and MV customers in the free market can have access to interruption discounts. From January 2011 onwards, regulated last-resort tariffs will only be available to LV customers whose subscribed power is lower than 50 kW.
  - In April 2007, the proposed contracts on interruption and reactive energy clearing drafted by the System Operators were submitted to the two governments.
  - The proposals on access tariff convergence, to be prepared by the entity responsible – i.e. the Council of Regulators, shall be presented to the two governments until October 2007.
  - Common mechanisms will be defined for power purchase by distributors and last resort suppliers.

- Up to October 2007, the Council of Regulators should propose, in a harmonized fashion, codes determining supplier-switching mechanisms, as well as a harmonized time frame for replacing all existing meters by other meters enabling tele-metering and minimum meter functionalities for the household and small-enterprise segment.

- Develop the interconnection management mechanism
  - Approve proposal aimed at sharing interconnection capacity between market-splitting mechanisms and explicit auctions, as a result of the joint work done at the Council of Regulators.
- Approve the power assurance mechanism
  - The Council of Regulators, after a public consultation procedure, submitted to the governments of Spain and Portugal a harmonized proposal on the enforcement of a power assurance mechanism. Decision by the two governments is still pending.

In addition to the studies mentioned above, which anticipate collaboration from the Council of Regulators, the Regulatory Harmonization Plan establishes that ERSE and CNE will be responsible for submitting a paper on the principles governing the operations and the organization of the Iberian Gas Market (MIBGAS) until October 2007.

The Council of Regulators is composed of Portugal's Securities Market Commission (CMVM) and Energy Services Regulatory Authority (ERSE), together with Spain's Securities Market Commission (CNMV) and National Energy Commission (CNE). It started to operate in the beginning of 2006.

It should be noted that, subsequent to the operations start-up of the Council of Regulators, its Technical Committee performed a number of tasks that made it possible to:

- Collect information on OMIP's operations.
- Draw up monthly reports on the follow-up of the Iberian Market.
- Systematize the information to be collected from the OMIP/OMIClear and the System Operators, with a view to following up the Iberian Market. In the future the information required to follow up the spot market will also be defined.

The Technical Committee held 5 meetings in 2006, alternately in Lisbon and Madrid.

REGULATORY FRAMEWORK - ELECTRICITY SECTOR

In 2006 the electricity sector's Tariff Code was amended twice, as a result of the publication of two bills, as follows:

- Amendment to the Tariff Code, by virtue of the publication of Decree-Law no. 90/2006, of the 24 May 2006.

Decree-Law no. 90/2006, of the 24 May 2006, established new rules on the allocation to electricity users of the cost difference between standard electricity generation costs and the costs of electricity produced from renewable energy sources.

ERSE triggered the process required to review the Tariff Code, so as to render feasible the enforcement of the rules in the new decree-law with an impact on tariffs. This process has been completed. In fact amendments to the Tariff Code were approved and published on the 26 June 2006, by virtue of Government Order no. 14 785-A/2006, published in a supplement to the Portuguese Official Journal (*Diário da República*, 2nd Series, of the 11 July 2006).

This review of the Tariff Code led to an extraordinary review of the tariffs established for 2006, previously approved by Government Order no. 25 901-A/2005, published in a supplement to the Portuguese Official Journal (*Diário da República*, 2nd Series, of the 15 December 2005). As a consequence ERSE approved new electricity tariffs applicable as from 1 July 2006, by virtue of Government Order no. 14 785-B/2006, also published in a supplement to the Portuguese Official Journal (*Diário da República*, 2nd Series, of the 11 July 2006).

- Amendment to the Tariff Code, pursuant to the publication of Decree-Law no. 237-B/2006, of the 18 December 2006.

  In December 2006 the Tariff Board was asked to give advice, together with the 2007 proposed electricity tariffs, on a draft amendment to the Tariffs Code, which included several alterations pursuant to Decree-Law no. 237-B/2006, of the 18 December 2006. This decree-law established mechanisms for recovering the tariff deficits and the tariff convergence costs of the Autonomous Regions and determined that in 2007 the StLV tariffs could only grow by 6 percent, maximum.

  In addition to this amendment, the Code also had to be adapted to incorporate the legislation published throughout 2006 – including the calculation of electricity tariffs for 2007, namely the legal provisions contained in Decree-Law no. 29/2006, of the 15 February 2006, Decree-Law no. 90/2006, of the 24 May 2006 and Decree-Law no. 172/2006, of the 23 August 2006. This draft amendment included the transfer from the RNT concession holder to the last resort supplier of the obligation of acquiring energy generated in special regime.

- Start drafting of the Grid Operations Code, by asking the Transmission System Operator to submit a proposal

FOLLOW UP ON THE ELECTRICITY SECTOR CODES

As done in previous years, ERSE received information from the sector operators, analyzed it and checked if they complied with the code provisions, simultaneously following up the evolution of the liberalized market.

Within its scope of action, ERSE approved and published sub-regulations on a number of matters referred to in different codes, as follows:

a) Access to Grid and Interconnection Code

- Methodology for studies aimed at determining the values of interconnection capacity for commercial purposes.
- General conditions governing the use-of-system contract.
- Adjustment factors for losses in the transmission system and in the distribution system.

b) Quality of Service Code

- Report on Quality of Service – 2005: Electricity Transmission and Distribution in Portugal. For the first time, this report includes data that assess the quality of service in the Autonomous Regions.
- Amounts to be paid by customers, forecasted in the Quality of Service Report[3].

c) Commercial Relations Code[4]

- Initial consumer profile and reference load profile applicable to SpLV customers supplied in the liberalized market, whose facilities are not equipped with hourly recording meters – Government Order no. 1210-A/2006 (2nd series, of the 17 January 2006).
- Procedures and deadlines to be adopted for managing the supplier-switching process – Government Order no. 2045-B/2006 (2nd series, of the 25 January 2006).
- Methodology for calculating the value of guaranties – Government Order no. 2045-A/2006 (2nd series, of the 25 January 2006).
- Minimum set of data to be incorporated in the general conditions of electricity supply contracts to be entered into by (i) last resort suppliers on Mainland Portugal, (ii) the transmission and distribution concession holder in the Autonomous Region of the Azores (RAA), and (iii) the transmission concession holder and binding distributor in the Autonomous Region of Madeira (RAM), and their respective customers supplied in LV and MV – Government Order no. 3278-A/2006 (2nd series, of the 10 February 2006).
- Initial profiles applicable in 2006 to StLV customers and rules to be complied with by distribution system operators for selecting the initial profile applicable to the facilities of this kind of customer – Government Order no. 15 709-A/2006, of the 24 July 2006.
- Prices of regulated services to be enforced in Mainland Portugal and the Autonomous Regions in 2007, regarding the prices of extraordinary metering operations, minimum amounts to be paid in case of late payment, prices for interruption services and restoring electricity supply – Government Order no. 26 515-A/2006 (2nd series, of the 29 December 2006).
-

d) Tariff Code

- Rules of the Plan for Promoting Efficiency in Electricity Use[5].

[3] http://www.erse.pt/vpt/entrada/legislacao/actosnormativos/actosnormativosdaerse.htm?ano=2006

[4] http://www.erse.pt/vpt/entrada/electricidade/regulamentos/relacoescomerciais/sub_regulamentacao/

[5] http://www.erse.pt/vpt/entrada/utilizacaoracionaldeenergia/planodepromocaodaeficiencianoconsumodeenergiaelectrica/

NATURAL GAS SECTOR - REGULATORY FRAMEWORK

In 2006 ERSE continued to develop activities aimed at regulating the natural gas sector, by preparing the following codes:

- Tariff Code.
- Commercial Relations Code.
- Access to Grid, Infra-structure and Interconnection Code
- Infra-structure Operation Code.
- Quality of Service Code.

On the 22 June 2006, ERSE submitted for public consultation the Draft Regulations on the Natural Gas Sector, pursuant to the provisions of Decree-Law no. 30/2006, of the 15 February 2006, and the ERSE Statutes attached to Decree-Law no. 97/2002, of the 12 April 2002.

On the 10 September 2006 ERSE made public its analysis of the comments made on its draft paper, issuing a document called "Discussion of Comments on the Draft Regulations for the Natural Gas Sector".

Government Order no. 19 624-A/2006, of the 25 September 2006 (2nd series)[6], approved the following regulations for the natural gas sector: the Commercial Relations Code, the Tariff Code, the Access to Grid, Infra-structure and Interconnection Code and the Quality of Service Code.

Given the specificity of the Infra-structure Operation Code, the Transmission System Operator was requested to prepare a draft version, as Global Technical Manager of the National Natural Gas System (SNGN). Based on this proposal ERSE prepared a draft paper for public consultation, held in 2007.

Following the publication of these codes, ERSE began to draw up the sub-regulations and complementary standards foreseen in the said codes.

TARIFFS AND PRICES PROPOSED FOR ELECTRICITY AND OTHER SERVICES IN 2007

Pursuant to Articles 176 and 177 of the Tariff Code (RT), on the 16 October 2006 ERSE submitted its "2007 Draft Tariffs and Prices for Electricity and Other Services and Parameters for the 2006-2008 Regulation Period" to the Tariff Board, the Competition Regulatory Authority and the other competent authorities in the Autonomous Regions of the Azores and Madeira, seeking their advice.

Following the procedure laid down in the Tariff Code, the Tariff Board issued a positive advice on the tariffs proposed by ERSE.

[6] http://www.erse.pt/NR/rdonlyres/AA747F67-DDD1-40B4-ACC0-7CCB82B2BF6C/0/Despacho9RegulGN_PExterno.pdf

Facts occurred in the meantime changed the legal assumptions on which ERSE's proposal submitted on the 16 October 2006 had been based, as advice was being issued and comments made on the said proposal. The Government triggered a legislative process leading to Decree-Law no. 237-B/2006, of the 18 December 2006, which laid down provisions that ruled the following:

- Recovery of the tariff deficit registered in 2006 would be postponed for 10 years, thus revoking the provisions of Decree-Law no. 172/2006, of the 23 August 2006.
- Annual adjustment of the tariffs.
- Variation of the tariff growth in 2007 would be restricted.
- Overcosts related to the tariff convergence of the Autonomous Regions in 2006 and 2007, postponing their recovery for 10 years, starting in 2008.

As a result of the amendments triggered by this decree-law, timely reported after their approval by the Council of Ministers, ERSE reviewed its proposal dated 16 October 2006 so as to comply with the provisions of the said decree-law. ERSE also took this opportunity to incorporate the amendments to the provisions of Decree-Law no. 172/2006, of the 23 August 2006, which complemented a number of provisions unspecified by Decree-Law no. 29/2006 – namely the purchase of power generated by producers governed by specific legislation (special-regime generation - PRE). This acquisition now falls in the remit of the last resort supplier, set up until the end of 2006 – an entity legally independent of the companies developing all the other activities in the national electricity system.

The re-drafted proposal was sent again to the Tariff Board, together with another proposal for amending the Tariff Code accordingly. This tariff proposal followed the same assumptions of the initial proposal, including the adjustments required by imposed provisions mentioned above. The Tariff Board, pursuant to the evidenced assumptions, issued a positive advice on ERSE's proposal.

The 2007 tariffs and prices for electricity and other services were approved by ERSE on the 15 December 2006, by Government Order no. 26 515-A/2006 published on the Portuguese Official Journal (*Diário da República*, 2nd series) on the 29 December 2006.

Both the draft version and the final paper[7] were complemented with a set of other framework papers incorporated as part of them, as follows:

- Adjustments referring to 2005 and 2006, to be reflected in the 2007 tariffs.
- Characterization of electricity demand in 2007.
- Analysis of the performance and forecasts of regulated companies.
- Analysis of the 2006-2007 investment budgets and of the 2005 budget execution reports.

[7] http://www.erse.pt/vpt/entrada/electricidade/tarifaseprecos/tarifasanuaisem2007/

- International benchmarking of electricity prices on the 1 January 2006.
- 2005 Report on Quality of Service – Electricity Transmission and Distribution in Portugal.

TARIFFS AND PRICES PROPOSED FOR NATURAL GAS IN 2007

The natural gas sector in Portugal was a vertically-integrated monopoly until 2006 and customers had no right to chose a different supplier. Developing Decree-Law no. 30/2006, Decree-Law no.140/2006, of the 26 July 2006, changed the previous situation and imposed the unbundling of activities along the value chain of the natural gas sector, defining the legal regimes applicable to such activities – including the legal bases for the concessions. This same Decree-Law laid down the provisions governing market opening, granting the right to chose suppliers to (i) standard electricity generators, as from the 1 January 2007, (ii) customers whose consumption is equal to or higher than 1 million cubic meters, as from the 1 January 2008, (iii) customers whose consumption is equal to or higher than 10,000 standard cubic meters, as from the 1 January 2009, and (iv) lastly, to all the remaining customers, as from the 1 January 2010.

Unbundling of activities occurred on the 26 September 2006 – in particular the unbundling of the high-pressure infra-structures (transmission grid, terminal for LNG reception, storage and re-gasification and underground storage) previously owned by the vertically-integrated monopoly company. ERSE regulates these activities; the first tariffs regarding the access to these infra-structures will take effect as from the 1 July 2007.

Having received the Tariff Board's advice on its tariff proposal submitted on the 15 April 2006, ERSE drafted its final decision on tariffs and prices for the 2007-2008 gas year and had the respective Order published on the Portuguese Official Journal (*Diário da República*) until the 15 June 2006, as determined by the Tariff Code.

Tariffs approved for this first gas-year concern the access to (i) the Liquefied Natural Gas (LNG) terminal infra-structure, (ii) the underground storage infra-structure, and (iii) the infra-structure of the national natural gas transmission system (RNTGN). They will remain in force between July 2007 and June 2008 (2007/ 2008 gas-year):

- Tariff on the Use of the Terminal for the Reception, Storage and Re-gasification of Liquefied Natural Gas (LNG).
- Tariff on the Use of the Underground Storage infra-structure.
- Tariff on the Use of the Transmission System.
- Tariff on the Global Use of System.
- Access to Grids Tariff.

In 2007 End-User Selling prices will continue to be homologated by the Ministry of the Economy and Innovation, based on proposals submitted by the concession- and license-holders.

In the first half of 2008 this homologation will henceforth fall within ERSE's remit.

ADVICE ISSUED BY ERSE

In 2006 ERSE gave advice on several occasions, at the request of both the Ministry of the Economy and Innovation (on matters related with the electricity and natural gas sectors) and the Competition Regulatory Authority (on concentration operations involving companies operating in the said sectors).

The Competition Regulatory Authority requested the following advice on concentration operations:

- Gás Natural, SGD, SA, wanted to acquire the exclusive control of Endesa, SA, by taking over the total share capital of this company;
- REN – Rede Eléctrica Nacional, SA, wanted to acquire de exclusive control of Natural Gas regulated assets owned by Galp Energia, SGPS, SA, and by some of its undertakings– i.e. the high-pressure natural gas transmission system, part of the underground storage facilities and the Sines liquefied natural gas terminal.
- Construtora do Lena, SGPS, SA, wanted to acquire the joint control of Tagusgás – Empresa de Gás do Vale do Tejo, SA.

TASK FORCE OF SUPPORT TO ENERGY USERS

The Task Force of Support to Energy Users (NACE) is a functional unit created in 2003, using staff from o different departments within ERSE. NACE is in charge of co-ordinating, in an articulate integrated fashion, all activities associated with consumer support, namely those related to information requests and energy user training.

In 2006 a ERSE received 1,189 information requests, 1,018 concerning issues related with the electricity sector and 171 related with the natural gas sector. As regards dispute settlement ERSE received 1,693 claims in 2006, of which 1,069 concerning the electricity sector and 624 the natural gas sector.

In 2006 request of information on the electricity sector targeted mainly the following themes:

- Liberalization of the electricity market and MIBEL – 29%.
- Commercial relationship, namely regarding provisions of the Commercial Relations Code – 14%.
- Tariffs and prices – 12%.
- Electricity sector legislation and regulations – 5%.

Most requests of information on the natural gas sector focused on:

- Sector characterization, including information on legislation and regulations – 15%.

- Commercial relations – 9%.
- Matters falling within the remit of other administrative entities – 43%.

Claims in the electricity sector concerned mainly:

- Billing – 474 cases.
- Technical and commercial quality of service – 316 cases.
- Damage caused to electrical equipment – 120 cases.

Claims in the natural gas sector concerned mainly:

- Billing – 233 cases.
- Technical and commercial quality of service – 158 cases.
- Technical and safety issues, namely in connection with the installation, maintenance, repairing and inspection of gas facilities – 143 cases.

In 2006 ERSE recorded 1,733 phone calls made to its help-desk line 808 20 10 20, available on working days from 3 to 6 pm.

Team experts of the Task Force of Support to Energy Users (NACE) are also available to book direct interviews with energy users at ERSE's offices. In 2005 12 direct interviews took place.

ERSE has a Portal on the Internet at www.erse.pt since September 2005. Energy users can address its Online Help Desk to request information and file claims. In 2006 approximately 70% of the requests for information and nearly 25% of the claims were received via this Help Desk.

3 REGULATION AND PERFORMANCE IN THE ELECTRICITY MARKET

3.1 REGULATION MATTERS

3.1.1 GENERAL

Portuguese legislation determines, since August 2004, that a totally open electricity supply market must exist on Mainland Portugal. The specific provisions that govern the market opening and the corresponding definition of eligible customers are laid down in the Commercial Relations Code, approved and published by ERSE, which gives eligible customers the possibility of freely choosing their electricity supplier.

The opening of the Portuguese electricity supply market has been phased in. Four different periods of enforcement of such market opening can be identified and briefly characterized as follows:

- Up to the 31th December 2001, the SENV could be accessed only by electricity consumers in medium voltage (MV), high voltage (HV) and very high voltage (VHV), having a minimum annual consumption of 9 GWh.
- From the 1st January 2002 till late February 2004, all electricity users in VHV, HV or MV, with a non-zero (actual or forecasted) consumption were considered eligible to access the SENV.
- Following the publication of Decree-Law 36/2004, of February 26th, Special Low-Voltage (SpLV) Customers with a non-zero (actual or forecasted) consumption were equally considered eligible.
- Once published, Decre-Law 192/2004, of August 17th, extended the right of eligibility to all customers on Mainland Portugal.

The right of Standard Low-Voltage (StLV) Customers to choose suppliers, although defined by law in August 2004, could only be materialized after the implementation of a computer system required to manage the supplier switching procedures. Operations of this computer system started on the 4 September 2006.

The review of the Commercial Relations Code in 2005 made it simpler for customers to exercise the right of eligibility. In this regard ERSE, while seeking to enforce the regulatory provisions governing this matter, approved the supplier switching procedures proposed by the entity in charge of managing the respective process, focusing its concerns on process simplicity, transparency and non-discrimination among agents. In approving these procedures, ERSE sought to adopt the set of best practice recommendations that were at the root of the ERGEG paper on this matter[8].

[8] *Supplier Switching Process Best Practices Proposition*, Ref: E05-CFG-03-05.

As regards its characterization, market opening may be materialised by taking into account the number of customers and the respective annual electricity consumptions of eligible and non-eligible customers. The analysis made herein is focused on the period ranging from 1999 – in which the first non-binding customers were created – and the end of 2006.

As predictable, the variation of the number of eligible customers in Mainland Portugal reflects the consecutive changes of the eligibility criteria and the corresponding phased-in market opening. Up to 2001, the criteria actually set a minimum amount of annual energy consumption and so the number of eligible customers remained within a range of 214 to 228, with few changes in those three years.

From 2002 onwards, any MV-, HV- or VHV-customer with a non-zero (actual or forecasted) consumption was entitled to request the statute of non-binding customer and allowed to freely choose its supplier. As a result the number of eligible customers grew significantly, rising to more than 20 thousand. This figure more than doubled with the opening of the market to SpLV customers (to 52 thousand eligible customers, currently), legally in force as from February 2004. By the end of 2004, it reached the total number of StLV customers (approximately 5.8 million customers in 2004).

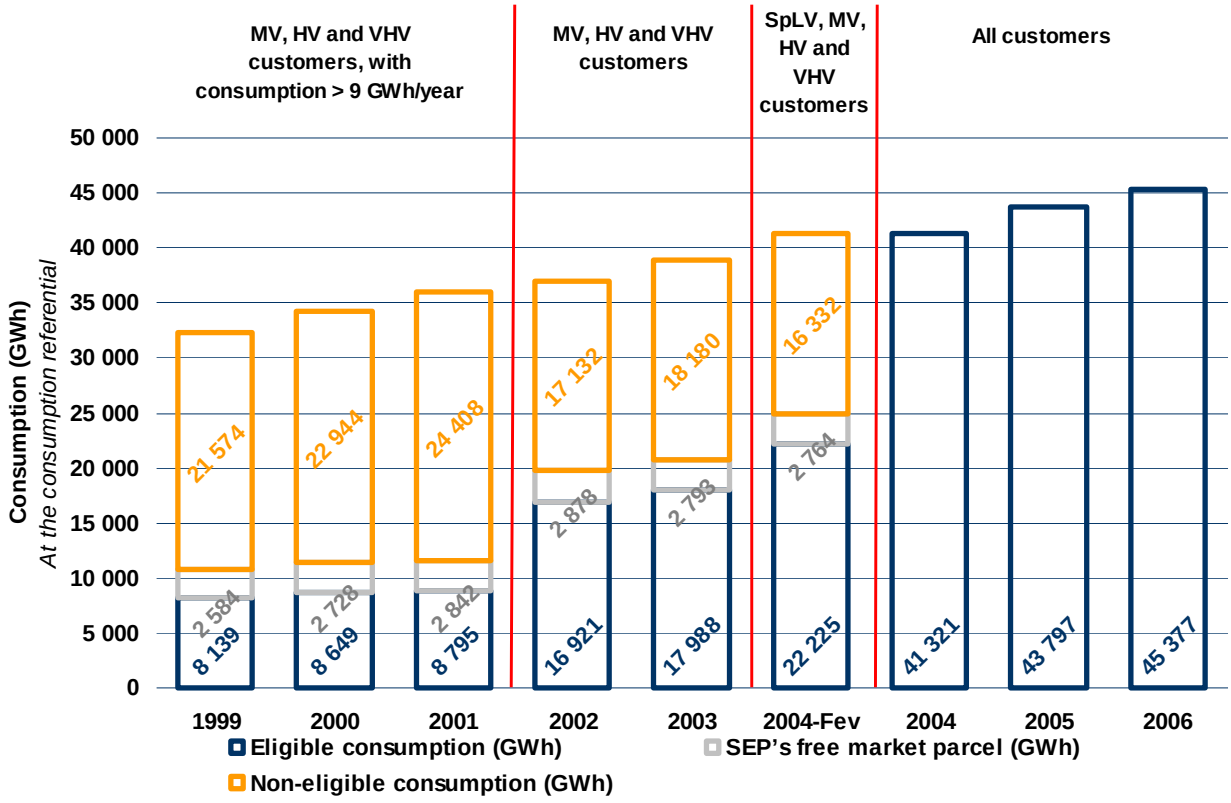
Figure 3-1 shows the evolution of eligible and non-eligible consumption on Mainland Portugal, as regards the consumption referential and the SEP's free market parcel.[9] We may infer from it that consumption on Mainland Portugal grew at an average yearly rate of approximately 5%, between 1999 and 2006. On the other hand, the eligibility status changed from 2001 to 2002 and caused the eligible consumption to significantly grow to approximately 16.9 TWh, henceforth representing more than 45 percent of total consumption on Mainland Portugal – vis-à-vis the previous 25 percent, recorded between 1999 and 2001 (eligible consumption value varying between 8.1 TWh and 8.8 TWh, respectively).

The consecutive opening of the market to SpLV and StLV customers caused the values of eligible consumption to grow to roughly 20.2 TWh (53.8 percent of total national consumption on Mainland Portugal) and between 41.3 TWh, 43.8 TWh and 45.4 TWh (corresponding to 100 percent of national consumption on Mainland Portugal, respectively for 2004, 2005 and 2006).

[9] According to the 1995 legislation, the regulated supplier in MV and HV could buy, in the liberalized market, an energy parcel corresponding to a maximum 8 percent of energy requirements for supplying the regulated market. In practice, the free market parcel that the regulated HV and MV supplier is allowed to subscribe should be added to each year's relative weight of consumption eligible for liberalized market access, so as to clearly determine the total level of market opening in Portugal.

Figure 3-1 – Evolution of eligible and non-eligible consumption

Mainland Portugal



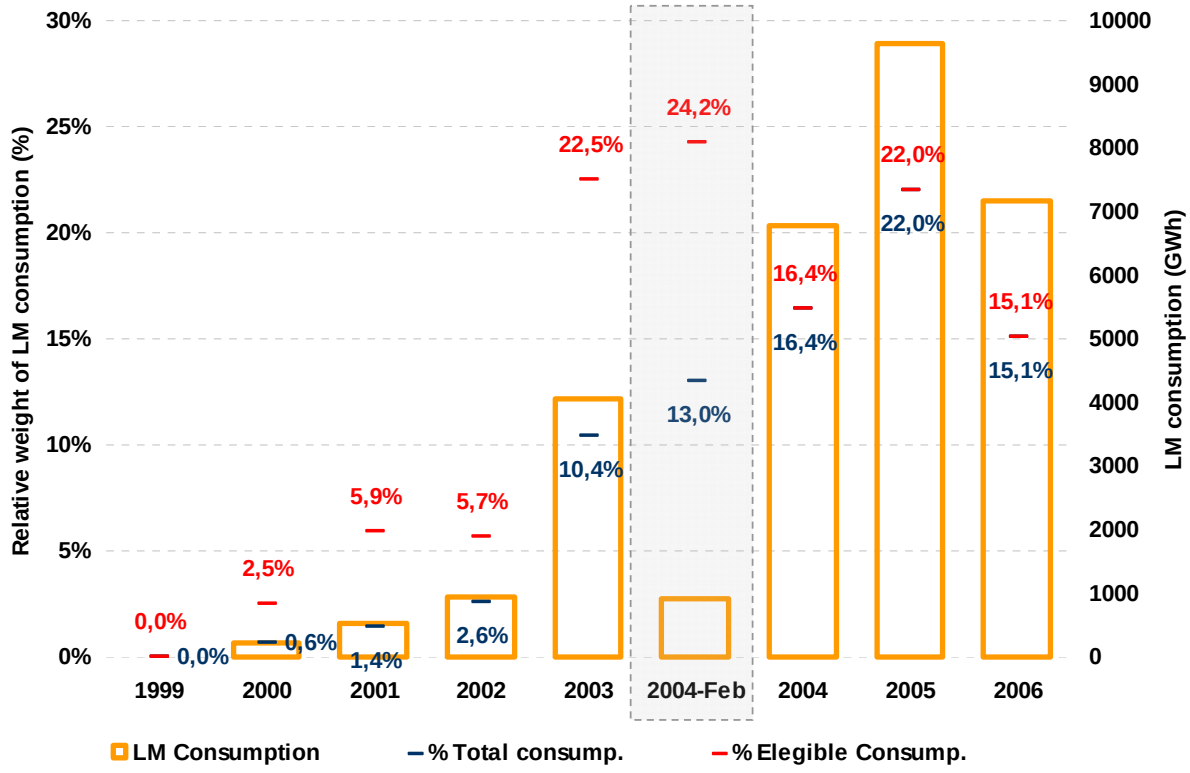
Source: REN, EDP Distribuição, drafted by ERSE

Furthermore Figure 3-2 shows the evolution of actual consumption in the framework of the liberalized market (LM), as well as the relative weight of such consumption in both total consumption and eligible consumption for each period under analysis. As the eligibility criteria changed, the year of 2004 is divided into two distinct periods, so as to establish a difference between the opening of the market to SpLV customers (referred to as "2004-Feb" on the said figure) and the subsequent opening to StLV customers (incorporated in the values of late 2004). Identically the period of 2005 and 2006 corresponds to total market opening in Mainland Portugal..

As shown in the figure below, the relative weight of LM consumption versus total national consumption increased consistently until 2005, with a break in 2006. Discontinuities in the values of relative weight consumption versus eligible consumption, over the period under analysis, can be explained by successive enlargements of the base of eligible consumers occurred until 2004. Moreover the values of the relative weight of consumption in LM versus total consumption and eligible consumption in late 2004, 2005 and 2006 are identical, since in this period all customers were already eligible.

Figure 3-2 – Evolution of consumption in the liberalized market (LM) and its relative weight versus total national consumption and eligible consumption

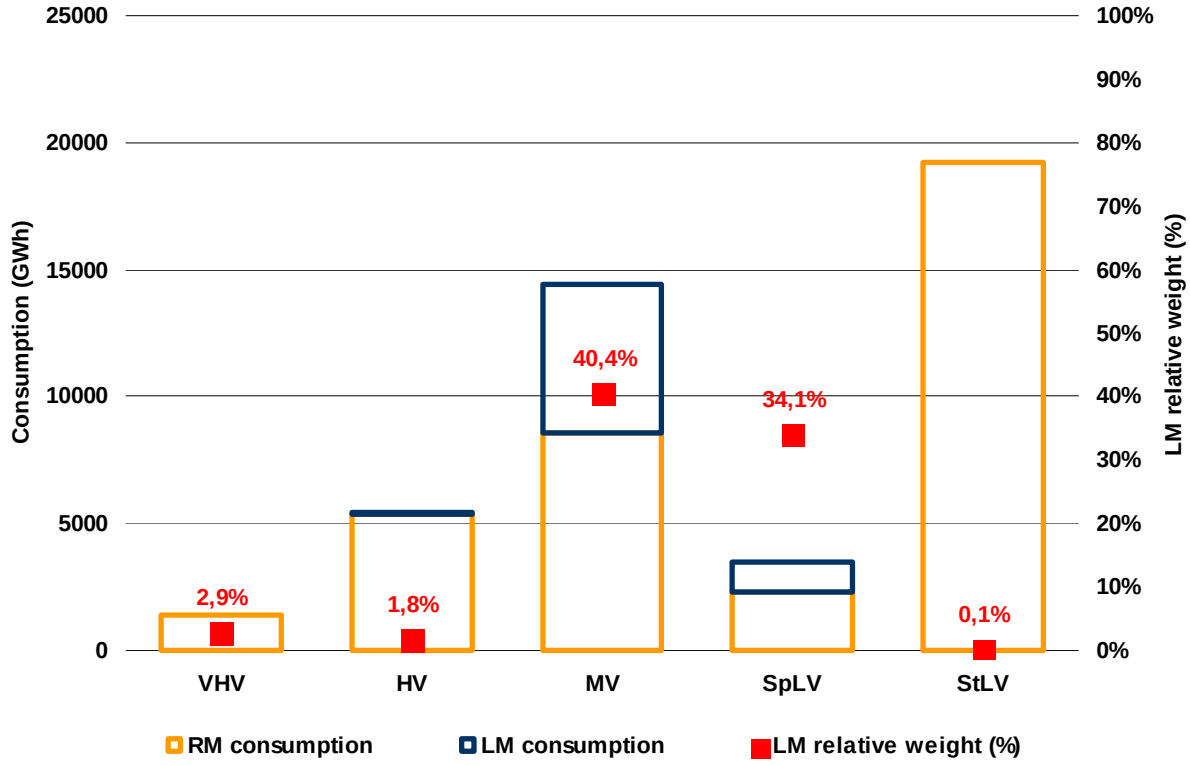
Mainland Portugal



Lastly, Figure 3-3 shows the breakdown by voltage level of actual consumption in 2006. It also provides a breakdown of consumption values into liberalized market customers (LM) and public system customers (RM – Regulated Market). It shows that approximately 40.4 percent of consumption by MV customers occurred in the liberalized market (versus 62.6 percent in 2005). It should be noted that the weight of SpLV consumption in the liberalized market grew from 29 percent in 2005 to 34 percent in 2006. Also the first consumption of StLV customers in the liberalized market was recorded in 2006, although their relative weight versus total consumption in this segment is not higher than 0.1 percent.

Figure 3-3 – Breakdown of Regulated Market (RM) and Liberalized Market (LM) consumption by voltage level

Mainland Portugal - 2006



Source: EDP Distribuição; drafted by ERSE

Year 2006 was marked by reduced consumption in the liberalized market, a trend that had been recorded since late 2005 – when growth of consumption in the liberalized market began to decrease.

Increasing costs of electricity purchased in the Spanish spot market (analyzed in point 3.2 below) account for this evolution of the Portuguese liberalized market, largely supplied from Spain.

3.1.2 CONGESTION MANAGEMENT MECHANISMS FOR ALLOCATING AVAILABLE CAPACITY AT THE INTERCONNECTIONS

In Portugal there are no structural problems leading to the existence of permanent internal grid congestions. When such congestions occur, they usually result from an adverse combination of several factors and may take place in internal lines of the transmission grid or at the interconnections. They require different management mechanisms.

MANAGEMENT OF TRANSMISSION CONGESTIONS IN MAINLAND PORTUGAL

The transmission system operator, in its system manager capacity, manages this type of congestions either by making topological changes to the grid configuration or by re-dispatching (changing the generation or consumption schedules at each grid node), so as to relieve the congested lines.

MECHANISM USED IN 2006 FOR MANAGING INTERCONNECTION CONGESTIONS

The methodology used in 2006 for managing congestions at the interconnections is based on the procedures described below.

Congestions at the interconnections are managed by the transmission system operator of the country of origin of the electricity flow causing the congestion.

Congestions from Portugal to Spain are managed by the Portuguese transmission system operator (system manager) by means of a pro-rata mechanism - i.e. a reduction factor applicable to the subscribed export amounts, whose calculation is based on the quotient between the capacity available for commercial purposes and the balance between the export and import contracts forecasted for that period.

Congestions from Spain to Portugal are managed by the Spanish transmission system operator (system manager) in two phases, i.e. in phase one a pro-rata mechanism is applied to the total amounts of electricity subscribed by way of Bilateral Physical Contracts and in the spot market; in phase two, the capacity awarded to each type of contract is shared by means of different mechanisms:

- Implicit auction for electricity subscribed in the spot market.
- Explicit auction for the electricity subscribed by way of Bilateral Physical Contracts.

Customers of the last resort suppliers pay for the costs incurred in connection with congestions due to electricity imported for their consumption in their Energy & Power tariff.

Market customers pay for these costs via imbalance-linked penalties, or when their suppliers trigger the short-term security of supply contracts.

MECHANISM FOR THE JOINT MANAGEMENT OF THE PORTUGAL-SPAIN INTERCONNECTION

In the framework of MIBEL's construction, as from the 1 July 2007 the management of interconnections and the awarding of the interconnection capacity to market agents will be carried out in line with the principles laid down in Regulation CE no. 1228/2003 of the European Parliament and Council, of the 26 June 2003, as well as in the Commission's Decision no. 2006/770/CE, of the 9 November 2006, which amends its annex, in accordance with the Mechanism of the Joint Management of the Portugal-Spain Interconnection, approved by the MIBEL Council of Regulators on the 15 March 2006.

The proposed mechanism will give the Iberian Electricity Market a solid efficient tool that relies on market mechanisms.

Based on the model submitted to CNE and ERSE byt the System's Operators (REE and REN), the proposed model consists in implementing a spot and intraday market splitting mechanism to safely enable the best use of the available capacity. This shall be complemented with explicit auctions of capacity, to be held prior to the spot market, for awarding physical capacity rights.

The model also proposed to establish a transitional phase. In the light of the paper approved by the MIBEL Council of Regulators in its meeting of the 22 May 2007, during this transitional phase the interconnection capacity will be shared between Portugal and Spain as follows:

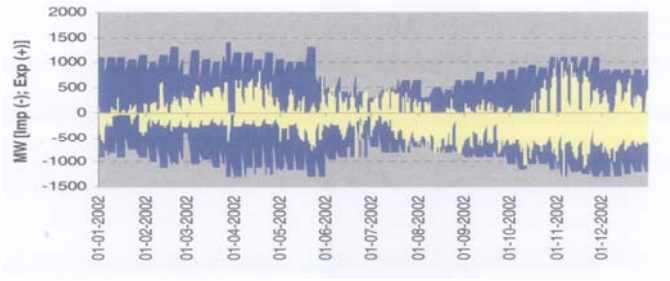
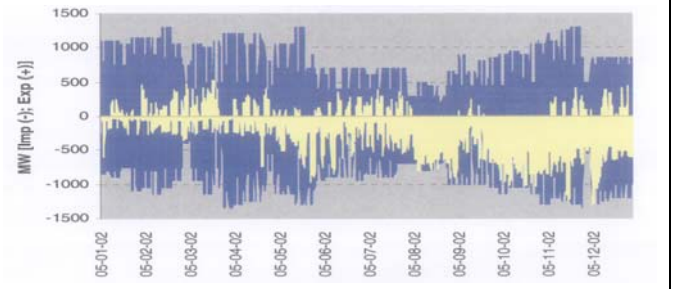
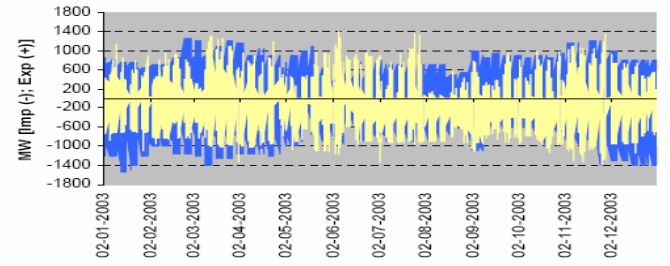
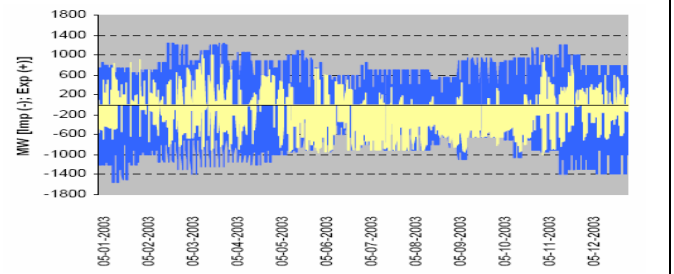
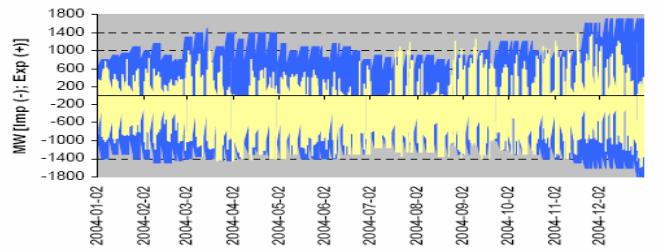
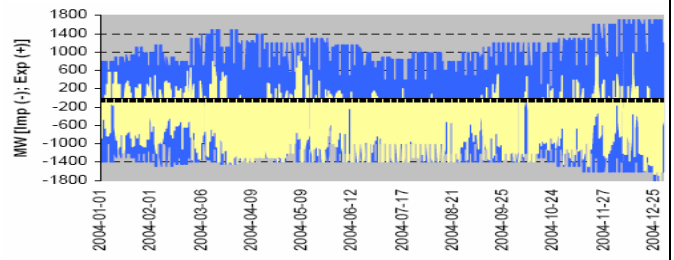
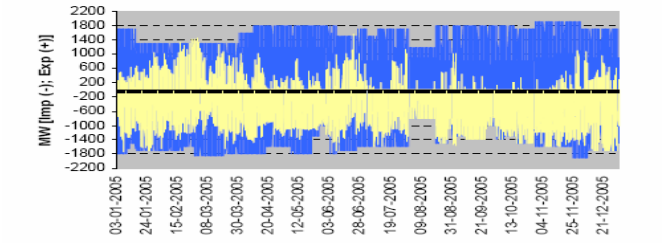
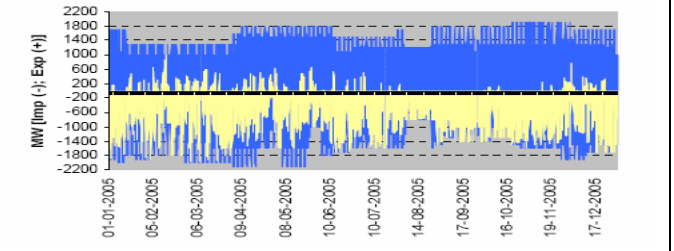
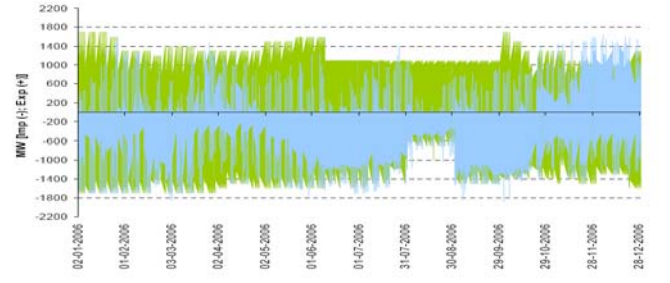
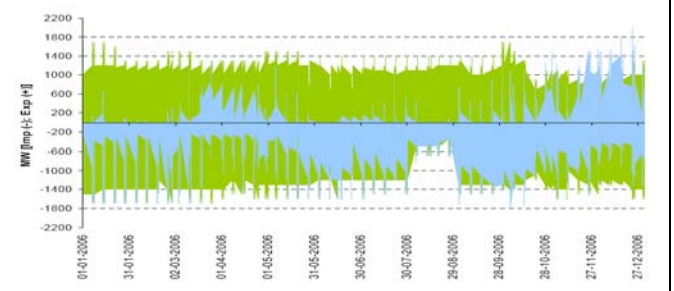
- On the 1 July 2007, the total capacity available at the interconnection will be awarded in the framework of the market splitting procedure.
- In the fourth quarter of 2007, the share of the interconnection capacity to be awarded at explicit quartely auctions, explicit monthly auctions and the spot market will respectively correspond to 15%, 15% and 70% of the available capacity.
- As from the 1 January 2008, the share of the interconnection capacity to be awarded at explicit annual auctions, explicity quarterly auctions, explicit monthly auctions and the spot market will respectively correspond to 15%, 15%, 15% and 55% of the available capacity.
- In the future the share of the Portugal-Spain interconnection capacity to be awarded in the different time frames should be reviewed in the light of the experience gained from the materialization of the process.

EVOLUTION OF THE INTERCONNECTION CAPACITY AVAILABLE FOR COMMERCIAL PURPOSES AND ITS ACTUAL USE

Figure 3-4 shows the evolution of interconnection capacity available for commercial purposes and its actual use from 2002 to 2006, divided into working days and holidays and week-ends.

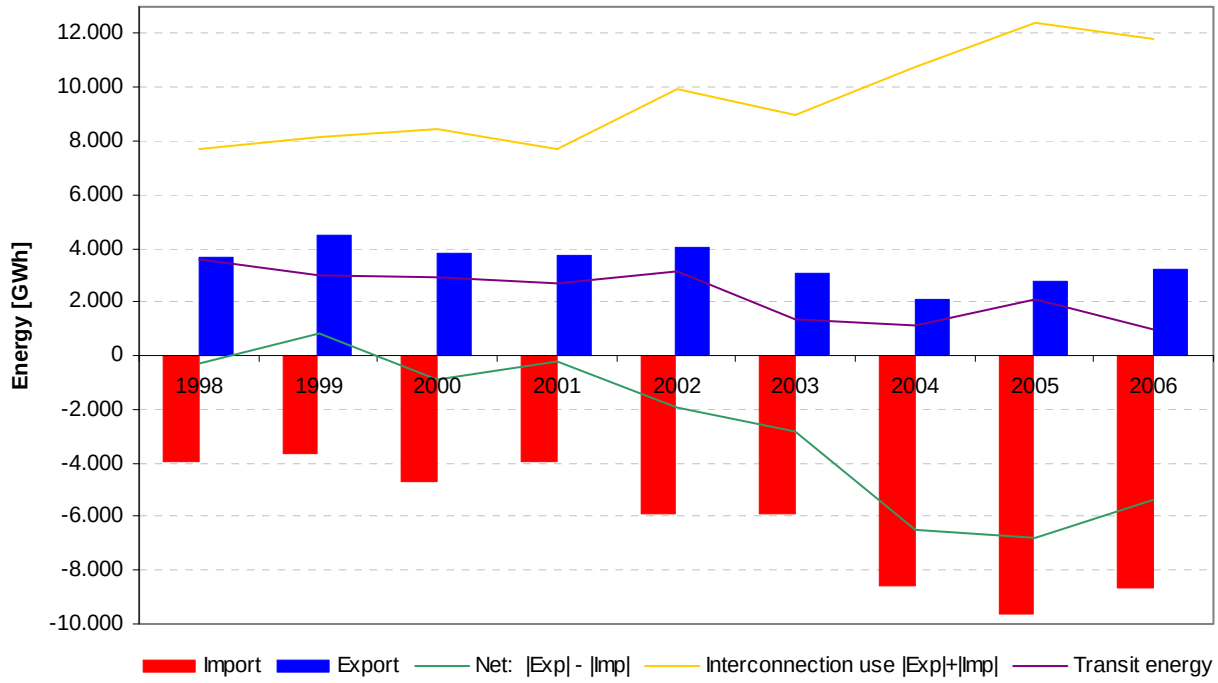
In turn Figure 3-5 shows the evolution of the annual values of the import and export trading from 1998 to 2006. Special reference should be made to the growth of available capacity at the interconnection and importing trend registered in Portugal in recent years.

Figure 3-4 – Evolution of the interconnection capacity available for commercial purposes and its actual use in years 2002 to 2006, on working days and holidays & week-ends

	Working days	Week-ends & holidays
2002		
2003		
2004		
2005		
2006		

Source: REN

Figure 3-5 – Annual values of the import and export trading from 1999 to 2006



Source: REN

CALCULATION OF THE INTERCONNECTION CAPACITY AVAILABLE FOR COMMERCIAL PURPOSES

The interconnection capacity available for commercial purposes is based on the value of interconnection technical capacity (calculated on hourly basis), with a margin deducted for technical and security reasons.

A base scenario corresponding to one of the typical grid situations is used to calculate the interconnection technical capacity. Simulation is made of traffic changes at the interconnections, by modifying generation in Portugal.

The interconnection technical capacity for the considered base scenario corresponds to the maximum value at which the security criteria apply – both in normal and contingency operation conditions.

In normal operation conditions, for each type of contingency, the following security criteria must apply:

- Prevent the violation of the overload levels admissible in different grid components.
- Keep the voltage levels in the different grid components within acceptable limit values.

The following contingencies are also considered:

- Simple failure (n-1) of any grid component, or of the power generation system: generator, single-circuit line (including interconnections), autotransformer, or shunt capacitor bank.

- Failure (n-2) of the following grid pairs, or of the power generation system: two circuits of the double lines longer than 35 km (simultaneous failures), or specific sets including a large-dimension generator and a particular line.

Network configurations to be considered for calculating the interconnection capacity depend on the timeframe of said calculation: long term (for next year), or short term (for next week, day or following hours).

When calculating the long-term interconnection capacity, each typical network layout is determined by analyzing the cross-combinations of the most severe network configurations for different times of the year (Summer and Winter), different hydrological balances (dry and wet), different load regimes (peak, valley, intermediate) and foreseeable unavailability of the grid components.

When calculating the short-term interconnection capacity, the starting assumption corresponds to a specific network configuration supplied by a "state estimation" algorithm.

The capacity available for commercial purposes is determined by deducting from the technical capacity value a 10-percent safety margin equivalent, with a minimum 100 MW. This safety margin is used to cope with general uncertainties related to the system's operation and to offset the inevitable gaps between generation and consumption.

The final values are established by settlement of the values, calculated by the operators of the interconnected grids (i.e. REN and REE).

The transmission system operator announces the values of the interconnection capacity available for commercial purposes on its website, for each day of the following two weeks (on hourly basis).

As a result of recent investment in interconnections, the transmission capacity for commercial purposes increased in recent years. Due to maintenance and development works in 2006, however, the values of the average capacity availalable for commercial purposes have slightly decreased.

Table 3-1 and Table 3-2 respectively show the average values per annum of transmission capacity for commercial purposes available in recent years and their relationship with the average power corresponding to total annual consumption.

Table 3-1 – Average values per annum of the transmission capacity for commercial purposes

	2002	**2003**	**2004**	**2005**	**2006**
Import	736 MW	774 MW	1107 MW	1229 MW	1203 MW
Export	648 MW	615 MW	801 MW	1218 MW	1056 MW

Source: REN

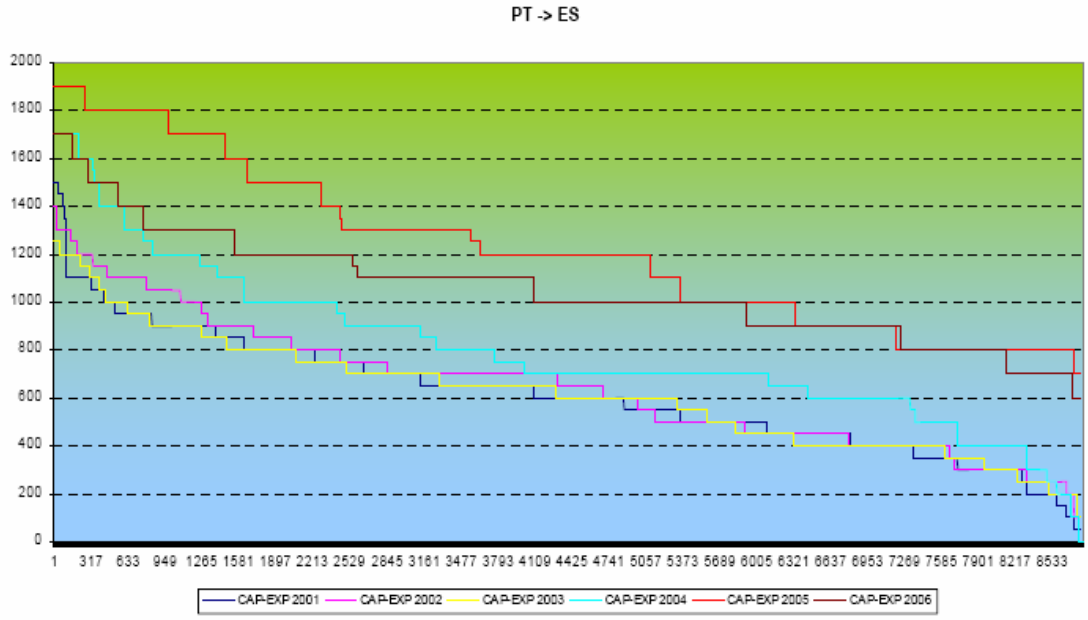
Table 3-2 – Relationship between the transmission capacity for commercial purposes and the average power corresponding to total consumption

	2002	2003	2004	2005	2006
Import (%)	15.8	15.7	21.3	22.4	21.4
Export (%)	13.9	12.9	15.4	22.3	18.8
Average hourly consumption (MWh)	4,643	4,916	5,195	5,473	5,614

Source: REN

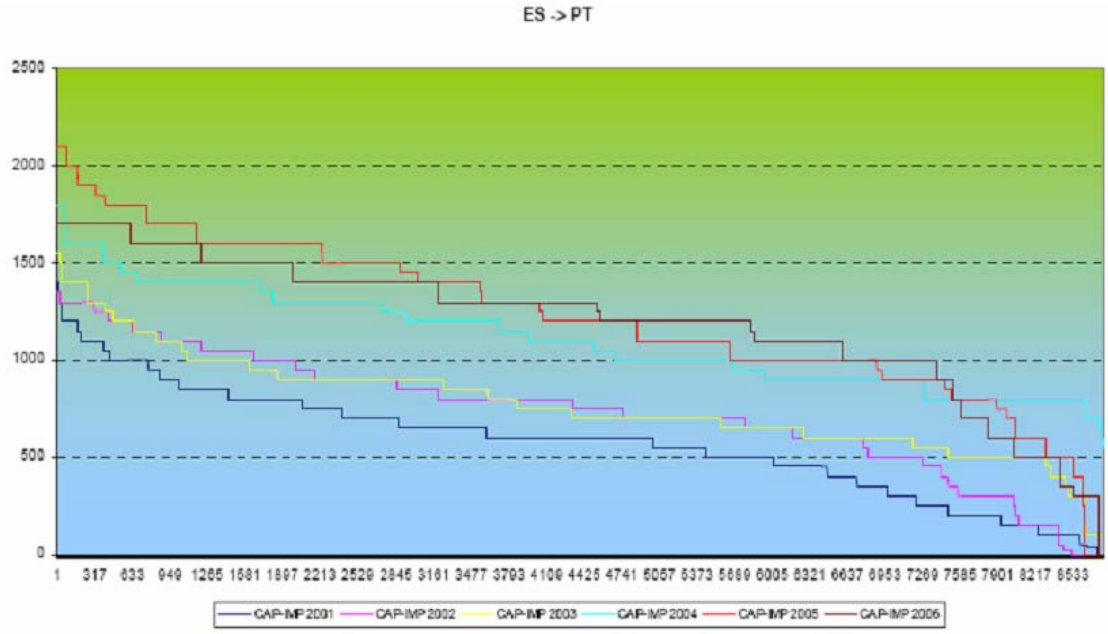
Figure 3-6 and Figure 3-7 indicate the hourly distribution of the transmission capacity for commercial purposes – respectively for exports and imports – in 2001 to 2006.

Figure 3-6 - Values of the hourly distribution per annum of the transmission capacity for export commercial purposes during 2001 to 2006



Source: REN

Figure 3-7 - Values of the hourly distribution per annum of the transmission capacity for import commercial purposes during 2001 to 2006



Source: REN

In 2006 programmed action was taken to increase the amounts of capacity available at the interconnections and so the previous growth trend did not continue.

3.1.3 REGULATION OF TRANSMISSION SYSTEM OPERATORS (TSOS) AND DISTRIBUTION SYSTEM OPERATORS (DSOS)

3.1.3.1 SYSTEM OPERATORS IN MAINLAND PORTUGAL AND IN THE AUTONOMOUS REGIONS

The Portuguese electricity system consists of three electricity sub-systems that are not interconnected, i.e. one in Mainland Portugal, interconnected with Spain, and two island systems – corresponding to the Autonomous Regions of the Azores and Madeira.

Each of these sub-systems has dedicated public-service transmission and distribution system operators in charge of building and operating the respective infrastructures.

System operators currently working in each of the electricity sub-systems mentioned above are the following:

- Mainland Portugal

The transmission system operator in Mainland Portugal is Rede Eléctrica Nacional, S.A. (REN), holder of a concession awarded by the Portuguese State.

As regards electricity distribution, the status of electricity distribution system operator has been awarded to EDP Distribuição – Energia, S.A. (EDP Distribuição), a company belonging to Group EDP that holds the infrastructures of the electricity distribution grid in Medium Voltage and High Voltage by means of a license. In addition to this license, EDP Distribuição manages and operates most of the Low Voltage (LV) distribution grid in Mainland Portugal, pursuant to agreements signed with different Municipalities.

The LV distribution grid that is not operated by EDP Distribuição has little relative weight in the total LV distribution grid. It consists of concessions awarded to small-scale distribution companies, located in the central and northern regions of Mainland Portugal.

- Autonomous Region of the Azores

In the Autonomous Region of the Azores, Electricidade dos Açores, S.A. (EDA) is both the transmission system operator and the distribution system operator. This company holds the concession of electricity transmission and distribution in each of the nine islands that compose the Azores Archipelago. This concession was awarded by the Regional Government of the Azores

- Autonomous Region of Madeira

In the Autonomous Region of Madeira, Empresa de Electricidade da Madeira, S.A. (EEM) is both the transmission system operator and the distribution system operator. This company holds the concession of electricity transmission and distribution in the islands of Madeira and Porto Santo. This concession was awarded by the Regional Government of Madeira.

3.1.3.2 FORMS OF REGULATION

The allowed income and the forms of economic regulation of the different regulated activities are established in the Tariff Code.

ERSE's economic regulation varies and, consequently, so do the procedures adopted for determining the regulation parameters. It may either take the form of cost-driven regulation – as applicable to REN activities, marketing activities of EDP Distribuição and activities developed by the operators in the Autonomous Regions, or price cap regulation – as applicable to the Electricity Distribution Activity of EDP Distribuição.

In the cost-regulated activities, the key parameter is the cost-of-capital rate, the value accepted as remuneration rate of the asset basis for regulation purposes. This parameter is calculated at the beginning of each regulation period. In the last regulation periods it has been determined through

internally developed research. The calculation method has been based on the Capital Asset Pricing Model (CAPM) methodology.

In the electricity distribution activity, the basic formula adopted

$$F \times (RPI - X_F) + W \times P \times (RPI - X_P)$$

where

F- Fixed parcel;

P- Variable parcel;

W- Delivered energy;

RPI- Variation of the consumer price index;

X_F- Efficiency gain associated with the fixed parcel;

X_P- Efficiency gain associated with the variable parcel

relies on the establishment of a base fixed parcel of the allowed income and a base variable parcel (unitary price of distributed electricity), both differentiated by voltage level. These vary (usually at decreasing rate) throughout the regulation period according to the variation of the consumer price index, minus the efficiency factors X_F and X_P respectively. Determining a cost of capital for EDP Distribuição is a need inherent to the remuneration of the distribution activity, which underlies the calculation of the base price values. In addition it has also been essentially important to determine an appropriate X parameter by voltage level, for securing the economic regulation of the electricity distribution activity. Initially ERSE calculated these parameters based on a benchmarking study made by an international consultant. The said parameters have continued to be updated since, based on internal studies made by ERSE. More recently, for the 2006-2008 regulation period, efficiency gains were calculated by analyzing the controllable operating costs in different areas of the electricity distribution grid. We determined several stochastic cost frontiers, against which the efficiency gains have been measured

Activities developed by the regulated companies are described as follows:

- Rede Eléctrica Nacional, S.A. (REN)

  Transmission System Operator (TSO):

  Electricity Transmission Activity – This activity includes the planning, definition, operation, maintenance and co-ordination of the National Transmission System (RNT), in appropriate technical and economic conditions.

Global System Management Activity – Developed by the System's Manager and the Offers Manager. Both secure the global technical co-ordination of the integrated SEP system (integrating the system service costs) and the collection and processing of data required to physically quantify imbalances related to the programming of all market agents, also including their settlement.

- SEP Commercial Operator:

Power Purchase Activity – Developed by the SEP Commercial Operator, who exclusively manages the power purchase agreements (CAE) still in force, selling their energy in the market. The cost difference incorporates the costs ascribable to the Global System Management activity, recovered by way of the Global Use of System tariff.

- EDP Distribuição – Energia, S.A.

Distribution System Operator (DSO):

Network metering, billing and settlement – This involves several activities related to the marketing of the electricity distribution service, including contracting, metering, billing and settlement of services associated with the use of distribution systems.

Buying and Selling of Access to the Transmission System – This activity consists in buying from the TSO services of global use of system and transmission use of system, on the one hand. On the other hand, it consists in selling such services to suppliers – including last resort suppliers – and to customers benefiting from the status of Market Agent.

Electricity Distribution – This activity consists in planning, defining, operating, maintaining and co-ordinating the distribution system, so as to send electricity from the points of reception to the end users in appropriate technical and economic conditions.

- Last Resort Supplier:

Electricity Supply – This activity developed by last resort suppliers is assigned to the marketing structure involved in the sale of electricity to their customers, also involving the services of electricity contracting, billing and collection.

Electricity Buying and Selling – This activity developed by last resort suppliers consists in buying the electricity needed to meet their customers' supply requirements. This electricity is acquired through purchases in the organized markets, or through bilateral agreements previously approved by ERSE.

Buying and Selling of Access to the Transmission and Distribution Systems – This activity consists in buying use services from the DSO system (i.e. global use of system, transmission use of system, distribution use of system and network commercial management), on one handm, and selling such services to their customers, on the other hand. This activity makes it possible to transfer costs of access to the transmission and distribution systems to the customers of the last resort supplier.

- Electricidade dos Açores, S.A. (EDA) and Empresa de Electricidade da Madeira, S.A. (EEM)

  Electricity Distribution Activity – This activity involves the planning, definition, operation, maintenance and co-ordination of the distribution system, so as to send electricity from the points of reception to the final customers, in each island.

  Power Purchase and System Management – This activity consists in buying the electricity needed to meet the customers' supply requirements, as well as making studies to plan the expansion of the power generation system in each island.

  Electricity Supply – This activity provides the commercial structure in charge of selling electricity to final customers, also involving the services of electricity contracting, billing and collection, in each island.

The forms of regulation associated with each of the above activities are indicated in the table below:

COMPANY	Entity	ACTIVITY	FORM OF REGULATION
REN	Transmission System Operator (TSO)	Global System Management	Regulation by rate of return. Costs accepted on annual basis
		Electricity Transmission	
	SEP Commercial Operator	Electricity Buying and Selling	Cost difference due to the non-renegotiated power purchase agreements (CAE) transferred to the global system management activity
EDP Distribuição	Distribution System Operator (DSO)	Electricity Distribution	Regulation by price cap established for the regulation period
		Network Metering, Billing and Settlement	Rate of return regulation. Costs accepted *a priori* on annual basis
		Buying and Selling of Access to the Transmission System	Transmission system costs transferred to the customers
	Last Resort Supplier (LRS)	SEP Contracting, Billing and Settlement	Rate of return regulation. Costs accepted *a priori* on annual basis
		Electricity Buying and Selling	Cost of electricity acquired in the markets (purchases in organized markets and agreements previously approved by ERSE) are transferred to the LRS customers
		Buying and Selling of Access to the Transmission and Distribution Systems	Costs of transmission and distribution systems, global system management and network metering, billing and settlement costs transferred to the LRS customers
EDA and EEM	RAA transmission and distribution concession-holder RAM transmission concession-holder and binding distributor	Electricity Distribution	Rate of return regulation. Costs accepted on annual basis
		Power Purchase and System Management	
		Contracting, Billing and Settlement	

Regulation period lasts three years and 2006 is year one of the 2006-2008 regulation period.

3.1.3.3 ELECTRICITY GRID ACCESS TARIFFS

PROCEDURES AND METHODOLOGY FOR CALCULATING ELECTRICITY GRID ACCESS TARIFFS

ERSE is in charge of preparing and publishing the Tariff Code, establishing in detail the methodology for calculating tariffs and prices and the forms of regulation of the allowed income. Before approval, the Tariff Code must be submitted to public hearing and receive advice from the Tariff Board.

Tariff calculations must comply with the calculation methodology previously established in the Tariff Code. The tariffication process – including its timeframe, is also laid down by the Code. Up to the 1 May, every year, the regulated operators send to ERSE the previous year's physical and accounting data. Then estimates concerning the current year and forecasts of the coming year must be sent up to the 15 June. Based on this information, plus possible additional clarifications, ERSE drafts a duly justified proposal of Tariffs that must be submitted to the Tariff Board up to the 15 October. The Tariff Board, composed of representatives of the consumers and of regulated operators, among others, appraises the proposal and gives advice to ERSE up to the 15 November. Taking in account this non-binding advice, up to the 15 December ERSE publishes the tariffs that will be in force as from the 1 January next year

In order to explain the adopted tariff calculation methodology, we briefly describe the existing Portuguese tariff system.

We consider Grid Access Tariffs charged to all electricity consumers for using the infra-structures. Generally speaking these Grid Access Tariffs are paid by suppliers on behalf of their customers. In addition they may be directly paid by customers benefiting from the status of Market Agent (i.e. customers buying energy directly in the market, being responsible for managing their programming imbalances).

The existence of last resort suppliers is backed up by the existence of End-User Tariffs applicable to their customers. These tariffs are calculated by adding to the Grid Access Tariffs the Supply Tariff and the Energy tariff. These last two tariffs reflect the commercial management costs incurred by last resort suppliers and the energy supply costs incurred by them to supply their customers – either in organized markets, or in the framework of bilateral agreements subject to prior approval by ERSE.

TARIFFS AND REGULATED ACTIVITIES OF THE ELECTRICITY SECTOR

Income generated by regulated activities is recovered by way of specific tariffs, each with its own tariff structure and characterized by a given set of billing variables.

Tariff prices are established in each activity in a way that makes its structure reflect the structure of marginal or incremental costs and enables the recovery of income generated by each activity.

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Tariff charging and billing are based on the principle of non-discrimination as a function of final energy use. Tariff options are available to all consumers.

The Global Use of System tariff makes it possible to recover income generated by the global system management activity – including system's operation, ERSE-related costs, transfer to the Competiton Regulatory Authority, costs regarding the organized markets, costs due to tariff convergence in the Autonomous Regions, costs due to the Plan for Promoting Efficiency in Electricity Use, overcosts due to generation from renewable energy sources and other energy policy costs. As from September 2007 this tariff will also recover the Costs of Maintaing the Contractual Balance. From 2008 onwards costs incurred in connection with the power assurance mechanism and the tariff deficit due to the restricted growth of LV tariffs in 2006 and 2007 will also be considered.

The Transmission Use of System tariff makes it possible to recover income generated by the electricity transmission activity – including the definition, operation and maintenance of transmission systems.

The (HV and MV) Distribution Use of System tariffs make it possible to recover income generated by the regulated HV and MV distribution activities, which correspond to the planning, operation and maintenance of distribution systems with a view to conveying electricity from the points of reception to the end users. Likewise the LV Distribution Use of System tariff makes it possible to recover income generated by the regulated LV electricity distribution activity and the rents from municipal concession. Costs related to promoting the quality of the environment, in the framework of the Plan for Promoting Environmental Performance, are recovered by way of the HV, MV and LV Distribution Use of System tariffs.

The Network Commercial Management tariff makes it possible to recover income generated by the network commercial management activity, which includes activities such as the contracting, metering, billing and settlement of services associated with the use of grids and other regulated services, as well as costs associated with the supplier-switching procedure management.

Also the Energy Tariff and the Supply Tariff have been established in the framework of the last resort supply.

The Energy Tariff (TE) makes it possible to recover income from the regulated buying-and-selling activity developed by last resort suppliers, including the costs of electricity purchased in the market to supply their customers. Until July 2007, the existing power purchase agreements (CAE) were for the most in force and REN was responsible for purchasing the electricity used. From then on the last resort supplier began to purchase electricity in the market (derivatives market, spot market, Iberian-scale energy auctions and bilateral contracts approved by ERSE).

The Supply Tariff makes it possible to recover income from the regulated activity developed by the Last Resort Supplier, involving the commercial structures in charge of selling electricity to its customers – namely contracting, billing and the service of electricity bill collection.

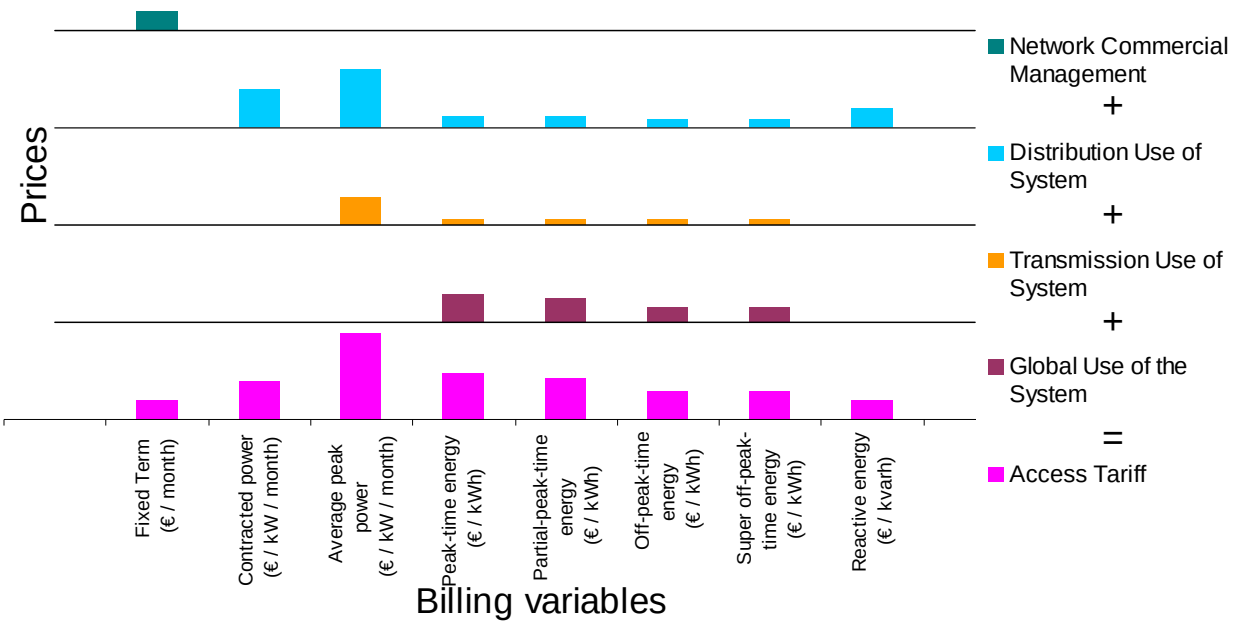
TARIFF ADDITIVITY APPLIED TO GRID ACCESS TARIFFS

Grid access paid by all electricity consumers includes the following tariffs: Global Use of System, Transmission Use of System, Distribution Use of System and Network Commercial Management. Customers who chose their supplier in the market pay the grid access tariffs and freely bargain power purchase with their supplier.

Calculation of end-user tariffs charged by the last resort supplier to its customers is based on the tariffs by activity included in grid access, plus the Energy Tariff and the Supply Tariff

Prices of access tariffs for each billing variable are determined by adding the corresponding tariff prices by activity. This tariff calculation methodology is presented in a simplified manner in Figura 3-8 and is called tariff additivity.

Figura 3-8 – Tariff additivity used for calculating the access tariff



If tariffs that compose the sum are based as much as possible on marginal costs, this helps avoid inter-costumer cross-subsidization. The closer the prices of such tariffs are to marginal costs, the closer we will be to an efficient resource allocation that maximizes social welfare.

This tariff calculation methodology makes it possible to have a detailed knowledge of all tariff components by activity or service. Thus customers may know exactly how much they pay, for example, for using the MV distribution system and how that value is considered in terms of billing. At their request customers may receive a breakdown of their electricity bill by each applicable regulated tariff component, by average price and by tariff term.

It should be noted that tariffs are charged by delivery point. Their prices, if necessary, are converted into different voltage levels – by applying loss adjustment factors. When the metering equipment does not make it possible to directly apply the billing variables of activity-specific tariffs, then prices to be applied to the metered variables are calculated, based on consumption profiles typical of each tariff option.

Transparent definition of the tariffs – resulting from the implementation of this type of system – is especially important to customers who cannot choose their supplier, in particular those less informed.

PRICES OF ELECTRICITY GRID ACCESS TARIFFS

Data regarding the 2006 tariffs can be found in the Annual Report to the European Commission drafted in 2006[10].

Table 3-3 shows the cost components included in the 2007 grid access tariffs. This Table also shows the total income from each tariff.[11]

It should be noted that electricity users pay, in connection with grid access, several costs related to general economic interest or energy policy, as follows: premiums granted to special-regime generation (from renewable energy sources and co-generation), land belonging to the hydraulic public domain, OMIP-related costs, overcosts of ultraperipheral island regions, rents from municipal concessions, ERSE, Competition Regulatory Authority, Plan for Promoting Efficiency in Electricity Use and Plan for Promoting Environmental Performance.

[10] http://www.erse.pt/vpt/entrada/centrodedocumentacao/documentoseapresentacoes/documentoseapresentacoes.htm?action=search&temae=&temao=&strsearch=comiss%e3o%20europeia&dAno=

[11] Published on the 15 December 2006.

Table 3-3 – Breakdown of costs included in grid access tariffs to be paid in 2007

TARIFAS DE ACESSO ÀS REDES	PROVEITOS (10^3 EUR)	COMPONENTES DE CUSTO	(%)
GLOBAL USE OF THE SYSTEM	576 864	System management	4
		System services	18
		Energy Services Regulatory Authority (ERSE)	1
		Competition Regulatory Authority	0
		Special-regime generation cost differential	64
		Land belonging to the Public Domain Water Space	10
		OMIP, S.A. and OMICLEAR, S.A.	0
		Plan for Promoting Efficiency in Electricity Use	2
		Autonomous Regions' Convergence Overcost	0
TRANSMISSION USE OF SYSTEM	194 204	Transmission Grid	100
HV/MV DISTRIBUTION USE OF SYSTEM	453 692	Distribution Grid	99
		Plan for Promoting Environmental Performance	1
LV DISTRIBUTION USE OF SYSTEM	898 323	Distribution Grid	74
		Plan for Promoting Environmental Performance	0
		Concession rents paid to Municipalities	26
NETWORK COMMERCIAL MANAGEMENT	151 911	Metering, billing and settlement of access tariffs	100

From **Erro! A origem da referência não foi encontrada.** to Table 3-6 we present prices to be paid for grid access in High Voltage (HV), Special Low Voltage (SpLV) and Standard Low Voltage (StLV), by customers with a contracted demand power lower than 20,7kVA, and two active-energy prices differentiated by day/night period (two-rate time-of-day tariff). Prices have been unbundled by tariff of each activity (Global Use of System, Transmission Use of System, Distribution Use of System and Network Commercial Management) and billing variable (Fixed term, Contracted Power, Average Peak Power, Active Energy and Reactive Energy). Prices of grid access tariffs in each voltage level are determined by adding up, for each billing variable, the tariff prices by activity converted into the voltage level of energy delivery. For example, the peak power price of the grid access tariff in SpLV is determined by adding up the peak power prices of the following tariffs, i.e. HV Transmission Use of System, HV Distribution Use of System, MV Distribution Use of System and LV Distribution Use of System.

Table 3-4 – Prices to be paid by HV Consumers for grid use in 2007

HV ACCESS TARIFF PRICES									
Tariff	Fixed term (EUR/month)	Power (EUR/kW.month)		Active energy (EUR/kWh)				Reactive energy (EUR/kvarh)	
		contracted	peak time	Peak time	Partial peak time	Off-peak time	Super off-peak time	Supplied	Received
Global Use of the System	-	0,000	-	0,0082	0,0082	0,0082	0,0082	-	-
Transmission Use of System - HV	-	-	1,653	0,0009	0,0008	0,0008	0,0007	-	-
HV Distribution Use of System	-	0,084	0,126	0,0006	0,0005	0,0003	0,0003	0,015	0,0112
Commercial Network Management - HV	103,56	-	-	-	-	-	-	-	-
HV Grid Grid Access Tariff	103,56	0,084	1,779	0,0097	0,0095	0,0093	0,0092	0,015	0,0112

Table 3-5 – Prices to be paid by SpLV customers for grid use in 2007

Special LV ACCESS TARIFF PRICES									
Tariff	Fixed term (EUR/month)	Power (EUR/kW.month)		Active energy (EUR/kWh)				Reactive energy (EUR/kvarh)	
		contracted	peak time	Peak time	Partial peak time	Off-peak time	Super off-peak time	Supplied	Received
Global Use of the System	-	0,000	-	0,0184	0,0181	0,0177		-	-
Transmission Use of System - HV	-	-	1,855	0,001	0,0009	0,0008		-	-
HV Distribution Use of System	-	-	0,236	0,0007	0,0006	0,0003		-	-
MV Distribution Use of System	-	-	3,57	0,0021	0,0018	0,0009		-	-
LV Distribution Use of System	-	0,635	5,716	0,003	0,0026	0,0016		0,0191	0,0146
Commercial Network Management - SpLV	27,89	-	-	-	-	-	-	-	-
Special LV Grid Access Tariff	27,89	0,635	11,377	0,0252	0,024	0,0213		0,0191	0,0146

Table 3-6 – Prices to be paid by customers for grid use in two-rate time-of-day StLV <=20.7kVA and >2.3kVA in 2007

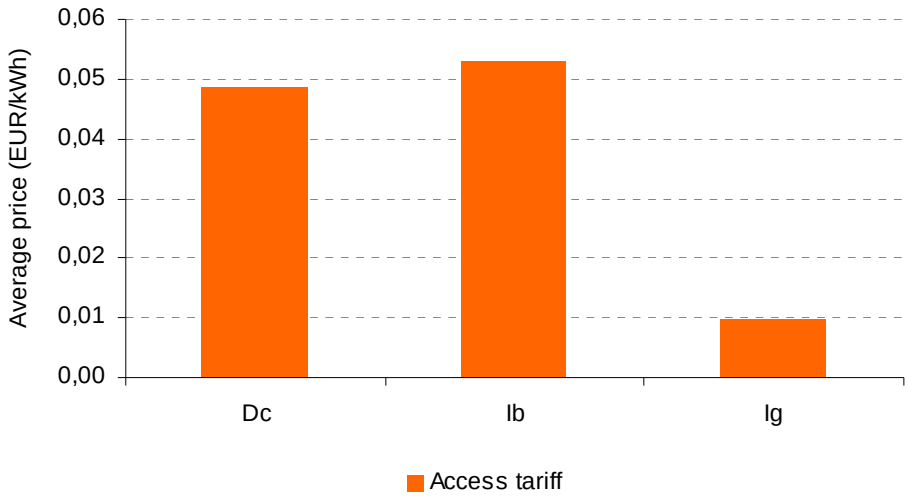
Standard LV <=20,7kVA TWO-RATE TIME-OF-DAY ACCESS TARIFF PRICES									
Tariff	Fixed term (EUR/month)	Power (EUR/kW.month)		Active energy (EUR/kWh)				Reactive energy (EUR/kvarh)	
		contracted	peak time	Peak time	Partial peak time	Off-peak time	Super off-peak time	Supplied	Received
Global Use of the System	-	0,000	-	0,0182		0,0177		-	-
Transmission Use of System - HV	-	-	-	0,0073		0,0008		-	-
HV Distribution Use of System	-	-	-	0,0014		0,0003		-	-
MV Distribution Use of System	-	-	-	0,0142		0,0009		-	-
LV Distribution Use of System	-	0,635	-	0,0224		0,0016		-	-
Commercial Network Management - StLV	1,58	-	-	-		-		-	-
Standard LV <=20,7 kVA two-rate Grid Access Tariff	1,58	0,635	-	0,0635		0,0213		-	-

Figure 3-9 shows the average prices paid by Dc-, Ib- and Ig-type consumers for grid access. These average prices are determined by applying the tariffs shown in the tables above to the consumption profiles established for the Dc-, Ib- and Ig-type consumers, as shown in Table 3-7. The values indicated herein do not include the Value Added Tax (VAT), at the legal rate of 5 percent currently in force.

Table 3-7 - Characterization of Dc-, Ib- and Ig-type consumers in 2007

Consumer-types	Contracted power (kW)	Annual consumption (kWh)	Annual consumption in off-peak time (kWh)	Use of contracted power (hours)
Dc	4,6	3 500	1 300	761
Ib	50	50 000	0	1 000
Ig	4 000	24 000 000	11 040 000	6 000

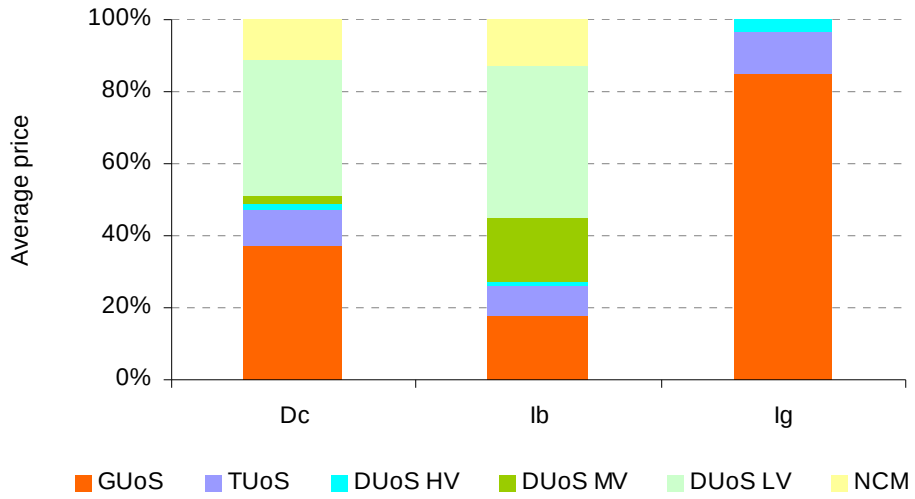
Figure 3-9 – Average prices paid by Dc-, Ib- and Ig-type consumers for grid access in 2007



As can be noted in Figure 3-9, Ib-type consumers, although using a contracted demand power that is higher than Dc-type consumers, pay a higher average price than the latter for their grid access. This situation is due to the fact that Ib-type consumers, contrary to Dc-type consumers, do not use electricity in off-peak hours. The former's average price is therefore higher.

Figure 3-10 and Figure 3-11 show the structure of the average grid access prices paid by the Dc-, Ib- and Ig-type consumers. In Figure 3-11 this breakdown is extended to the type of cost.

Figure 3-10 - Structure of average prices paid by Dc-, Ib- and Ig-type consumers for grid access in 2007



Average price

GUoS TUoS DUoS (HV) DUoS (MV) DUoS (LV) NCM

Legend: GUoS – Global Use of System, TUoS – Transmission Use of System, DUoS (HV) – Distribution Use of System (High Voltage), DUoS (MV) – Distribution Use of System (Medium Voltage), DUoS (LV) – Distribution Use of System (Low Voltage), NCM – Network Commercial Management

Figure 3-11 - Breakdown of the average price paid by Dc-, Ib- and Ig-type consumers for grid access in 2007

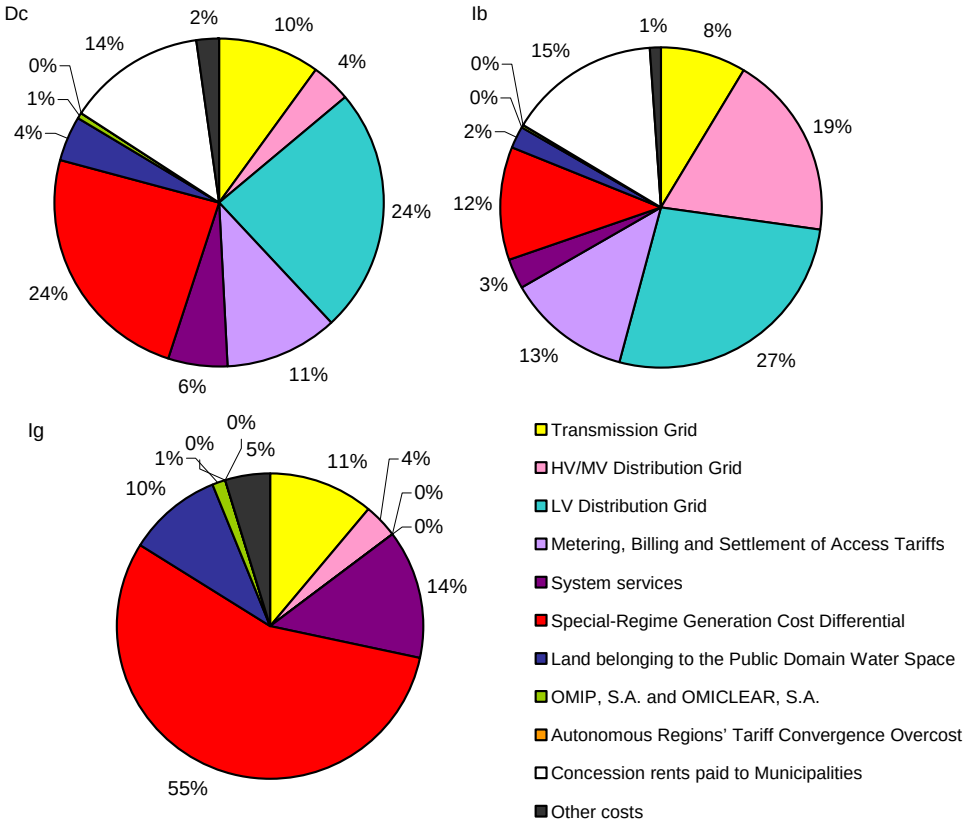


Table 3-8 summarizes the average prices shown in Figure 3-9 and Figure 3-10.

Table 3-8 – Average prices of grid access tariffs in 2007

Unit: €/kWh

Tariff	Consumer-type		
	Dc	Ib	Ig
Global Use of the System (GUoS)	0,0180	0,0094	0,0082
Transmission Use of System (TUoS)	0,0049	0,0045	0,0011
HV Distribution Use of System (DUoS HV)	0,0010	0,0006	0,0003
MV Distribution Use of System (DUoS MV)	0,0009	0,0093	0,0000
LV Distribution Use of System (DUoS LV)	0,0185	0,0225	0,0000
Network Commercial Management (NCM)	0,0054	0,0067	0,0000
Grid Access Tariff (VAT excluded)	0,0487	0,0531	0,0096
Grid Access Tariff (VAT included)	0,0512	0,0557	0,0101

Electricity use is subject to a 5-percent VAT rate.

3.1.3.4 QUALITY OF SERVICE

The quality of service of electricity supply in Portugal is regulated by law since 2000, the year of publication of the first Quality of Service Code (RQS) successively reviewed in 2003 and 2006.

As regards the quality of service of electricity supply in the Autonomous Regions, the respective codes were published in 2004 for enforcement in Madeira and the Azores.

The Quality of Service Code (RQS) addresses the technical quality of service (continuity of supply and voltage quality) and the commercial quality of service (relationship between the supplier/distribution operator and the customer), while defining:

- Powers, responsibilities and obligations.
- Indicators and standards.
- Compensation to be paid to customers in case of non-compliance with the defined quality standards, as well as compensation to be paid by customers in case of non-compliance with their obligations.
- Obligations to check on Quality of Service – Methodologies and Monitoring Plans.
- Obligations to supervise the information – Quality of Service Reports.
- Provisions governing customers with special needs and priority customers.

The Directorate-General for Energy and Geology, an agency of the Ministry of the Economy and Innovation, is responsible for the technical provisions of RQS and its publication in Mainland Portugal. In

the Autonomous Regions the Regional Directorates for Trade, Industry and Energy are the entities responsible.

ERSE proposes the commercial provisions of RQS and is responsible for monitoring and enforcing the Code.

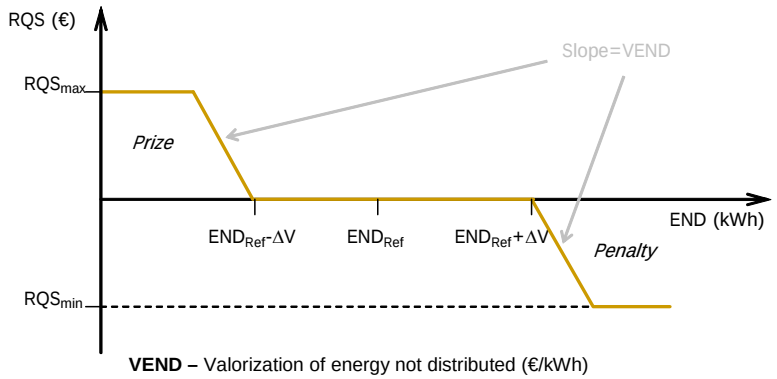
CONTINUITY OF SUPPLY

Both the Tariff Code and the Quality of Service Code have provisions for regulating continuity of supply in Mainland Portugal.

The Tariff Code, drafted and approved by ERSE, establishes an incentive to continuity of supply in the MV systems of Mainland Portugal, whose value may be reflected in the income allowed for the MV- and HV-distribution network operator.

The value of the incentive to continuity of supply depends on the annual value of energy not distributed and is determined by way of a function, as described in Figure 3-12.

Figure 3-12 – Mechanism of Incentive to Continuity of Supply



Considering the information available at this date, we anticipate that the value of energy not distributed in 2006 is close to $END_{Ref}+\Delta V$. This means that the incentive to quality of service may either be nil or amount to a penalty due to the quality of service delivered in 2006, to be reflected in 2008.

The quality of service codes establish general and individual indicators for continuity of supply, whose standards depend upon the geographical area of service quality where the customer facilities are located.

The geographical area of service quality where customer facilities are located depends upon the number of customers living in the said area. As shown in Table 3-9 geographical areas of service quality are defined differently in Mainland Portugal and in the Autonomous Regions.

Table 3-9 – Geographical areas

Areas	Mainland Portugal	Madeira	Azores
Zone A	Regional capitals and towns with more than 25,000 inhabitants	Towns with specific administrative relevance, or with high population density populacional	Cities of Ponta Delgada, Angra do Heroísmo and Horta, plus other towns with more than 25,000 inhabitants
Zone B	Towns with 2,500 to 25,000 customers	Heads of municipality and other towns ranked between Zones A and C	Towns with 2,500 to 25,000 customers
Zone C	Other towns and villages	Other towns and villages	Other towns and villages

The geographical areas of the Autonomous Region of Madeira were published in the Portuguese Official Journal of this autonomous archipelago in 2006.

Table 3-10 presents the continuity-of-supply general indicators defined in the Quality of Service Code (RQS). General indicators apply to long interruptions (t>3 minutes) and exclude interruptions due to: casualty cases or acts of God, reasons of public interest, service or safety, agreement with the customer, and fact ascribable to the customer.

Table 3-10 – Contintuity-of-supply general indicators

Transmission	Distribution	
	MV Grids	LV Grids
ENF (MWh)	END (MWh)	
TIE (h)	TIEPI (h)	
SAIFI	SAIFI	SAIFI
SAIDI (min)	SAIDI (min)	SAIDI (min)
SARI		

ENF: Energy Not Supplied
END: Energy Not Distributed
TIEPI: Time of Interruption Equivalent of Power Installed
TIE: Equivalent Time of Interruption
SAIFI: System Average Interruption Frequency Index
SAIDI: System Average Interruption Duration Index
SARI: System Average Restore Index

RQS establishes standard values for the general continuity-of-supply indicators, shown in Table 3-11 as a function of the geographical area of service quality and voltage level. It should be mentioned that quality

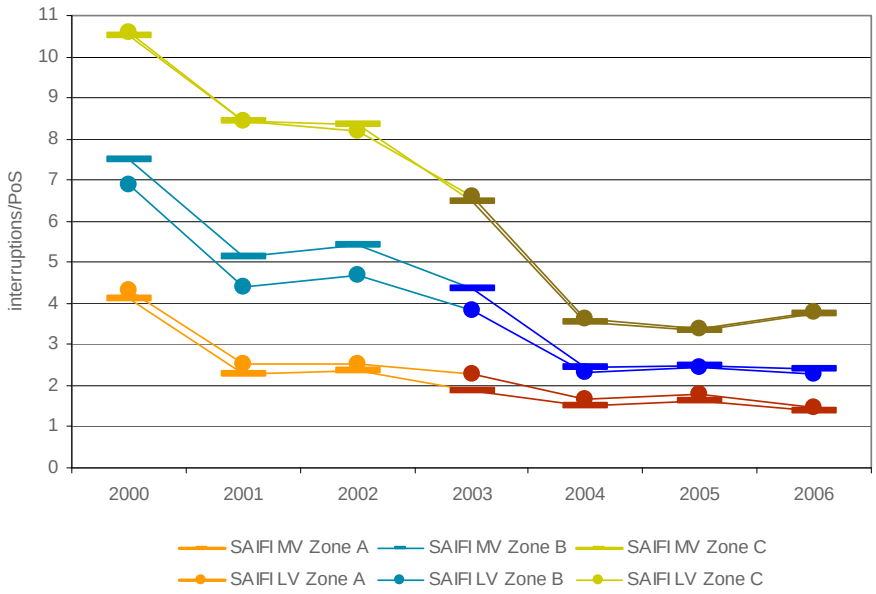
of service codes regulating the Autonomous Regions establish standards for both the total archipelago and each island.

Table 3-11 – Standard-values for the general indicators of continuity of supply

Indicator	Voltage level	Geographical area	Mainland Portugal	Madeira		Azores	
				Archipelago	By island	Archipelago	By island
TIEPI (hours/year)	MV	A	2	2	3	3	3
		B	4	4	6	6	8
		C	10	12	1	20	26
SAIFI (frequency of interruptions/year)	MV	A	3	3	4	4	4
		B	6	6	7	7	8
		C	8	9	1	10	12
	LV	A	3	3	4	4	4
		B	6	6	7	7	9
		C	8	9	1	10	13
SAIDI (hours)	MV	A	3	3	3	3	3
		B	5	5	6	6	8
		C	10	12	1	16	20
	LV	A	4	4	6	6	6
		B	7	8	1	10	12
		C	12	14	2	20	24

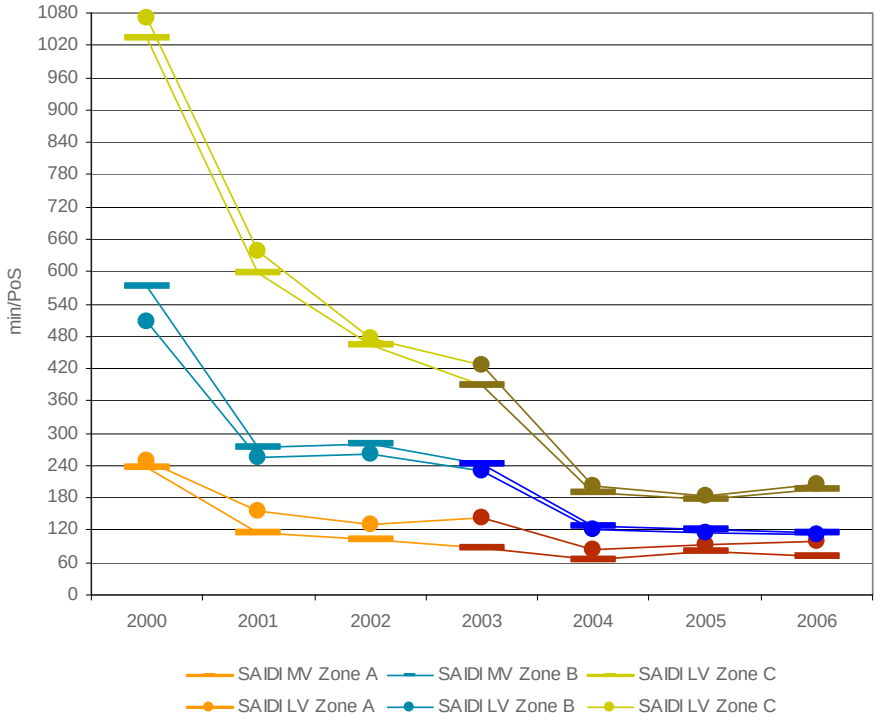
As an example, Figure 3-13 and Figure 3-14 show the evolution of the SAIFI and SAIDI indicators in MV and LV over the last seven years, for Mainland Portugal – with a breakdown by quality of service zones A, B and C.

Figure 3-13 – Evolution of SAIFI – system average interruption frequency index (Mainland Portugal)



Source: EDP Distribuição

Figure 3-14 – Evolution of SAIDI – system average interruption duration index (Mainland Portugal)



Note: Until 2003 geographical areas were established as follows: Zone A – Towns with more than 25,000 customers; Zone B – Towns with more than 5,000 and less than 25,000 customers; Zone C – Towns with less than 5,000 customers.

Source: EDP Distribuição

Table 3-12 shows the evolution of the TIEPI, SAIFI and SAIDI indicators in the last two years, in the MV grids of the Autonomous Regions of Madeira and the Azores.

Table 3-12 – TIEPI, SAIFI e SAIDI indicators in the Autonomous Regions of Madeira and the Azores

Island	Zone	TIEPI (min)		SAIFI		SAIDI (min)	
		2005	2006	2005	2006	2005	2006
Azores							
Santa Maria	C	n.a.	358,5	n.a.	15,4	n.a.	463,1
São Miguel	A	n.a.	25,7	n.a.	1,6	n.a.	28,3
	B	n.a.	67,3	n.a.	1,5	n.a.	80,6
	C	n.a.	181,5	n.a.	5,5	n.a.	258,6
Terceira	A	n.a.	299,7	n.a.	9,4	n.a.	327,6
	B	n.a.	443,1	n.a.	16,9	n.a.	631,5
	C	n.a.	518,4	n.a.	15,7	n.a.	551,2
Graciosa	C	n.a.	61,0	n.a.	1,8	n.a.	85,3
São Jorge	C	n.a.	504,1	n.a.	8,1	n.a.	465,8
Pico	C	n.a.	504	n.a.	6,5	n.a.	500,8
Faial	A	n.a.	74	n.a.	2,2	n.a.	77,4
	C	n.a.	169,5	n.a.	9,2	n.a.	415,2
Flores	C	n.a.	241,3	n.a.	7,5	n.a.	272,5
Madeira							
Madeira	A	7,20	6,00	0,11	0,11	4,80	4,80
	B	53,40	10,20	0,19	0,30	20,4	9,60
	C	64,20	54,00	1,38	2,73	60,00	81,00
Porto Santo	B	4,80	15,00	0,10	1,13	4,80	16,80
	C	1,20	7,80	0,15	0,85	13,20	10,8

Note: Values concerning the archipelagos of the Azores and Madeira are provisional.

Source: EDA, EEM

The individual continuity-of-supply indicators established in RQS are:

- Number of interruptions per year.
- Duration of interruptions (hours/year).

Table 3-13 shows the standard-values for the individual continuity-of-supply indicators, as a function of the zone of service quality and the voltage level to which the customer's facilities are connected.

Table 3-13 – Standard-values for individual continuity-of-supply indicators

Indicator	Geograph-ical area	Mainland Portugal				Madeira			Açores		
		LV	MV	HT	VHV	LV	MV	Transmission	LV	MV	Transmission
Number of interrruptions per year	A	12	8	8	3	13	9	6	13	9	7
	B	21	16			25	20		28	22	
	C	30	25			40	34		50	44	
Duration of interruptions (hours/year)	A	6	4	4	0,75	4	6	2	6	4	3
	B	10	8			9	11		11	9	
	C	20	16			18	22		27	22	

Customers are entitled to compensation if operators fail to comply with the standards linked to individual continuity-of-supply indicators. Formulas for calculating the amount of compensation to be paid by system operators to customers, for not complying with the individual continuity-of-supply indicator standards, are the following:

- **Compensation for not complying with the standard governing the number of interruptions:**

  $CN_n=[(NI–NIP)]\times FC_n$

  where:

  CN_n - amount of compensation, in euros (year n)

  NI - number of interruptions

  NIP – standard linked to the number of interruptions

  FC_n – compensation factor of the number of interruptions in year n, in euros.

The FC_n values por Mainland Portugal in 2005 and for the Autonomous Regions are the following:

1 euro - LV customers with a contracted power value equal to, or lower than, 20,7 kVA

5 euros - other LV customers

20 euros - MV customers

100 euros - HV and VHV customers

For Mainland Portugal FC_n values are updated on annual basis, as follows:

$$FC_{n+1}=FC_n\times[1+(IPC/100)]$$

where:

IPC – mean annual variation of the consumer price index in Mainland Portugal (housing excluded), measured in June of year *n* (percent), as published by the National Institute of Statistics (INE).

- **Compensation of not complying with the standard governing the duration of interruptions:**

$$CD_n=[(DI–DIP)]\times PC_n\times KC_n$$

where:

CD_n - amount of compensation for year *n*, in euros

DI - total duration of interruptions, in hours

DIP - standard linked to the duration of interruptions

PC_n – mean value of the contracted power during year *n*, em kW

KC_n - unitary value of compensation for duration of interruptions for year *n*, in €/kWh.

The KC_n values for the Autonomous Regions are the following:

0.35 €/kWh – StLV customers

0.30 €/kWh – SpLV customers

0.28 €/kWh – MV customers

0.16 €/kWh – HV customers

In Mainland Portugal the FC_n values are updated as follows:

$$KC_{n+1}=KC_n\times[1+(IPC/100)]$$

where:

KC_{n+1} unitary value for compensating duration of interruptions, to use in year *n+1*

KC_n unitary value for compensating duration of interruptions, to use in year *n*

The KC_n values established in 2005, as starting point for calculating the 2006 values, are the following:

- 0.365 €/kWh - LV customers with contracted power value equal to, or lower than, 41.4 kVA (StLV)
- 0.313 €/kWh - LV customers with contracted power value higher than 41.4 kVA (SpLV)
- 0.293 €/kWh - MV customers
- 0.167 €/kWh - HV and VHV customers

2.1 - IPC_{2005}

When system operators fail to comply with both standards, then the highest compensation shall be paid. When compensation to be paid to the customer is lower than 0.5 euro in Mainland Portugal, lower than 2.5 € for LV customers in Mainland Portugal or 5 € for MV customers in the Autonomous Regions, then such amount will revert to an investment fund.

Payment of compensation for non-compliance with the individual continuity-of-supply indicators is automatic since 2004. Table 3-14 shows the amount of compensation paid in 2006 for cases of non-compliance with the individual continuity-of-supply standards in Mainland Portugal.

Table 3-14 – Compensation for non-compliance with the individual continuity-of-supply indicators paid in 2006 – Mainland Portugal

Indicator	Voltage level	Cases of non-compliance (#)	Amount of compensation (€)	Amount for the investment fund (€)
Number and interruptions	MV	-	-	-
	SpLV	-	-	-
	StLV	70	351,3	10,6
	Total	70	351,3	10,6
Total duration of interruptions	MV	414	68 924,2	3 896,8
	SpLV	565	43 001,0	1 308,2
	StLV	114 450	889 177,2	54 441,7
	Total	115 429	1 001 102,4	59 646,6
Total		115 499	1 001 453,7	59 657,2

Source: EDP Distribuição

QUALITY OF THE SUPPLIED VOLTAGE WAGEFORM

The Quality of Service Code (RQS) establishes the main mandatory attributes of the supplied voltage waveform at the point of delivery to the customer in normal operating conditions, namely as regards:

- Frequency.
- Voltage value variations.
- Flicker.
- Harmonic distortion.

- Imbalance in the triphasic voltage system.
- Voltage dips.

For analysing the quality of the voltage waveform, RQS uses as technical reference, among others, the Portuguese Standard NP EN 50160 "Voltage characteristics of electricity supplied by public distribution systems", published by CENELEC and transposed for Portugal

COMMERCIAL QUALITY OF SERVICE

Provisions regarding the commercial quality of service aim to implement minimum servicing levels that electricity grid suppliers and operators must ensure in their relationship with their customers.

These parameters of commercial quality of service are assessed by way of general indicators associated with their respective standards.

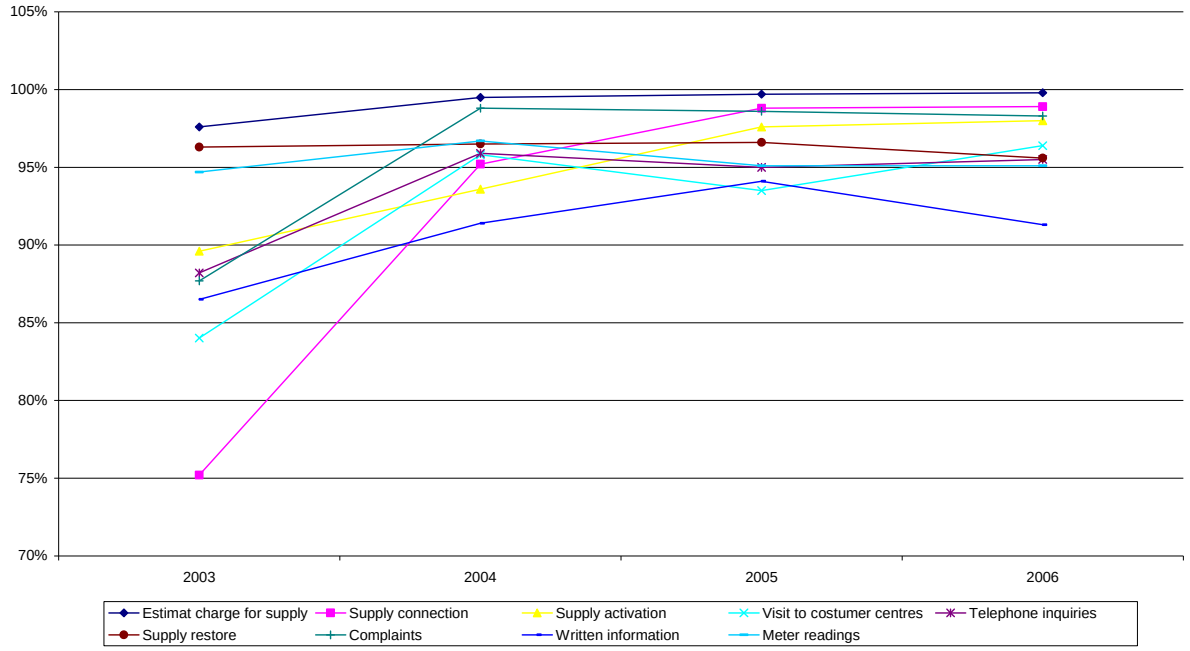
Table 3-15 shows the general indicators of commercial quality of service regarding Mainland Portugal and the Autonomous Regions of Madeira and the Azores. We also provide the values registered in 2006. It should be remembered that calculation of commercial indicators began in January 2006 in the Autonomous Region of the Azores and in January 2007 in the Autonomous Region of Madeira.

Table 3-15 – General indicators and standards of commercial quality of service

General indicator	Standard (%)			Values registered in 2006 (%)		
	Mainland	Azores	Madeira	Mainland	Azores	Madeira
Percentage of telephone enquiries to be responded within 60 seconds	85	80	80	94	95	67
Percentage of visiting customers with a waiting time up to 20 minutes, in customer centres	90	90	90	95	99	97
Percentage of written information requests to be responded within 15 working days	90	90	90	94	100	82
Percentage of estimated charges for supplies in LV to be responded within 20 working days	95	95	n.a	99	99	n.a
Percentage of LV customer's premises to be connected to electricity distribution system within 20 working days	95	90	n.a	99	97	n.a
Percentage of LV customers to be provided with supply and meter within 2 working days, after signature of the supply contract	90	90	90 Maximum established delay: 4 days	98	96	94
Percentage of electricity supplies to be restored following faults, within 4 hours	90	80	80	95	- -	- -
Average time for the supplier-switching procedure	Not defined	n.a	n.a	- -	- -	- -
Percentage of customer complaints to be responded within 15 working days	n.a	95	95	- -	99	92
Percentage of LV customers whose meter has been read at least once in the last calendar year	98	98	98	96	98	94

Figure 3-15 shows how the performance of the last resort supplier evolved in Mainland Portugal over the period of 2003 to 2006, as regards the general indicators of commercial quality of service. Performance evolved positively in 2003-2004, as evidence by the figure. This supplier has complied with the standards defined in the Quality of Service Code since 2005, for all indicators – except that which concerns reading of the metering equipament.

Figure 3-15 – Evolution of performance of the general indicators of commercial quality of service



Note: This Figure considers general indicators in force up to 2006 as laid down in Government Order no. 2410-A/2003, of the 5 February 2003.

In addition to general indicators the Quality of Service Codes establish guaranteed standards of commercial quality of service, which correspond to quality of service commitments between suppliers and their customers, on individual basis. Should the supplier fail to comply, then its customer is entitled to monetary compensation.

Individual commercial quality indicators and their respective standars, currently in force in Mainland Portugal, are the following:

- Visits to customer facilities, to be held:
  - Within the agreed 2.5-hour time bracket (mandatory modality).
  - Within a 5-hour time bracket previously agreed by phone, one hour in advance before the 15-minute bracket during which the visit is expected (offering this possibility is an option given to the distribution system operator).

- Technical assistance after the customer reports a failure of his individual electricity supply, which must be provided within 4 hours (Zone A and B) or 5 hours (Zone C). In case of customers with special needs relying on electrical medical equipment, the requested technical assistance should be provided withing the maximum delay of 3 hours.
- Restoring supply after a disconnection caused by the customer, which must take place within a maximum 8-hour delay (in case of MV) or up to 5 pm of the next working day (in case of LV).
- Reading metering equipment of StLV customers, within a maximum delay of 6 months.
- Responding to customer complaints, within a maximum delay of 15 working days after reception of the complaint.

Failure to comply with the individual commercial quality standards implies the payment of compensation to the affected customer, as follows:

- 18 euros to LV customers with contracted power equal to, or lower than, 20.7 kVA.
- 30 euros to the remaining LV customers.
- 92 euros to the remaining customers.

In 2006 compensation amounting to approximately 11,747 euros were paid, an amount quite lower than in 2005 – i.e. 274,315 euros.

Quality of service codes currently in force in the Autonomous Regions establish the following individual indicators and standards:

- Visits to customer facilities – to be held within the agreed 3-hour delay.
- Technical assistance after the customer reports a failure of his individual electricity supply, which must be provided within 4 hours (Zone A and B) or 5 hours (Zone C).
- Restoring supply after a disconnection caused by the customer, which must take place within a maximum 8-hour delay (in case of MV) or up to 5 pm of the next working day (in case of LV).
- Responding to customer complaints (billing and metering) withing a 15-day delay.

Standards of the above indicators were fully complied with in the Autonmous Region of the Azores. Therefore no payment of compensation to customers has been made.

Quality of service codes currently in force both in Mainland Portugal and in the Autonomous Regions of Madeira and the Azores also establish a set of provisions applicable to customers with special needs – aimed at securing that electricity suppliers maintain a quality commercial relationship with these customers (namely by providing adapted communication channels and tailor-made information regarding pre-warning of scheduled interruption, in cases of customers relying on electrical medical equipment). These customers also have the right to priority servicing in cases of failure and emergency.

Customers with special needs are the following:

- People with a visual disability – totally or partially blind.
- People with a hearing disability – totally or partially deaf;
- People with ora communication disabilities.
- People with mobility disabilities, who can only displace themselves on a wheelchair – or with other technical aids required for this purpose.
- People with impaired body functions or structures, whose survival (both functionality and quality of life) depends on medical equipment, products and technologies, dyalisis equipment, oxygen concentrators or artificial ventilators running on electricity.

The Quality of Service Code published in 2006, applicable in Mainland Portugal, also defines that priority customers are those whose functioning can be seriously affected by power supply interruptions. The following are considered priority customers:

a) Hospital facilities, health centres and similar entities.

b) National security facilities.

c) Fire brigade.

d) Civil protection.

e) Security forces.

f) Equipment used for managing the security of seaborne or airborne traffic.

g) Prison facilities.

These customer have the right both to be individually warned, 36 hours in advance, of any scheduled interruptions of supply. Their electricity supply must be restored prior to other customers.

Distribution system operators shall keep a permanently updated record of their customers with special needs. Each customer should request his/her own registration, on voluntary basis.

Information regarding the rights and duties of customers with special needs shall supplied by electricity suppliers, with the co-operation of associations for the advancement of people with disability.

Transmission system operators, distribution system operators and last resort suppliers should publish a Quality of Service Report every year.

ERSE is responsible for monitoring the quality of service codes, collecting information for this purpose from system operators and suppliers. It is also its duty to settle disputes between suppliers and their

customers, by way of dispute mediation and conciliation mechanisms. Pursuant to the Quality of Service Code, ERSE shall publish a Quality of Service Report every year.

3.1.3.5 CONNECTION TO THE GRIDS

Electricity system operators, within their respective catchment areas, must connect to their grids the facilities of customers who request such connection, as long as the technical and legal requirements are met.

The Commercial Relations Code establishes two types of connectors:

- Connectors for exclusive use – physical infra-structure for the exclusive transmission of electricity generated or used at a given electrical energy use facility. ERSE helps define the exclusive-use connectors, by approving their maximum length based on proposals submitted by system operators. The maximum length value, which depends upon the voltage level, was approved in the first half of 2007.
- Connectors for shared use – physical infra-structure enabling the connection to the grid of more than one electrical energy use facility.

This Code defines the type of charges that must be paid by applicants to grid connections, establishing the guiding principles governing the sharing of such charges – as well as the modes of payment and possible split of such payment into instalments.

Charges due to the construction of connectors for exclusive use shall be fully paid by the connection applicants.

Charges due to the construction of connectors for shared used must be shared by the various applicants, paying a price approved by ERSE that will depend on distance and requested power. These amounts are approved by ERSE and depend upon the grid type (airbone, or underground) and voltage level.

Operators of electricity transmission and distribution systems should demand cost-sharing in actions required to reinforce the grid, following a request for connection of increased power. Cost-sharing should be made as a function of the requested power..

Thus the Code currently in force tried to establish economic indicators regarding to the location of the facility whose connection to the grid has been requested, as well as the requested power, considering the attributes of each individual application.

Information-wise the code states that the system operator must inform and advise the grid connection applicant, namely as regards the voltage level appropriate to the connection, in order to secure the best technical and economic conditions – considering all aspects involving the connection application. This

mandatory duty to inform involves the preparation and publication of information leaflets on the procedure required to make connections to the grid, as well as the mandatory submittal of a budget concerning the requested connection.

Legislation currently governing the connection of power generators to the electricity transmission and distribution systems establishes that power generators are responsible for paying charges due to grid connection. Conditions regarding grid connection and the possible payment of charges due to grid reinforcement, as well as the payment conditions, are defined by agreement between the parties. Failing agreement between the generator and the system operator, ERSE must decide how costs related to grid connection should be shared, following the submittal of proposals by the entities concerned.

For special-regime generators (using renewable energy sources, waste and CHP plants) specific legislation directly establishes that the generation plant is connected to the receiving grid by means of a connection built on initiative of the power generator. Charges related to the construction of the connection are borne by the generator if the connection is for its exclusive use. If a connection is used by more than one generator, charges related to the construction of common sections are shared as a proportion of the power to be subscribed. Whenever a connection starts to be used by a new special-regime generator within its pay-back period, generators who have borne the charges related to its construction receive compensation for the part that has not been paid back yet.

3.1.3.6 BALANCING

Mainland Portugal has a single balance area, corresponding to the entire territory.

The transmission system operator, through its System's Manager function, is the entity responsible for managing the balance between generation and consumption. The balance energy is supplied by generators of the Public Service Electricity System (SEP), grouped by a merit order established as a function of the variable generation cost.

In the liberalized market (LM), the specific balance mechanism regards recorded imbalances between the forecasted generation and consumption schedules and the corresponding value metered for each generator and its customers.

Generators send their generation and consumption schedules to the Offers Manager (a function performed by the Transmission System Operator) and are responsible for paying the charges due to imbalances associated with their production and consumption portfolio.

Periods for settlement of accounts are fixed and last one hour. Generation and consumption schedules must be delivered up to 10:00 a.m., for each hour of the week starting on the next day.

Delivered generation and consumption schedules may be modified up to:

- 10:00 a.m., for the period ranging from 12:00 - 24:00 of the same day.
- 9:45 p.m., for the period ranging from 0:00 às 24:00 of the next day.

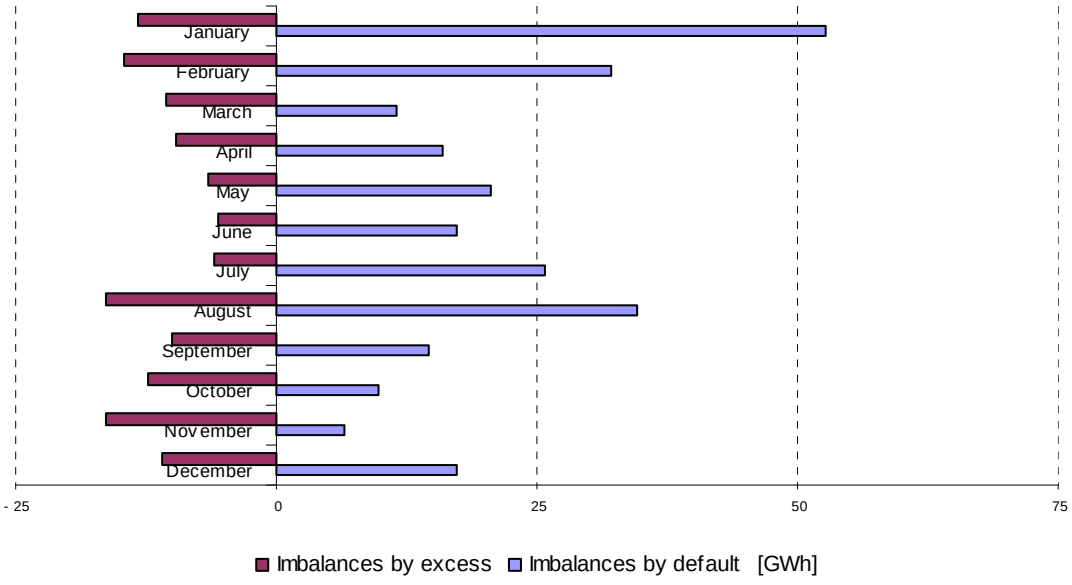
Prices to be paid depend on the type of imbalance (by default, or by excess) and are related with the price of active energy of the Energy & Power tariff, by values than may be higher or lower than 1.

The gap between generation and consumption results in

- Imbalances by default: when consumption, from the point of view of the system, is higher than forecasted. In this case, the agents of the non-binding system pay a penalty corresponding to the share of consumption supplied by the SEP power plants.
- Imbalances by excess: when consumption, from the point of view of the system, is lower than forecasted. In this case, the system pays to the agents the surplus energy injected into the grid.

Figure 3-16 shows the evolution of imbalance energies throughout 2006. It represents both imbalances by default and imbalances by excess.

Figure 3-16 – Evolution of imbalances in the liberalized market (2006)



Source: REN

Table 3-16 shows the total annual value of imbalance energies by excess and default, as well as their valuation. Unitary imbalance rose to an average annual value of 30.57 €/MWh and 75.11 €/MWh, respectively for imbalances by excess and by default.

Table 3-16 – Total annual imbalance and unitary values in the liberalized market (2006)

	Unit	Value
Imbalance by excess	MWh	132,150
Valuation of imbalances by excess	EUR	4,040,348.08
Unitary imbalance by excess	€/MWh	30.57
Imbalance by default	MWh	258,626
Valuation of imbalaces by default	EUR	19,424,355.11
Unitary imbalance by default	€/MWh	75.11

Source: REN

3.1.4 SEPARATION OF SYSTEM OPERATORS

Portugal's electricity system consists of three sub-systems corresponding to the geographical areas of Mainland Portugal and the Autonomous Regions of the Azores and Madeira.

We now address issues related with the actual unbundling of activities developed by the system operators currently operating in Mainland Portugal and in the Autonomous Regions of the Azores and Madeira.

3.1.4.1 MAINLAND PORTUGAL

In Portugal there is 1 transmission system operator and 11 distribution system operators.

3.1.4.2 TRANSMISSION SYSTEM OPERATOR (TSO)

ACTIVITY UNBUNDLING

The electricity transmission system operator in Mainland Portugal (i.e. REN) is independent from all other activities developed in the electricity sector—both legally and in terms of assets

Legally speaking REN is autonomous vis-à-vis the power generation and supply operators. On the 31 December 2006, 70% of its share capital belonged to the Portuguese State (Parpública – Participações Públicas holding 30% and Caixa Geral de Depósitos 20%), 15% to EDP – Energias de Portugal, 5% to Gestmin, 5% to Logoenergia and 5% to Oliren.

At the end of 2006, 612 of REN's employees worked for the company's regulated activities.

In addition to electricity transmission, the transmission system operator (TSO) is in charge of performing several functions, including global system management, settlement of accounts of operations carried out in the liberalized market and, also, a function called Commercial Operator – the entity responsible for energy buying-and-selling associated with the existing long-term power purchase agreements (CAE). The Commercial Operator is responsible for managing the agreements that remain in force and must ensure the market placement of the electricity generated in their scope.

Regulations currently in force in the electricity sector establish a set of rules, summarized below. These rules aim to ensure compliance with the principles of public interest safeguard, equality of treatment, non-discrimination and transparency when the above functions are being performed.

While performing its functions the transmission system operator singles out the following activities:

- Electricity Transmission.
- Global System Management, which includes the functions of System's Operator and Settlement of Accounts.

The above unbundling of activities and functions is ensured in terms of accounting and organization.

Buying and selling of electricity in the framework of the existing long-term power purchase agreements (CAE) is a function performed by the Commercial Operator, who operates independently (i.e. being legally separated) vis-à-vis the activities of Electricity Transmission and Global System Management. This function is performed by a company of the REN group created in 2007, called REN Trading.

Potentially sensitive commercial information obtained while performing the above functions is approved by ERSE.

CODES OF CONDUCT

According to the Commercial Relations Code entities responsible for performing the functions of System's Operator and Settlement of Accounts must be independent while developing the activities related to such functions – as regards both the relationship among them and with other operators. According to this Code the transmission system operator shall prepare Codes of Conduct for the entities responsible for performing the functions of System Operator and Settlement of Accounts, to secure the independence, impartiality, exemption and responsibility of their acts – namely those practised in the course of their relationship with generators, the distribution system operator in medium- and low-voltage, last resort suppliers, suppliers and customers

The Code also establishes that entities responsible for managing the Commercial Operator must be independent while developing the activities related to their functions – as regards their relationship with the entity performing the functions of System's Operator and Settlement of Accounts. Said Code of Conduct must lay down the rules to be complied with by the Commercial Operator, as regards the independence, impartiality, exemption and responsibility of its acts – namely those practised in the course of its relationship with the entity performing the functions of System's Operator and Settlement of Accounts, the generators and the last resort suppliers.

The above Codes of Conduct concern the conformity programme established in Article 10, paragraph d), no. 2, of Directive 2003/54/CE. Portuguese legislation does not yet foresee the existence of a person responsible for compliance with each Code of Conduct, as determined by the Directive. The Commercial Relations Code, however, states that mandatory internal audits shall be carried out every year, with a view to checking that the principles and rules established by the Codes of Conduct are correctly enforced. The results of such audits are sent to ERSE.

ACCOUNTING UNBUNDLING

The Tariff Code issued by ERSE establishes that all regulated companies must adopt accounting unbundling for each of the respective activities mentioned above, as if these were autonomous entities, so that balance sheets and income statements may be obtained for each of them Such information is submitted to ERSE on yearly basis, both in terms of occurred values and forecasted values for the next year. The occurred values of each regulated activity must be audited and have an attached report produced by an independent auditing company.

ERSE issued standards as a complement to the Tariff Code, taking stock of the kind of accounting information that must be made public by virtue of the tax laws. These standards specify and separate, by activity, the information that may be also divulged from other information, which, due to its confidentiality or breakdown level, should not be made public - being used by ERSE only for the purpose of calculating tariffs. In its annual paper that accounts for next year's tariffs, ERSE presents the information on occurred and forecasted values deemed more important to the public concerned, while preserving the confidentiality of information that is potentially sensitive in commercial terms.

ERSE has the power to accept or refuse the values sent by the companies for the purpose of calculating tariffs. Its practice is, whichever its decision, to always justify the values considered.

Since it started to operate ERSE never found any serious case of refusal to free-willingly provide information, or provision of defective information.

CORPORATE IMAGE OF THE TRANSMISSION SYSTEM OPERATOR

REN is independent of other activities developed in the electricity sector, as regards both its legal entity and assets. It therefore uses its own logotype, which does no resemble those of other operators in the electricity sector.

REN has its own web-site on the Internet (www.ren.pt) to provide information on activities assigned to the company.

MAIN PROBLEMS IDENTIFIED

Following the cessation in advance of most long-term power purchase agreements previously in force, REN's problems stemming from the operator's simultaneous performance of both TSO activities and buying-and-selling of electricity in the framework of such agreements were substantially reduced.

Nevertheless, in order to mitigate the disadvantages emerging from this situation that still remain, the regulations governing the electricity sector establish a number of principles, rules and procedures aimed at ensuring that the said activities are independently developed.

3.1.4.2.1 DISTRIBUTION SYSTEM OPERATORS

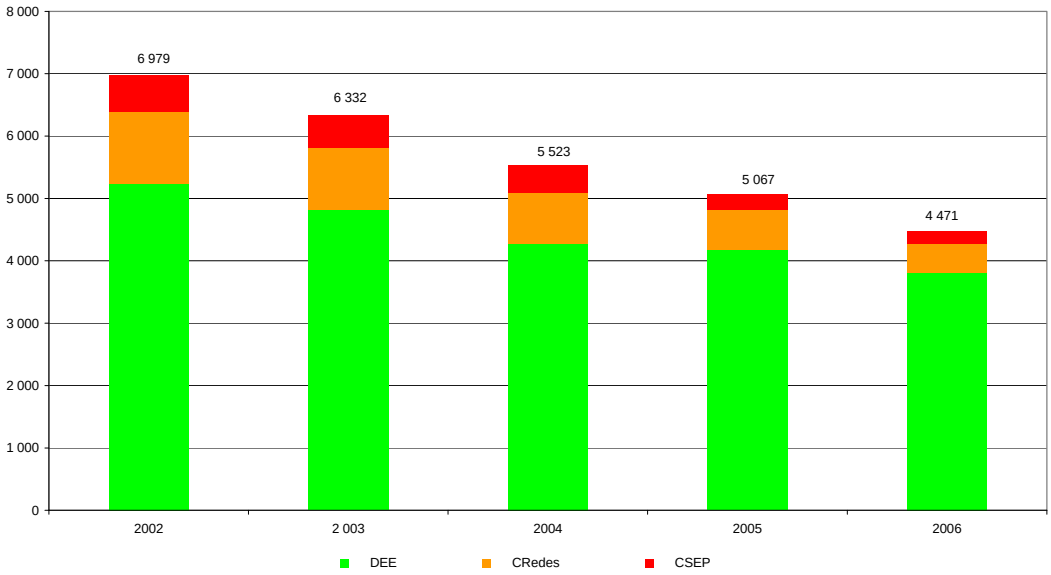
ACTIVITY UNBUNDLING

The main DSO (distribution system operator) is EDP Distribuição, the exclusive holder of distribution in medium- and high-voltage in virtually the entire territory of Mainland Portugal. Ten other small operators also provide low-voltage distribution, ensuring electricity distribution to approximately 30 thousand customers.

EDP Distribuição is a legally autonomous entity within Group EDP. Its share capital is 100-percent held by EDP, S.A.. Group EDP also owns electricity generators and suppliers.

EDP Distribuição has significantly increased its headcount, as shown in Figure 3-17.

Figure 3-17 – Evolution of the number of employees working for EDP Distribuição



Legend: DEE is the electricity distribution activity. CRedes is the buying-and-selling of access from/to the transmission system activity. CSEP is the network metering, billing and settlement, including the supplier-switching management process activity.

Source: EDP Distribuição

Unbundling of the system operation activity and the last resort supply activity existed in EDP Distribuição until the end of 2006, in accounting and organizational terms. By virtue of Decree-Law no. 29/2006, of the 15 February 2006, which transposed Directive 2003/54/CE to Portuguese law, from 2007 onwards the last resort supply license was awarded to EDP Serviço Universal, SA (hereafter EDP Serviço Universal), securing legal separation as well. Nevertheless it is 100%-owned by EDP Distribuição.

In small low-voltage electricity distribution operators, who supply approximately 30 thousand customers, activity unbundling exists in accounting terms. Small electricity distribution operators also perform last resort supplier functions in geographical areas where they hold a distribution license or a concession contract and they must ensure the supply of electricity to all consumers who may request it, applying the regime of regulated tariffs and prices.

EDP Distribuição, in its capacity as distribution system operator, ensures the accounting unbundling of the following activities:

- Electricity Distribution.
- Buying-and-Selling of Access from/to the Transmission System.
- Network Metering, Billing and Settlement, including the supplier-switching management process.

In terms of accounting, activities are unbundled according to the rules of the Tariff Code described above.

CODE OF CONDUCT

According to the Commercial Relations Code, EDP Distribuição must prepare a Code of Conduct establishing the rules to be complied with by entities responsible for the activities of distribution operators, in order to secure the independence, impartiality, exemption and responsibility of their acts – namely those practised in the course of their relationship with the entities responsible for the transmission system operations, generators, last resort suppliers, suppliers and customers.

EDP Distribuição should resort to an independent external auditor to check compliance with the Code of Conduct and the effectiveness of the implemented procedures and systems, so as to ensure the independence and impartiality of its performance vis-à-vis the remaining players.

ERSE approves the criteria for selecting the entities responsible for making the audtis. The results of such audits, together with a report describing the action taken to ensure compliance with the Code of Conduct, must be sent to ERSE every year.

Small electricity distribution operators mentioned above do not have to ensure activity unbundling, or to prepare Codes of Conduct.

CORPORATE IMAGE OF DISTRIBUTION SYSTEM OPERATORS AND EDP SERVIÇO UNIVERSAL

EDP Distribuição and EDP Serviço Universa belong to an economic group and their corporate image depends upon Group EDP. It may be easily mistaken with the image of the Group's holding comopany (e.g. the logotype is the same).

As regards the web-site on the Internet, information on EDP Distribuição can be found on www.edp.pt, the web-site of Group EDP.

SHARED SERVICES

There is a standing relationship, in commercial and financial terms, between EDP Distribuição and other companies of Group EDP, involving a large a widely varied number of transactions. The main companies involved and the nature of the said transactions in 2006 are identified as follows.

Firstly reference should be made to transactions related with the purchase of electricity in the framework of the SEP free parcel. Power purchase in the framework of the SEP free parcel is based on a number of agreements signed by EDP Distribuição with the following companies of Group EDP: EDP Comercial, S.A, EDP Produção (agreement with former CPPE), Grupo Hidrocantábrico and EDP Energia Ibérica, S.A.

Another important group of transactions concerns Outsourcing. Approximately 68 percent of the amounts in this item are outsourced from companies of Group EDP. This amount is higher in the regulated Supply activity. In this activity, the weight of Group EDP companies is 90%. In the activity of Electricity Distribution, the weight of Group EDP companies is less important – representing 50 percent of total Outsourcing. As regards the Network Metering, Billing and Settlement, the weight of Group EDP companies in Outsourcing was 78 percent in 2006. The companies with whom EDP Distribuição has key relationships are EDP Soluções Comerciais and the Holding company (for Commercial Outsourcing), Labelec (for property conservation) and, also, EDP Valor, EDP Estudos e Consultoria and Group Oni (for indirect Outsourcing).

Reference should also be made to the fact the EDP Distribuição is funded via the Group's holding company.

The company has presented since 2003 a report drafted by an independent auditing firm, which certifies that the said transactions with companies of Group EDP are consistent with the Portuguese laws on transfer prices.

MAIN PROBLEMS IDENTIFIED

In 2006 co-existence within the same company of electricity distribution and last resort supply activities was the major obstacle preventing an actual unbundling of activities, as established by Directive 2003/54/CE.

Another issue that needs to be addressed is the corporate image of the distribution system operator, which is frequently associated with the corporate image of Group EDP – holder of companies operating as electricity generators and suppliers. The use of the same logotype and the fact that the distribution system operator does not keep a Web-site fully independent of the web-site of Group EDP make things unclear. This puts at jeopardy the image of impartiality and neutrality required from the distribution system operator.

3.1.4.3 AUTONOMOUS REGIONS OF THE AZORES AND MADEIRA

ACTIVITY UNBUNDLING

EDA and EEM are the companies responsible for purchasing, distribution and last resort supply of electricity, respectively in the Autonomous Region of the Azores and in the Autonomous Region of Madeira.

At the end of 2006 the Autonomous Region of the Azores still was the majority shareholder of EDA (with a 50.1-percent stake). ESA – Energia e Serviços dos Açores, SGPS, SA, held a stake representing

39.7% of the share capital. EDP-Gestão da produção de Energia, S.A., with a 10-percent stake, is the other large shareholder. The remaining 0.2% belong to small shareholders.

The total share capital of EEM belongs to the Regional Government of Madeira.

EDA and EEM develop the following activities:

- Electricity Purchase and System Management.
- Electricity Distribution.
- Electricity Supply.

Decree-Law no. 29/2006, of the 15 February 2006, which established the basis for the organization and functioning of electricity sectors, also applies to the Autonomous Regions of the Azores and Madeira. With two exceptions: provisions regarding the organized markets, as established in this decree-law, and the legal unbundling of the transmission, distribution and supply activities, the latter being the object of a derogation pursuant to Directive 2003/54/CE of the European Parliament and Council, dated 26 July 2003. The Autonomous Regions of the Azores and Madeira obtained the said derogation by way of the European Commission's Decisions no. 2004/920/CE, of the 20 December 2004, and no. 2006/375/CE, of the 23 May 2006. In view of the provisions of the above legislation and decisions, activities are unbundled in terms of accounting, according to the rules of the Tariff Code described above.

CORPORATE IMAGE OF GRID OPERATORS

Both EDA and EEM have their own web-sites on the Internet, respectively www.eda.pt and www.eem.pt.

3.2 COMPETITION

3.2.1 CHARACTERIZATION OF THE WHOLESALE MARKET

The wholesale market consists of national electricity generation plus the international import flows aimed at meeting the consumption requirements of Mainland Portugal.

In Mainland Portugal standard electricity generation involves generators developing activities in the organized market, or through bilateral agreements – i.e. generators who once signed long-term power purchase agreements (CAE).

CAE cessation for the power plants operated by Group EDP occurred in mid-June 2007. For those cases where cessation did not occur, the existing long-term power purchase agreements will be managed by

the Commercial Operator – who must resort to market mechanisms to place the energy generated by these power plants.

No cessation of long-term power agreements took place in 2006. Energy produced under these agreements was therefore used to supply the last resort suppliers (SEP supplies, as previously called). It should be noted that, during this transition phase, last resort suppliers will be allowed to buy a maximum 8 percent of their energy requirements from the market, in the framework of their buying-and-selling activity. Subsequent to the cessation of the existing long-term power purchase agreements, each last resort supplier will be responsible for buying and selling the total energy required to supply its customers.

Special-regime generation (by generators using renewable energy sources, waste and CHP) does not participate in the market. These generators are paid prices administratively established by the government, including premiums awarded versus the prices of standard generation. These premiums give rise to a price gap between special-regime generation and standard generation, which is incorporated in the Global Use of System tariff paid by all electricity consumers for their access to the grids. These generators do not compete, either among themselves or with the remaining generators.

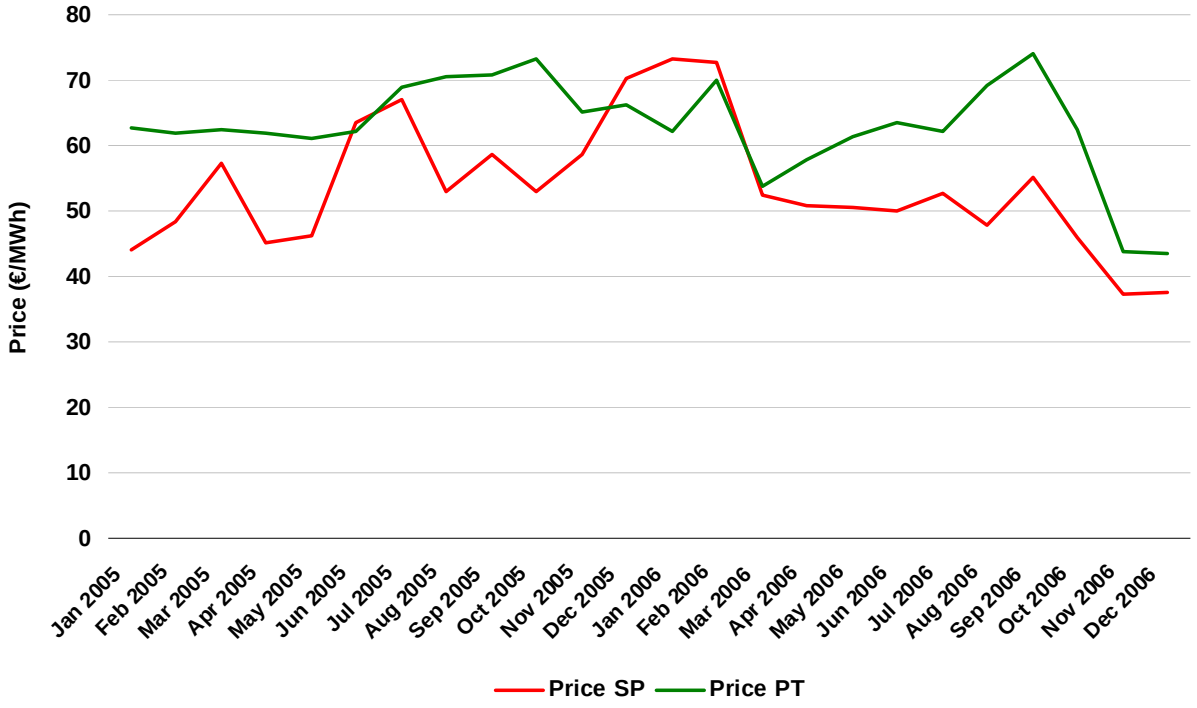
Today the last resort supplier has the obligation of buying the energy produced by special-regime generation.

As a result of the above characterization, supplies in the framework of the liberalized market in 2006 were secured both by a few standard generators established in Portugal who operate in the market and by way of imports from the Spanish market.

In 2006 there was not an organized market in Portugal and therefore the characterization of the wholesale electricity market cannot include information on transactions effected in the said market. In fact the creation of the Iberian Electricity Market (MIBEL) determines the existence of two contracting centres: one for spot transactions (located in Spain) and another for term contracting (located in Portugal, which started operations in early July 2006).

Figure 3-18 compares the costs of power purchase in Portugal (via the Power Purchase Agreements – CAE - signed with binding power plants) and in Spain (in the organized market). In Portugal, the unitary cost has been based on the fixed and variable charges of CAEs. In Spain the unitary cost corresponds to the average monthly price in the market, based on the final price at OMEL for production units—which includes payments of firm capacity, resolution of restrictions, intra-day markets and overcost of system services. The unitary costs are calculated considering the energy produced by the power plants.

Figure 3-18 – Evolution of the unitary costs of power purchase in Portugal and Spain



Source: REN, ERSE, OMEL

Evolution of electricity generation unitary costs in Portugal and Spain has been one of the key drivers promoting the liberalized market in Portugal, as an important part of the energy used in the Portuguese liberalized market comes from Spain – due to the best price indications offered by the Spanish electricity sector. More recently, however, as shown in Figure 3-18, evolution seems to point towards convergence of electricity generation unitary costs in both countries. This may explain why growth slowed down in the Portuguese liberalized market over the last months of 2005 and over 2006, as shown below.

MEETING NATIONAL CONSUMPTION REQUIREMENTS

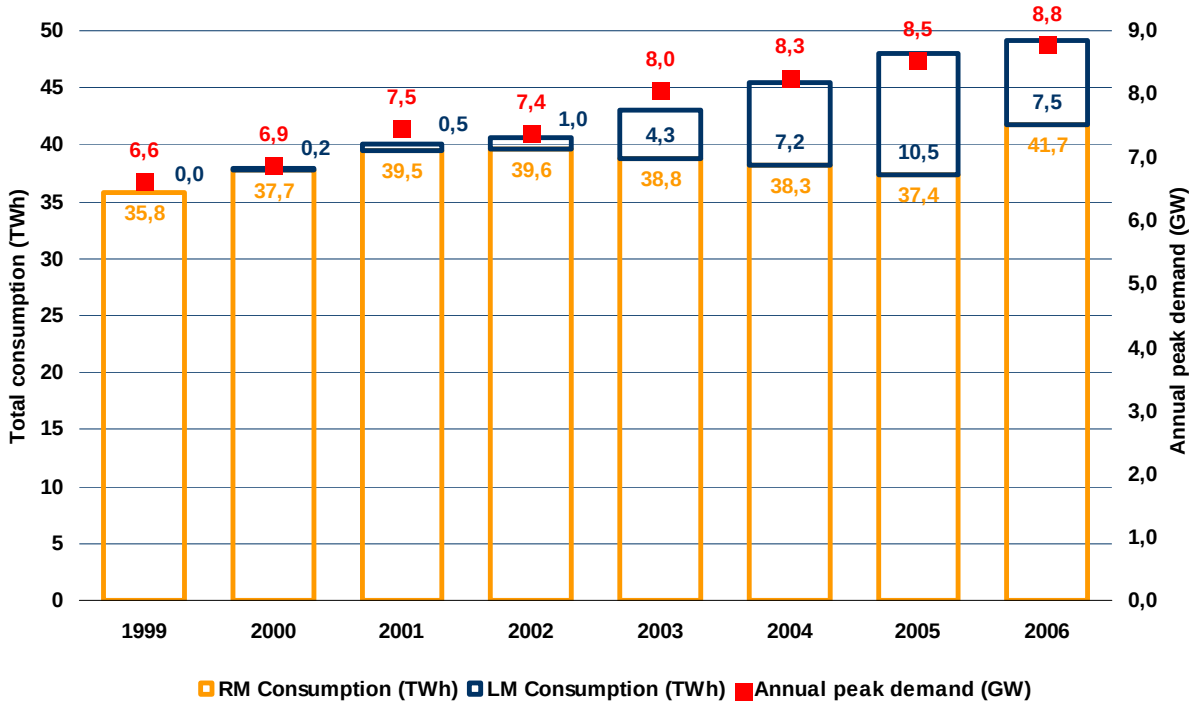
Assessment of total consumption in Mainland Portugal, with a view to characterizing the wholesale electricity market, is made by considering deliveries to the system by generators incorporated in the framework of SEP, of the liberalized market and of special-regime generation, as well as the import balance of electricity.

Total consumption in Mainland Portugal has grown in a sustained fashion since 1999. In 2005 there was a 2.6 percent growth vis-à-vis 2004. On the other hand the parcel of total consumption allocated to the liberalized market (LM) grew continuously until 2005, but dropped in 2006 to a global value at the end of the year of approximately 15.1% of total consumption (using emission as reference).

Figure 3-19 shows the evolution of annual consumption, using emission as reference, both in the regulated market (RM) and the liberalized market (LM), in 1999 to 2006. Total national consumption is determined by simply adding the two parcels. This figure also shows the evolution of the system's annual peak demand over the same period.

Figure 3-19 – Evolution of annual consumption (using emission as reference) and annual peak demand

Mainland Portugal



Source: REN

Contribution from different generators to meet anual consumption requirements is shown in Table 3-17, in which generation units are aggregated by corporate group – except in the cases of special-regime generation and electricity imports where that cannot be done. On the other hand the compound values of national consumption include consumption values in pumping, as it is not possible to obtain individual contribution values without making reference to consumption with pumping.

Thus this table enables us to see that electricity supply in Mainland Portugal is essentially secured by three main entities, i.e. Group EDP, Tejo Energia and TURBOGÁS.

In 2006 Group EDP produced electricity in the framework of both the RM and the LM, as evidenced by Table 3-17. The two other entities are binding generators within the public electricity system. Following the cessation of power purchase agreements (CAE) involving Group EDP, market mechanisms will henceforth govern all standard-regime generation held by this Group.

Table 3-17 – Contribution to meet national consumption requirements
Mainland Portugal

Contribution to meet national consumption requirements - Portugal mainland								(TWh)
	1999	2000	2001	2002	2003	2004	2005	2006
EDP Group	23,9	24,6	27,7	24,7	27,5	24,3	24,1	27,1
EDP_{RM}	23,5	24,0	26,9	24,2	26,6	20,5	18,8	20,9
EDP_{LM}	0,4	0,6	0,8	0,5	0,9	3,8	5,3	6,2
Tejo Energia	4,8	4,6	4,0	4,8	4,2	4,4	4,7	4,4
TURBOGÁS	6,1	5,9	6,0	7,1	5,4	6,2	6,3	4,1
EDIA	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1
Special regime generators	2,3	2,5	2,6	2,8	3,7	4,5	6,5	8,8
Net Imports	0,0	0,9	0,2	1,9	2,8	6,5	6,8	5,4
TOTAL	**37,1**	**38,5**	**40,5**	**41,3**	**43,6**	**45,9**	**48,5**	**49,9**

Source: REN

Special reference should be made, as regards 2006, to a drop in the value of electricity imports and to the growth of Group EDP's production in the framework of both the regulated market (public system) and the liberalized market. Also from 2005 to 2006 special-regime generation increased by approximately 33%, versus the growth of roughly 47% recorded from 2004 to 2005. This reflects a growing use of special-regime generation to meet global electricity demand requirements in Mainland Portugal. In 2006 TURBOGÁS and Tejo Energia, operators of thermal power plants respectively fuelled with natural gas and coal, had their global value of produced energy reduced by respectively 35% and 7%). Their relative contribution to meet consumption in Mainland Portugal therefore decreased.

Compound electricity supply to the grid by the companies of Group EDP increased by roughly 12.6 percent. Growth of the EDP Group production in the liberalized regime (nearly 18.5%) was higher than that the compound production of all its plants in the regulated system (roughly 11%). Be that as it may, it should be noted that calculations of electricity produced by Group EDP did not consider the values produced by Hidrocantábrico, a company held by EDP in Spain, whose possible values of electricity imported to Mainland Portugal may be imbedded in the import balance.

Table 3-18 shows the relative contribution from different generators to meet national consumption requirements, which is an approximated calculation of the market shares of electricity generation. In this regard we again stress the limitations due to the absence of a breakdown of the electricity produced by entities operating in the special-regime market, as well as the fact that we cannot determine which share is attributable to Hidrocantábrico (Group EDP) in the import balance of electricity.

Table 3-18 – Relative contribution to meet national consumption requirements
Mainland Portugal

Relative contribution to meet national consumption requirements - Portugal mainland								
	1999	2000	2001	2002	2003	2004	2005	2006
EDP Group	64,4%	63,9%	68,5%	59,8%	63,1%	52,9%	49,6%	54,4%
EDP_{RM}	63,1%	62,3%	66,5%	58,5%	61,0%	44,6%	38,8%	41,9%
EDP_{LM}	1,2%	1,6%	1,9%	1,2%	2,1%	8,3%	10,8%	12,5%
Tejo Energia	13,0%	11,9%	9,9%	11,6%	9,6%	9,6%	9,7%	8,8%
TURBOGÁS	16,5%	15,3%	14,7%	17,2%	12,4%	13,4%	13,0%	8,1%
EDIA	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,2%	0,3%
Special regime generators	6,2%	6,4%	6,3%	6,8%	8,5%	9,7%	13,5%	17,6%
Net Imports	0,0%	2,4%	0,6%	4,6%	6,4%	14,1%	14,1%	10,9%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: REN; drafted by ERSE

Evolution recorded in 2006 versus 2005, as regards the contribution to meet consumption needs in Mainland Portugal, underlines two key drivers – i.e. increased contribution from special-regime generators and Group EDP in meeting national consumption requirements and reduced contribution from TURBOGÁS and Tejo Energia, as a percentage.

Values concerning the contribution from interconnection traffic with Spain (expressed in the import balance) dropped in 2006 versus 2004 and 2005 values, although remaining clearly above the levels recorded between 1999 and 2003. This fact, together with the evolution of consumption registered in the liberalized market, allows us to conclude that interconnection was used preferably to supply the parcel of national consumption compounded in the liberalized market, with similar evolution of the two compound values.

Having analyzed sector concentration in what concerns the contribution to meet total consumption requirements, Figure 3-20 shows the values resulting from calculations based on the Herfindhal (HHI) indices, as well as the joint share of the three largest operators.

In order to identify the joint share of the three largest operators, we considered the values of each individual entity rather than compound values of Special-regime Generation or Imports – since these cannot be specified by entity. For example in 2006 we added the shares of Group EDP, TURBOGÁS and Tejo Energia, although Special-Regime Generation was the year's second largest compound value, as evidenced by Table 3-18.

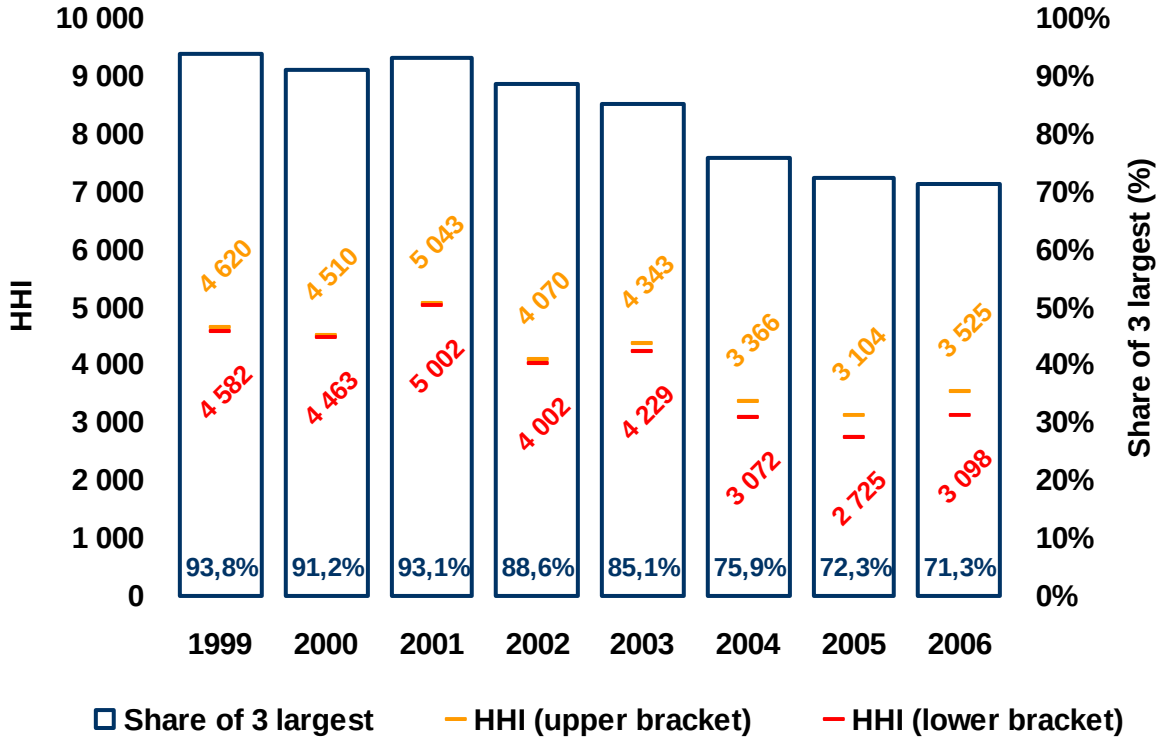
On the other hand, for calculating the Herfindhal indices we considered their upper and lower limits, which result respectively from the fact that (i) Imports and Special-regime Generation represent a maximum dispersion of those shares, and (ii) those values concern one single entity.

Thus Figure 3-20 makes it possible to confirm that the relative share of the three largest generators has been dropping since 2001, although the HHI index shows a somehow irregular evolution. The concentration indicators used in our analysis show a slight reduction of the joint share of the three largest

operators in 2006, together with a growth of the maximum and minimum values of the HHI index. The reason for this fact is that the reduction of TURBOGÁS and Tejo Energia shares is slightly larger than the growth of the Group EDP share. As the latter is the largest operator, this entails an increased concentration level due to the reinforced position of Group EDP. Evolution in 2006 goes against the trend registered in previous years, particularly between 2003 and 2005, towards a reduction of electricity supply concentration indicators in Mainland Portugal.

Figure 3-20 – Concentration indicators of relative contribution to meet national consumption requirements

Mainland Portugal

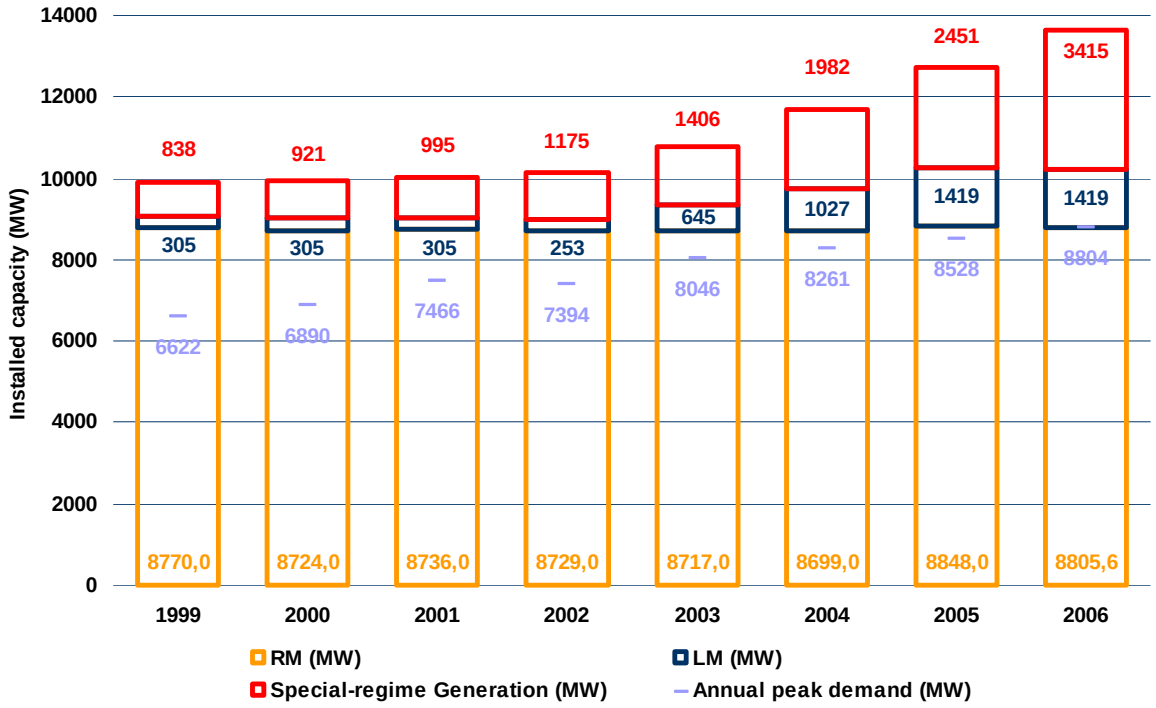


Another important way of analyzing the wholesale market is to characterize the installed generation capacity, namely as regards the evolution of total installed capacity and the distribution of installed capacity by each operator.

Figure 3-21 shows the evolution of installed capacity values, with a breakdown into the generating capacity of the public system generation stock (RM) and the liberalized market (LM) and the capacity attributed to Special-Regime Generators[12]. It also shows the evolution of annual peak demand.

[12] For the purpose of assessing the installed capacity of special-regime generation, we considered the capacity connected to the public system of electricity transmission and distribution and the installed capacity for some thermal power generators (who adopted Decree no. 399/2002).

Figure 3-21 – Evolution of installed capacity and annual peak demand
Mainland Portugal



Sourceonte: REN

Figure 3-21 shows a continuous growth in the Portuguese installed capacity, particularly important after 2001. In 2006 it showed a value of approximately 13.6 GW, corresponding to a growth of 7.2 percent versus 2005.

This capacity growth in the Portuguese installed capacity was mainly caused by the increasing capacity of the special-regime generation sector (growth of approximately 964 MW). Compared to 2005, installed capacity in the regulated market slightly decreased and remained the same in the liberalized market.

The relative distribution of installed capacity by corporate entity – save special-regime generation, due to the difficulties indicated above – is shown in Table 3-19. Values of the imports capacity concern average annual values of commercial importing capacity at the interconnection, on working days.

Table 3-19 – Evolution of installed capacity

Installed Capacity								(MW)
	1999	2000	2001	2002	2003	2004	2005	2006
EDP Group	7 470	7 424	7 436	7 377	7 757	8 121	8 662	8 620
EDP_{RM}	7 165	7 119	7 131	7 124	7 112	7 094	7 243	7 201
EDP_{LM}	305	305	305	253	645	1 027	1 419	1 419
Tejo Energia	615	615	615	615	615	615	615	615
TURBOGÁS	990	990	990	990	990	990	990	990
EDIA	0	0	0	0	0	120	120	240
Special regime generators	838	921	995	1 175	1 406	1 862	2 331	3 175
TOTAL	**9 913**	**9 950**	**10 036**	**10 157**	**10 768**	**11 708**	**12 718**	**13 640**
Import capacity	---	588	600	690	728	1 057	1 150	1 203
TOTAL (with imports)	**9 913**	**10 538**	**10 636**	**10 847**	**11 496**	**12 765**	**13 868**	**14 843**

Source: REN

Group EDP holds the largest share of installed capacity in Mainland Portugal. This share slightly decreased in 2006 versus 2005, for loss of capacity allocated to the regulated market. Also in 2006 the installed capacity of special-regime generation increased significantly. This growth was due mainly to the operations start-up of wind farms.

Table 3-20 shows the relative installed capacity share of different operators in Mainland Portugal. The said table essentially confirms the viewpoints expressed above, namely regarding the relative weight of Group EDP in terms of total installed capacity. Nevertheless the Group has reduced its relative weight in the market since 1999. This trend strengthened the position of special-regime generation.

Table 3-20 – Evolution of the relative share of installed capacity

Installed Capacity relative contribution								
	1999	2000	2001	2002	2003	2004	2005	2006
EDP Group	75,4%	74,6%	74,1%	72,6%	72,0%	69,4%	68,1%	63,2%
EDP_{RM}	72,3%	71,5%	71,1%	70,1%	66,0%	60,6%	57,0%	52,8%
EDP_{LM}	3,1%	3,1%	3,0%	2,5%	6,0%	8,8%	11,2%	10,4%
Tejo Energia	6,2%	6,2%	6,1%	6,1%	5,7%	5,3%	4,8%	4,5%
TURBOGÁS	10,0%	9,9%	9,9%	9,7%	9,2%	8,5%	7,8%	7,3%
EDIA	0,0%	0,0%	0,0%	0,0%	0,0%	1,0%	0,9%	1,8%
Special regime generators	8,5%	9,3%	9,9%	11,6%	13,1%	15,9%	18,3%	23,3%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

On the other hand capacity use by each entity is shown in Table 3-21. For this purpose we considered the ratio of maximum electricity generation to capacity (obtained by multiplying the number of 8760 hours per annum by the average capacity of each entity), including the importing capacity in the calculations as well.

Table 3-21 – Evolution of average capacity use

Average capacity use							(%)
	2000	2001	2002	2003	2004	2005	2006
EDP Group	37,7%	42,6%	38,1%	41,5%	34,9%	32,8%	35,8%
EDP_{RM}	38,4%	43,2%	38,8%	42,6%	32,9%	30,0%	33,0%
EDP_{LM}	23,1%	29,4%	20,3%	23,1%	52,1%	49,0%	50,1%
Tejo Energia	85,4%	74,6%	89,0%	77,4%	82,1%	87,3%	81,2%
TURBOGÁS	68,0%	68,6%	82,2%	62,3%	71,0%	72,5%	46,8%
EDIA	0,0%	0,0%	0,0%	0,0%	19,1%	7,7%	8,5%
Special regime generators	32,0%	30,5%	29,6%	32,7%	31,2%	35,7%	36,3%
Interconnectors	18,1%	4,5%	31,4%	43,8%	70,0%	67,7%	51,6%

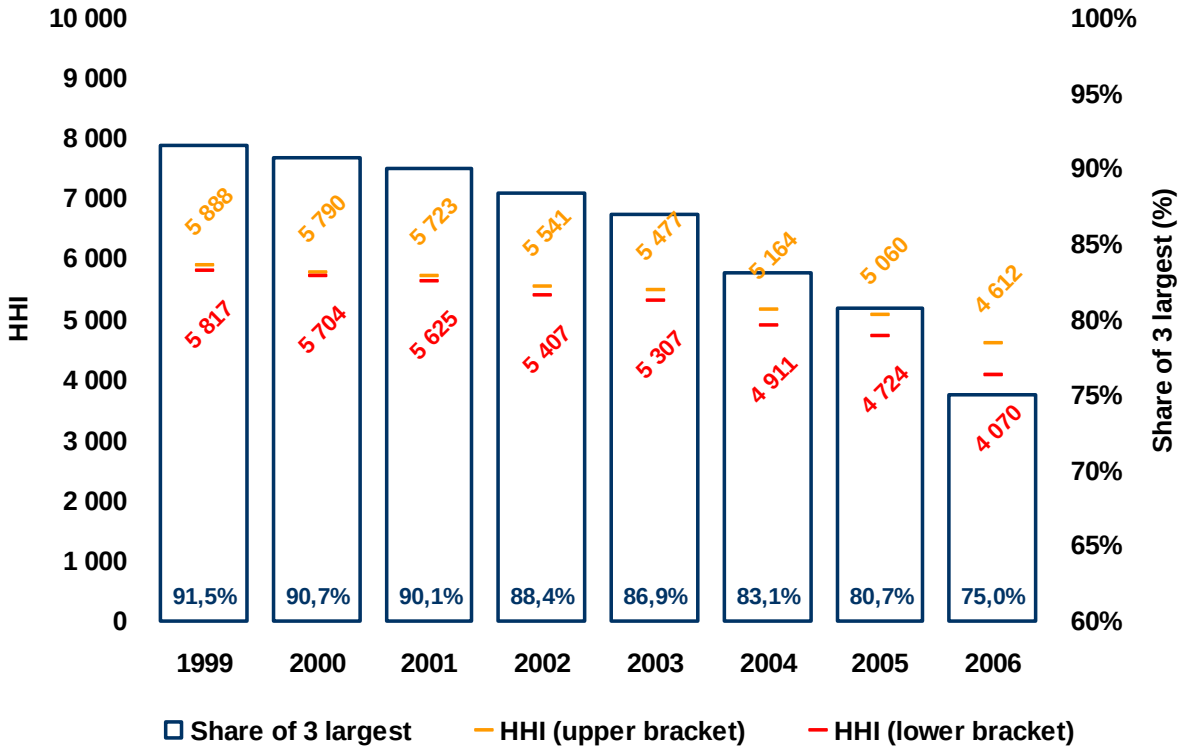
As evidenced by the above table Tejo Energia – running a coal power plant – and TURBOGÁS – running a CCGT plant – are operators that use their respective installed capacity in a more intensive way, with values of 81 percent (Tejo Energia) and 47 percent (TURBOGÁS) of the maximum electricity generation allowed by the installed capacity. Still the level of usage by TURBOGÁS of its installed capacity dropped in 2006 versus 2005. Globally speaking it was supplanted by the value of average capacity usage of Group EDP in the liberalized market.

Based on the values of relative installed capacity share of different operators in Mainland Portugal, evolution of the Herfindhal index[13] and of the joint share of the three main operators is shown in Figure 3-22.

[13] Herfindhal index values shown in this Figure assume that the Imports and Special-regime Generation values correspond to a maximum dispersion of the shares (lower limit) and that those values concern one single entity (upper limit).

Figure 3-22 – Indicators of installed capacity concentration

Mainland Portugal



As consistently demonstrated by Figure 3-22, the evolution of both HHI and the joint share of the 3 main operators shows that the concentration of electricity generation has decreased in terms of the installed capacity of different operators. Such reduction became comparatively more obvious in 2006, namely due to the reduced values (albeit slightly) of Group EDP's installed capacity and the increased capacity attributed to special-regime generators (PRE).

As regards the characterization of the wholesale market based on the system services provided, specificities of the Portuguese electricity sector prevent us from analyzing corporate concentration at this level. In fact system services are embedded into the Power Purchase Agreements in force in 2006, thus being excluded from market-driven contracting rationale. Therefore there are no relative participation shares available for each operator.

3.2.2 CHARACTERIZATION OF THE RETAIL MARKET

In Mainland Portugal the retail market is based on the co-existence of a public system with regulated tariffs practised by last resort suppliers and a market-driven system in which the energy is freely contracted. Grid access tariffs being paid by all consumers or by suppliers on their behalf, they are

naturally incorporated into either the End-User Tariffs practised by last resort suppliers or the tariffs freely practised by market suppliers. In End-User Tariffs regulated by ERSE, grid access tariffs are directly incorporated through its calculation method – as the said End-User Tariffs are determined by adding the Grid Access tariffs to the Energy Tariff and the Supply Tariff practised by the last resort supplier.

CHARACTERIZATION OF ELECTRICITY DEMAND

Table 3-22 characterizes electricity demand in Mainland Portugal. To this effect it shows consumption and the number of customers by type of supply. The table shows 2007 forecasted values (i.e., values based on which the 2007 tariffs were determined).

Table 3-22 - Characterization of demand by type of supply

Type of supply	Energy (GWh)	Number of Customers
VHV	**1 393**	**23**
HV	**6 309**	**194**
MV	**14 360**	**22 492**
LV	**24 782**	**6 020 688**
SpLV	3 441	30 615
StLV (PL excluded)	19 910	5 942 273
PL	1 431	47 800
Total	**46 844**	**6 043 397**

Table 3-23 gives a breakdown of both consumption and customers into VHV, HV, MV and LV, for non-household supplies, by category of electricity consumption..

Table 3-23 - Breakdown of non-household VHV, HV, MV and LV consumption and customers by consumption categories

EUROSTAT Comsumer-type	Annual Consumption	Consumption categories (MWh) Lower limit	Upper limit	% customers	% Consumption
-	-	0	25	90,53	14,00
Ia	30	25	40	2,87	3,87
Ib	50	40	75	3,47	6,23
Ic	160	75	300	2,28	12,81
Id	1 250	300	1 500	0,68	17,33
Ie	2 000	1 500	6 000	0,15	16,73
If	10 000	6 000	16 000	0,02	8,06
Ig	24 000	16 000	35 000	0,01	5,17
Ih	50 000	35 000	70 000	0,00	4,20
Ii	70 000	70 000	100 000	0,00	1,71
-	-	> 100 000		0,00	9,89
		Total		100,00	100,00

Table 3-24 gives a breakdown of StLV household consumption and customers, by category of electricity consumption.

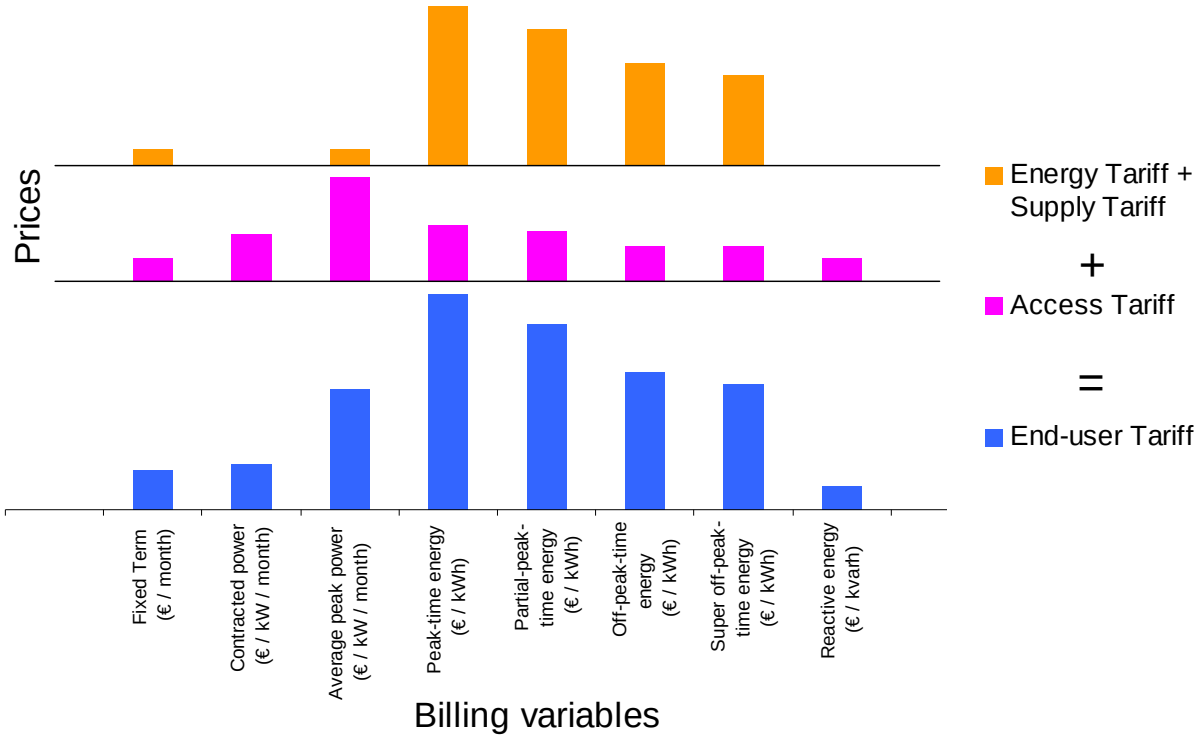
Table 3-24 - Breakdown of StLV household consumption and customers, by consumption category

EUROSTAT Consumer-type	Annual consumption (kWh)	Consumption categories (kWh) Lower limit	Upper limit	% customers	% Consumption
Da	600	0	1 000	28,5	8,6
Db	1 200	1 000	2 000	23,9	13,2
Dc	3 500	2 000	5 000	37,7	46,6
Dd	7 500	5 000	10 000	8,3	21,7
De	20 000	10 000	30 000	1,4	8,1
-	-	> 30 000		0,1	1,9
		Total		100	100

BREAKDOWN OF THE END-USER PRICE PRACTISED BY LAST RESORT SUPPLIERS

As mentioned above, the End-User Tariffs practised by last resort suppliers result from the addition of Grid Access tariffs (referred to and illustrated above, in Figura 3-8) to the Energy Tariff and the Supply Tariff practised by the last resort supplier. The prices of End-User tariffs of each billing variable are obtained by adding the corresponding prices of the said tariffs. A simplified description of the tariff calculation methodology, called Tariff Additivity, is made in Figure 3-23.

Figure 3-23 – Tariff additivity methodology for calculating End-User tariffs



This method of determining the tariffs applicable by the last resort supplier makes it possible to prevent cross-subsidization between:

- Monopoly activities (i.e. grid activities) and market activities (supply and sale of electricity).
- Customers of the last resort supplier with different consumption profiles.
- Customers of the last resort supplier and market-driven customers.
- Last resort suppliers and market suppliers.

Moreover cross-subsidization is prevented by having tariffs that compose the sum based as much as possible on marginal costs – in terms of structure – and on total costs – in terms of level. This also induces an efficient resource allocation that promotes social well-being.

This tariff calculation methodology allows for a detailed knowledge of all tariff components by activity or service – in particular a breakdown of electricity bills, foreseen by the regulations currently governing the electricity sector. This breakdown information specifies the prices paid for grid access, energy and supply, which may be freely negotiated in the market. It make it easier for customers to choose their supplier. The possibility is also foreseen of having an even more detailed breakdown of electricity bills, by type of cost or activity, as follows:

- As regards grid activities:
  - Global Use of System Tariff.
  - Use of Transmission System Tariff.
  - Use of Distribution System (HV and MV) Tariff.
  - Use of Distribution System (LV) Tariff.
  - Metering, Billing and Settlement Tariff.
- As regards last resort supplier activities:
  - Energy Tariff.
  - Supply Tariff.

ELECTRICITY END-USER SELLING PRICE

Figure 3-24 shows the average prices of the End-User Tariff in 2007, paid by Dc, Ib and Ig consumer-types supplied by the last resort supplier. These average prices result from the application of the 2007 End-User Tariff prices to Dc, Ib and Ig types of consumers.

Figure 3-24 - Average prices of the End-User Tariff paid by Dc, Ib and Ig types of consumers

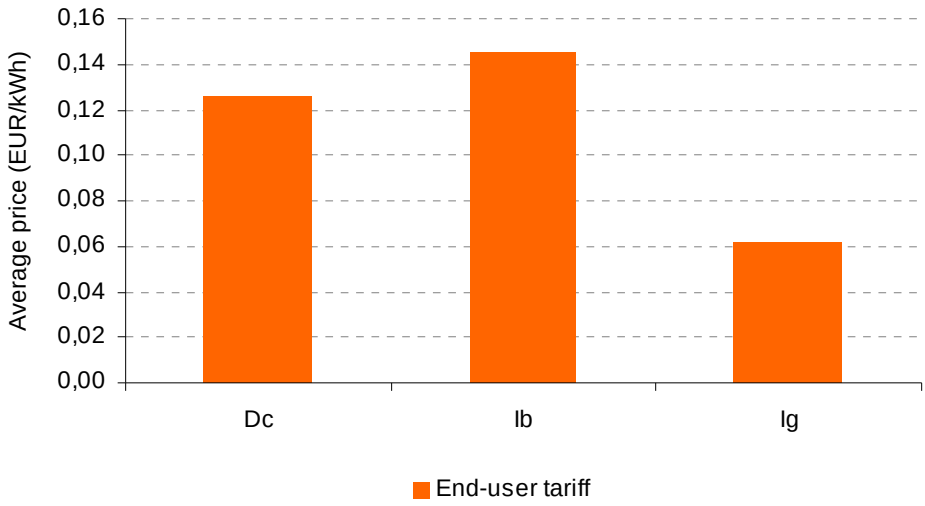


Figure 3-25 shows the structure of average End-User Tariff prices paid by Dc, Ib and Ig type consumers. In this figure the average price of each customer is broken down into the following parcels: Energy and Supply, Grids and General Interest Costs incorporated into the grid access tariffs. Prices relative to "Grids" in this figure exclude a number of regulated overcosts resulting from legal obligations, which are included in the General Interest Cost parcel. These general interest costs are the following: Special-regime Generation Overcost, Autonomous Regions' Tariff Convergence Overcost, Compensation paid for Hydraulic Public Domain Land where Power Plants are installed, Costs with the Derivatives Market (OMIP e OMICLEAR), Concession Rents paid to Municipalities, Costs with ERSE, transfers to the Competition Regulatory Authority and Costs associated with the Plan for Promoting Efficiency in Electricity Use.

Figure 3-25 - Structure of average End-User Tariff prices paid by Dc, Ib and Ig types of consumers

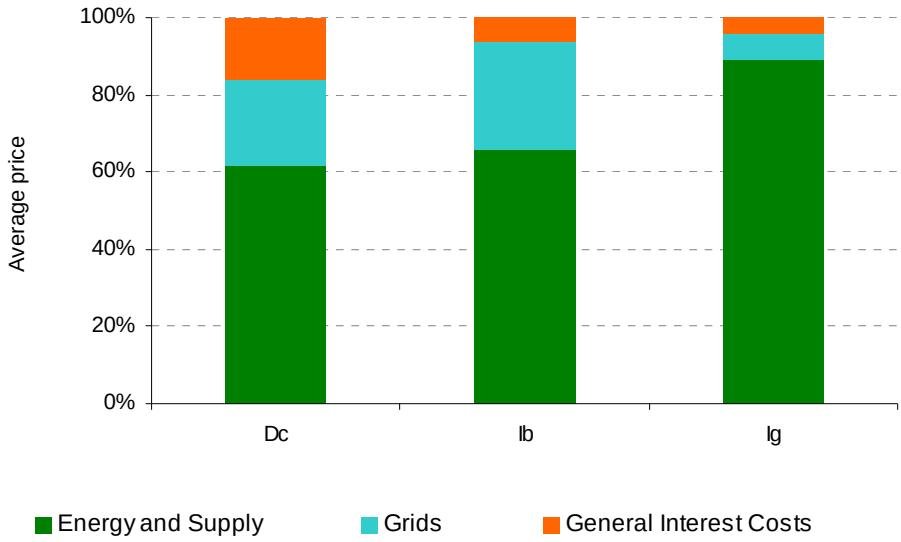


Table 3-25 summarizes the average prices presented in Figure 3-24 and Figure 3-25.

Table 3-25 - Average prices of End-User Tariffs

Unit: €/kWh

Tariff	Consumer-type		
	Dc	Ib	Ig
Energy and Supply	0,0774	0,0953	0,0547
Grids	0,0285	0,0407	0,0040
General Interest Costs	0,0200	0,0088	0,0026
End-User Tariff (VAT excluded)	0,1259	0,1447	0,0613
End-User Tariff (VAT included)	0,1322	0,1520	0,0644

EVOLUTION OF ELECTRICITY SUPPLY

In the framework of the public system, EDP Serviço Universal is in charge of electricity supply since the beginning of 2007. In 2006 however EDP Distribuição was still in charge of this activity, performing both functions of electricity distribution and supply. Ten other local operators also develop electricity supply activities, although in terms of supplied energy their business does not exceed 1% of total consumption in Mainland Portugal.

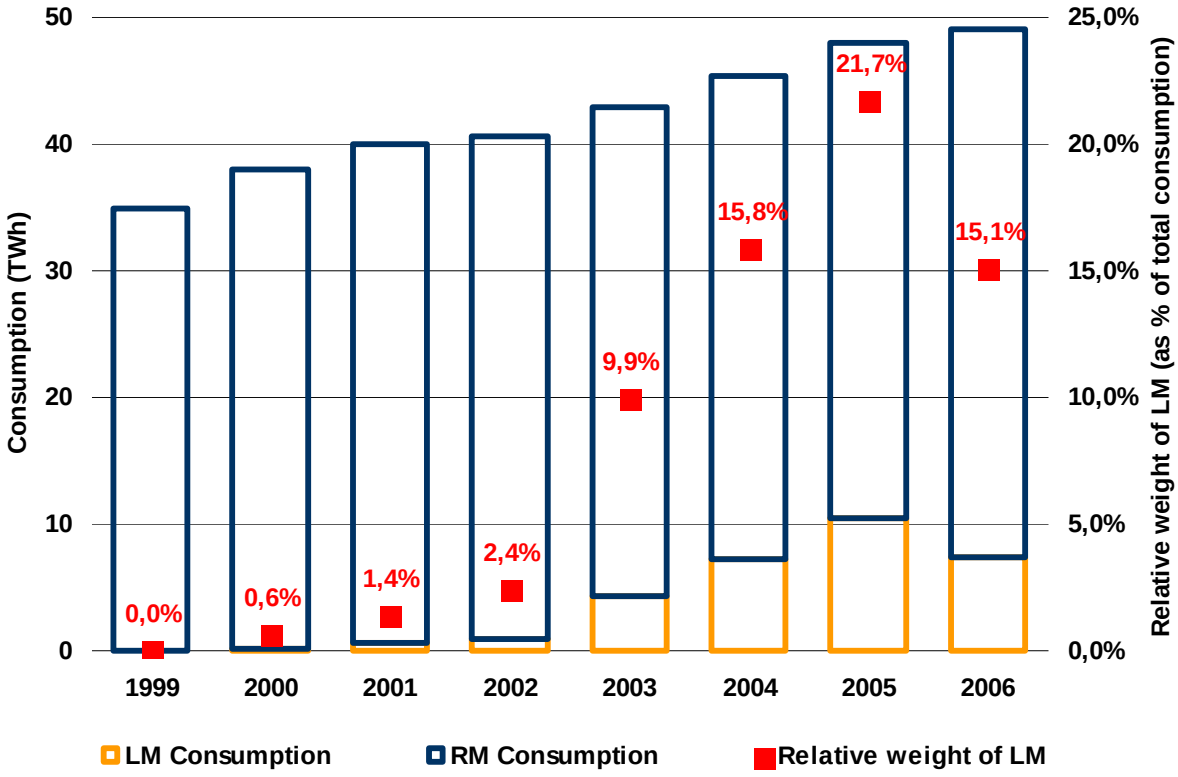
In the framework of the Liberalized Market, in late 2005 there were 4 main operators (considering entities belonging to Group EDP as one): EDP, Endesa, Iberdrola and Unión Fenosa. Continued growth of the relative weight of global consuption in the liberalized market vis-à-vis total consumption in Mainland

Portugal marked the global evolution of the liberalized market from 1999 to 2005. In 2006 however this evolution pattern changed and the 2006 global consumption in the liberalized market represented 15.1% of total consumption – i.e. a reduction versus the 21.7% recorded at the end of 2005.

Figure 3-26 shows the evolution of consumption recorded between 1999 and 2006 – both in the regulated market and in the liberalized market – also making reference to the relative weight of LM consumption vis-à-vis total consumption in Mainland Portugal.

Figure 3-26 – Evolution of conumption in the regulated market and the liberalized market and of the relative weiht of the LM

Mainland Portugal

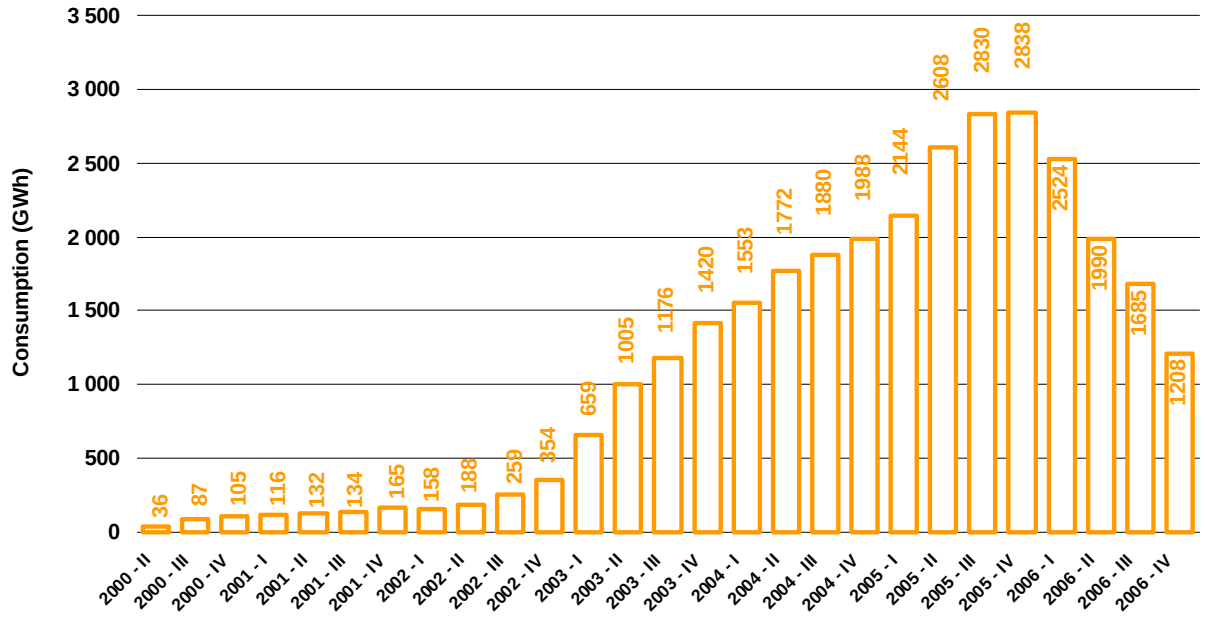


A trend towards decreasing the relative importance of the liberalized market was already noticeable at the end of 2005, as observed in the 2005 Annual Report. Evolution of SEP unitary generation costs and of market prices in Spain pointed towards a levelling of such prices up to the end of 2005 – and there was even a period in which market prices in Spain exceeded unitary generation costs in Portugal. This is possibly the main reason why the relative importance of the liberalized market in the framework of total electricity consumption in Mainland Portugal has been reduced.

The global evolution of consumption in the liberalized market can be observed in the more detailed characterization of quarterly consumption in the LM shown in Figure 3-27. On the whole all quarters of

2003 and 2004 and the first two quarters of 2005 detail the growth trend recorded in each of the said years, as mentioned above. The two last quarters of 2005 illustrate the slow-down of consumption growth in the liberalized market until the end of that year. In 2006 the quarterly consumption in the liberalized market continued to decrease, thus confirming the evolution characterized above in annual terms.

Figure 3-27 – Quarterly consumption in the liberalized market



Source: REN

As regards actual quarterly consumptions in the liberalized market throughout 2006, it should be mentioned that their relative weight versus total consumption evolved from 19.2% in Quarter 1 to 17.4% in Quarter 2, 14% in Quarter 3 and 9.6% in the last quarter. This fact underlines the trend towards a continued reduction of the said relative weight.

On the other hand, bearing in mind that customers may choose any certified supplier to provide them electricity in the framework of the liberalized market, we should analyze the distribution by supplier of the electricity supplied within the said market, so as to gauge the level of vitality of electricity supply in the free market.

Table 3-26 presents the composition of supplier portfolios in each quarter of 2005 and 2006, showing the respective average number of customers.

Table 3-26 – Distribution of the average number of customers by supplier portfolio 2005 and 2006 (by quarter)

Number of clients in LM								
	2005 - I	2005 - II	2005 - III	2005 - IV	2006 - I	2006 - II	2006 - III	2006 - IV
EDP	4 982	7 127	8 779	9 408	8 521	7 381	7 060	17 732
Endesa	988	1 373	1 776	2 268	2 729	2 978	3 105	3 257
Iberdrola	482	992	1 378	1 300	1 073	617	286	242
Union Fenosa	147	272	340	358	257	136	94	88
Viesgo	1	1	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0
Total	**6 600**	**9 766**	**12 272**	**13 334**	**12 581**	**11 111**	**10 545**	**21 319**

Analysis of Table 3-26 shows that, in the last quarter of 2005, the customer portfolio of Group EDP in the framework of the liberalized market accounted for approximately 83% of total customers, while at the end of 2005 it represented approximately 71% of the total average number of non-binding customers. In parallel since the end of 2005 the shares of Iberdrola and Unión Fenosa have dropped in absolute terms and Endesa's has dropped in relative terms, versus an increased market share of the incumbent operator, as regards the number of supplied customers.

The increased number of customers registered in the last quarter of 2006 was solely due to the entry in the market of StLV customers – i.e. households, small trade and industrial facilities. In this regard one should remember that these customers, although formally eligible since August 2004, were only allowed to freely choose their supplier as from September 2006, when the supplier-switching procedures became fully operational.

Figure 3-28 shows the evolution of the shares held by each supplier in the liberalized market throughout 2006.

Figure 3-28 - Distribution of number of customers in the LM, by supplier portfolio 2005 and 2006 (by quarter)

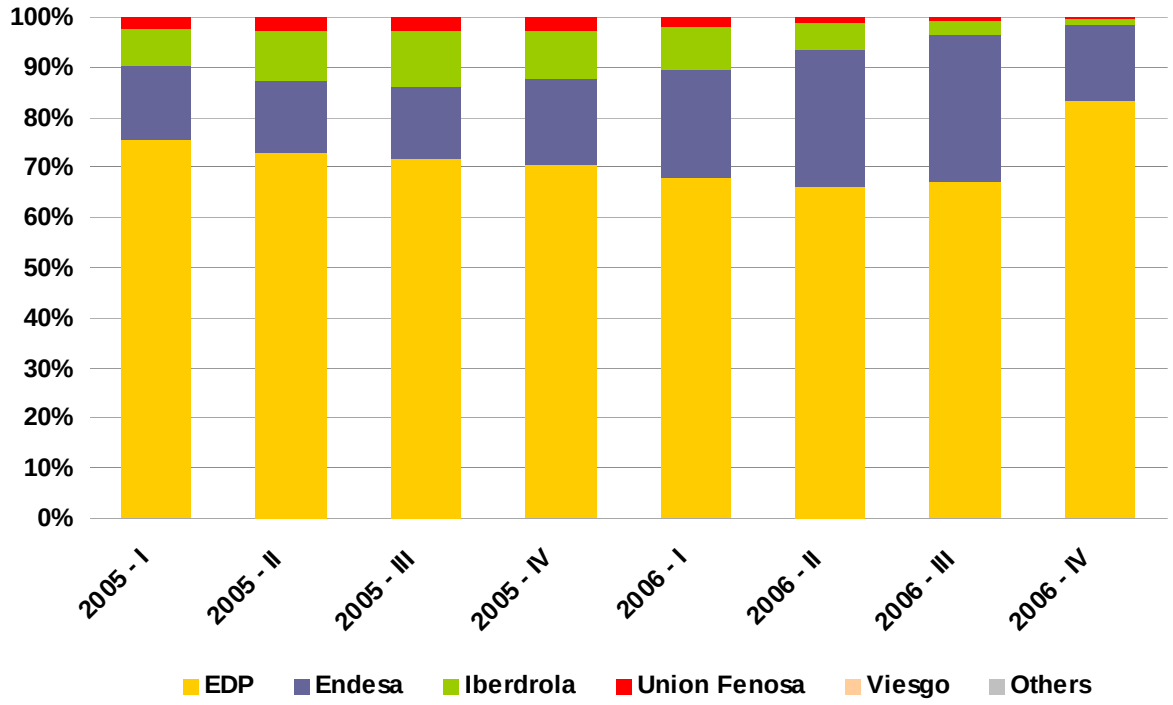


Table 3-27 shows the composition of the supplier portfolios in the quarters of 2005 and 2006, specifying the electricity supplies secured by each supplier to the whole of its customers.

Table 3-27 – Distribution of supplies in the LM by supplier portfolio 2005 and 2006 (by quarter)

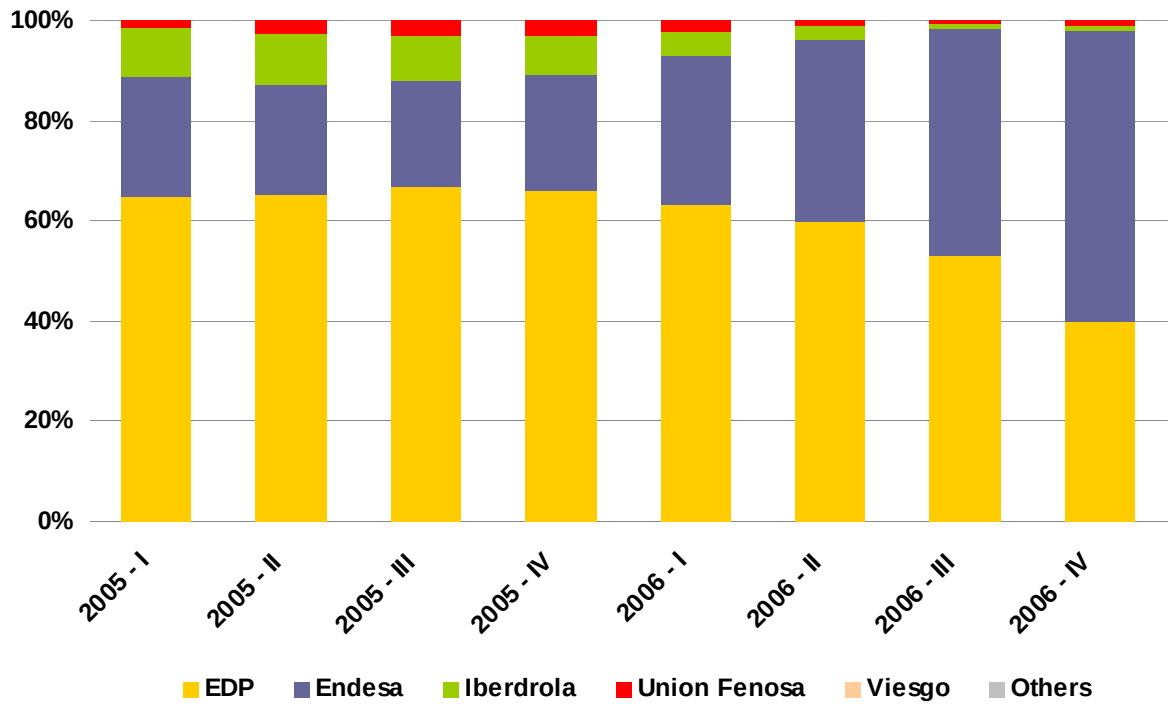
Consumption in LM (each quarter of year)								
	2005 - I	2005 - II	2005 - III	2005 - IV	2006 - I	2006 - II	2006 - III	2006 - IV
EDP	1 427,1	1 701,9	1 888,6	1 871,1	2 040,0	1 535,2	1 119,6	668,8
Endesa	530,1	574,5	604,5	662,1	962,9	933,7	956,6	973,4
Iberdrola	214,2	260,3	253,9	216,9	154,0	64,0	16,6	12,9
Union Fenosa	33,1	70,1	82,5	87,7	74,8	34,7	19,7	16,5
Viesgo	0,6	0,6	0,2	0,0	0,0	0,0	0,0	0,0
Others	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Total	**2 205,1**	**2 607,3**	**2 829,7**	**2 837,8**	**3 231,7**	**2 567,6**	**2 112,5**	**1 671,5**

Relatively speaking, we can see consumption evolve in the liberalized market if we look at portfolio distribution as a function of the supplied electricity – as shown in Figure 3-29. Quarterly evolution of the relative shares of supplier portfolios shows the following: although Group EDP increased its share in terms of number of customers, its share decreased throughout 2006 in terms of supplies. At the end of

the last quarter of 2006, Group EDP ranked second in the liberalized market. Conversely Endesa showed in 2006 a continued growth of its electricity supply share in the liberalized market. This evolution is associated with the gradual loss of relative importance of the liberalized market in 2006, evidencing different strategies adopted by these two operators – i.e. Endesa seeking to relatively maintain its customer and consumption base and Group EDP choosing to accept volume reduction.

Also the portfolios of two other operators in the liberalized market – i.e. Iberdrola and Unión Fenosa – continued to lose importance. At the end of 2006 their shares of electricity supplies were much smaller than at the end of 2005. As a result of this evolution the liberalized market is virtually reduced to two operators, one of which is the incumbent operator of the Portuguese market.

Figure 3-29 – Distribution of supplies in the liberalized market, by supplier portfolio 2005 and 2006 (by quarter)



The recorded evolution of relative electricity supply shares in the Liberalized Market from 2005 to 2006, on annual basis, allows us to draw the following conclusions:

- Reduction of Group EDP's relative share from 65.7% of electricity supplied in the liberalized market in 2005 to 56% in 2006.
- Growth of more than 17% in the share of Endesa, who remained number two supplier of the liberalized market in 2006 on the whole but became number one in the last quarter, as commented above.

- Reduction from 9% to 2.6% of Iberdrola's relative share, between 2005 and 2006.
- Reduction of Unión Fenosa's share, by approximately 1 percent of electricity supplied in 2006 versus 2005.

Figure 3-30 shows the evolution of the relative shares mentioned above, now for the compound consumptions of 2005 and 2006.

Figure 3-30 – Relative share of portfolios in the liberalized market, by consumption 2005 and 2006

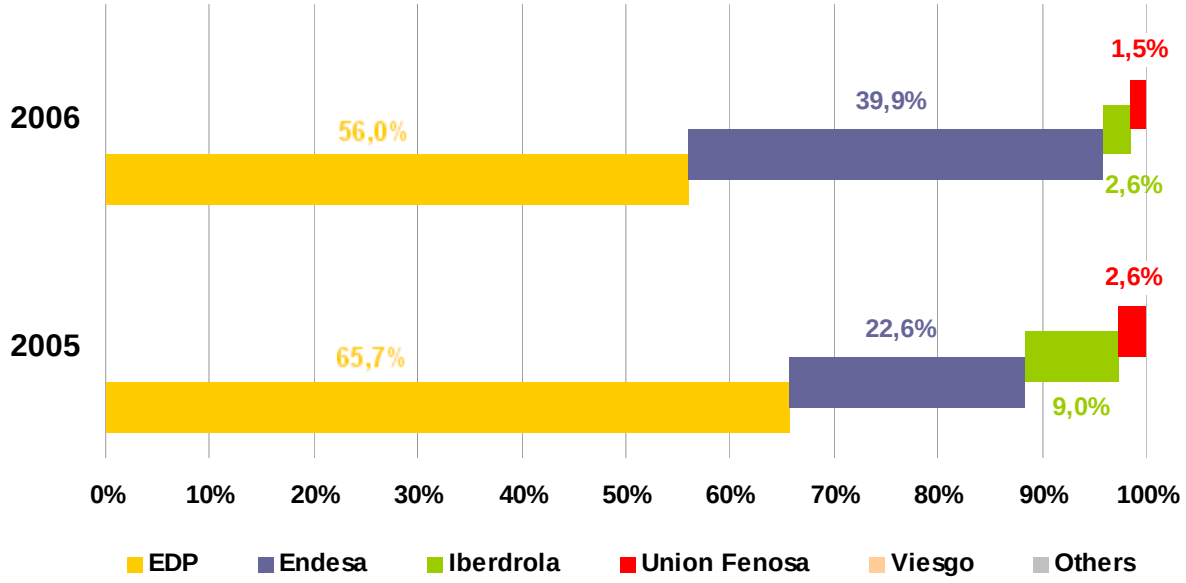


Figure 3-31 shows the quarterly evolution of concentration indicators in 2004 and 2006, using as basis for analysis the electricity supplied to customers in the liberalized market. We find a continuous – although not marked – trend towards reduced concentration in the liberalized market until mid 2005. These same concentration values remained until the end of 2006. This trend is obvious as regards the evolution of HHI, but not when we analyze the evolution of the shares of the three largest operators. This means that concentration changes have chiefly resulted from re-positioning of the said three largest operators.

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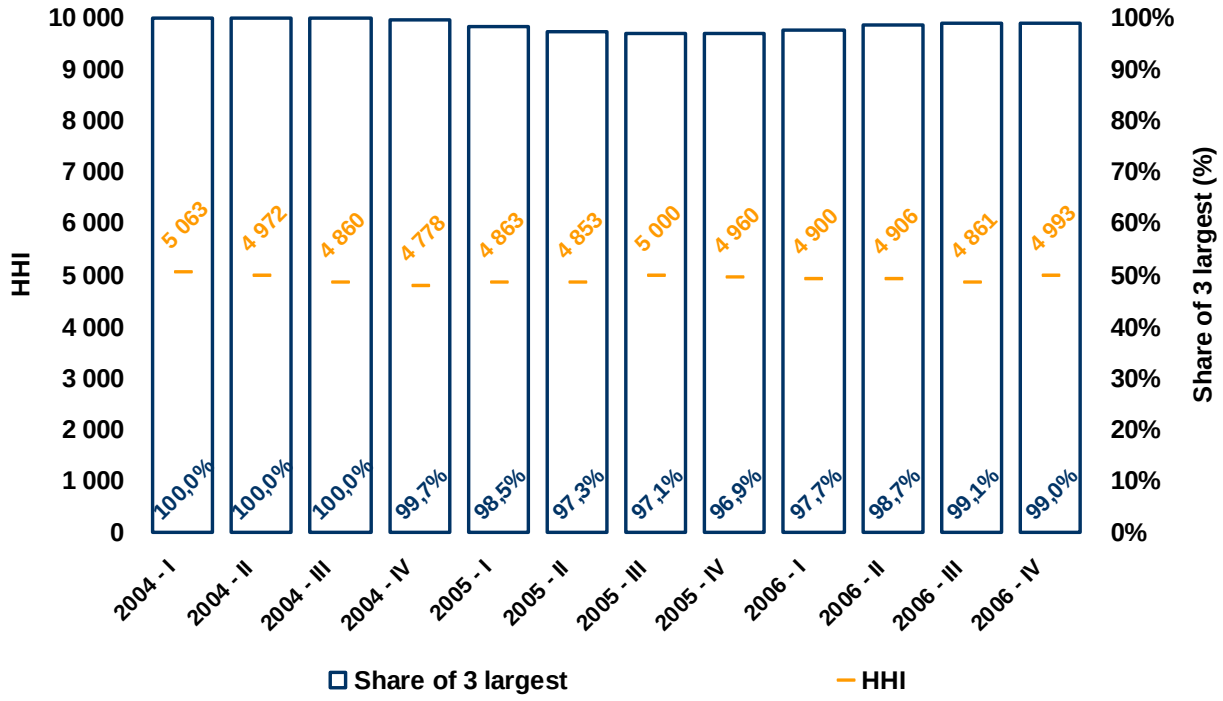
Figure 3-31 – Concentration indicators in the liberalized market, by energy supplied
Mainland Portugal



SUPPLIER SWITCHING

Market opening in Portugal has been phased in, as shown above in section 3.1.1.

Legislation published in August 2004 established that eligibility would be extended to all customers of electricity (i.e. including low-voltage customers with subscribed demand power equal to, or lower than, 41.4 kVA). It should however be noted that the actual exercise, by these customers, of the right to choose one's electricity supplier still depended upon the implementation of the computer systems required to render operational the opening of the market to all electricity customers. This occurred on the 4 September 2006. From then on any customer may freely choose its electricity supplier.

Nevertheless when computer systems aimed at rendering supplier-switching operational began to function, only one operator in the liberalized market – i.e. Group EDP – reported the existence of an approach strategy to the StLV customer segment, which groups households and small trade and industry customers.

It should be remembered that, with the market opening process being consecutively extended to SpLV and StLV it became necessary to amend the regulations so as to adapt the supplier-switching procedures to the market liberalization phase and the demanding requirements associated with it - namely as regards

the high number of customers involved. On the other hand, the review of the electricity sector's regulations promoted by ERSE in 2005 sought to systematize and harmonize a pre-existing set of regulatory provisions on supplier switching.

The freedom to choose suppliers does not concern only the customers currently supplied in the framework of the regulated market. It should benefit all entities requesting grid access, as soon as they are connected to the said grids. Thus the 2005 review of the regulations clarified which modalities of electricity supply contracting are available to each different customer, in terms of supplier choice and not only supplier switching.

In addition to signing a contract with a supplier, customers in Mainland Portugal may also access the platforms of negotiation of the organized markets established by law. They may also enter into bilateral contracts for electricity supply.

Prior to having direct access to organized markets and bilateral contracting, the concerned customer must first inform inform the manager of the supplier-switching process that he/she is going to enter into an electricity supply agreement in one of the two previously mentioned modalities.

The 2005 review of the regulations also established a maximum number of supplier switches per year, i.e. four, as determined by the regulations. This aimed to strike a balance between, on the one hand, the full exercise by the customer of the right to choose suppliers and, on the other hand, the costs associated with the supplier-switching process and the time requirements for achieving the switching procedures. In fact, according to Directive 54/2003/CE governing the Single Electricity Market, such costs may not be directly attributed those who generate them.

In addition customers with pending debts to the regulated supplier, which have not been rebuked in a court of law or by the established legal means, may not switch suppliers before settling such debts. This procedure has been adopted to make the system robust enough to avoid abusive behaviours that may potentially encumber the system with charges that have to be paid by all customers.

The logistic operator is responsible for the supplier-switching process in the existing legal and regulatory framework. Nevertheless this entity has not yet been implemented by specific legislation and so the MV- and LV-distribution operator is temporarily responsible for the said process. On the other hand, no legislative amendments having been made, responsibility for meter installation and management lies with the respective system operator, according to the law currently in force.

We briefly describe the supplier-switching procedures currently in force, as follows:

- Management of the supplier switching process is based on a computer system which foresees the exchange of messages among the various actors in the process (i.e. new supplier, current supplier and distribution operator – as manager of the supplier switching process).

- The above rules concerning the supplier switching process govern the procedures and deadlines that must be complied with at each step of the process. The steps of each process are included in flowcharts that should be provided by the MV- and LV-distribution operator on its website. Format standardization of messages to be exchanged in the framework of the supplier switching process has already been approved by ERSE, following a proposal submitted by the distribution operator.
- System operators are responsible for (i) collecting their customers' consumer data, (ii) applying consumer profiles, and (iii) providing consumer data to all actors in the electricity market.
- Consumer data to be considered for the purpose of supplier switching (in those cases where customers do not have tele-metering equipment) should preferably be obtained by way of metering done by the distribution operator—although they may also be derived from consumption estimates made by the said operator. Customers—or their new suppliers—may also request an extraordinary metering operation, bearing the costs incurred in connection with the provision of such service.
- Distribution operators responsible for managing the supplier switching process have the duty of keeping up-to-date data corresponding to the delivery point information set. Such data may be accessed free-of-charge by the customer or its new supplier—with prior authorization given by the customer. All suppliers can thus access the data required to propose commercial offers to their potential customers. Data contained in the delivery point information set have been approved by ERSE and is available on the ERSE website.
- Customers wanting to be supplied in the liberalized market by a given supplier may ask the new supplier to trigger the supplier-switching procedures through the supplier-switching platform.
- Suppliers have the responsibility of holding, together with the system operators, the Grid Access and Operation Agreements regarding the customers included as a whole in their portfolio. These customers do not need to sign individual agreements. Thus the suppliers take responsibility for paying the access tariffs corresponding to their total customers.
- System operators are responsible for collecting data on customer consumption, enforcing consumer profiles and making consumer data available concerning the various stakeholders in the electricity market.

3.2.3 MEASURES FOR PROMOTING COMPETITION

One of the key measures aimed to promote competition in the electricity sector was the signature by the Governments of Portugal and Spain, in November 2001, of a protocol for the creation of the Iberian Electricity Market – MIBEL.. Initially scheduled for January 2003, the operational start-up of MIBEL was successively delayed. Finally the forward market only began to operate in early July 2006.

Competition in the Iberian market will be promoted also by drafting the rules required to create an efficient market. To this end ERSE developed co-operation with the regulatory authorities present at the Council of Regulators, established in the agreements concerning the creation of MIBEL signed by the Portuguese Republic and the Kingdom of Spain. As a result, in 2006 ERSE analyzed rules governing negotiation and compensation in the electricity forward market, together with the above regulatory authorities. They also dealt with other matters relevant to the functioning of the market as a whole.

On the 8 March 2007 the Governments of Portugal and Spain met in Lisbon and agreed on the actual implementation of the Iberian market as from the 1 July 2007. This is the date defined on Directive 54/2003/CE governing the Single Electricity Market for total opening of electricity markets in the European Union member-states. The said agreement identified a number of matters which required the definition of a legal and regulatory harmonization plan and assigned to the Regulators in both countries the responsibility for studying, proposing or addressing the said matters. Special reference should be made to matters related with (i) the power assurance mechanism, (ii) the interconnection management mechanism, (iii) the definition of the proposal to be sent to both Governments on the amounts of electricity that must be purchased by the Portuguese last resort supplier and by Spanish distribution operators at MIBEL's derivatives negotiation platform, and (iv) the supplier-switching rules and procedures..

Also prior to the entry in force of MIBEL the power purchase agreements (CAE) signed by producers in the Portuguese public system had to be terminated in advance. This step was taken on the 15 June 2007 with the cessation of CAE concerning Group EDP, taking effect as from the 1 July 2007.

Power purchase agreements involving TURBOGÁS and Tejo Energia remain however in force, representing approximately 15.4% of the existing installed capacity in Mainland Portugal – excluding special-regime generation. Electricity generated by these power plants is managed by the Commercial Operator, who is responsible for placing such production by way of market mechanisms.

In legislative and regulatory terms mechanism now exist for promoting competition in the Iberian market, namely as follows:

- Define minimum amounts of electricity to be purchased by the Portuguese last resort supplier and the Spanish distribution operators in MIBEL's derivatives negotiation platform.
- Implement auctions aimed at allocating part of the bilateral contracting of the Portuguese last resort supplier and of Spanish distribution operators by way of market mechanisms and, desirably, in a non-vertically integrated manner.
- Implement virtual capacity auctions aimed at allowing operators working independently of the incumbent and/or regulated operators to acquire installed capacity rights that enable them to operate in the market.

Also ERSE has been monitoring as closely as possible the development of liberalization in the electriciy sector. To such effect ERSE publishes and disseminates annual reports on the development of the liberalized market, describing the evolution of market opening and assessing the depth level of liberalization by estimating the number of customers exercising their right to freely chose electricity suppliers, as well as the respective consumption.

ERSE has also followed up the relative shares of each operator supplying electricity in the framework of the liberalized market, namely with a view to contributing to monitor the development of competition in the sector.

3.2.4 CONCENTRATION OPERATIONS

Pursuant to its legal obligations the Competition Regulatory Authority must be notified on any corporate transactions fitting (or potentially fitting) the concept of concentration operation – also in the electricity sector. In these cases, advice given by the Competition Regulatory Authority must be prepared in the light of its legal obligations of co-operation and co-ordination with the regulatory authority responsible for the sector. Therefore ERSE is called upon to issue its formal advice on all notification cases involving entities from the energy sector.

In 2006 the Competition Regulatory Authority made one decision regarding operations notified by entities linked to the electricity sector, asking ERSE to issue advice on each operation. One other decision however, regarding the notification of a concentration operation involving entities governed by Spanish law - Gas Natural and Endesa -, gave rise to advice issued by ERSE. Nevertheless the Competition Regulatory Authority only issued its final decision in 2007, abating the process. The above decisions are published on the Internet web-site[14] of the Competition Regulatory Authority. Generally speaking the respective texts make reference to the advice received from ERSE.

ACQUISITION BY REN OF REGULATED NATURAL GAS ASSETS

This operation involved the acquisition by REN of regulated natural gas assets held by GALP and some of its subsidiaries. Regulated assets considered for this operation were the following:

- High-pressure transmission system, including the stakes held in company Gasoduto Braga-Tuy and in company Gasoduto Campo Maior-Leiria-Braga.
- A few facilities (three caves) for underground gas storage.
- Liquefied Natural Gas (LNG) Terminal at Sines.

[14] http://www.autoridadedaconcorrencia.pt

This concentration operation was part of the process of review of the legislative and regulatory framework aimed at liberalizing the energy market. It was foreseen in Cabinet Resolution no. 169/2005, of the 6 October 2005, which refers to, among other guidelines, the need to "(…) render autonomous the regulated assets (i.e. reception, transmission and storage) of the natural gas sector and render operational their incorporation into the transmission system operator".

The regulated assets identified above have been transferred to three companies, totally controlled by REN at first. These companies have already been established, as provided for in Cabinet Resolution no. 85/2006, of the 22 June 2006. Thus:

- The high-pressure transmission system became an asset of REN Gasodutos.
- The three underground caves became an asset of REN Armazenagem.
- The Liquefied Natural Gas (LNG) Terminal of Sines became an asset of REN Atlântico.

The above operation had a significant impact on the natural gas sector, promoting the unbundling of transmission ownership, the legal separation between the two regulated sectors, as well as the legal separation among different businesses comprised by the operation of the natural gas infra-structure. This unbundling is compatible with the principles established by the single energy market directives, as well as with the legal frameworks of both sectors, favouring the development of truly competitive sectors in the future.

On the other hand the operation made it possible to leverage on synergies derived from knowledge shared between the two sectors, on the one hand, and the possible sharing of common services, on the other. If this leveraging results in efficiency gains for the energy sector as a whole, it will also be beneficial for the consumers of electricity and natural gas.

After requesting and hearing ERSE's advice, the Competition Regulatory Authority decided not to oppose the concentration operation, considering that the said operation would not generate a dominant position capable of "creating significant obstacles to the development of natural gas transmission, underground storage of natural gas and re-gasificaiton of liquefied natural gas (LNG) activities in the national territory".

ACQUISITION OF ENDESA'S EXCLUSIVE CONTROL BY GAS NATURAL

This concentration operation involved the acquisition of exclusive control of Endesa S.A., following a take over bid made Gas Natural, SGD, S. A. to buy this company's total share capital.

When this operation was notified, Endesa held stakes in companies operating in Portugal, engaged in special-regime generation (Sociedade Térmica Portuguesa and Finerge), conventional generation (Tejo Energia – the operator of the Pego thermal power plant) and supply of electricity in the liberalized market (Sodesa).

ERSE's advice focused particularly on the functioning of the electricity and natural gas markets in the Iberian Peninsula from the point of view of their regulation, as well as the consequences of the said operation in the context of MIBEL's implementation.

ERSE's advice stressed upfront that the industrial organizational model underlying the concentration operation under analysis (i.e. merging the natural gas and electricity value chains) was different from the model outlined by the Portuguese government, based on cross-competition between the two sectors, particularly at the level of distribution and supply. In this regard the European Commission opposed the elimination of cross-competition in the EDP/ENI/GDP case – something that the Gas Natural/Endesa concentration wanted to materialize in Spain.

Moreover ERSE's advice stressed that the said concentration operation not only had consequences for the Spanish energy sector but it also seemed to include a number of signs contrary to the development and promotion of competition. These signs were particularly sensitive in the Portuguese electricity market, putting at jeopardy the materialization of a regional competitive Iberian market – thus making it difficult to fulfill the objectives of creating the Single Energy Market. Such signs, if materialized, would be harmful to the balance between consumer protection and free decision-making by economic operators.

On the 20 March 2006 the Competition Regulatory Authority decided to launch an in-depth research on this operation, as the proposed concentration might "(…) in the light of information collected, create or strengthen a dominant position which could result in significant obstacles against true competition in the national territory".

Meanwhile however Gas Natural gave up on their intent to go on with the process and therefore the Competition Regulatory Authority decided, on the 1 March 2007, to abate the process.

4 REGULATION AND PERFORMANCE IN THE NATURAL GAS MARKET

4.1 REGULATION MATTERS

4.1.1 GENERAL

The Portuguese natural gas market, as an emerging market, has benefited from derogation under Directive 2003/55/CE, of the European Parliament and Council, dated 26 June 2003. Therefore its process of liberalization did not begin during 2006.

Decree-Law no. 30/2006, published on the 15 February 2006, has been adopted to transpose to the Portuguese domestic law Directive 2003/55/CE, concerning the common rules for the single natural gas market, thus materializing the strategic guidelines of the Council of Ministers' Resolution no. 169/2005, of the 24 October 2005. This decree-law establishes the new organizational framework of the National Natural Gas System, including the general principles governing the activities of natural gas reception, storage, transmission, distribution and supply, as well as the natural gas supplier-switching activity and market organization. It creates the legal basis for activity unbundling, as mentioned in Directive 2003/55/CE.

This Decree-Law establishes the criteria governing the concession of authorizations for developing each of the above activities, operation of grids and other infra-structures and the access to such grids and infra-structures by third-parties. It further specifies the duties of each operator and establishes the unbundling and transparency of accounting. Lastly it foresees safeguard and derogation measures related with commitments in the framework of take-or-pay agreements or vis-à-vis emerging isolated markets.

Decree-Law no. 140/2006, of the 26 July 2006, implemented Decree-Law no. 30/2006, of the 15 February 2006. It established the legal regimes applicable to the activities of natural gas transmission, underground storage, reception, storage & re-gasification at liquefied natural gas (LNG) terminals and distribution. It also defined the legal bases for concessions and the type of awarding procedures applicable.

As mentioned above Decree-Law no. 140/2006 also defines the timeframe for opening the natural gas market.

This Decree-Law also establishes that ERSE will have the power to draft and approve the following regulations:

- Access to Grids, Infra-structures and Interconnections Code.
- Infra-structure Operations Code.

- Quality of Service Code.
- Commercial Relations Code.
- Tariff Code.

Based on objective, transparent and non-discriminating criteria, the Access to Grids, Infra-structures and Interconnections Code establishes the conditions and obligations governing the right of access to all infra-structures of the national natural gas system, which must be complied with by the regulated companies operating in the natural gas sector and by eligible customers. It also establishes the conditions in which the operators may refuse the access to grids, interconnections and storage facilities.

The Infra-structure Operations Code establishes the criteria and procedures for managing natural gas flows, the provision of system services and the technical conditions enabling the operators of the National Transmission System, of Storage Facilities and of LNG Terminals to manage such flows, while ensuring their interoperability with the grids to which there are connected – as well as the procedures required to secure their materialization and verification.

The Quality of Service Code applies to all operators, agents and customers in the natural gas sector. In the field of quality of service, it determines different obligations of compliance, information, monitoring and dissemination of information – depending on the activities developed by each operator and agent. Quality of service is approached in technical and commercial terms. Technically, quality of service concerns the attributes of natural gas supplied, the conditions in which it is supplied and the continuity of supply. Commercially, quality of service concerns the quality of commercial relationship between customers and the infra-structure operator, or between customers and suppliers, across the entire commercial cycle – i.e. since pre-contracting to the processing of claims filed against the service provided.

The Commercial Relations Code addresses the matters required to define the rules governing the commercial relations between different stakeholders in the natural gas sector. Its structure mostly reflects the existence of different kinds of commercial relations among the said stakeholders. The Commercial Relations Code establishes the set of principles that should guide the relationships currently emerging in the natural gas, namely the following:

- Security of natural gas supply, consistent with consumer needs – in quantitative and qualitative terms.
- Equality of treatment and opportunities.
- Non-discrimination.
- Transparency and objectivity of rules and decisions regarding commercial relations.
- Impartiality in decision-making.

- Right to information and protection of confidentiality of commercial information considered sensitive.

The Tariff Code establishes the criteria and methodologies required for defining the NG tariffs and prices applicable to commercial relations of companies in the natural gas sector. This code establishes the regulated tariffs, the procedures for calculating and determining tariffs, the definition of allowed revenue, the procedures to adopt for establishing, altering and publishing tariffs, as well as the obligations of the NG sector entities – namely as regards the provision of information.

4.1.2 MECHANISMS FOR MANAGING CONGESTIONS AND ALLOCATING AVAILABLE CAPACITY AT THE INTERCONNECTIONS

The natural gas infra-structure is very recent in Portugal and its transmission capacity is far higher than the present transit levels. As a consequence no congestions have occurred in the said infra-structure. Notwithstanding the regulatory framework approved in 2006 includes a mechanism for allocating available capacity and foresees the possible occurrence of congestions, defining the principles to be adopted in such situations.

4.1.2.1 CAPACITY ALLOCATION AT THE INFRA-STRUCTURES OF THE NATIONAL NATURAL GAS SYSTEM

Allocation of capacity at the national natural gas system's infra-structures results from previous processes of scheduling and assignment of the said infra-structures.

Scheduling involves processes of periodical information whereby market players inform the national natural gas system infra-structure operators of the capacity they need to use over a given period of time. The regulatory framework currently in force foresees the existence of annual, monthly and weekly scheduling processes, regarding the transmission system, the distribution grids, the LNG terminal and the underground storage infra-structures.

Assignments are processes of communication with forecasts of capacity use at the national natural gas system's infra-structures for the next day. They must therefore reflect a more accurate forecast of consumption.

Capacities scheduled and assigned by the market players must be accounted for according to the forecasted portfolio consumption.

Checking mechanisms have been linked to the scheduling and assignment processes with a view to verify the global feasibility of all scheduling requests made by the market players. Infra-structure operators, together with the transmission system operator who co-ordinates the activity of global technical

management of the national natural gas system, allocate the scheduled and assigned capacities after the checking mechanisms have confirmed the global feasibility of all scheduling and assignment requests. If such feasibility is not confirmed, then the congestion management mechanism described below shall be triggered.

Market players should be sequentially involved in scheduling until assignment takes place, inasmuch as capacities allocated in the framework of a scheduling process need to be confirmed in the subsequent processes – in case the market player really wants to use such capacity. Previously allocated capacities that are not confirmed in the subsequent scheduling processes are again made available to the market players (*use it or loose it*).

The regulatory framework currently in force safeguards the allocation of capacity at the national natural gas system's infra-structure, in connection with long-term natural gas supply contracts of the take-or-pay type signed prior to the publication of Directive no. 2003/55/CE, of the European Parliament and Council, dated 26 June 2003, for supplying consumers in the national territory. This provision does not exempt market operators holding such contracts from participating in the processes of scheduling and assignment.

4.1.2.2 CONGESTION MANAGEMENT MECHANISM

The congestion management mechanism is triggered whenever the scheduling and assignment requests of market players are not globally feasible. In these circumstances identification is made of the points of the national natural gas system where congestions are predictable and capacity is allocated by means of capacity auctions.

The congestion management mechanism applies to specific points in the infra-structures and safeguards two fundamental principles:

- Capacity shall be allocated by way of market mechanisms.
- Charges due to capacity allocation only become real if the forecasted congestions are confirmed.

4.1.3 REGULATION OF THE NATURAL GAS PUBLIC SYSTEM OPERATORS

4.1.3.1 NATURAL GAS PUBLIC SYSTEM OPERATORS

Decree-Law no.30/2006, of the 15 February 2006, establishes the general principles governing the organization and functioning of the National Natural Gas System (SNGN).

This Decree-Law begins to transpose to Portuguese domestic law Directive no. 2003/55/CE of the European Parliament and Council, of the 26 June 2003, which established common rules for the single

natural gas market. The new Decree-Law revoked Decree-Law no. 14/2001, of the 27 January 2001, and Decree-Law no. 374/89, with the version drafted in Decree-Law no. 8/2000, of the 8 February 2000. This legislation shall none the less remain in force in those matters that are not compatible with the new Decree-Law, until complementary legislation enters into force.

SNGN's organization relies on the operation of the natural gas public system, consisting of:

- Terminal for LNG reception, storage and re-gasification.
- Underground Natural Gas Storage Facilities.
- National System of Natural Gas Transmission (RNTGN).
- National System of Natural Gas Distribution (RNDGN).

This infra-structure is operated by means of public-service concessions – or by means of public-service licenses, in the case of local autonomous distribution grids.

Natural gas transmission is ensured by a single public-service concession concerning the operation of the Natural Gas Transmission System. This activity is legally unbundled from other activities, in the framework of the SNGN – and so are its assets.

Natural gas distribution is ensured by means of:

- Concessions, based on exclusive dedicated operation and under a public-service regime.
- Distribution licenses in local autonomous grids, based on exclusive dedicated operation and under a public-service regime.
- Distribution licenses for the private use of natural gas (off-grid).

Distribution is legally unbundled both from the transmission activity. Legal unbundling from the last resort supply activity is also anticipated, but not when the number of customers supplied by distribution operators is lower than 100 thousand.

The following operators develop activities subject to ERSE regulation, in the framework of the respective concession contracts and licenses:

- REN Atlântico, terminal de GNL, SA

  REN Atlântico, terminal de GNL is a company that holds the LNG reception, storage and re-gasification concession. In this context it develops the activity of LNG Reception, Storage and Re-gasification.

  The LNG reception, storage and re-gasification terminal operator has the responsibility of operating and maintaining the terminal and the storage capacity. The activity of LNG Reception, Storage and Re-gasification makes it necessary to manage natural gas flows at the terminal and the storage

facilities, securing their inter-operability with the transmission grid to which they are connected, in the framework of the SNGN Global Technical Management.

The LNG reception, storage and re-gasification terminal operator also has the responsibility of allowing all market players to access the infra-structures of the LNG Terminal – in a transparent non-discriminatory way.

- REN Armazenagem, SA and Transgás Armazenagem, SA

REN Armazenagem and Transgás Armazenagem are companies that hold the natural gas underground storage concessions, developing the activity of Natural Gas Underground Storage.

Natural gas underground storage operators have the responsibility of operating, ensuring the technical integrity and maintenance of the underground storage infra-strucutre. They must also manage natural gas injection, storage and extraction, according to the requests of market players, securing their inter-operability with the transmission grid to which they are connected, in the framework of the SNGN Global Technical Management.

Underground storage operators also have the responsibility of allowing all market players to access the underground storage infra-structures – in a transparent non-discriminatory way.

- REN Gasodutos, SA

REN Gasodutos is a company that holds the natural gas transmission concession, by way of the high-pressure grid. Pursuant to its obligations as transmission system operator (TSO), REN Gasodutos must separate its activities, i.e. natural gas transmission, SNGN Global Technical Management and Access to the National System of Natural Gas Transmission (RNTGN).

  - Natural gas transmission activity

  In context of the natural gas transmission activity the TSO shall operate the natural gas transmission infra-structures in appropriate technical and economic conditions – including LNG transport by road to supply customers connected to the local natural gas distribution systems. To this effect the TSO shall, in the framework of its natural gas transmission activity, propose the planning and promote the development of RNTGN infra-structures so as to equip the national natural gas system with the appropriate technical capacity, thus contributing to the security of supply. Also it is the TSO's responsibility to ensure the operation, technical integrity and maintenance of the transmission system. The TSO shall also be responsible for allowing all market players to access such infra-structures in a transparent non-discriminatory way.

  - SNGN Global Technical Management activity

  In the framework of the SNGN Global Technical Management activity, the TSO is the SNGN Global Technical Manager and performs Settlement of Accounts functions. The SNGN Global Technical Manager is in charge of co-ordinating operations of the SNGN infra-structure and of the infra-structure connected to this system. The Settlement of Accounts function is in charge of

sharing and balancing associated with the use of infra-structures, as well as determining the existing stocks of market players in the said infra-structures.

The Supplier-Switching Logistic Operator function is, for the time being, performed by the TSO in the framework of the Global Technical Management of the System, until the legal regime governing the exercise of such activity is defined. Thus the TSO is responsible for the supplier-switching process according to the applicable legislation.

- RNTGN Access activity

In the framework of the SNGN Global Technical Management activty, the transmission system operator is in charge of contracting the access to the RNTGN infra-structures – as regards deliveries to customers connected to the transmission system.

• Beiragás, SA, Lisboagás, SA, Lusitaniagás, SA, Portgás, SA, Setgás, SA; Tagusgás, SA, Dourogás, SA, Duriensegás, SA, Dianagás, SA; Paxgás, SA e Medigás, SA.

A Portgás, a Lusitaniagás, a Beiragás, a Tagusgás, a Lisboagás e a Setgás are natural gas distribution system operators with concessions for distributing natural gas. Dourogás, Duriensegás, Dianagás, Paxgás and Medigás are natural gas distribution system operators with licenses for distributing natural gas at local level. All of them are inherently licensed as last resort suppliers.

- Natural gas distribution activity

Natural gas distribution system operators shall propose the planning, construction and management of their gsystem, so as to allow access without discrimination of third-parties and efficiently manage the infra-structures and ensure the maintenance of distribution systems. In the framework of the SNGN Global Technical Management, natural gas distribution system operators shall also co-ordinate the functioning of their systems among themselves, so as to make sure that natural gas is conveyed from the points of admission to the points of delivery.

- Last Resort Retail Supplier activity

The last resort retail supplier performs the functions of (i) buying and selling of natural gas, (ii) buying and selling of access to the Natural Gas National Transmission System (RNTGN) and to the Natural Gas National Distribution System (RNDGN), and (iii) natural gas supply. The natural gas buying-and-selling function performed by the last resort retail supplier involves purchasing the natural gas required to meet its customers' consumption requirements and supply them. Before that, natural gas must be purchased from the last resort wholesale supplier. The natural gas supply function performed by the last resort retail supplier involves the commercial structure allocated to selling natural gas to its customers, as well as contracting, billing and collection of natural gas supplies. The other function performed by the last resort retail supplier, i.e. the buying-and-selling of access to the RNTGN and RNDGN infra-structures, involves the transfer to the RNDGN of values regarding the global use of system, transmission use of ystem and distribution use of system by their customers.

- Galp Gás Natural, SA

  In February 2007 Transgás, SA was renamed, henceforth becoming Galp Gás Natural, SA. With its new name, the company became the holder of long-term take-or-pay natural gas supply contracts, signed before Directive no. 2003/55/CE, of the European Parliament and Council, dated 26 June 2003, entered into force. In this framework Galp Gás Natural, SA develops the activity of SNGN supply. The SNGN supplier shall sell natural gas received by virtue of long-term take-or-pay natural gas supply contracts signed before Directive no. 2003/55/CE, of the European Parliament and Council, dated 26 June 2003, entered into force. As a priority, such sales will be made to the Last Resort Wholesale Supplier.

- Transgás, SA

  In February 2007 Transgás Indústria was renamed, henceforth becoming Transgás, SA. From then on it became the holder of the last resort wholesale supply license, under its new name. In the framework of its last resort wholesale supplier license, Transgás, SA develops natural gas buying-and-selling activities aimed at supplying Last Resort Suppliers and Last Resort Corporate Customers Supply. The Last Resort Wholesale Supplier shall buy from the SNGN supplier the natural gas it handles to develop its Natural Gas Buying-and-Selling activity for supplying Last Resort Suppliers.

  - Last Resort Corporate Customers Supply activity

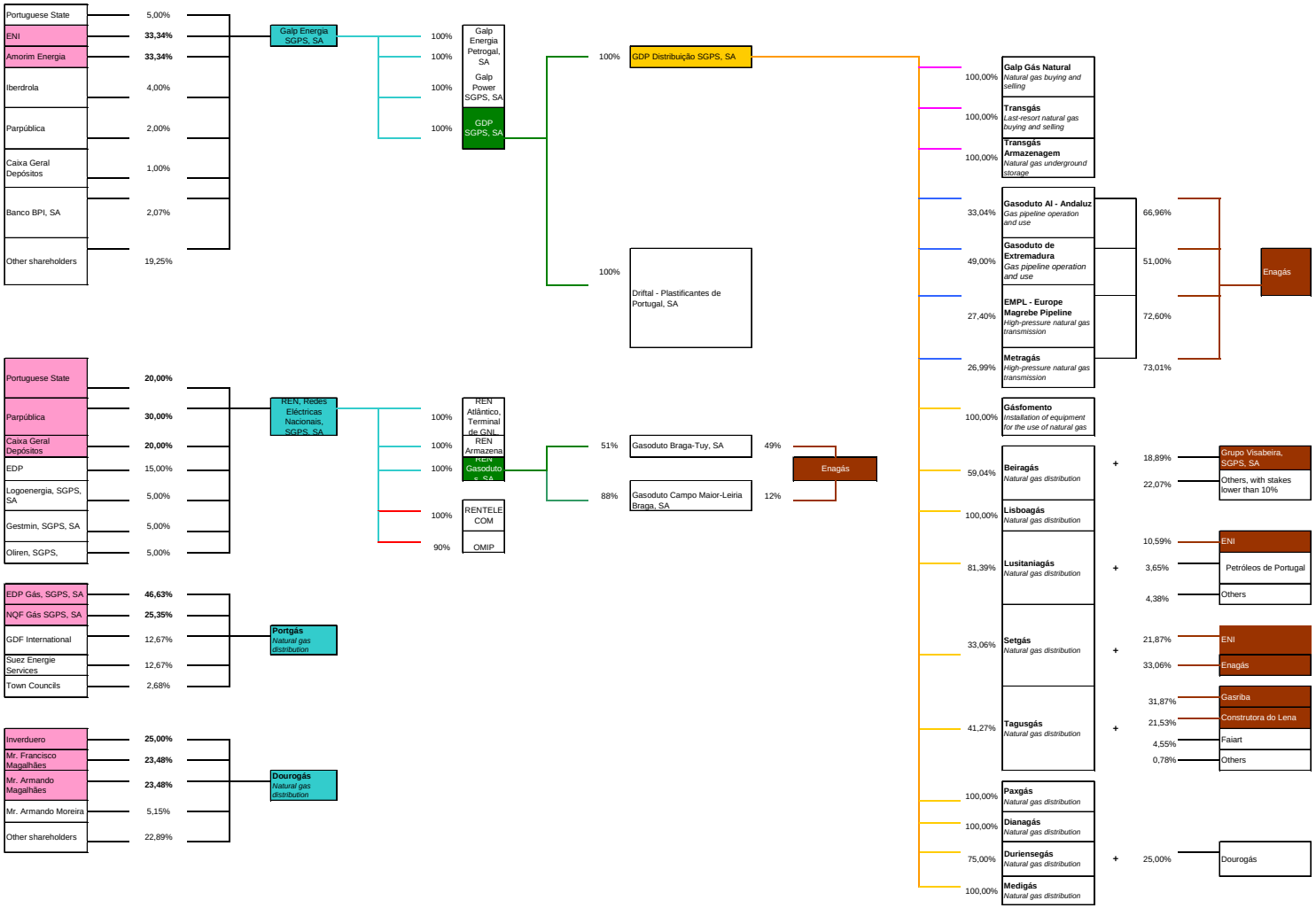
    The Last Resort Corporate Customers Supply activity includes the functions of (i) natural gas buying and selling, (ii) buying and selling of access to RNTGN and RNDGN, and (iii) natural gas supply.

  - Natural Gas Buying-and-Selling activity to supply Last Resort Suppliers

    The Natural Gas Buying-and-Selling activity to supply Last Resort Suppliers involves the acquisition of natural gas and its sale to last resort retail supplires, plus the activity of Last Resort Corporate Customers Supply.

The shareholding structure of the natural gas operators is shown in Figure 4-1, which presents the main shareholders of these companies.

Figure 4-1 – Shareholding structure of the natural gas sector's operators



4.1.3.2 FORMS OF REGULATION

The allowed income and the forms of economic regulation of the different regulated activities, as mentioned above, are established in the Tariff Code.

ERSE's economic regulation varies and, consequently, so do the procedures adopted for determining the regulation parameters, depending on the type of activity. Although rate of return regulation applies to all activities, in certain activities the costs of the capital – i.e. costs resulting from the remuneration of assets considered for regulatory purposes – and the amortization of such assets are levelled for the concession period.

Cost-of-the-capital levelling, for each year of concession, is the result of the multiplication of a constant unitary capital cost by the amounts of natural gas that will predictably be processed in the framework of the activity. In a markedly young sector as natural gas, cost-of-the-capital levelling aims at sharing the infrastructure-related costs (i.e. amortization and remuneration of assets whose capacities are not fully used) among present and future consumers. This method is applied to calculate the income from activities related with the LNG reception, storage and re-gasification terminal, the natural gas transmission system and the natural gas distribution grids.

In rate of return regulation the main regulation parameter is the cost-of-the-capital rate, a value used as rate for remunerating the assets base accepted for regulation. This parameter is calculated at the beginning of each regulation period. The adopted calculation method was based on the *Capital Asset Pricing Model* (CAPM) method.

Forms of regulation associated with the activities above described are listed on the table below:

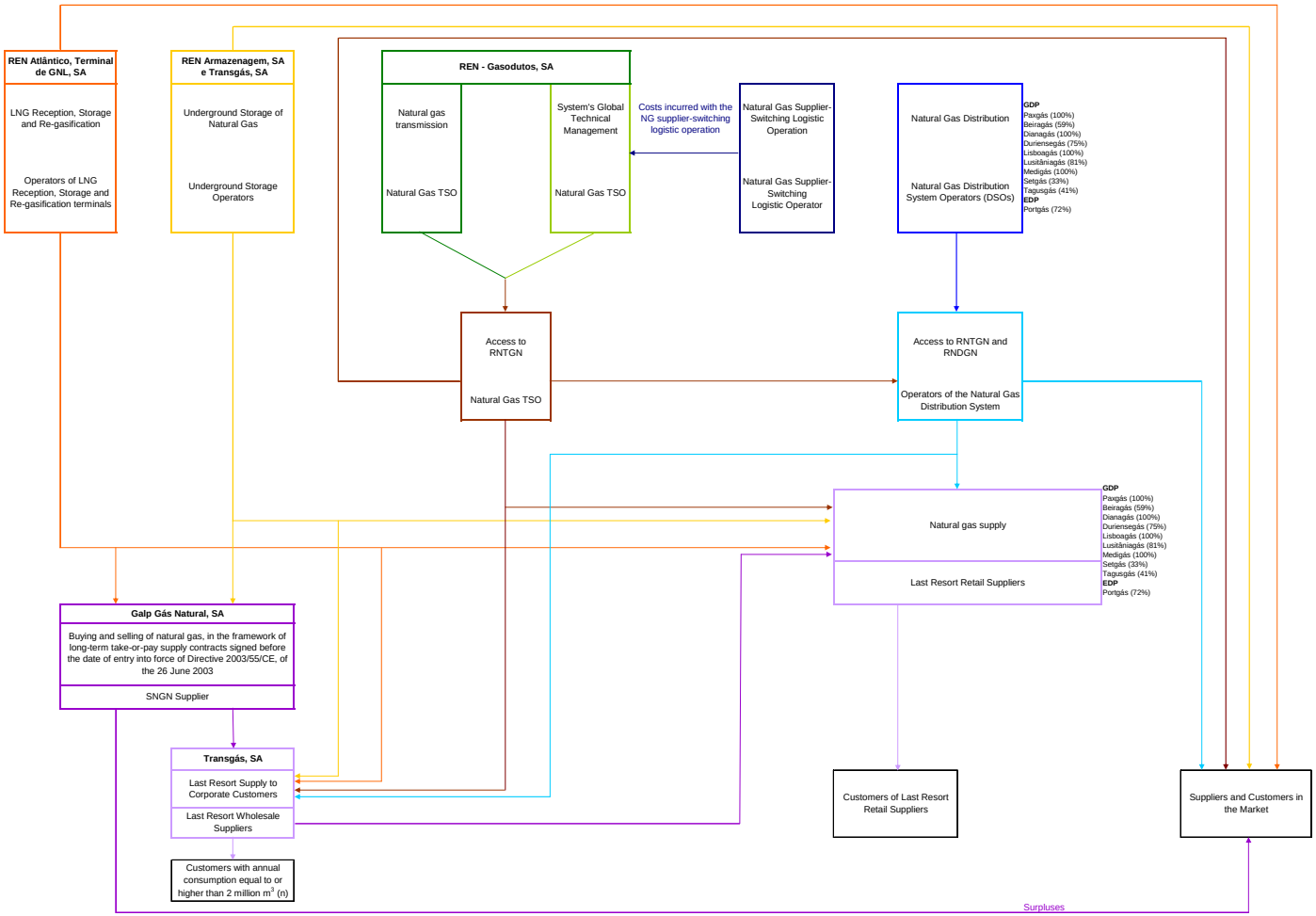
COMPANY	Entity	ACTIVITY	FORM OF REGULATION
REN Atlântico, terminal de GNL, SA	Operator of the LNG reception, storage and re-gasification terminal	LNG Reception, Storage and Re-gasification	Rate of return regulation. Costs accepted on annual basis. Income incorporates the costs of the capital, which include the remuneration of the assets base accepted for regulation, plus amortizations. The cost of the capital considered is levelled, i.e. it is determined every year by multiplying a constant unitary cost of the capital for the entire useful life by the amounts of natural gas expected to be re-gasified at the terminal and injected into the transmission system.
REN Armazenagem, SA e Transgás Armazenagem, SA	Operators of natural gas underground storage	Underground storage of natural gas	Rate of return regulation. Costs accepted on annual basis.
REN Gasodutos, SA	Operator of the transmission system	Natural gas transmission	Rate of return regulation. Costs accepted on annual basis. Income incorporates the costs of the capital, which include the remuneration of the assets base accepted for regulation, plus amortizations. The cost of the capital considered is levelled, i.e. it is determined every year by multiplying a constant unitary cost of the capital for the entire useful life by the amounts of natural gas expected to be channeled through the transmission system.
		SNGN Global Technical Management	Rate of return regulation. Costs accepted on annual basis.
		RNTGN Access activity	Costs incurred with the natural gas transmission system charged to the customers

COMPANY	Entity	ACTIVITY	FORM OF REGULATION
Beiragás, SA; Lisboagás, SA; Lusitaniagás, SA; Portgás, SA; Setgás, SA; Tagusgás, SA; Dourogás; Duriensegás; Dianagás, SA; Paxgás, SA e Medigás, SA	Operators of the national natural gas distribution system	Natural gas distribution	Rate of return regulation. Costs accepted on annual basis. Income incorporates the costs of the capital, which include the remuneration of the assets base accepted for regulation, plus amortizations. The cost of the capital considered is levelled, i.e. it is determined every year by multiplying a constant unitary cost of the capital for the entire useful life by the amounts of natural gas expected to be distributed.
	Last Resort Retail Suppliers	Natural gas supply	Rate of return regulation. Costs accepted on annual basis.
Galp Gás Natural, SA	SNGN Supplier	SNGN Supply	Rate of return regulation. Costs accepted on annual basis..
Transgás, SA	Last Resort Supplier for Corporate Customers	Last Resort Supply to Corporate Customers	Rate of return regulation. Costs accepted on annual basis.
		Buying and Selling of Natural Gas to supply the Last Resort Suppliers	Costs incurred with the purchased natural gas charged to the customers

The existing regulation period lasts 3 years.

The graph shown below summarizes the relations that currently exist amont different activities, indicating which company develops them.

Figure 4-2 – Organization of the National Natural Gas System (SNGN)



4.1.3.3 ACCESS TO NATURAL GAS INFRA-STRUCTURE TARIFFS

PROCEDURES AND METHODOLOGY FOR CALCULATING ACCESS TO NATURAL GAS INFRA-STRUCTURE TARIFFS

Portugal's natural gas sector was a vertically-integrated monopoly until 2006 and customers had no right to choose another supplier. As the right of access to the grids had not yet been awarded, there were no grid user tariffs. natural gas sale tariffs for household customers (up to 10,000 m^3(n)/year) received Government clearance, by the Ministry of the Economy and Innovation. For consumption in excess of 10,000 m^3(n)/year, holders of concessions or licenses negotiated tariffs with their respective customers.

In 2007 ERSE began to establish tariffs for each regulated activity in the natural gas sector. In the first gas-year 2007-2008[15], ERSE's regulation covered the definition of the following tariffs: Use of Transmission System, Use of LNG Reception, Storage and Re-gasification Terminal and Use of Underground Storage.

In the second gas-year, i.e. 2008-2009, ERSE shall extend its regulation to the activities of Natural Gas Distribution, Natural Gas Supply and Natural Gas Buying-and-Selling, establishing the Use of Distribution System Tariff, Supply Tariff, Energy Tariff and the tariff resulting from Sale to End-Users.

Tariff calculations must comply with the calculation methodology previously established in the Tariff Code. Natural gas tariffs are established once a year and adjusted on quarterly basis. The tariffication process – including its timeframe, is also laid down by the Code. Up to the 15 December, every year, the regulated operators send to ERSE the previous gas-year's physical and accounting data of the previous gas-year, as well as estimates for the current year and forecasts for the next. Based on this information, plus possible additional clarifications, ERSE drafts a duly justified proposal of Tariffs that must be submitted to the Tariff Board up to the 15 April. The Tariff Board, composed of representatives of the consumers and of regulated operators, among others, appraises the proposal and gives advice to ERSE up to the 15 May. Taking in account this non-binding advice, up to the 15 June December ERSE publishes the tariffs that will be in force as from the 1 July next year.

In order to explain the adopted tariff calculation methodology, we briefly describe the existing Portuguese tariff system.

We consider the Access Tariffs charged to all natural gas consumers for using the infra-structures – more precisely the grid access tariffs, the Use of LNG Reception, Storage and Re-gasification Tariff and the Use of Underground Storage Tariff.

[15] Period lasting from the 1 July to the 30 June of the following year.

Generally speaking these Access to Infra-Structure Tariffs are paid by suppliers on behalf of their customers. In addition they may be directly paid by customers benefiting from the status of Market Agent (i.e. customers buying energy directly in the market, being responsible for managing their programming imbalances).

The existence of last resort suppliers is backed up by the existence of End-User Tariffs applicable to their customers. These tariffs are calculated by adding to the Grid Access Tariffs the Supply Tariff and the Energy tariff. These last two tariffs reflect the commercial management costs incurred by last resort suppliers and the natural gas supply costs incurred by them to supply their customers.

TARIFFS AND REGULATED ACTIVITIES OF THE NATURAL GAS SECTOR

Income generated by regulated activities is recovered by way of specific tariffs, each with its own tariff structure and characterized by a given set of billing variables.

Tariff prices are established in each activity in a way that makes its structure reflect the structure of marginal or incremental costs and enables the recovery of income generated by each activity.

Tariff charging and billing are based on the principle of non-discrimination as a function of final energy use. Tariff options are available to all consumers.

The Global Use of System tariff makes it possible to recover income generated by the global system management activity, which includes not only the system's operation – including costs inherent to the system coordination activity developed in infra-structures of the national natural gas system (namely the amounts of gas used to ensure the system's intraday operation), costs originated by the Supplier-Switching Logistic Operation activity and ERSE's costs related with the natural gas sector – but also a few costs of energy policy or general economic interest – including costs forecasted for the Plan for Promoting Efficiency in Natural Gas Use.

The Transmission Use of System tariff makes it possible to recover income generated by the natural gas transmission activity – including its operation, development and maintenance of the natural gas transmission systems.

The Use of LNG Reception, Storage and Re-gasification Terminal tariff makes it possible to recover income from the activity of LNG reception, storage and re-gasification, which includes the operation, development and maintenance of the LNG terminal. This tariff has three parcels, corresponding to the services of LNG reception, LNG storage and LNG re-gasification.

The Use of Underground Storage tariff makes it possible to recover income from the activity of natural gas underground storage, which includes the operation, development and maintenance of underground storage.

As from the third gas-year the three last tariffs will also include the costs related with the promotion of the environment and the income from capacity allocation at the infra-structures in situations of congestion.

Also the Energy Tariff and the Supply Tariff have been established in the framework of the last resort supply.

The Energy Tariff makes it possible to recover income from the regulated activity of natural gas buying-and-selling developed by last resort suppliers, including the costs of natural gas purchased in the market to supply their customers.

The Supply Tariff makes it possible to recover income from the regulated supply activity developed by the Last Resort Supplier, involving the commercial structures in charge of selling natural gas to its customers – namely contracting, billing and the service of natural gas bill collection.

ACCESS TO NATURAL GAS INFRA-STRUCTURES TARIFF

Customers wanting to use the natural gas infra-structure, namely the grids, the LNG terminal and underground storage, shall pay the respective access tariffs – i.e. respectively grid access tariff, Use of LNG Reception, Storage and Re-gasification Terminal tariff and Use of Underground Storage tariff.

Grid access paid by all natural gas consumers includes the following tariffs: Global Use of System, Transmission Use of System and Distribution Use of System. Customers who chose their supplier in the market pay the grid access tariffs and freely bargain natural gas purchase with their supplier.

The Use of LNG Reception, Storage and Re-gasification Terminal tariff and the Use of Underground Storage tariff are paid only if the customer wants to use the respective infra-structures.

Calculation of end-user tariffs charged by the last resort supplier to its customers is based on the tariffs by activity included in grid access, plus the Energy Tariff and the Supply Tariff.

Prices of access tariffs for each billing variable are determined by adding the corresponding tariff prices by activity. The additive system will be gradually applied to the natural gas tariffs by way of a restricting mechanism for increases resulting from tariff convergence.

ACCESS TO NATURAL GAS INFRA-STRUCTURES TARIFF PRICES

As mentioned above ERSE began to establish tariffs in the natural gas sector by regulated activity in 2007. According to Decree-Law no. 140/2006, of the 26 July 2006, in the first gas-year of 2007-2008 ERSE's regulation will establish prices fof the following tariffs: Use of Transmission System, Use of LNG Reception, Storage and Re-gasification Terminal and Use of Underground Storage.

In the second gas-year, i.e. 2008-2009, ERSE will extend its regulation to the activities of Natural Gas Distribution, Natural Gas Supply and Natural Gas Sale, pricing the the following tariffs: Use of Distribution System, Supply, Energy and the tariff resulting from End-User Sale.

Tariff pricing shall be duly justified and preceded by advice from the Tariff Board, ERSE's body where both consumers and regulated companies have a seat. ERSE shall publish and disseminate the prices of access to infra-structure tariffs on Portugal's official journal, its website and by way of information leaflets. It addition the regulations state the the infra-structure operators have the obligation of informing users and giving them advice on which access tariffs and prices they should pay and tell them which tariff options best suit each case – namely by preparing and publishing information leaflets.

4.1.3.4 QUALITY OF SERVICE

The purpose of the natural gas sector's Quality of Service Code is to establish the technical and commercial quality of service standards which must govern services provided in the framework of the National Natural Gas System (SNGN).

In the natural gas sector the Quality of Service Code applies to the sector's customers, suppliers and infra-structure operators (distribution system operators, transmission system operator, underground storage operators and LNG reception, storage and regasification terminal operators).

The Quality of Service Code also establishes rules for the assessment and characterization of natural gas supply, namely provisions regarding:

- Powers, responsibilities and obligations of different operarators and players involved.
- Quality of service indicators and standards.
- Compensation to be paid to customers in case of non-compliance with the defined quality standards, as well as compensation to be paid by customers in case of non-compliance with their obligations.
- Obligations to monitor Quality of Service – Methods for monitoring the quality of natural gas and of pressure in customer supply.
- Obligations to disseminate information – Quality of Service Reports.
- Customers with special needs and priority customers.
- Information on and assessment of the customer satisfaction level.
- Mechanisms for monitoring the Code, such as audits.

ERSE shall be the entity responsible for publishing the Code and supervising its enforcement.

The Quality of Service Code includes technical and a commercial provisions aimed at monitoring and gauging the quality of services provided.

The technical provisions address issues related to natural gas supply, namely continuity of supply, natural gas attributes and pressure of natural gas supplies to customers.

The commercial provisions concern the relationship between the transmission system operator, the distribution system operators or the suppliers and their customers.

As regards the technical provisions the table below provides information on the general indicators of quality of service.

Table 4-1 – General quality-of-service indicators

Infra-structure	General indicator
LNG reception, storage and re-gasification terminal	Average real time for unloading LNG carriers (hours)
	Average delay of LNG carrier unloading (hours)
	Average real time for loading LNG tank trucks (hours)
	Average delay of LNG tank truck loading (hours)
	Compliance with the natural gas injection assignments
	Compliance with the natural gas injection energy assignments
Underground storage	Compliance with the natural gas extraction assignments
	Compliance with the natural gas injection assignments
	Energy storage compliance
Transmission system	Average number of interruptions per exit point
	Average duration of interruptions per exit point (minutes/point of departure)
	Average duration of the interruption (minutes/interruption)
Distribution systems	Average number of interruptions by customers
	Average duration of interruptions by customer (minutes/customer)
	Average duration of interruptions (minutes/interruption)

Table 4-2 shows the individual quality-of-service indicators, regarding each of the customers.

Table 4-2 – Individual contituity-of-supply indicators

Infra-structure	Individual indicator
Distribution systems	Number of scheduled controllable interruptions
	Number of non-controllable interruptions
	Number of accidental controllable interruptions
	Duration of scheduled controllable interruptions (hours)
	Duration of non-controllable interruptions (hours)
	Duration of accidental controllable interruptions (hours)

Given the recent construction of natural gas infra-structures and the consequent absence of data concerning their performance, the Quality of Service Code does not establish any standards for the general continuity-of-supply indicators – except those regarding the distribution system, as shown in Table 4-3. For this same reason, the Quality of Service Code does not establish any standards for individual continuity-of-supply indicators, nor any compensations.

Table 4-3 – General indicator standards for the distribution system

Indicators	**Interruption categories**			
	Scheduled controllable interruptions			**Accidental Controllable interruptions**
	Lisboagás		**Other system operators**	
	Grid renewal	**Other situations**		
Average number of interruptions by thousand customers	Not defined	3.25	Not defined	Not defined
Average duration of interruptions (minutes/interruption)	420	360	360	300

As regards the natural gas attributes the Quality of Service Code establishes the variation limits indicated in Table 4-4, for the following reference conditions: temperature = 0 ºC, absolute pressure = 1.01325 bar; initial combustion temperature = 25 ºC.

Table 4-4 – Natural gas attributes

Attribute	Limit	
	Minimum	Maximum
Wobbe index	48,17 MJ/m^3 (n)	57,66 MJ/m^3 (n)
Density	0.5549	0.7001
Water dew point	Not applicable	-5ºC at the maximum service pressure
Hydrogen sulphide	Not applicable	5 mg/m^3 (n)
Total sulphur	Not applicable	50 mg/m^3 (n)

The Quality of Service Code also establishes monitoring of the following attributes:

- Oxygen concentration.
- Hydrocarbon dew point for pressures up to the maximum service pressure.
- Concentration of carbonyl sulphide.
- Concentration of impurities.
- Minimum concentration of methane.

Natural gas attributes should be checked at admission points of natural gas into SNGN – after re-gasification at the terminals of reception, storage and re-gasification or after being processed at the underground storage for injection into the grid – and at those grid points where natural gas from different origins is mixed.

Distribution system operators should monitor pressure levels of natural gas in order to guarantee the pressure levels of their supply to customers.

QUALITY OF COMMERCIAL SERVICE

The Quality of Service Code published by ERSE in September 2006 established a number of commercial quality rules, with a view to implementing servicing mechanisms that ensure minimum levels of quality in

the relationship with customers. To this effect the Code established general indicators and respective standards for the matters deemed more relevant to such assessment. Calculation of the general indicators of commercial nature begins in early July 2007.

Table 4-5 shows the commercial general indicators and standards established by the Quality of Service Code.

Table 4-5 – Quality of commercial service general indicators and standards

General indicator	Standard (%)
Percentage of phone calls with waiting time lower than or equal to 60 seconds (%)	85
Frequency of meter readings (households and small enterprises)	Not specified
Waiting time for technical assistance to visit household customers equal to or lower than 4 hours, after failure of their facilities is reported (%) Waiting time for technical assistance to visit non-household customers equal to or lower than 3 hours, after failure of their facilities is reported (%)	90
Time of response to emergency situations equal to or lower than 90 minutes (%) (applicable to the transmission system operator)	80
Time of response to emergency situations equal to or lower than 60 minutes (%) (applicable to the distribution system operator)	80
Time of response to requests of information equal to or lower than 15 working days (%)	100

The Quality of Service Code governing the natural gas sector also establishes individual indicators, associated with a 20-euro compensation payable to the customer in case of non-compliance with the standard by the system operator or the last resort supplier.

The established individual indicators and respective standards are:

- Supply and meter provided to customers (households and small enterprises) within 3 working days, after connection is scheduled;
- Scheduled visit to customer facilities, to be held:
  - Withing the agreed 2.5-hour time bracket (mandatory modality).

- Within an agreed 5-hour time bracket, with prior notification by phone 1 hour in advance (offering this alternative choice is an option given to the distribution system operator).

- Restoring supply after disconnection caused by the customer, which must take place within a maximum 8-hour delay – or until 5 pm of the following working day – for households and small enterprises. Emergency restoration within 4 hours.
- Maximum time of response to customer complaints = 20 working days.

The Quality of Service Code also establishes a set of provisions applicable to customers with special needs and priority customers. Suppliers must provide adapted communication channels and tailor-made information that meet the requirement of each customer with special needs, in order to secure a quality commercial relationship. They must also inform their priority customers bem como informar os clientes prioritários, de forma individualizada e com antecedência das interrupções de fornecimento previstas.

The following are considered customers with special needs:

- People with visual disabilities – totally or partially blind.
- People with hearing disabilities – totally or partially deaf;
- People with oral communication disabilities.
- People with mobility disabilities, who can only displace themselves on a wheelchair – or with other technical aids required for this purpose.
- People with olfact limitations, unable to smell possible natural gas leaks.

For customers with olfact limitations, distribution system operators should install equipment that enables them to detect and report customer facility leaks and keep them operational.

The following are considered priority customers: a) Hospital facilities, health centres and similar entities; b) primary schools; c) national security facilities; d) fire brigade; e) facilities for supplying natural gas to collective public transport; f) civil protection; g) security forces; h) prison facilities.

Being responsible for monitoring the enforcement of the Quality of Service Code, ERSE shall assess the level of customer satisfaction by making studies and surveys, or taking other action deemed appropriate. Also ERSE shall publish a Quality of Service Report every year and settle disputes by way of mediation and conciliation mechanisms.

4.1.3.5 CONNECTION TO THE GRIDS

Natural gas system operators, within their respective concession areas, must connect to their grids the facilities of customers requesting such connection, as long as technical and legal requirements are met.

The Commercial Relations Code establishes two types of connectors:

- Grid to be built – sections that must be built to connect the existing grid to distribution connections required for connecting one or more facilities.
- Distribution connections – sections of piping for establishing the exclusive connection of one facility of small group of facilities (e.g. a building).

Charges associated with distribution connections shall be paid by the system operator. In the case of customers with an annual consumption lower than 10,000 m^3(n), the system operator will only pay the costs corresponding to a maximum length of connection to be defined by ERSE. In these cases the remaining length shall be be paid by the applicant, as if it were grid to be built.

Grid to be built shall be paid by the applicant, at a price to be published by ERSE.

Regulations currently in force establish economic indicators regarding the location of the facility whose connection to the grid has been requested, while taking also account of the emerging market status that characterizes Portugal's natural gas sector – as the country is still being "gasified".

Information-wise the code states that the system operator must inform and advise the grid connection applicant, namely as regards the pressure level appropriate to the connection, in order to secure the best technical and economic conditions – considering all aspects involving the connection application. This mandatory duty to inform involves the preparation and publication of information leaflets on the procedure required to make connections to the grid, as well as the mandatory submittal of a budget concerning the requested connection.

The Commercial Relations Code also establishes a number of provisions applicable to new consumer centres, or to the remodelling of existing consumer centres (formerly supplied with propane gas) so as to enable them to use natural gas.

4.1.3.6 BALANCING

In 2006 the Portuguese natural gas market continued to benefit from the emerging market derogation provided by Directive no. 2003/55/CE, of the European Parliament and Council, of the 26 June 2003. Nevertheless the opening of the natural gas market on the 1 January 2007, initially restricted to electricity generators, led to the publication of a new legislative and regulatory framework which establishes guidelines for balancing natural gas supply and demand within the system.

Market players should manage natural gas supply and demand balance within the leeway margin resulting from the maximum and minimum stock allocated to each of them. If market players infringe the maximum and minimum stock limits allocated to them in the transmission system then they create situations of individual imbalance, which will be subject to a penalty scheme to be approved by ERSE in

the framework of the mechanism of incentive to restoration of the individual balance. Penalties shall be established following a proposal to be made by the transmission system operator, in the framework of its global technical management of the system. Being imposed penalties does not exempt market players from remaining bound to correct their individual imbalance and they must restore their stock to the established limits.

Infra-structure operators within the national natural gas system have the responsibility of proposing the amounts of natural gas that correspond to the maximum and miminum stock of their respective infra-structures, as well as the method for allocating such stocks to market players. The method for allocating the amounts of natural gas to market players shall be approved and published by ERSE.

The creation of an operational reserve has been anticipated with a view to securing the integrity of the national natural gas system's infra-structures – particularly the transmission system. This operational reserve is the amount of natural gas required to meet short-term requirements resulting from possible differences between the profiles of injection into and extraction from the transmission system in the intraday period and the restoration of natural gas amounts due to minimum stock infringements by the market players, which may threaten the integrity of the transmission system.

Operational reserves to be constituted by the market players shall be exclusively managed by the transmission system operator, in the framework of its activity of global technical management of the system. The quantities of natural gas allocated to the operational reserve, as well as the method for determining the parcel of each market player, shall be approved by ERSE upon proposal made by the transmission system operator in the framework of its activity of global technical management of the system.

4.1.3.7 ACCESS TO STORAGE, LINEPACK AND OTHER SYSTEM SERVICES

The access to natural gas underground storage facilities is regulated in a transparent non-discriminatory way.

According to the mechanism adopted for allocating capacity in the natural gas underground storage facilities, scheduling plans will be open to all market players with agreements previously signed for the usage of natural gas underground storage facilities whereby capacities available for commercial purposes within specific time frames will be allocated. If demand exceeds supply as regards the capacity made available by natural gas underground storage infra-structure operators, then such capacity will be allocated by means of auctions.

In turn linepack access by market players is a direct consequence of their access to the Natural Gas National Transmission System (RNTGN). In fact RNTGN operates with reference to two (maximum and

minimum) stock limits, which are annually determined and made available by the RNTGN operator, in line with the regulations currently in force.

The difference between the annual values of the maximum and minimum stock of natural gas at the RNTGN is the linepack, which is made available to market players in the capacity proportional percentage allocated to each of them in the RNTGN. Thus each market player wity allocated capacity in the RNTGN is automatically given a tolerance, which results from the difference between its maximum and minimum individual stock. This tolerance should be managed in order to secure the balancing of supply and demand within the RNTGN.

4.1.4 SEPARATION OF INFRA-STRUCTURE OPERATORS

Decree-Law no. 30/2006, of the 15 February 2006, established the general principles governing the organization and functioning of the National Natural Gas System (SNGN) in Portugal. This bill determines the unbundling of activities developed in the natural gas sector, in legal terms and as regards their assets. Therefore the SNGN now consists of the following activities:

- Reception, storage and re-gasification of natural gas.
- Underground storage of natural gas.
- Natural gas transmission.
- Natural gas distribution.
- Natural gas supply.
- Natural gas supplier-switching logistic operation.

Decree-Law no. 140/2006, of the 26 July 2006, complemented the principles applicable to the organization and functioning of SNGN, regulating the legal regime applicable to each unbundled activity and to the organization of natural gas markets, completing the transposition of Directive no. 2003/55/CE of the European Parliament and Council, of the 26 June 2003,

In 2006 the assets assigned to the activities of LNG reception, storage and re-gasification, undergroun storage of natural gas (partially) and natural gas transmission were transferred from the Galp group to the REN group. As the latter has no interests in the remaining activities of the SNGN, this transfer ensures compliance with the principles of the Directive.

It should be remembered that the natural gas codes published by ERSE in 2006 strengthen the principles of activity unbundling.

ACCOUNTING UNBUNDLING

According to the Tariff Code issued by ERSE, operators developing activities of LNG reception, storage and re-gasification, natural gas underground storage, natural gas transmission and natural gas distribution shall send to ERSE, in connection with each gas-year (i.e. from July of one calendar year to the end of June of the following calendar year), the regulated accounts of each function, so that their balance sheets, income statements (plus respective annexes) and investments may be determined. In addition a report by an independent auditing company shall also be provided to prove that all principles established for regulation purposes have been complied with. Operators shall also send to ERSE the estimated balance sheet, income statement and investment for the ongoing gas-year, as well as the forecasted values of balance sheets, income statements and investments for the following years until the end of the concession.

ERSE has the power to accept or refuse the values sent by the companies for the purpose of calculating tariffs. Its practice is, in case of refusal, to always justify the values considered.

4.1.4.1 ACTIVITY-BASED ANALYSIS

In Mainland Portugal there are currently one LNG Terminal operator, two underground storage operators, one transmission operator and 11 distribution operators.

4.1.4.1.1 LNG RECEPTION, STORAGE AND RE-GASIFICATION OPERATOR

Activity unbundling

The LNG Reception, Storage and Re-gasificaiton operator – i.e. REN Atlântico – is legally independent from all other activities in the natural gas sector, both in legal terms and in terms of assets. It develops its activity under a legal regime of public service concession and terms of its contract were laid down in Council of Ministers' Resolution no. 106/2006, of the 3 August 2006. This company is the successor of Transgás Atlântico, a company of the GALP group, that previously developed this activity since its creation (i.e. 2004, the year of operations start-up).

REN Atlântico is 1005 owned by REN – Rede Eléctrica Nacional. On the 31 December 2006 this company had 32 employees and its own customer was Galp Gás Natural.

This operator develops an activity divided into three functions, i.e. reception, storage and re-gasification. LNG reception LNG reception takes place at the LNG-carrier unloading port facilities of the Sines Terminal, which is prepared to receive LNG carriers with a storage capacity of 40,000 m^3 to 165,000 m^3. LNG is stored in two tanks with a total capacity of 240,000 m^3 and the possibility of building another tank has been anticipated. Re-gasification originates the natural gas issued to the grid, by way of the Sines – Setúbal gas pipeline. The company also loads tank trucks with LNG for delivery at the UAG.

Accounting unbundling

The above mentioned functions performed by the company are unbundled in terms of organization and accounting.

4.1.4.1.2 UNDERGROUND STORAGE OPERATORS

The underground storage activity is developed by two operators – REN Armazenagem and Transgás Armazenagem. This activity is developed in the legal regime of public service concession and the terms of both concession contracts were laid down in the Council of Ministers' Resolutions no. 107/2006 and n.º 108/2006, both dated 3 August 2006.

Transgás Armazenagem signed a 40-year concession contract with the Portuguese State on the 26 September 2006. Transgás Armazenagem, a company of the GALP group, used to develop this activity since its creation (2004), in the framework of the concession awarded to Transgás which enabled this operator to develop all activities related to natural gas.

As a result of SNGN re-structuring occurred in 2006, Transgás natural gas assets were transferred to REN. Nevertheless the GALP group kept part of the underground storage infra-structures by way of a concession awarded to Transgás Armazenagem, which includes the following assets:

1. Cave TGC-1S. Works were completed in 2006 and operations began in January 2007.
2. Cave TGC-2S. Development was resumed in January 2007 and completion of the works is expected for the first quarter of 2010.
3. Property where these two caves are located.
4. Mining concession area where two other caves may potentially be developed.

On the 31 December 2006 this company had a natural gas storage capacity of 350,000 m^3.

Transgás Armazenagem is 100% owned by Galp Gás Natural. The single customer of this company is its parent-company. In 2006 it did not hire any employees.

The Portuguese State awarded to REN Armazenagem, a company of the REN group, a concession including the following assets:

1. Cave TGC – 5, in operation (storage capacity = 425,000 m^3).
2. Cave TGC – 3, in operation (storage capacity = 525,000 m^3).
3. Cave TGC – 5, under construction.

4. The respective ground-level facilities.

5. The rights to use the subsoil for building at least two more underground storage caves at the same place.

On the 31 December 2006, this company had a total natural gas storage capacity of 950,000 m^3.

REN Armazenagem is 100% owned by REN – Rede Eléctrica Nacional, SA. On the 31 December 2006 this company had no employees (using the labour force of REN Gasodutos, as the company has been very recently created, on the 4 October 2006). Its only customer is Galp Gás Natural, SA.

REN Armazenagem and Transgás Armazenagem have entered into an agreement for sharing their ground-level facilities. REN Armazenagem owns all the ground-level infra-structures. The agreement, covering the use of the ground-level facilities at Carriço, establishes that REN Armazenagem shall allow Transgás Armazenagem to access the leaching facilities acquired by REN Armazenagem, in order to finish the caves that are going to be built by Transgás Armazenagem.

Accounting unbundling

Due to their specific nature, both companies – ie. Transgás Armazenagem and REN Armazenagem – have their accounting unbundled from the rest of the group they belong to.

4.1.4.1.3 NATURAL GAS TRANSMISSION SYSTEM OPERATOR (TSO)

The natural gas transmission activity is developed, in a legal regime of pubic service concession, by the operator REN Gasodutos. This company is legally independent of all other activities in the natural gas sector and so are its assets. The terms of the concession contract are laid down in Council of Ministers' Resolution no. 105/2006, of the 3 August 2006. REN Gasodutos signed a 40-year concession contract with the Portuguese State on the 26 September 2006.

Transgás, a company of the GALP group, developed the activity of natural gas transmission since its creation in 1993. As the unbundling of activities in the natural gas sector was required, the Portuguese State awarded the concession of the National Natural Gas Transmission System (RNTGN) REN Gasodutos. The concession holder must perform the following tasks:

1. Transmission of natural gas in the gaseous state by way of the high-pressure gas pipeline system (>20 bar). Supply of such gas to holders of natural gas distribution concessions and large corporate customers directly connected to the primary grid (annual consumption higher than 2 million m^3).

2. Transport of LNG in tank trucks to the UAGs. Supply of such LNG to holders of natural gas distribution licenses and large corporate customers.

3. Global technical management of the SNGN.

4. Planning, development and expansion of National Natural Gas Transmission System (RNTGN) and construction of the respective infra-structures. Planning of the National System of LNG Transmission, Storage Infra-structures and Terminals (RNTIAT) and of the respective infra-structures.

5. Management of the interconnection between RNTGN and the international high-pressure transmission system and of the connection with the underground storage infra-structures and LNG terminals.

6. Control the creation and maintenance of the natural gas security reserves.

The concession comprises the following assets:

1. Set of high-pressure gas pipelines for the transmission of natural gas in the Portuguese territory, with the respective piping and high-pressure secondary pipelines.

2. Facilities performing functions of natural gas compression, transmission and pressure reduction for delivery to distribution systems or end users – including all the control, regulation and metering equipment and the gas regulating and metering stations.

3. Autonomous LNG Units (UAG), when these exceptionally replace the connections to the distribution system.

4. Facilities and equipment of telecommunications, tele-metering and remote control assigned to the management of natural gas reception, transmission and delivery facilities.

5. Facilities and equipment required for the global technical management of the SNGN;

6. Metering stations, including the tele-metering equipment installed at the RNTGN user facilities.

While performing its functions, the transmission system operator unbundles the following activities:

1. Natural gas transmission.

2. Global Technical Management of the System.

The above mentioned activities developed by the company are unbundled in terms of accounting and organization.

REN Gasodutos is 100% owned by REN – Rede Eléctrica Nacional, SA. On the 31 December 2006 this company had 159 employees and its single customer was Galp Gás Natural, SA.

Accounting unbundling

Due to its specific nature, REN Gasodutos has its accounts unbundled from the rest of its group of companies.

4.1.4.1.4 OPERATORS OF THE NATURAL GAS DISTRIBUTION SYSTEM

The natural gas distribution activity is developed, in a legal regime of public service concession, by eleven operators, i.e. six concession holders

1. Beiragás
2. Lisboagás
3. Lusitaniagás
4. Portgás
5. Setgás
6. Tagusgás

and five license holders:

1. Dianagás
2. Dourogás
3. Duriensegás
4. Medigás
5. Paxgás

These companies are legally independent from other activities developed in the natural gas sector, and so are their assets.

The legal bases of the concessions for the natural gas distribution activity were established in Decree-Law no. 140/2006, of the 26 July 2006. The concession contracts for the natural gas distribution operators have not been signed yet.

This decree-law establishes that concession holders shall perform the following functions:

1. Receive, convey and deliver natural at medium and low pressure;

2. Build, use, operate, maintain and expand all the infra-structures belonging to the National System of Natural Gas Distribution in the respective concession area, as well as the facilities required to operate.

The concession comprises, as property and equipment allocated to the said concession in the part corresponding to its area, the following assets:

1. Set of natural gas distribution ducts downstream of the gas regulating and metering stations, with the respective piping, block valves, high-pressure secondary pipelines and compression stations.

2. Facilities assigned to pressure reduction for delivery to end users, including all the equipment of control, regulation and metering indispensable to the operation and functioning of the natural gas distribution system.

3. Facilities and equipment of telecommunications, tele-metering and remote control assigned to the management of facilities for distribution and delivery of natural gas to end users.

This same decree-law establishes that, one year after it enters into force (27 July 2007), the existing regional distribution concession holders or holders of local distribution licenses serving more than 100 thousand customers shall develop the supply activity by means of joint-stock companies that they must incorporate and totally own at first. Operators in this situation are Portgás, Lisboagás, Setgás and Lusitaniagás.

While performing its tasks, the natural gas distribution system operator must the following activities in separate:

- Natural gas distribution.
- Access to RNTGN.

Companies shall unbundle the above mentioned activities in terms of organization and accounting. The first regulation period will begin on the 1 July 2008.

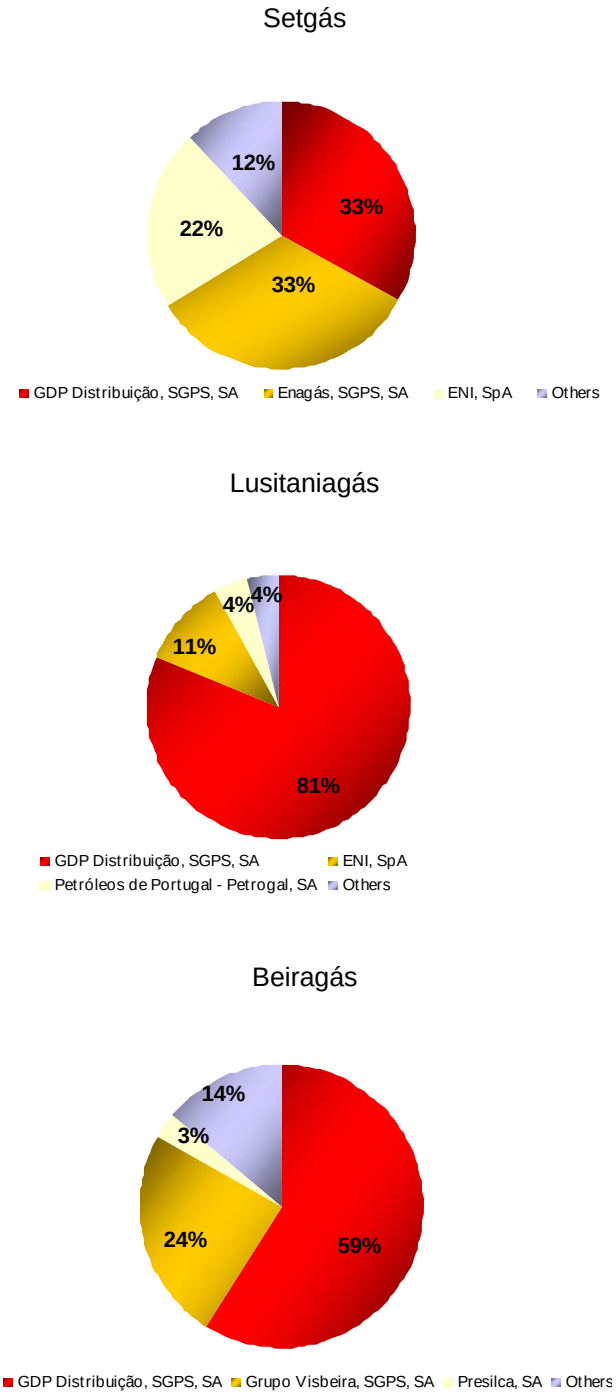
A few data characterizing the distribution system operators on the 31 December 2006 are provided below:

Distribution system operators	Number of connected customers	Number of employees
Beiragás	25,602	25
Dianagás	2,197	8
Dourogás	1,858	16
Duriensegás	n.a.	13
Lisboagás	459,972	248
Lusitaniagás	146,741	79
Medigás	6,763	7
Paxgás		
Portgás	161,140	110
Setgás	118,399	71
Tagusgás	17,578	28

Source: Annual Reports and Accounts of the above mentioned companies

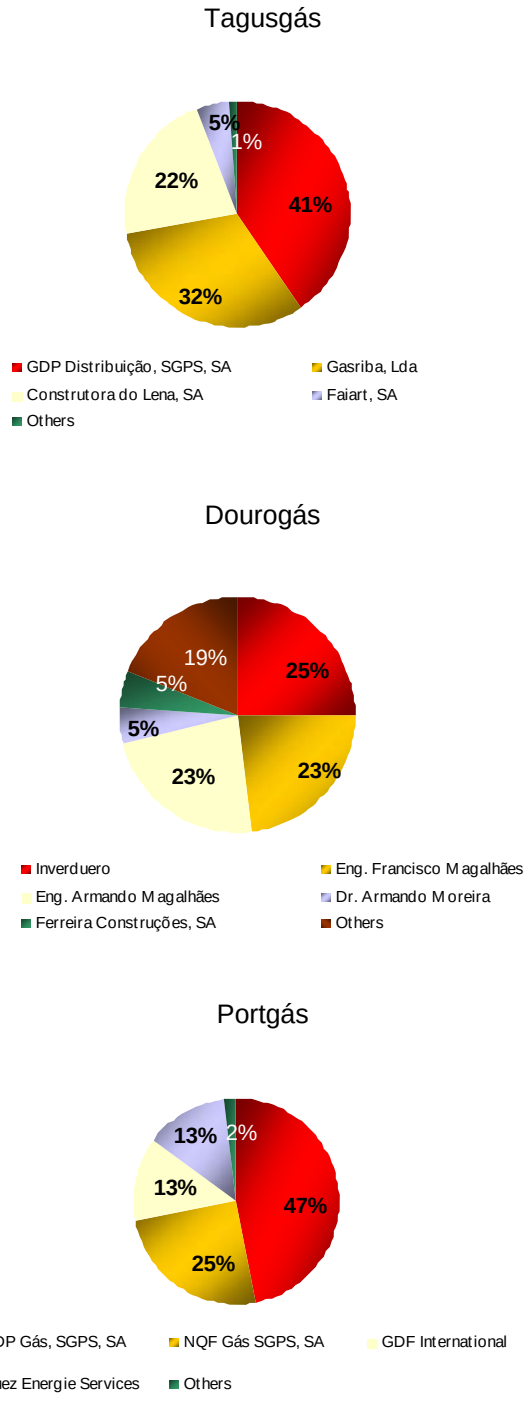
On the 31 December 2006 the share capital of the companies Lisboagás, Dianagás, Duriensegás, Medigás and Paxgás was 100% owned by GDP Distribuição, SGPS, SA. The remaining companies are listed below:

Figure 4-3 – Share capital of Setgás, Lusitaniagás e Beiragás



Source: Annual Reports and Accounts of the above mentioned companies

Figure 4-4 - Share capital of Tagusgás, Dourogás and Portgás



Source: Annual Reports and Accounts of the above mentioned companies

4.1.4.1.5 SUPPLY

This activity involves the buying and selling of natural gas for supply to end users or other agents, by way of bilateral contracts or the participation in other markets.

Decree-Law no. 140/2006, of the 26 July 2006, establishes that, one year after it enters into force (27 July 2007), the existing regional distribution concession holders or holders of local distribution licenses serving more than 100 thousand customers shall develop the last resort supply activity by means of joint-stock companies that they must incorporate and totally own at first. Operators in this situation are Portgás, Lisboagás, Setgás and Lusitaniagás.

The supply activity is legally unbundled from other activities for operators serving more than 100 thousand customers and shall be developed in a freely competitive market, remaining subject to a license to be awarded by the Government. Last resort natural gas supply is the only exception to this situation, remaining subject to regulation.

The last resort supplier remains subject to public service obligations in the areas served by the RPGN. Operators must also obtain a license to develop this activity. The activity is legally unbundled from the remaining activities and is subject to regulation. Legal unbundling is only required when the number of customers is higher than 100,000.

Decree-Law no. 140/2006 established that Transgás shall be awarded a last resort supply license, for all customers with an annual use of natural gas equal to, or larger than, 2 million cubic metres standard – excluding standard-regime electricity generators, whose deadline is 2028. For smaller amounts of natural gas, licenses shall be awarded to the existing distribution operators with a duration corresponding either to that of the existing concession contracts, or that of the existing distribution licenses.

The SNGN supplier has been created. Its regulated activity consists in buying and selling natural gas in the framework of the management of long-term take-or-pay supply contracts entered into prior to the publication of Directive no. 2003/55/CE, of the 26 June 2003, of the European Parliament and Council.

This activity is unbundled from all other entities that operate in the framework of the SNGN, in legal, organizational and decision-making terms.

4.1.4.1.6 SUPPLIER-SWITCHING LOGISTIC OPERATOR

The supplier-switching logistic operator performs functions in the framework of the supplier-switching management – namely managing metering equipment and collecting data locally or remotely.

This activity is unbundled from all other entities that operate in the framework of the SNGN, in legal, organizational and decision-making terms.

SNGN and the National Electricity System (SEN) will share the same supplier-switching logistic operator, which will be subject to regulation.

4.2 COMPETITION

4.2.1 CHARACTERIZATION OF THE WHOLESALE MARKET

The main suppliers of natural gas are Algeria and Nigeria, through long-term take-or-pay contracts. In 2006 total consumption dropped to 3.86 bcm. Natural gas was totally imported by Transgás, now called Galp Gás Natural – the company currently holding the gas acquisition contracts. A more detailed description of natural gas supply in 2006 is provided in section 5.2.

4.2.2 CHARACTERIZATION OF THE RETAIL MARKET

Until 2006 the Portuguese natural gas sector was organized as a vertically-integrated monopoly. Customers had no right to switch suppliers.

Decree-Law no. 140/2006, of the 26 July 2006, while implementing Decree-Law no. 30/2006, changed this state of affairs and imposed activity unbundling throughout the entire value chain of the natural gas sector. It also defined the legal regimes applicable to each activity, including the legal bases for their concession.

The three largest natural gas consumers are the following power plants:

- Tapada do Outeiro, CCGT, 3x330 MW.
- Termoeléctrica do Ribatejo (TER), 3x392 MW.
- Carregado, single-cycle groups, 2x125 MW.

In 2006 natural gas acquisitions by power plants represented 45% of total consumption, while direct costumers represented 38% and only 17% was acquired from Transgás by regional distribution operators.

Table 4-6 – Breakdown of consumption by market segment

	2006	2005	Variation [%]
Electricity sector's consumption [bcm]	1.74	1.97	-11.6
Industrial consumption [bcm]	1.47	1.41	3.8
Commercial and household consumption [bcm]	0.66	0.64	2.4
Total [bcm]	**3.86**	**4.02**	**-4.05**

Source: REN

NATURAL GAS RETAIL PRICES IN 2006

Procedures for establishing natural gas tariffs are different, depending on which grid the use is connected to:

A) Facilities connected to the Natural Gas Transmission Grid

Transgás, S.A. (seller) undertakes to supply the distribution operator (buyer), which in turn undertakes to buy the natural gas from the former. Once the natural gas supply operations have begun, the buyer will purchase from the seller all natural gas it needs to meet demand in its concession area. The buyer however may produce or purchase replacement gas from third-parties gas, in the following cases:

- After having obtained permission in writing from the seller.
- If the seller is temporarily unable to supply.
- If the replacement gas is going to supply new areas, until natural gas cannot be used in economically-viable conditions.

Natural gas shall be supplied at a relative pressure ranging from 16 to 19 bar.

Supplies to major direct consumers – whose supply is ensured by the seller but are located in the geographical area of the distribution operator's grid – or supplies of the distribution operator to customers based near the gas pipe of the seller, may be made by the other party, if both agree.

Customers of the buyer whose consumption exceeds 2 million m^3(n)/year of natural gas and customers of the seller whose consumption drops under that threshold may continue to be supplied respectively by the buyer or the seller, if both agree.

If the amount of natural gas available at a given moment is not enough to supply all the seller's customers, the seller shall give priority to the supply of the buyer and the remaining natural gas distribution concession/license holders. If the seller cannot supply the total amounts requested, the

available amount shall be shared between the buyer and the other natural gas concession holders, as a proportion of the respective amounts used in the last 12 months.

As laid down in the Concession Contract for the Public Service of Natural Gas Importation, Transmission and Supply, signed by the Portuguese State and Transgás, customers with facilities using more than 2 000 000 m^3 of natural gas per year – connected to the Natural Gas Transmission Grid owned by Transgás – and distribution operators have the power to freely negotiate natural gas prices, according to the terms agreed in the respective contracts between Transgás and each of said users. Prices charged by Transgás to distribution operators are updated on quarterly basis, after approval by the minister in charge of overseeing the Economics policy area, as defined in the natural gas supply contracts signed between these companies.

As regards the thermal power plants owned by the Public Service Electricity Sector, which generate electricity from natural gas, natural gas prices are determined as a function of the contract signed by Transgás and REN. Its fixed term is updated on annual basis and its variable term on quarterly basis.

There are two tariffs for the non-interruptible regime (tariffs A and B) and one tariff for the interruptible regime. Tariff A applies to customers using natural gas in industrial activities or processes – excluding the combined cycle processes of heat and electricity generation. Tariff B applies to customers using natural gas in combined cycle processes of heat and electricity generation – i.e. co-generation. The interruptible price applies to cases where natural gas supply may be interrupted by agreed pre-warning and the customer undertakes to maintain the consumption conditions by using an alternative fuel. The discount associated with the interruptible price depends on annual consumption, the interruption pre-warning and the maximum interruption time of natural gas supply per annum.

Since their definition in 1997 both Tariff A and Tariff B were reviewed in May 2002 and April 2002, respectively.

Changes made to the calculations of Tariff A were the following:

- The variable term became indexed to the price of fuel with 1-percent sulphur content.
- Fuel price is now indexed to the semester's average, no longer to the average of the previous month.
- The fixed term of Tariff A equals the fixed term of Tariff B.
- The quantity discount of Tariff A became an absolute value, no longer being defined as a percentage of the variable term.

Changes made to Tariff A did not benefit all customers. Their enforcement has therefore been progressive, as the existing contracts with the customers are renewed.

The main change to Tariff B was the adoption of a discount, which directly depends on the regulation functioning of the customer's co-generation facility. As this change resulted in a final price that is always lower for the customer, it has been applied to all customers since its review.

B) Facilities connected to the Natural Gas Distribution Grid

For customers with facilities using 10,000 m^3 of natural gas per annum, or more – connected to the natural gas distribution grids – the prices of natural gas are subject to negotiation between the concession holders of natural gas distribution and customers.

For the remaining customers, with facilities using less than 10,000 m^3 of natural gas per annum – connected to the natural gas Distribution Grids – the prices of natural gas are proposed every year by the natural gas distribution concession/license holders and subsequently approved by the minister in charge of the Economics policy area, as stipulated in the respective contracts and concession licenses.

Prices practised in Portugal as from the 1 January 2006 for the selected levels of consumption, as published by the Directorate-General for Energy and Geology (DGEG), were the following:

Table 4-7 – Natural gas prices published by Eurostat

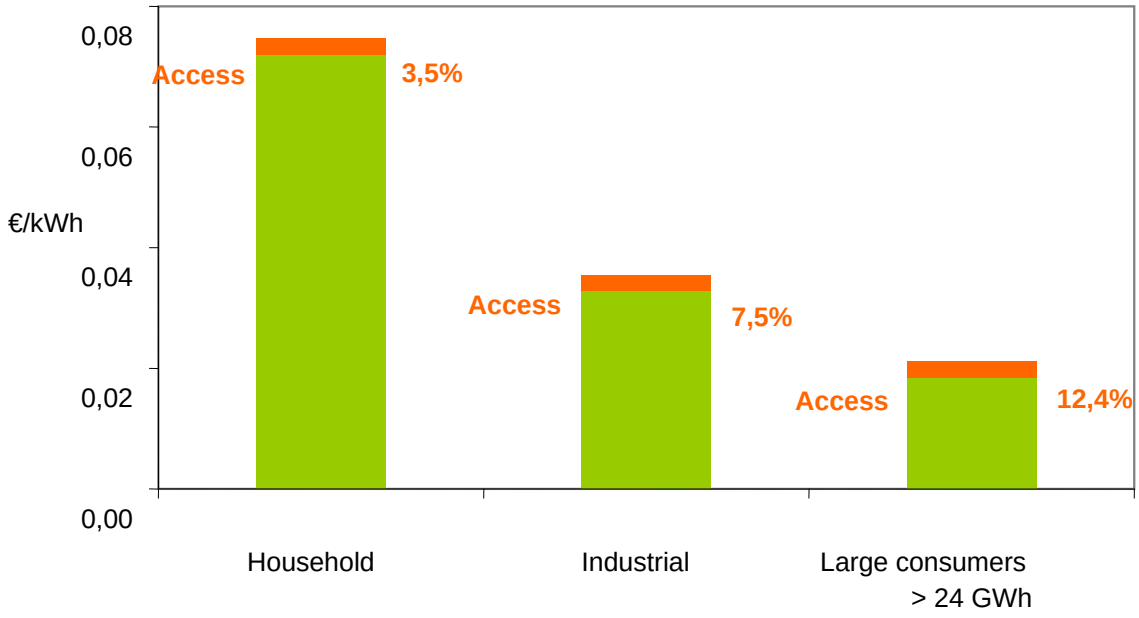
Consumer-type (Eurostat)	**Price (01.01.2007)**
D1 (eur/GJ) with VAT	21.97
D2 (eur/GJ) with VAT	18.63
I2 (eur/GJ) without IVA	10.16
I3-1 (eur/GJ) without IVA	7.76
I4-1 (eur/GJ) without IVA	5.92
I4-2 (eur/GJ) without IVA	5.82

Source: DGEG, EUROSTAT

These prices have not yet been unbundled into their different components, as the market has not been totally liberalized and regulation covers only the infra-structure use tariffs – as mentioned above.

Following this first year of regulation of high-pressure natural gas infra-structure access tariffs, we can analyze the weight of the average price paid for infra-structure access (LNG Terminal, underground storage, transmission and global use of system) in the natural gas retail selling tariffs, as shown in Figure 4-5. The indicated prices are based on the average prices of Eurostat's consumer types in July 2006: Household – consumer-type D1; Industrial – consumer-type I2; Large consumers – consumer-type I4-1.

Figure 4-5 – Weight of the average price paid for accessing infra-structures in the natural gas end-user tariff

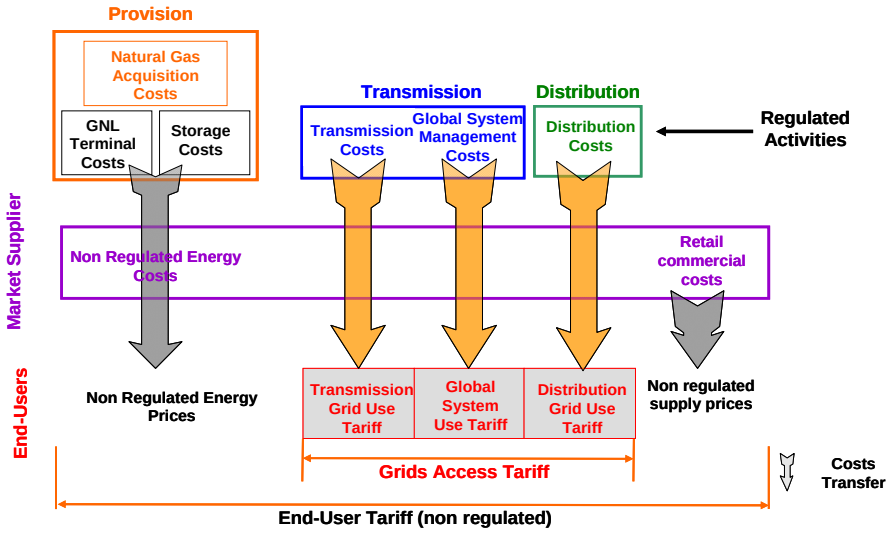


METHODOLOGY FOR CALCULATING NATURAL GAS END-USER TARIFFS

According to the Tariff Code approved in 2006, the End-User Tariffs charged by the last resort supplier to its customers result from adding the grid access tariffs to the last resort supplier's Energy Tarif and Supply Tariff. ERSE shall make these tariffs public for the first time in 2008.

Prices of End-User tariffs of each billing variable are obtained by adding the corresponding prices of the said tariffs. A simplified description of this tariff calculation methodology, called tariff additivity, is made in Figure 4-6.

Figure 4-6 – Tariff additivity method used for calculating the End-User tariffs



This method of determining tariffs applicable by the last resort supplier – usually the incumbent supplier that previously held the vertically-integrated monopoly and still holds ownership rights in the infra-structure operators – makes it possible to prevent cross-subsidization between:

- Monopoly activities (i.e. developed by the grid and the remaining infra-structures) and market activities (supply and sale of natural gas);
- Customers of the last resort supplier with different consumption profiles;
- Customers of the last resort supplier and market-driven customers;
- Last resort suppliers and market suppliers.

Moreover cross-subsidization is prevented by having tariffs that compose the sum based as much as possible on marginal costs – in terms of structure – and on total costs – in terms of level. This also induces an efficient resource allocation that maximizes social well-being.

This tariff calculation methodology allows for a detailed knowledge of all tariff components by activity or service. Thus customers may request a breakdown of the natural gas bill into each different regulated tariff component applicable, by average price and by tariff term. This possibility is laid down in the natural gas sector codes currently in force.

Transparent definition of the tariffs – resulting from the implementation of this type of system – is especially important to customers who have no experience in choosing suppliers, in particular those less informed.

4.2.3 MEASURES FOR PROMOTING COMPETITION

Legislation published in 2006 and ERSE's approval of the codes in September 2006 are decisive measures for developing competition in the natural gas sector.

Entry into force of the codes made it possible to establish rules on matters decisively important to the development of the market, namely:

- Market opening time frame.
- Activity unbundling.
- Modalities of natural gas contracting.
- Access to grids and infra-structures.
- Access to grid and infra-structure tariffs.
- Supplier-switching procedures.

4.2.4 CONCENTRATION OPERATIONS

In 2006 the only concentration operation in the natural gas sector involved the acquisition by Construtora do Lena of the stakes held in the share capital of Tagusgás by four other shareholders of the company. This acquisition gave Construtora do Lena a joint control position of Tagusgás and, directly or indirectly, a stake of 52.22% in the respective share capital.

Construtora do Lena, the company that notified this operation aimed at altering the shareholding structure of Tagusgás, is the company within Grupo Lena in charge of managing participations in other companies. According to the notification, the activity of Grupo Lena covers the following sectors: civil construction, natural gas, industry, real-estate, motor industry, services, environment and communication, also developing activity and holding interests abroad.

Tagusgás holds a Concession Contract awarded by the Portuguese State for the exclusive distribution of natural gas in 38 municipalities of the Leiria, Santarém and Portalegre counties. Natural gas distribution included the operation of the respective grids and the supply of natural gas, in the sector framework that existed at the time of the concentration notification. Also Tagusgás equally ensured the distribution and supply of piped propane gas, in the conditions specifically laid down in the legislation applicable to the concession.

ERSE's advice, given the activities developed by the entities involved in the operation, focused particularly on the need to safeguard and respect the principles of transparency and equal opportunities in public contracting of services by Tagusgás, when awarding construction and infra-structure works. Also Tagusgás should not prefer services of design, construction or remodelling, maintenance and

repairing of natural gas facilities provided by customers connected to its own distribution grids, or by customers willing to connect to such grids.

In this context on the 7 July 2006 the Competition Regulatory Authority decided ”(…) not to oppose this concentration operation, considering that the said operation will not create or strengthen a dominant position capable of creating significant obstacles against real competition in the relevant low-pressure natural gas market of the Vale do Tejo region”.

5 SECURITY OF SUPPLY

5.1 ELECTRICITY

5.1.1 SUMMARISED CHARACTERIZATION OF 2006

In 2006 electricity consumption increased at the same rate as in 2005, growing by 2.6% (3.2%, after correction of temperature and the number of working days).

In 2006 water influxes to hydropower plants were irregularly distributed; after a very dry beginning, the year markedly recover in the last quarter. On the whole the yearly water influxes were quite close to the average flow, with a hydraulicity coefficient of 0.98. Standard-regime hydropower plants helped meet 20 percent of consumption requirements, while thermal power plants gave a 51 percent contribution. Deliveries by Special-regime Generators to the grid continued to grow significantly, reaching 18 percent of consumption.

The net import with foreign markets dropped by 20 percent versus 2005, 11 percent of national consumption requirements being met by electricity imported from Spain.

Consumption by customers in the liberalized market dropped by 30 percent versus 2005, representing 15 percent of total electricity supplied by the public grid.

In 2006 the installed capacity in thermal power plants and standard-regime hydropower plants remained unchanged. 787 MW of special-regime capacity were installed, of which 136 MW installed by thermal power producers, 32 MW by hydropower producers and 619 MW by wind power producers.

The National Transmission System began to operate the Tunes-Estói 150-kV line, thereby improving quality of service levels in the Algarve. Operations began at the new substations of Bodiosa (Viseu), Paraimo (Anadia) and Portimão. New lines were built, namely Castelo Branco-Ferro (at 220 kV), Bodiosa-Paraimo and Pego-Batalha (at 400 kV). The Fanhões-Alto de Mira line was remodelled at 220 kV, having one tri-phase set at 400 kV and another at 220 kV.

In terms of quality of service, the Equivalent Time of Interruption remained below 1 minute for the second consecutive year.

Breakdown of electricity generation by energy source in 2003 to 2006 is shown in Table 5-1.

Table 5-1 – Generation breakdown

	2006	2005	2004	2003
Gas	20%	24%	21%	14%
Net import	11%	14%	14%	6%
Fueloil	3%	10%	4%	6%
Coal	28%	30%	31%	31%
Hydropower	20%	9%	20%	35%
Special-regime generation	18%	13%	10%	8%

Source: 2006 data supplied by REN (2006 Technical Data)

Consumption requirements have been met by different supply media, as shown in Table 5-2.

Table 5-2 – Meeting consumption requirements

	2006 (GWh)	2005 (GWh)	Variation (%)
HYDROPOWER GENERATION	10 204	4 523	125.6
Power plants with CAE+EDIA	9 708	4 360	122.7
Market-driven power plants	496	163	204.3
THERMAL POWER GENERATION	25 478	30 621	-16.8
Power plants with CAE	19 750	25 533	-22.6
Market-driven power plants	5 728	5 088	12.6
TOTAL STANDARD-REGIME GENERATION	35 682	35 144	1.5
SPECIAL-REGIME GENERATION	8 756	6 545	33.8
NET IMPORT	5 441	6 820	-20.2
HYDROPOWER PUMPING	703	568	23.8
TOTAL CONSUMPTION	49 176	47 941	2.6

Source: 2006 data supplied by REN (2006 Technical Data)

The maximum power requested from the public grid – i.e. 8804 MW – occurred on the 30th January, exceeding by approximately 280 MW the previous maximum recorded in January 2005.

The evolution of maximum annual power is shown in Table 5-3.

Table 5-3 – Maximum annual power

Year	Day	Power (MW)	Variation (%)
2006	30-Jan	8 804	3.24
2005	27-Jan	8 528	3.38
2004	09-Dec	8 249	2.52
2003	15-Jan	8 046	8.82
2002	12-Dec	7 394	-0.96
2001	17-Dec	7 466	8.36
2000	25-Jan	6 890	4.05

Source: 2006 data supplied by REN (2006 Technical Data)

Evolution of the maximum power to be requested from the grid, as forecasted by RNT concession holder for the coming years, is shown in Table 5-4.

Table 5-4 – Evolution of maximum power

Year	Power (MW)	Variation versus 2005 (%)
2006	8.804	-
2008	9.900	12.4
2011	11.150	26.6

Source: REN (RNT Investment Plan for 2006-2011)

Evolution of the installed power at the end of each year is shown in Table 5-5.

Table 5-5 – Electricity generation capacity

	2006 (MW)	2005 (MW)	Variation (MW)
SEP+SENV INSTALLED CAPACITY	10.433	10.433	0
HYDROPOWER PLANTS	4.582	4.582	0
Power plants with CAE+EDIA	4.339	4.339	0
Market-driven power plants	243	243	0
THERMAL POWER PLANTS	5.851	5.851	0
Coal	1.776	1.776	0
Fueloil	1.476	1.476	0
Fueloil / Natural gas	236	236	0
Gasoil	197	197	0
Natural gas	2.166	2.166	0
SPECIAL-REGIME INSTALLED CAPACITY	3.175	2.388	787
Thermal producers	1.295	1.159	136
Hydro producers	365	333	32
Wind producers	1515	896	619
TOTAL	13.608	12.821	787

Source: REN (2006 Technical Data)

Evolution of installed capacity and maximum requested power is shown in Table 5-6.

Table 5-6 – Capacity margin

	2006	2005	2004	2000	2006/2000
	(MW)	(MW)	(MW)	(MW)	
Total installed capacity	13 608	12 821	11 708	9 947	1.37
Thermal	5 851	5 851	5 460	4 855	1.21
Hydro	4 582	4 582	4 386	4 184	1.10
Special regime	3 175	2 388	1 862	908	3.50
Maximum annual power	8 804	8 528	8 249	6 890	1.28
Capacity margin	4 804	4 293	3 459	3 057	1.57
	(35%)	(33%)	(30%)	(31%)	

Source: 2006 data supplied by REN (2006 Technical Data)

5.1.2 INVESTMENT IN GENERATION

The legal framework that existed in 2005 drew the difference between licensing of investments in the public-service binding electricity generation system and the licensing of investments in the independent system – including special-regime generation.

Investments in the binding system were planned at the central level. They received approval from Government, through the Directorate-General for Energy and Geology (DGEG), after a public hearing procedure and the selection of the contractor. Plans for the expansion of electricity generation units were approved by the Minister for the Economy and Innovation. Investments in the independent system, though resulting from the will of independent entrepreneurs to make them, depended upon a set of licensing procedures and the authorization of DGEG. These investments were conditioned by a set of licensing procedures.

In 2006 a new legal framework was approved, based on Decree-Law no. 29/2006, of the 15 February 2006. Decree-Law no. 172/2006, of the 23 August 2006, complemented it. According to the principles of this new legislation, the electricity generation activity is to be developed in an environment of free competition, in line with the guidelines of the directive on the single electricity market – in which the existence of an appropriate supply of electricity essentially depends upon the decisions and behaviour of producers and suppliers operating in an environment of free competition.

The Government may have to respond to the need for the installation of new power generation plants considered necessary to ensure the security of supply, which however cannot be done in the previous general licensing regime. In this case, as last resort, the Government may launch a public tender to award licenses for new power generation plants.

5.1.3 PLANNING

The transmission system operator is in charge of the RNT planning, which should be based on the principles laid down in Decree-Law no. 29/2006, of the 15 February 2006, and adopt the criteria and methods defined in Decree-Law no. 172/2006, of the 23 August 2006.

RNT planning, for which Decree-Law no. 172/2006, of the 23 August 2006, defines both the methodology and the procedure, includes the following tools:

- RNT characterization.
- Transmission System's Development and Investment Plan (PDIRT).

The transmission system operator is responsible for drafting PDIRT, while ensuring compliance with:

- Energy policy guidelines defined in the monitoring plans prepared by DGEG and submitted to the Minister for the Economy and Innovation, every two years.
- Technical and regulatory requirements applicable, namely those laid down in the Grid Operations Code and the Transmission System Code.
- Strengthening of the electricity delivery capacity, as decided by the Distribution System Operator.
- Power generation licenses awarded and appraisal of other requests for connecting other power generation plants to the RNT.
- Results from public consultations to market players and other stakeholders.
- RNT characterization, including technical information capable of providing knowledge on the situation of the system – namely the installed capacity at the substations and the grid's interconnection capacity available for commercial purposes.
- Identification of the main future developments of the system's expansion and the forecasted values of the interconnection capacity to be made available for commercial purposes.

RNT planning deadlines are related with the deadlines for preparing the security-of-supply monitoring plans, which are submitted by DGEG to the Minister for the Economy and Innovation every two years. PDIRT is sent by the transmission system operator to DGEG and, in turn, this branch of the administration sends it to ERSE for advice.

RNT planning documents are made available to SEN agents in general and to stakeholders interested in new means of production in particular, namely on the TSO website.

In such documents the transmission system operator should also provide the following information:

- General grid conditions regarding connection possibilities.
- Grid connection conditions for new means of production.
- Possible restrictions due to technical limitations.

5.1.4 NEW INVESTMENT IN GENERATION

As regards the new forecasted investments in standard-regime generation, DGEG issued licenses for the construction of two base thermal groups, CCGT, with 400 MW at Figueira da Foz and two other groups of the same technology and power at Pego. Operations start-up of these groups are scheduled for late 2009.

The awarding of construction licenses for two more CCGT groups, to be built at Figueira da Foz and Sines is currently under appraisal.

The capacity of two hydropower plants at river Douro – called Picote II and Bemposta II – is currently being strengthened, respectively adding 240 MW and 190 MW to the system. Completion of these power reinforcements is scheduled for 2009.

Currently in a pre-litigation phase, pending decision by the European Commission, is the construction of a new hydropower plant at Baixo Sabor, with a scheduled capacity of 170 MW.

The forecasted evolution of Special-Regime Generation is indicated in Table 5-7 below.

Table 5-7– Forecasted evolution of Special-Regime Generation

	2010
Wind	5.150
Small-hydro	400
Biomass	250
Solar	150
Waves	250
Biogas	100
CHP	2.000
Total (MW)	8.300

Source: "Energia e Alterações Climáticas", Ministry of the Economy and Innovation.
"Programa Nacional para as Alterações Climáticas", Ministry of the Environment, Spatial Planning and Regional Development and Ministry of the Economy and Innovation.

In addition to support to investment, special-regime generation has a guaranteed price for its entire production. Established by the Government, this price depends on technology and on the generation profile delivered to the grid. This price is based on the calculation of avoided costs, included costs avoided with CO_2 emissions. The surplus cost[16] resulting from this incentive is supported by the Global Use of System tariff.

The forecasted evolution of the electricity generation capacity also includes the decommissioning of the Tunes power plant (198 MW), and of the Barreiro (56 MW) and Carregado (710 MW) power plants, up to 2010 and 2011 respectively.

5.2 GAS

5.2.1 SUMMARISED CHARACTERIZATION OF 2006

Demand of natural gas in Portugal increased markedly until 2005. This growth was caused by (i) the increasing number of facilities using natural gas due to the expansion of the distribution foreseen in the concession contracts, and (ii) the increased consumption of natural gas for power generation purposes, at

[16] Calculated as the gap between the price paid to special-regime generation and the average price paid in the framework of the public service electricity system.

the combined-cycle generation plants of Tapada do Outeiro and Termoeléctrica do Ribatejo. From 2005 to 2006, however, natural gas demand in Portugal dropped by 4.05% due to the following reasons:

- Reduced natural gas demand for meeting requirements of the electricity market, caused the growth of hydropower generation and the increasing weight of special-regime power generation.
- Stagnation of natural gas demand in the large corporate customer segment[17].
- Gradually decreasing growth rate of natural gas demand for supplying consumption at the regional distribution operators.

Commercial activity in 2006 is shown in Table -5-8 below.

Table -5-8 – Commercial activity

	2006	2005	Variation [%]
Import [bcm]	3,92	4,19	-6,53
Consumption [bcm]	3,86	4,02	-4,05
Storage [bcm]	0,17	0,06	-64,52
International market [bcm]	0,012	0,006	102,7

Source: REN Gasodutos

TRANSMISSION OF NATURAL GAS BY THE NATIONAL NATURAL GAS TRANSMISSION SYSTEM

In 2006 4.26 bcm of natural gas were admitted to the National Natural Gas Transmission System (RNTGN), of which 0.38 bcm correspond to transit. The maximum importing capacity of natural gas by gas pipeline is 8.95 bcm, which shows that capacity is currently available for a rapid development of the sector.

In 2006 natural gas admitted to the RNTGN, via its different points of admission, was the following:

- 45% via Sines (natural gas from LNG re-gasification done at the Transgás Atlântico Terminal).
- 55% via Campo Maior (natural gas from Algeria, carried by the Maghreb gas pipeline).

Table 5-9 shows the RNTGN natural gas balance in 2005 and 2006.

[17] Customers with an annual consumption higher than 2 million cubic metres of natural gas.

Table 5-9- RNTGN – Admission and exit

	2006	2005	Variation [%]
ADMISSION [GWh]	**51 773**	**54 158**	-4.40
Interconnections [GWh]	27 823	34 835	-20.13
Domestic Market	23 432	30 432	-23.00
Transit	4 391	4 403	-0.27
LNG Terminal [GWh]	23 148	19 318	19.83
Storage - Extraction [GWh]	802	5	15940.00
EXIT [GWh]	**51 628**	**54 151**	-4.66
GRMS [GWh]	45 567	47 628	-4.33
Storage – Injection [GWh]	1 524	2 040	-25.29
Interconnections [GWh]	4 537	4 483	1.20
International market	150	74	102.70
Transit	4 387	4 409	-0.50

Source: REN Gasodutos

RECEPTION, STORAGE AND RE-GASIFICATION AT THE LNG TERMINAL

Due to security of natural gas supply and the need to diversify supply sources, in the late 1990's a decision was taken to build a LNG terminal in Sines. Operations start-up of this infra-structure occurred in early 2004; it has a maximum LNG storage capacity of 240 000 m^3_{GNL}, uma a rated capacity of injection into the RNTGN of 600 000 m^3(n)/h and a maximum injection capacity of 900.000 m^3(n)/h.

Activity at the LNG Terminal in Sines, as regards the unloading of LNG carriers and the filling of tank trucks, is shown in Table 5-10.

Table 5-10 – LNG Terminal activity – LNG unloading and filling of tank trucks

	2006	2005	Variation [%]
Total number of unloaded LNG carriers	28	23	21.74
Total LNG unloaded [Mm^3_{GNL}]	3.46	2.88	20.14
Number of tank truck fill-up operations	1618	1059	52.79

Source: REN Atlântico

In 2006 the number of LNG carriers received and unloaded by Transgás Atlântico increased by approximately 22% versus 2005. As a result of this growth, total LNG unloaded at the terminal increased by 21% versus 2005. In 2006 the tank truck fill-up activity continued to represent only 2.1 percent of total LNG processed at the Terminal, in spite of a very significant growth of the number of fill-ups recorded in 2006 versus 2005..

Table 5-11 shows the main data of natural gas injection into the RNTGN and the quantities of LNG stored at the terminal in 2005 and 2006.

Table 5-11 – LNG Terminal Profile – Storage and exit

	2006	2005	Variação [%]
Total quantity injected into the RNTGN [bcm]	1,94	1,62	19.75
Maximum daily quantity injected into the RNTGN [Mm^3(n)]	13,1	11,8	11.02
Maximum useful quantity of LNG stored [m^3_{LNG}]	204 832	208 792	-1.90
Minimum useful quantity of LNG stored [m^3_{LNG}]	-12 570	-22 403	43.59
Average useful quantity of LNG stored [m^3_{LNG}]	111 243	101 282	9.83

Source: REN Atlântico

UNDERGROUND STORAGE OF NATURAL GAS

By virtue of Decree-Law no. 140/2006 market players shall set up (strategic) security reserves of natural gas, which they must release for consumption upon order expressly given by the minister responsible for the energy sector to address supply disturbance situations. The Carriço natural gas underground storage infra-structures aim to comply with the legislation currently governing the security reserve and they also have a commercial purpose.

In simplified terms the natural gas underground storage facility consists of four underground caves built on natural saline rock formations, using a single ground-level station. The construction of two more underground caves, in addition to the four existing ones, has been anticipated for the future.

Table 5-12 shows the useful storage capacity of the storage caves of the Carriço underground storage infra-structure – as well as its natural gas injection capacity into the RNTGN, in 2006.

Table 5-12 – Useful storage capacity and capacity of injection into RNTGN

Underground Cave	Storage capacity [m^3]	Capacity of injection into RNTGN [m^3(n)/h]
TGC-3	530 000	300 000
TGC-5	470 000	
TGC-1S	360 000	
TGC-4 (under development)	550 000	

Source: Transgás Armazenagem

AUTONOMOUS LNG UNITS (UAG)

Until 2003 tank trucks filled up at the Huelva Terminal (Enagás) supplied the Autonomous LNG Units with gas. Since 2003 this supply has been ensured by the Sines Terminal.

Table 5-13 shows the number of Autonomous LNG Units currently operating in Mainland Portugal, as well as their total capacity, in 2005 and 2006.

Table 5-13 – UAGs currently operating in Mainland Portugal

	2006	2005	Variation [%]
Total number of UAGs	13	13	0
Total storage capacity installed [m^3_{LNG}]	1520	1520	0

The 13 UAG operating in 2006 had the following owners:

- Transgás – 9 units.
- Licensed distribution operators – 3 units.
- Private entities – 1 unit.

According to the technical data supplied by Transgás, S.A., the typical conditions of natural gas emission from the UAGs owned by Transgás are the following:

- Pressure: <4 bar.
- Capacity of emission to the system: 1500 to 3000 m^3(n)/h.
- Temperature: >0 ºC.

NATURAL GAS CONSUMPTION BY MARKET SEGMENT

As mentioned above in the characterization of consumption, in 2006 the natural gas acquired by power generation plants 45% of total consumption, direct customer consumption 38% and only 17% of the natural gas was acquired to Transgás by regional distribution operators.

As regards the 2007-2008 gas-year forecasts, Figure 5-1 illustrates the flows registered in the national natural gas system (SNGN). Very briefly, 89% of the natural gas entering Mainland Portugal will be used by large power generation plants, regional distribution operators and other direct consumers. Stand-alone distribution grids (supplied by tank truck) and quantities injected into underground storage represent consumptions of less than 1% and 2% of total gas acquisitions, respectively.

Figure 5-1 – 2007-2008 gas-year forecasts of energy flows in the SNGN

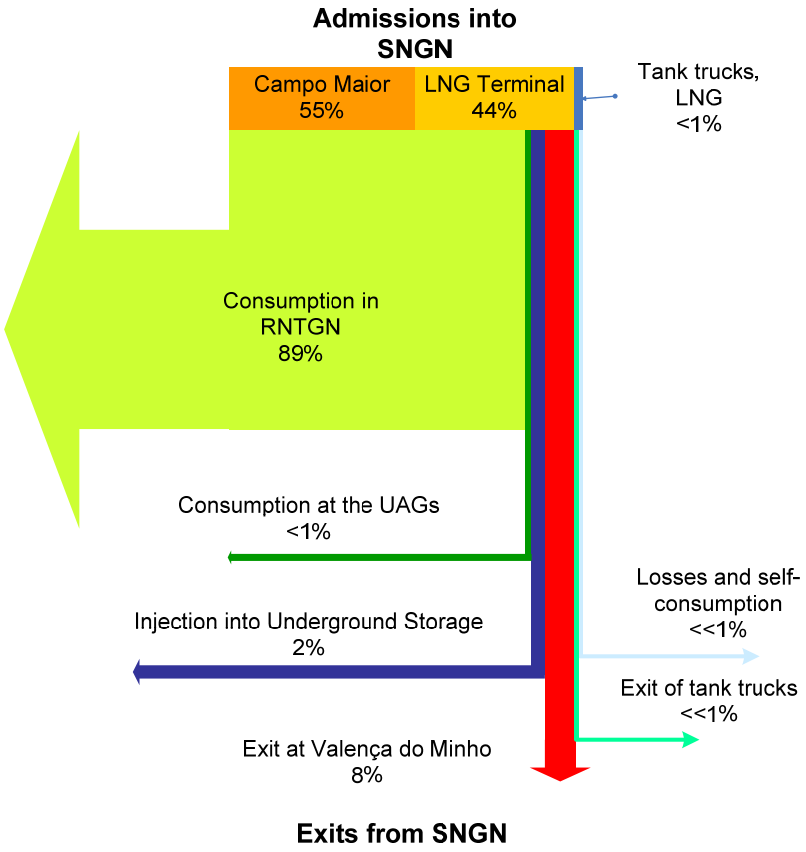


Table 5-14 shows the SNGN balance for the 2007-2008 gas-year.

Table 5-14 – Flows of energy admissions and exits at the SNGN, for the 2007-2008 gas-year

Admission into SNGN	***GWh/ano***	***%***
Campo Maior	31.686	55,1%
Terminal		
Emission RNTGN	25.145	43,7%
Tank trucks	524	0,9%
Extraction from Underground Storage	143	0,2%
Total	***57.498***	***100%***
Exit from SNGN		
RNTGN	51.319	89,3%
Tank trucks (UAGs)	462	0,8%
Total consumption	***51.781***	***90,1%***
Injection into Underground Storage	1.285	2,2%
Total National	***53.066***	***92,4%***
Export		
Valença do Minho	4.316	7,5%
Tank trucks	62	0,1%
Total	***57.444***	***100%***
Losses and self-consumption	54	0,09%

Source: REN

5.2.2 LONG-TERM SUPPLY CONTRACTS

Transgás, SA, holder of the take-or-pay contracts, was renamed Galp Gás Natural, SA in February 2007. Thus Galp Gás Natural, SA, a company of group Galp Energia, is now the holder of the long-term take-or-pay natural gas supply contracts.

Transgás and Sonatrach signed the first supply contract in late 1993. In addition to this contract, three other long-term contracts for the acquisition of LNG have been signed with Nigeria. In 2006 three of these contracts were still in force.

The main characteristics of these supply contracts are the following.

CONTRACT FOR THE ACQUISITION OF NATURAL GAS FROM SONATRACH

This contract establishes that Sonatrach has the obligation of supplying natural gas to Transgás – now called Galp Gás Natural. In turn Galp Gás Natural has the obligation of acquiring and paying for these quantities – used or not (take-or-pay). Under this contract Sonatrach undertakes to supply the following quantities, called contractual annual quantity (QAC):[18]

[18] For a calorific value ranging from 9 150 e 9 600 kcal/cm^3.

1 600 000 000 m^3 in 1998.

1 900 000 000 m^3 in 1999.

2 100 000 000 m^3 in 2000.

2 500 000 000 m^3 between 2001 and 2020 (last year of contract).

CONTRACTS FOR THE ACQUISITION OF NATURAL GAS FROM NLNG

Three contracts for the acquisition of LNG have been signed with Nigerian LNG, Limited (NLNG) – i.e. NLNG I, NLNG II and NLNG Plus. These contracts have been signed for a period of 20 years, with a 6-year make-up period.

The quantity of LNG contracted under NLNG I is 0.42 bcm[19] and LNG supply began in 2000. Deliveries may be made at Huelva, Cartagena or Sines.

The quantity of LNG contracted under NLNG II is 1 bcm and LNG supply began in 2002.

The quantity of LNG contracted under NLNG Plus is 2 bcm and its supply began in 2006. Deliveries can be made in any Iberian terminal along the Mediterranean Coast, or at Sines.

SUPPLY AND DEMAND OF NATURAL GAS

The table below shows the evolution of quantities used, by point of destination, as well as the quantities contracted, by point of origin, between 1998 and 2005. Natural gas is, for the most, used by electricity generation plants and large consumers also have an important weight in total consumption. As regards the point of origin of natural gas consumed, we can see that natural gas is supplied, for the most, under long-term contracts. Since 2004 Nigeria has become Portugal's main supplier of natural gas, overcoming Algeria.

[19] 1 bcm (bilion cubic meters) = 10^9 m^3.

Table 5-15 – Quantities used and contracted

Unit: 10^6 m^3

		1998	1999	2000	2001	2002	2003	2004	2005
Quantities sold	Regional Distribution Operators	122,6	218,0	334,0	436,6	500,0	560,2	604,8	655,7
	Turbogás	237,4	1 049,8	1 026,7	1 035,4	1 227,9	945,2	1 110,5	1 100,6
	Remaining power generation system	164,1	377,2	147,6	62,5	154,7	179,4	568,0	912,2
	Customers w/ consumption > 2 million m^3 / year	242,2	492,5	734,8	950,5	1 122,0	1 210,4	1 258,2	1 446,5
	Total contracted (1)	766,4	2 137,4	2 243,0	2 485,0	3 004,7	2 895,2	3 541,5	4 115,0
	Trading	0,0	0,0	15,0	0,0	0,0	538,0	376,0	119,0
	Total sold (2)	766,4	2 137,4	2 258,0	2 485,0	3 004,7	3 433,2	3 917,5	4 234,0
Quantities purchased and contracted	Quantities purchased - Sonatrach (4)	775,7	2 064,1	1 939,0	2 226,4	2 612,2	2 448,6	2 421,4	2 734,5
	Quantities purchased - NLNG (5)	0,0	0,0	281,2	356,7	432,2	872,4	1 382,5	1 667,1
	Other quantities purchased (6)	0,0	0,0	84,4	0,0	0,0	22,8	149,8	103,5
	Total purchased (7)=(4)+(5)+(6)	775,7	2 064,1	2 304,6	2 583,1	3 044,4	3 343,8	3 953,7	4 505,0

Source: Transgás

6 PUBLIC SERVICE

6.1 PUBLIC SERVICE OBLIGATIONS

6.1.1 ELECTRICITY SECTOR

Pursuant to the legislation and regulations currently in force, all players in the electricity sector are subject to public service obligations when developing their activities, as laid down in Directive 2003/54/EC.

Decree-Law no. 29/2006, of the 15 February 2006, established the new general principles governing the organization and functioning of the National Electricity System (SEN), as well as the principles applicable to the activities of electricity generation, transmission, distribution and supply and the organization of electricity markets. This decree-law transposed to the Portuguese domestic law the principles of Directive 2003/54/CE, making specific reference to the following public service obligations, among others:

a) Security, regularity and quality of supply.

b) Guaranteed universal provision of services.

c) Guaranteed connection to the grids of all customers.

d) Consumer protection, namely as regards tariffs and prices.

e) Promotion of energy efficiency, environmental protection and rational use of renewable and endogenous resources.

f) Convergence of the National Electricity System, namely as regards its solidarity and co-operation with the electricity systems of the Autonomous Regions of the Azores and Madeira.

General principles defined in Decree-Law no. 29/2006 were subsequently developed by Decree-Law no. 172/2006, of the 23 August 2006, which also approved the Bases for the National Transmission System (RNT) Concession, the Bases for the MV- and HV-Distribution National System Concession and the Bases for the LV-Distribution System Concession. Annex V to this Decree-Law also includes a number of consumer protection measures, also reproducing the contents of Annex A to the Directive 2003/54/CE.

The law published on the 31 August 2005, which still governs the Portuguese electricity sector, reiterates the public service obligations stated in both domestic and community law. Furthermore it establishes a number of rules aimed at materializing the said obligations in several activities – namely as regards the commercial relationship with the customers.

The power generation activity may be freely developed, but a license must be obtained beforehand from the competent administrative authorities. It can be developed in standard-regime or in special-regime, the latter applying when incentives are given to the use of endogenous and renewable resources, or to the

combinet heat and power generation. Awarding a generation license must meet a number of criteria, namely contribute to fulfill the energy policy objectives (especially as regards the promotion of security of supply) aimed at diversifying primary energy sources and to fulfill environmental policy objectives such as those emerging from the Kyoto Protocol and the control of the emission of acidifying substances.

Legislative alterations occurred in 2006 create new forms of relationship between generators and the RNT concession holder. This particularly concerns buying and selling of electricity, keeping the market balanced but always seeking to secure supply and meet the electricity requirements of consumers.

According to the concession contract signed with the Portuguese State, the RNT concession holder is responsible for ensuring the global technical management of the public electricity system, operating the RNT and building the respective infra-structure. The transmission concession holder must ensure the delivery of electricity to the MV- and HV-distribution concession holder and to all consumers directly connected to the national transmission system (RNT). Delivery of electricity by the RNT concession holder and provision of the transmission service shall comply with the applicable quality-of-service standards, as laid down in the Quality of Service Code. As regards the protection of the environment, it should be stressed that activities developed by the RNT concession holder should secure a rational use of natural resources, while preserving and maintaing the ecological balance.

The electricity distribution activity is also subject to public service obligations, having the responsibility of providing electricity supply to all consumers whose facilities are located within its geographical scope of action. The first obligation of the distribution concession holders is to secure connection to their grids, providing in this regard a truly universal service. While developing their activity electricity distribution operators must comply witht the quality of service standards, technical standards and a number of commercial standards established in the Quality of Service Code. Like all other stakeholders in this sector, electricity distribution operators must comply with and adopt all legal and regulatory measures established concerning the environment.

According to the legislation on electricity supply currently in force, all suppliers remain subject to public service obligations. In addition to public service obligations, last resort suppliers also remain subject to universal service obligations – and must supply electricity to any consumer requesting it. The applicable regulated tariffs and prices shall consider the costs incurred in acquiring electricity from special-regime generators. The last resort supplier who supplies electricity at all voltage levels must follow a code of conduct, so as to ensure principles of functional independence in the management of its activities.

All suppliers, whether or not in their capacity as last resort suppliers, shall ensure a commercial relationship with electricity users based on a supply contract. Save a few specific obligations additionally established for last resort suppliers, all supply contracts must include a set of provisions that contribute to provide better consumer protection. Such provisions are specificied in various pieces of Portuguese legislation, which replicated the contents of Annex A of Directive 2003/54/CE.

Among other special duties of information imposed on electricity suppliers, they must inform their end users of the following environmental references:

- Relative contribution from different sources of energy of the total electricity acquired by the supplier in the previous year.
- Reference sources used by the supplier to base the information provided to the general public on environmental impact – at least as regards the carbon dioxide emissions resulting from electricity generation based on the energy sources supplied in the previous year.

In what concerns the so-called vulnerable customers – those considered economically less-favoured, reference should be made to the existence of a social tariff. This tariff is applied to the consumption of houses exclusively used for residential purposes (though a small professional activity is accepted), with a subscribed power lower than 2,3 kVA and an annual consumption not exceeding 400 kWh. In this social tariff, the price of the power charge corresponds to ¼ of the power charge of the equivalent power level in the simple tariff. In parallel the Quality of Service Code establishes specific rules for customers with special needs, particularly focussed on the commercial quality.

The electricity supply obligations imposed on many players in the sector mean that supply interruptions—in particular the reasons potentially used for justifying such interruptions—must be considered exceptional measures and are duly categorized by types. In most cases, supply interruptions require a justified pre-warning sent within a minimum delay. Failure to pay electricity bills is one of the reasons for possibly interrupting supply, in the case of customers of last-resort suppliers. In the case of other suppliers, who take responsibility on behalf of their customers for the payment of costs inherent to the use of the system, the failure to pay bills may lead to cessation of the supply agreement. In this last situation the interruption of electricity supply may occur if the customer of a given supplier, after cessation of the supply contract, does not sign a new contract with a different supplier – last resort supplier or not – after the established supplier-switching delay has elapsed.

In 2006, in a universe of approximately 6 million customers, 330,666 interruptions of the electricity supply were recorded in Mainland Portugal due to failure to pay bills within the contractual deadline.

6.1.2 NATURAL GAS SECTOR

Decree-Law no. 30/2006, of he 15 February 2006, established the new organizational framework of the National Natural Gas System, including the general principles governing both the activities of natural gas reception, storage, transmission, distribution and supply, and the organization of natural gas markets. This decree-law, complemented with Decree-Law no. 140/2006, of the 26 July 2006, transposed to the Portuguese domestic law the principles of Directive 2003/55/CE, of the 26 June 2003, making specific reference to the following public service obligations, among others:

a) Security, regularity and quality of supply.

b) Guaranteed connection to the grids of all customers, as provided for in the concession contracts or in the license titles.

c) Consumer protection, namely as regards tariffs and prices.

d) Promotion of energy efficiency, rational use of energy and environmental protection.

Annexes to Decree-Law no. 140/2006 approve the legal bases for the concession of natural gas transmission by way of the National Natural Gas Transmission System (RNTGN), the legal bases for the concessions of the LNG reception, storage and re-gasification activity and the legal bases for the concessions of the natural gas distribution activity.

Regulation of the natural gas sector in 2006 led to approval of the codes for which ERSE is responsible – as provided for in its statutes and in the new legal framework mentioned above. On the 25 September 2006, the following codes were published in the Portuguese official journal (*Diário da República*):

- Commercial Relations Code.
- Tariff Code.
- Access to Grid, Infra-structure and Interconnection Code.
- Quality of Service Code.

Among other public service obligations referred to in the above codes, special reference should be made to the following:

- The transmission system operator and the distribution system operators, within their geographical scope of action, have the obligation of connecting to their grids customer facilities, LNG reception, storage and re-gasification terminals and underground storage facilities that request such connection, if all technical and legal requirements are met.
- Suppliers also vested in the capacity of last resort suppliers have the obligation of supplying natural gas to all consumers requesting it, within the geographical scope of their concession or license, as required by law and regulations. According to Decree-Law no. 30/2006 and Decree-Law no. 140/2006, the last resort supplier capacity has been temporarily assigned to natural gas distribution concession or license holders. It has been established that companies who will be awarded the last resort supply license must be incorporated until the 27 July 2007.
- The Quality of Service Code establishes a number of rules with special emphasis on commercial relationship. These rules are minimum quality-of-service standards. Failure to comply with them constitutes grounds for having the right to compensation.

6.2 GENERAL TERMS OF SUPPLY CONTRACTS

6.2.1 ELECTRICITY SECTOR

All suppliers will be subject to the rules established in Annex A of Directive 2003/54/EC concerning the contents of the supply contract, which has been fully transposed to national law and regulations. In particular such rules determine that contractual conditions must be equitable and that consumers must know them prior to signing or subscribing the contract. Furthermore they must be written in plain language that can be understood by all. Suppliers should also directly provide well-grounded information to their customers, in advance, on any intention to amend the contractual conditions in force and on all rights associated with the purported amendment.

In addition, according to the regulations currently governing the electricity sector the Regulatory Authority must approve a minimum set of data that should be included in the supply contracts signed with the last resort suppliers. This replaces the approval of the general conditions per se, as established in previous regulations.

Change was due mainly to the freedom to choose suppliers, resulting from the opening of the electricity market to all consumers. Liberalization led to new regulations, less restrictive and more open to agreement between parties, though always guided by the need to ensure market balance, which requires compliance with public service and universal service obligations - including consumer protection measures.

In this context, while the possibility remains to sign contracts with pre-drafted general conditions in the public electricity systems, and the customers may freely negotiate their contents, the regulations establish that ERSE must approve a minimum set of data that should be included in the supply contracts signed with the last resort suppliers and the customers supplied in LV and MV. This minimum set of data does not prevent those suppliers from incorporating in the general conditions of the contracts other data deemed relevant to the service provided. This regulatory measure has been adopted because it is considered that the general conditions of contracts continue to perform the key function of providing more and better information to electricity consumers on their main rights and duties. The minimum set of data that should be incorporated in the supply contracts to be signed in the framework of public electricity systems has already been approved by an order issued by ERSE, published on the 10 February 2006, following a proposal made by last resort suppliers and after consultations with consumer associations.

6.2.2 NATURAL GAS SECTOR

In the natural gas sector Annex A of Directive 2003/55/CE also establishes a number of consumer protection measures, determining similar sections that should be specificied in natural gas supply

contracts. The contents of Annex A are also replicated in the most recent Portuguese legislation and regulations regarding the natural gas sector.

In the case of contracts to be signed by last resort retail suppliers and customers whose annual natural gas consumption is equal to or lower than 10,000 m^3, the said regulations also establish that the Regulator must approve the general contractual conditions to be included in such supply contracts. This measure proved to better match the current phase of evolution of the natural gas sector in Portugal. It has been anticipated that the market will open to this customer segment as from January 2010.

The following objectives underlie the above general conditions:

- Offset imbalances due to poorer knowledge and bargaining power, in the case of household and non-household customers whose annual consumption is equal to or lower than 10,000 m^3.
- Ensure that consumers have equal opportunities and are treated in a non-discriminatory way.
- Make the access to information easier.

General conditions to be included in the natural gas supply contracts that will be signed by last resort retail suppliers and customers with an annual consumption equal to or lower than 10,000 m^3 were approved by ERSE in 2007, following a proposal submitted by the last resort suppliers and after consulting the consumer associations.

As regards large customers the proposed regulations want customers to freely bargain the general contractual clauses with their suppliers, acknowledging that this type of customers has enough knowledge and bargaining power to ensure contractual balance. Therefore in this case the regulatory authority does not hae to approve general contractual conditions, as a more protectionist measure.

6.3 LEGISLATIVE PROVISIONS REGARDING END-USER TARIFFS

ELECTRICITY

Today every consumer is free to choose its electricity supplier. Likewise there is a last resort supplier who charges to its customers the End-User tariffs calculated by adding to grid access tariffs (to be paid by all consumers) the Supply tariff and the Energy tariff of the last resort supplier. These two last tariffs are calculated so as to recover, on the one hand, the marketing costs of the last resort supplier and, on the other hand, the costs incurred in buying electricity in the market to supply its customers. It has not been established, nor anticipated, any compensation payable to the last resort supplier for developing this activity.

ERSE establishes and makes public, every year until the 15 December, the End-User tariffs to be paid by customers of the last resort suppliers, as well as the grid access tariffs to be paid by all customers. Pricing of annual tariffs follows the principle of tariff additivity, whereby it can be assured that all customers pay the same for their access to the grids, irrespective of their commercial relationship. Payment for grid access will only be different due to electrical features related with electricity consumption or grid use.

As regards the End-User tariffs charged to the LV customers of last resort suppliers, this tariff addivity mechanism (of which the calculation method is described in the Tariff Code drafted by ERSE) was subject, until the end of 2006, to restrictions imposed by law on its annual variation – as determined by Decree-Law no. 187/95, of the 27 July 1995. According to this Decree-Law, the global value resulting from End-User tariffs charged to LV customers, each year, could not grow at a rate higher than that year's expected inflation rate.

Decree-Law no. 29/2006, of the 15 February 2006, revoked this provision as from the 1 January 2007.

On the 18 December 2006 Decree-Law no. 237-B/2006 was published, which approves the mechanisms for recovering the amounts concerning tariff deficits and tariff adjustments and establishes the growth restrictions of regulated StLV tariffs for 2007.

This Decree-Law establishes that "(…) provisionally the tariffs for year 2007, applicable to standard low-voltage customers, may not increase more than 6 percent versus the tariffs in force in 2006." Furthermore it also determines that the tariff deficit resulting from the application of the end-user tariff in 2006 and 2007, plus the respective interest, shall be reflected in the Global Use of System tariff for low voltage and recovered in constant instalments for a period of 10 years, as from the 1 January 2008. In these circumstances price restrictions imposed to LV in 2006 and to StLV in 2007 generated a tariff deficit that shall be paid over the next 10 years, by way of a constant instalment rent in connection with those supplies. It has been guaranteed that there is no cross-subsidization among customers of different types of voltage, or among different types of supply.

It should be mentioned that no restrictions on tariff prices have been forecasted for the period after the 1 January 2008.

NATURAL GAS

Until 2006 the natural gas sector in Portugal was organized as a vertically-integrated monopoly and customers did not have the right to choose a different supplier. End-user tariffs for the sale of natural gas to household customers (up to 10,000 m^3(n)/year) were homologated by the Ministry of the Economy and Innovation. For consumption in excess of 10,000 m^3(n)/year, tariffs were negotiated by the holders of concessions and licenses with their respective customers.

Decree-Law no. 140/2006, of the 26 July 2006, while implementing Decree-Law no. 30/2006, changed this situation and imposed the unbundling of activities along the natural gas value chain. It also defined the legal regimes applicable to such activities, including the legal bases for the concessions.

As a result of the published legislation in 2007 ERSE began to establish tariffs for each regulated activity in the natural gas sector.

In the first gas-year of 2007-2008, ERSE's regulation covers tariffs for Use of Transmission System, Use of LNG Reception, Storage and Re-gasification Terminal and Use of Underground Storage.

In 2007 the End-User tariff prices continue to be homologated by the Ministry of the Economy and Innovation, based on proposals submitted by the concession- and license-holders. In the first half of 2008 the responsibility for such homologation will be transferred to ERSE. Reduction of costs with the underground storage infra-structure, LNG reception and the national transmission system, due to the values now established by ERSE, should be reflected in the End-User Tariffs.

In the second gas-year – i.e. 2008-2009, ERSE shall extend its regulation to the activities of Natural Gas Distribution, Natural Gas Supply and Natural Gas Buying-and-Selling, establishing the End-User tariffs.