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1 INTRODUCTORY REMARKS

The electricity and natural gas sectors in Portugal have been marked by the consolidation of the liberalisation of the retail markets over the last three years due to legislative initiatives leading to the extinction of regulated end user tariffs.

Therefore, the legal decisions which establish the calendar for the end of regulated sales tariffs to final domestic consumers were of the utmost importance. The Energy Services Regulatory Authority (ERSE) will continue to set quarterly transitory tariffs until the end of 2015, so as to encourage the transition of customers from the regulated market to the liberalised market. There is an exception for economically vulnerable customers who will continue to have access to regulated social tariffs, subject to the ceiling on tariff variation established annually by the Government.

The extinction of regulated end user tariffs for domestic customers led to a high supplier-switching rate especially from last resort suppliers to liberalized market regime suppliers.

In addition to the abovementioned liberalisation process and still within the context of the domestic electricity market, there was also the publication of certain laws, such as the Law which establishes ERSE's sanctioning regime, the Decree-Law establishing the revision of ERSE's statutes and the Legal Framework governing the independent administrative entities that regulate economic activity.

2013 also saw the conclusion of the revision process of the codes applicable to the natural gas sector, which allowed for significant harmonisation with the European regulations that are being prepared, namely regulations on the capacity allocation mechanisms (CAM) and the start of a joint capacity allocation for interconnections between Portugal and Spain, in an initiative that seeks to adopt the abovementioned European regulations within the context of the regional gas initiatives before they are legally required.

International cooperation and the regional integration of electricity and natural gas markets, namely in the Iberian Peninsula, are priorities in the governance of both sectors and in the actions undertaken during the year, aimed at ensuring better conditions for producers/operators and consumers. The expansion of the Iberian Electricity Market (MIBEL), led by its Board of Regulators, and the gradual construction of the Iberian Natural Gas Market (MIBGAS), through the bilateral cooperation of the regulatory authorities of Portugal and Spain and the Southern Regional Gas Initiative (SRGI) were also noteworthy. It should be noted that a study on the implementation models for the integration of the natural gas wholesale market in the Iberian Peninsula, prepared in partnership by ERSE and the *Comisión Nacional de los Mercados y la*

Competencia (CNMC), the Spanish regulatory authority, was released for public consultation in the first half of 2014¹.

The integration of the Iberian markets can be seen not only at wholesale level but also, increasingly, in the retail market, due to market agents frequently operating simultaneously in both countries, as a result of the extinction of the regulated tariffs in Portugal.

In the framework of its duties, ERSE has actively encouraged ever greater integration of the Iberian market, through its regulatory tools, and has overseen this progression, reinforcing its intervention in terms of supervision and monitoring of the markets and prices as well as consumer protection and information.

This report presents the measures that were taken and the results obtained regarding the annual activity of ERSE, pursuant to its obligations to the Agency for the Cooperation of Energy Regulators (ACER) and to the European Commission².

¹ Until September 2013, the *Comisión Nacional de Energía* (CNE).

² Under the terms defined by article 37 of Directive 2009/72/EC of the European Parliament and Council of 13 July, which established the common rules for the internal energy market, and article 41 of Directive 2009/73/EC of the European Parliament and Council of 13 July, which establishes the common rules for the internal gas market.

2 KEY DEVELOPMENTS IN THE ELECTRICITY AND NATURAL GAS SECTORS

In 2013, it was clear that the evolution in the electricity and gas markets in Portugal was continuing along the same lines as in 2012. The legal decisions which set the calendar for the extinction of regulated end user tariffs to residential customers were of the utmost importance.

The extinction of regulated end user tariffs for residential customers led to a high supplier switching rate, especially from last resort suppliers to liberalized market suppliers. This movement consolidated the liberalised market, namely through the diversity of suppliers and commercial offers and also through the integration of offers between the electricity and natural gas sectors. As a result of these transformations, in 2013 the liberalised electricity market ended with a 73% share of total consumption and a 37% share of customers, while the liberalised natural gas market ended with a share of 92% of consumption and 39% of the customers.

The ambitious schedule to eliminate the end-user regulated tariffs, led to an increase in the visibility of the liberalised markets as suppliers provided customers with this information. Among other initiatives that contributed to boosting the market, a collective switching auction run by a nationwide consumer association is worth mentioning.

ERSE also increased its activity in market supervision and contacts with suppliers to encourage fair, suitable commercial practices.

Until the end of 2015, ERSE may set transitory tariffs every quarter to encourage a change in supplier. Economically vulnerable customers will, however, continue to have access to regulated social tariffs, subject to the ceiling on tariff variation established annually by the Government. These vulnerable customers include consumers who are encompassed in a restricted group of government social support instruments.

On the legislation front, the law establishing the regulator's sanctioning regime was³approved in early 2013 along with the revision of its statutes⁴, as well as the Legal Framework for Regulatory Entities⁵. In October 2013, the first European Network Code was approved as a result of the Third Package of internal energy market directives, the code for capacity allocation mechanisms for natural gas interconnections. ERSE revised the natural gas codes and approved, for the first time, a new Quality of Service Code for the electricity sector, following the assignment of new responsibilities in this matter. It should be noted that the new Quality of Service Code is to be applied, for the first time, to liberalized market suppliers in

³Law no. 9/2013, of the 28th of January.

⁴ Decree-Law no. 84/2013, of the 25th of June.

⁵ Law no. 67/2013, of the 28th of August.

terms of commercial quality of service. This change is associated with a strengthening of the regulatory obligations imposed on liberalized market suppliers regarding information provided under, and the transparency of, the commercial relationship in order to ensure that the rapid transition to a liberalised market goes through while still protecting less informed consumers.

Regional integration was reinforced through specific initiatives in the electricity and natural gas wholesale markets.

In the electricity sector, the regulatory harmonisation in the MIBEL area was carried out by holding the first financial transmission rights auction on the spread of electricity prices in the interconnection between Portugal and Spain. The auction was held in December 2013 in accordance with harmonised rules agreed upon by the Board of MIBEL's Board of Regulators, and was fully subscribed.

Also worth mentioning is the continued growth of special regime production with structural consequences in the electricity sector. There was also high rainfall in 2013. These two factors, combined with the increase in international fuel prices, led to significant reduction in the thermal power output, particularly from natural gas plants (with considerable consequences in terms of the level of consumption of natural gas). This change in the production mix was responsible for momentary inversions in the spread between Portuguese and Spanish price areas over the year, with lower average annual prices in Portugal for the first time since the MIBEL was established. The average MIBEL price was lower than in the past, greatly due to the specific conditions which increased renewable production.

In the natural gas sector, the regional integration of wholesale markets was boosted in 2013 through another harmonised auction of interconnection capacity of natural gas between Portugal and Spain where the rules adopted closely followed the European Network Code on Capacity Allocation Mechanisms. ERSE also approved the revision of the natural gas codes where the regulations were substantially changed with a view to achieving regulatory harmonization across Europe, in line with the network codes currently being drawn up. These changes significantly altered the participation of infrastructure and system users. Particularly worthy of note among the main changes are the allocation of binding capacity rights in transmission, underground storage and LNG terminal infrastructures. These capacity rights are allocated for up to one year and have adopted the European calendar for the capacity allocation year, i.e. from October to September, anticipating the implementation of the CAM Network Code⁶.

Through bilateral cooperation, ERSE and CNMC (in Spain) initiated a study on possible models to implement the integration of the natural gas wholesale market in the Iberian Peninsula through bilateral agreement. This study opened to public consultation in the first half of 2014.

⁶ Approved by EU Regulation no. 984/2013 of the Commission of 14 October 2013 which established a network code for the capacity allocation mechanisms in gas transmission networks and which completed EC Regulation no. 715/2009 of the European Parliament and Council.

Continued access difficulties and doubts about the quality of the information provided by the distribution network operators in the natural gas sector regarding the characterization of the retail market, led to ERSE deciding in 2013 that this information should be subject to an independent audit. This work proved there were shortcomings in compliance with reporting obligations. The audit also showed that the criteria used to aggregate data from the distribution network operators was generally appropriate, except for the information regarding 2012.

In 2013, due to the internal energy market directives, ERSE continued the certification process of both the electricity and natural gas transmission network operators and, in the first quarter of 2014, submitted its draft certification decision to the European Commission.

In the electricity sector, following the detection of anomalies in a wide range of time-of-use tariff meters in the low voltage distribution network in mainland Portugal, external and independent audits were conducted in 2013 on meters belonging to distribution network operators in mainland Portugal and the autonomous regions. The audit carried out in mainland Portugal meant that, in 2013, ERSE was able to decide on the compensation due to time-of-use tariff customers and on some corrective measures to be applied in respect of the distribution network operator's internal procedures. The audit conducted on companies in the autonomous regions enabled a similar exercise to be undertaken and the decision process regarding compensation was concluded in 2014.

ERSE undertook a public consultation process regarding the proposal for the Development and Investment Plan for the National Transmission Network, Storage Infrastructures and LNG Terminals (*Rede Nacional de Transporte, Infraestruturas de Armazenamento e Terminais de GNL – RNTIAT*) for the period 2014-2023 (*Plano de Desenvolvimento e Investimento da RNTIAT 2014-2023 – PDIRGN 2013*), in October 2013 following the publication of the legislation for the natural gas sector⁷ which bolstered ERSE's responsibilities. Once this had been concluded and the comments received taken into consideration, ERSE prepared and approved the Opinion related to the PDIRGN 2013 proposal in December 2013. The process to issue the Opinion on the proposal for the Development and Investment Plan for Electricity Transmission for the period 2014-2023 (*Plano de Desenvolvimento e Investimento na Rede de Transporte de Eletricidade 2014-2023 – PDIRT-E 2013*) was conducted in parallel to that of the gas sector and was concluded April 2014.

During the first quarter of 2013, ERSE carried out a revision of the rules of the Consumption Efficiency Promotion Plan (*Plano de Promoção da Eficiência no Consumo – PPEC*) following the legislation published in January relating to rules on assessment criteria and procedures⁸. The tender for the PPEC

⁷ Decree-Law no. 140/2006 of 26 July in the wording given by Decree-Law no. 231/2012, of 26 October.

⁸ Pursuant to Order No. 26/2013 of 24 January, Administrative Order no. 3317/2013 of 1 March, Administrative Order No. 4131/2013 of 20 March and ERSE Directive 5/2013 of 22 March.

2013-2014 was launched in March, and at the end of the year 70 measures were approved to be implemented by 29 promoters.

Also of note is the decommissioning in 2013 of the thermal power plant located in Setúbal, resulting from the end of the Costs for the Maintenance of Contractual Equilibrium⁹ by the end of 2012. The decommissioning was due to economic reasons, namely the production technology of this plant (fuel oil) and the costs arising from environmental obligations.

⁹ Compensation due to the early end of the Power Purchase Agreements (PPAs).

3 THE ELECTRICITY MARKET

3.1 NETWORK REGULATION

3.1.1 UNBUNDLING

CERTIFICATION OF THE TRANSMISSION NETWORK OPERATOR

In 2013, the certification process of REN – Rede Elétrica Nacional, S.A., as a National Electricity Transmission Network (*Rede Nacional de Transporte* – RNT) operator under an ownership unbundling scheme¹⁰, continued with significant developments that culminated in ERSE presenting a proposed decision on the certification of the RNT operator to the European Commission in 2014. Approval of the final decision by ERSE is currently pending the European Commission's opinion on the proposed decision, which should be forthcoming in 2014.

IMAGE DIFFERENTIATION

For the purposes of approval, by ERSE, of the rules applicable to the differentiation of image and communication by the distribution network operator and the last resort supplier, between themselves and in relation to other entities that operate in the National Electricity System (SEN), pursuant to the Commercial Relations Code (RRC), the companies carrying out these activities presented the corresponding proposals to ERSE. The said image differentiation proposals continued to be analysed throughout 2013 and the process was concluded with the approval of the proposed unbundling of the EDP Distribuição and EDP Serviço Universal (brand) images.

3.1.2 TECHNICAL FUNCTIONING

3.1.2.1 BALANCING

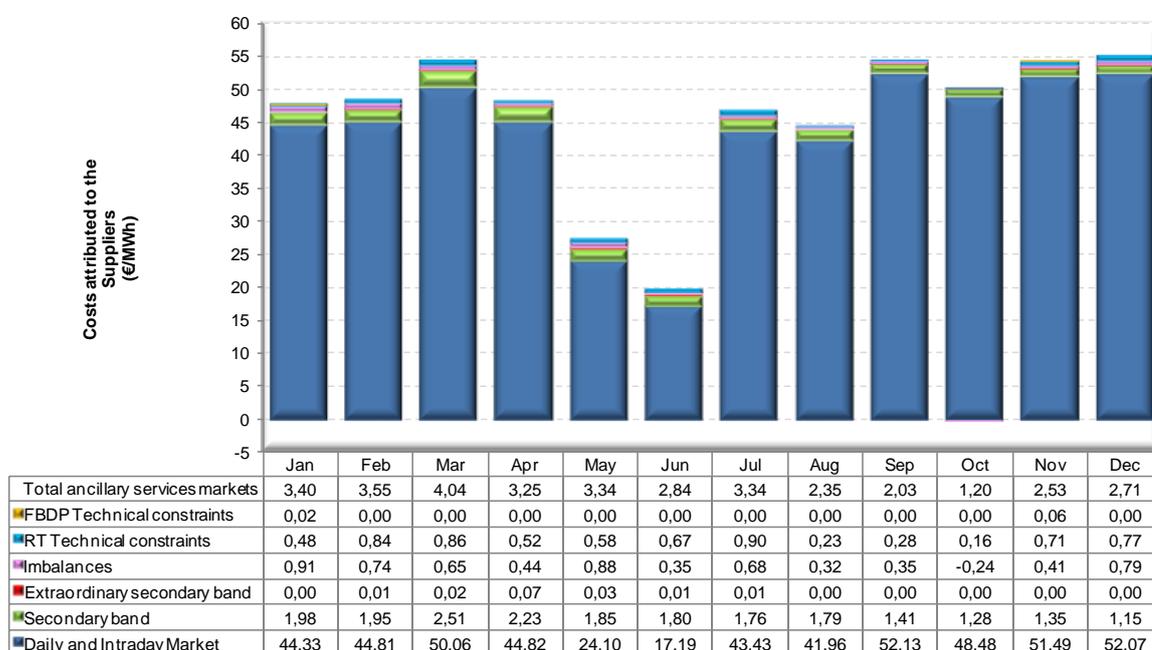
In 2013, as in the previous year, the service to compensate electricity generation and consumption imbalances and to resolve technical constraints was mobilized in accordance with the ancillary services market, which REN is responsible for operating due to its role as Global Technical Manager of the System.

¹⁰ Under the combined provisions of Articles 9 and 10 of Directive 2009/72/EC of the European Parliament and Council of the 13th of July, and Article 3 of Regulation (EC) no. 714/2009 of the European Parliament and Council of the 13th of July.

The energy mobilised to resolve technical constraints and the secondary regulation band contracted involve costs that are paid by all customers. Additionally, the costs of secondary regulation energy and regulated reserve energy mobilisation used to cancel the agents' imbalances in real time are paid by all the market agents that have deviated in a certain period.

Figure 3-1 presents the impact of daily, intraday and ancillary services markets on the costs attributed to demand in 2013. Therefore, in addition to the portion related to the daily market, another portion is shown, which relates to the ancillary services market and presents its main components.

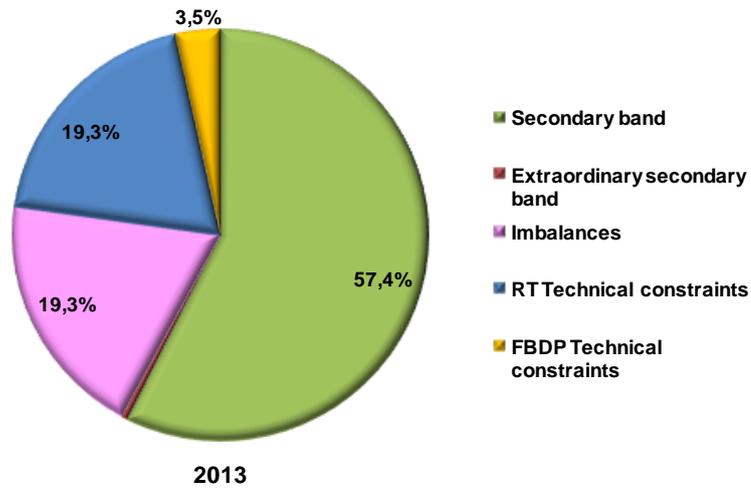
Figure 3-1 – Impact of daily markets and ancillary services markets on the costs attributed to suppliers operating in Portugal, in 2013



Throughout 2013, the ancillary services market represented an average weighted cost of approximately €2.88/MWh sold in comparison to the weighted marginal price in the daily and intraday market of approximately €42.91/MWh.

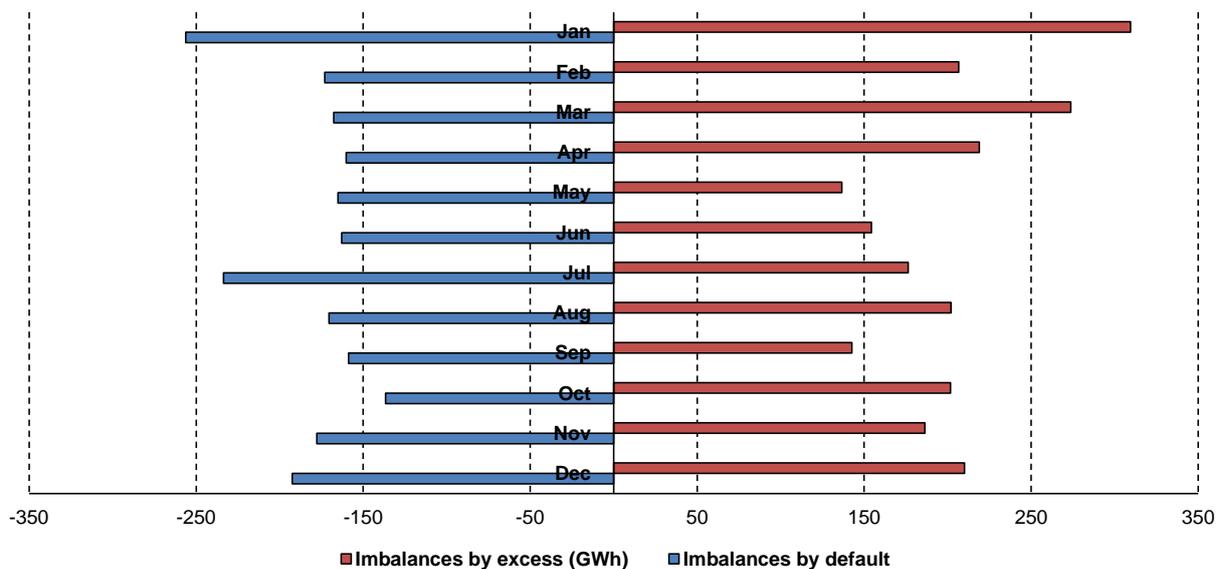
Figure 3-2 presents the breakdown of the ancillary services market costs, where it can be seen that the most important components relate to imbalances and secondary band contracting.

Figure 3-2 – Breakdown of the ancillary services market costs in 2013



The valuation of the imbalances for each hour corresponds exactly to the variable costs of regulation payable to those agents that rectify the imbalance by participating in the ancillary services market. Figure 3-3 shows the evolution of the energy imbalances throughout 2013, with the representation of the imbalances by default and imbalances by excess.

Figure 3-3 – Evolution of Imbalances in 2013



3.1.2.2 QUALITY OF SERVICE

Both the Tariff Code (RT) and the Quality of Service Code (RQS) have provisions for regulating continuity of supply in Mainland Portugal¹¹.

INCENTIVE TO IMPROVE SUPPLY CONTINUITY

The RT establishes an incentive to improve the continuity of supply with repercussions on the allowed revenue for the MV and HV distribution network operators in Mainland Portugal. The value of the incentive depends on the annual value of energy not distributed and is determined by a method established in the codes.

In 2012, the value of energy not distributed was less than the reference value fixed for the period of regulation with the incentive representing around 1.475 million Euros. On the basis of the information available to date, the value of energy not distributed in the MV and HV distribution networks in 2013 will lead to an incentive of around 563 million Euros.

¹¹ In addition to this theme, the RQS also establishes obligations related to the quality of the voltage wave and the quality of the commercial service.

CONTINUITY OF SUPPLY

The transmission and distribution networks are described in terms of continuity of supply, based on indicators for each system (transmission and distribution):

- EIT – Equivalent Interruption Time: indicator applying to the transmission network. This expresses the system interruption time based on the average value of the expected annual capacity (Pme);
- ICEIT – Installed Capacity Equivalent Interruption Time: indicator applying to the MV distribution network. This shows the duration of the interruption of installed capacity in the transformer stations;
- SAIDI – System Average Interruption Duration Index: indicator applying to the transmission and distribution networks;
- SAIFI – System Average Interruption Frequency Index: indicator applying to the transmission and distribution networks.

The delivery points (PdE) are the points on the network where electricity is delivered to customers' premises or to another network. The transmission and distribution network indicators are calculated taking into account all interruptions lasting more than 3 minutes.

Table 3-1 shows the figures for the continuity of supply indicators recorded in Mainland Portugal in 2013.

Table 3-1 – Continuity of supply indicators in Mainland Portugal, 2013

Voltage Level	Indicator	Interruptions	
		Programmed	Accidental
Transmission	EIT (min)	-	0.091
	SAIFI	-	0.038
	SAIDI (min)	-	0.195
MV Distribution	ICEIT (min)	0.224	53.947
	SAIFI (int/PdE)	0.001	1.701
	SAIDI (min/PdE)	0.411	81.458
LV Distribution	SAIFI (int/customer)	0.007	1.749
	SAIDI (min/customer)	1.443	88.705

Note: Provisional figures.

Source: REN, EDP Distribuição

In 2013, there was an increase of 67% in the number of instances of non-compliance with the individual continuity of supply standards in the distribution networks, in comparison to 2012. Pertaining to the compensation paid to customers, in 2013, the value rose 2.5 times in comparison to the value recorded in 2012.

3.1.2.3 CONNECTIONS

With the revision of the RRC in 2012, the applicant for a connection became responsible for the construction of the sections for exclusive use¹², with the obligation of the distribution system operator (DSO) to present a budget being eliminated. However, in geographic areas where there are no service providers, the DSO must handle the construction of the connection. The DSO continues to be obliged to send ERSE the data related to their activity in this area.

3.1.2.4 SAFEGUARD MEASURES

In the event of a sudden crisis in the energy market or of a threat to the safety and physical integrity of people, equipment, installations and networks due to a serious accident or other event of force majeure, the member of the Government responsible for energy may take any transitional and temporary safeguard measures needed¹³.

During 2013, there were no incidents which required the implementation of safeguard measures¹⁴.

3.1.2.5 SOURCES OF RENEWABLE ENERGY

The concept of renewable energy sources is related to special regime generation (SRG). The activity of generating electricity subject to special legal regimes, such as the generation of electricity through cogeneration and renewable and non-renewable endogenous resources, micro generation¹⁵, mini generation¹⁶ and generation without the injection of power into the network is considered to be SRG. Similarly, the generation of electricity through renewable and non-renewable endogenous resources, not subject to a special legal regime is also considered to be special regime generation¹⁷. Therefore, the SRG

¹² Corresponds to the section of the connection closest to the consumer's installation up to the maximum length approved by ERSE, as defined in the RRC.

¹³ Article 33-B of Decree-Law no. 215-B/2012, of the 8th of October.

¹⁴ As established in Article 42 of Directive 2009/72/EC of the European Parliament and Council of the 13th of July.

¹⁵ Micro generation is the generation of electrical energy with an installed power of up to 5.75 kW for single facilities or 11.04 kW for condominiums which contain 6 or more divisions.

¹⁶ Mini generation corresponds to the generation of electrical energy with an installed power of up to 250 kW.

¹⁷ Decree-Law no. 215-A/2012, of the 8th of October, Article 18, no. 1.

concept now includes all renewable energy sources for the generation of electricity, including all hydropower generation.

In Portugal, the energy generated by SRG, subject to a special legal regime, with guaranteed remuneration, must be bought by the last resort supplier, with the application of feed-in tariffs. The differentiation of the remuneration of this SRG, in the current legal framework, depends on the generation technology.

The sales price to the last resort supplier may be one of the following:

- Price which results from the application of the tariff published by the Government;
- Price which results from the bid submitted during tenders for the allocation of interconnection points for wind and biomass energy facilities. In these tenders, the discount on the tariff published by the Government is one of the weighted factors.

The prices published by the Government, currently in force, are based on an avoided cost approach, seeking to quantify them in terms of power (investment in new facilities), energy (cost of fuel) and environment (giving value to CO₂ emissions avoided) and also a logic of differentiation in accordance with the generation technology or primary source of energy used. Therefore, the remuneration of the producer depends on the following factors:

- Delivery period of the electricity to the network;
- Shape of the generation diagram for the generation of electricity;
- Primary energy source used.

The last resort supplier clarifies the SRG sales offer in MIBEL (since the end of 2011) and operates in a similar manner to that of an SRG aggregating agent in Portugal¹⁸.

The community standard¹⁹ is incorporated on a national level in order to establish the priority of the renewable energy sources in relation to generation in the standard regime, both for access to the network and in the administrative order²⁰, unless this would put the security of the supply at risk²¹. There are, however, limitations to the nominal power of each SRG facility which can be connected at each point of the network, depending on the availability of the network itself to accommodate these connections.

¹⁸ The recent cogeneration legislation states that the cogenerators may decide to offer the energy produced in the organized market, receiving a premium for this.

¹⁹ Directive 2009/29/EC of the European Parliament and Council of the 13th of July.

²⁰ Hydroelectric plants with an installed capacity greater than 30 MW do not have priority in the administrative order.

²¹ Decree-Law no. 215-B/2012, of the 8th of October, Article 33-W.

In the case of Portugal, it is worth noting that the SRG with guaranteed remuneration does not directly assume the payment of the imbalances (costs associated with the balance of the system) and so no explicit valorisation of the corresponding costs is performed²². Costs due to imbalances in the dispatch of this SRG in the market, calculated by the difference between the real administrative order and the market dispatch of the SRG, are covered by the instrumental buyer of the SRG, the LRS, and are incorporated into the grid access tariff paid by all consumers.

3.1.3 NETWORK TARIFFS FOR CONNECTION AND ACCESS

PROCEDURES AND METHODOLOGY FOR CALCULATING ELECTRICITY GRID ACCESS TARIFFS

In 2013, the methodology for calculating electricity grid access tariffs was maintained.

ERSE is responsible for preparing and approving the Tariff Code which establishes the methodology to be used for calculating tariffs and prices and the ways of regulating the revenues allowed. The approval of the Tariff Code is preceded by public consultation and an opinion from the Tariff Council. The ERSE tariff fixing process, including the time frame, is also defined in the code.

With the objective of contextualising the tariff calculation methodology for the grid access tariffs, the following provides a brief explanation of the current Portuguese tariff system.

The Grid Access Tariffs are charged to all electricity consumers for the use of the infrastructure. Generally speaking, these tariffs are paid by suppliers on behalf of their customers. In addition, they may be paid directly by customers benefiting from the status of Market Agent, which means customers buying energy directly on the markets, and who are responsible for managing their programming imbalances.

The revenue generated by regulated activities is recovered through specific tariffs, each with its own tariff structure and characterised by a given set of billing variables.

Tariff prices are established in each activity so as to ensure that their structure follows the structure of the marginal costs and also enables the recovery of the allowed revenues in each activity.

Tariff charging and billing are based on the principle of non-discrimination of the energy's end use. The tariff options are available to all consumers.

²² In Spain, the SRG answers directly for the costs from imbalances, which is not the case in Portugal, although the respective generation volumes are integrated in the same market reference. A study prepared in 2012 by the Board of MIBEL Regulators identified this specific issue as being one of the aspects to be harmonised in the MIBEL framework.

Grid access paid by all electricity consumers includes the following tariffs: Global Use of System, Use of Transmission Network and Use of Distribution Network. Prices of access tariffs for each billing variable are determined by adding up the corresponding tariff prices per activity.

Insofar as the tariffs making up this sum are based on marginal costs, cross-subsidisation between consumers is avoided and efficient use of resources is promoted.

This tariff calculation methodology allows for detailed knowledge of the various tariff components by activity or service. Therefore, each customer can know exactly how much they pay, for example, for the use of the MV distribution network, and how that value is considered in terms of billing. The transparency in the formulation of the tariffs, which is a consequence of the implementation of this type of system, gains special importance for customers who have no experience in selecting of supplier and in particular for customers who are less informed.

NETWORK ACCESS TARIFFS PRICES

The average price of the Grid Access Tariffs forecast for 2013 (0.0677 €/kWh), corresponded to a tariff increase of 4.8% between 2012 and 2013, and the variations per voltage level which are presented in Table 3-2.

Table 3-2 – Grid Access Tariff Variation for 2012 / 2013

	Average price 2012* €/kWh	Average price 2013 €/kWh	Variation
Network Access Tariffs	0.0646	0.0677	4.8%
Access to VHV Networks	0.0195	0.0224	14.7%
Access to HV Networks	0.0268	0.0304	13.4%
Access to MV Networks	0.0445	0.0448	0.6%
Access to SpLV Networks	0.0696	0.0730	4.9%
Access to StLV Networks	0.0936	0.0985	5.2%

* Application of 2012 tariffs to the demand forecast for 2013

The following table presents the structure (revenue from regulated activities) and the level of consumption forecast for 2013. Maintaining the 2012 tariff prices, the evolution of the consumption structure results in an increase of 1.3% in the average price.

Table 3-3 – Evolution of the average price of Grid Access Tariffs 2013 / 2012

Characteristics and average price	Tariffs 2012, Consumption 2012 (1)	Tariffs 2012, consumption 2013 (2)	Tariffs 2013, consumption 2013 (3)
Revenue (10 ⁶ Euros)	3 033	2 932	3 072
Consumption (GWh)	47 583	45 399	45 399
Average price (EUR/kWh)	0,0637	0,0646	0,0677
Variation (%)		(2)/(1) = 1.3%	(3)/(2) = 4.8%

The main factor in the variation of access tariffs seen in 2013 is related to the reduction in demand, whose level came close to the 2006 figure, due to the economic crisis. The existence of structural factors, namely measures for the promotion of consumption efficiency and the increase in VAT on electric energy, which led to the worsening of the trend for a reduction in consumption, especially in the residential segment, should also be noted.

The figures below show the breakdown, by regulated activity, of the average price of the Grid Access Tariffs in 2013 and the structure of the average price per regulated activity for each voltage level.

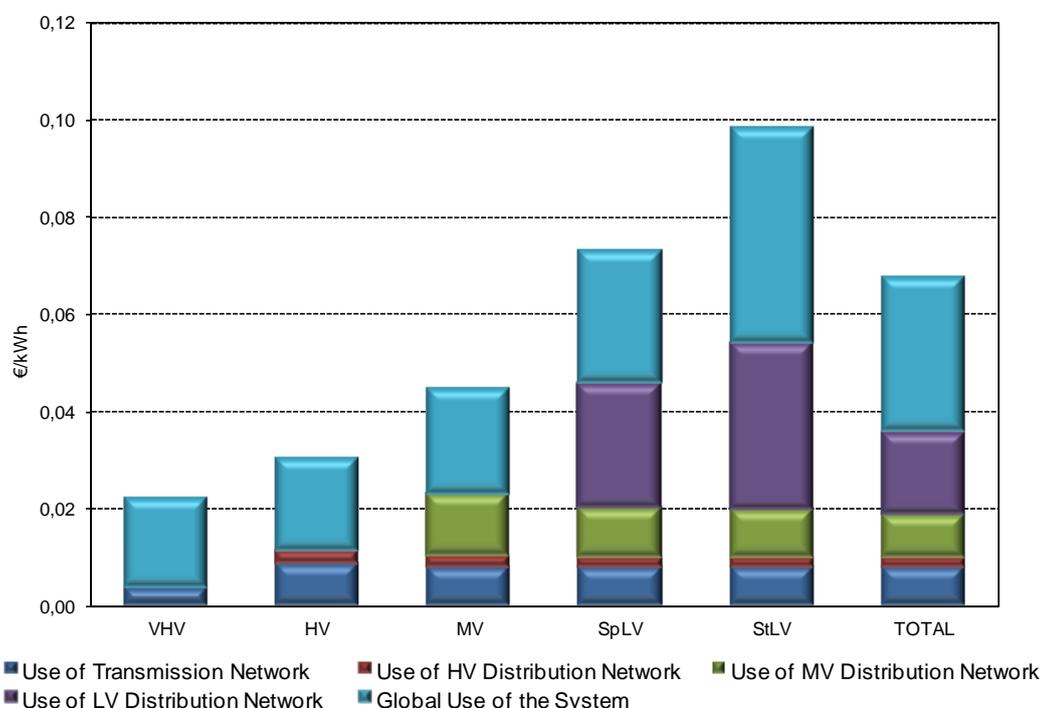
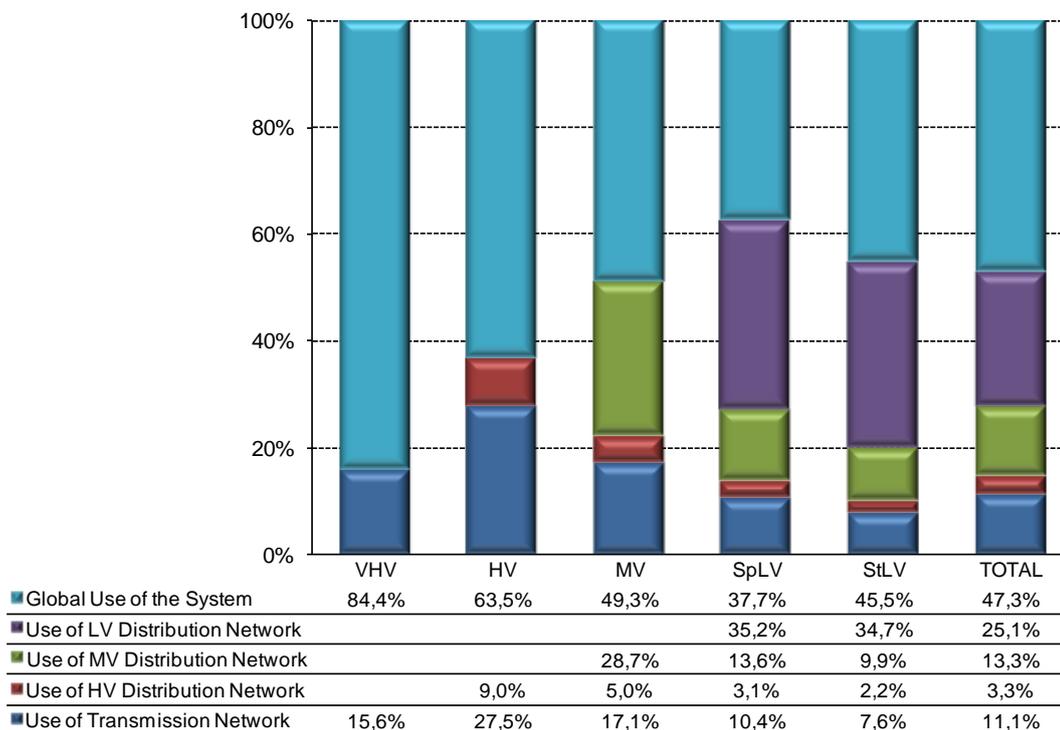
Figure 3-4 – Breakdown per activity of the average price of Grid Access Tariffs in 2013

Figure 3-5 – Structure of the average price of Grid Access Tariffs in 2013

FORMS OF REGULATION IN THE DEFINING OF ALLOWED REVENUE

As the second year in the 2012-2014 regulatory period, 2013 was a year for the consolidation of the regulation methodologies applied to each of the regulated activities. To follow is a brief reminder, per operator, of the regulatory models underlying this regulatory period:

- Transmission network operator - Model based on economic incentives: (i) application of a price cap methodology with efficiency targets²³ for operating costs; (ii) incentive for efficient investment in the transmission network through the use of reference prices in valuing new equipment to be incorporated into the network, whose greater risk is offset by a differentiated rate of return; (iii) incentive to increase availability of the elements of the RNT; (iv) incentive for maintaining equipment in operation at the end of its useful life.
- Distribution network operator – Price cap methodology applied to unit operating costs (OPEX) and costs accepted on an annual basis in the case of investment costs (CAPEX), taking into account the investment plans proposed by the companies. In this regulatory period, the treatment of investments in networks considered to be innovative, whose principle was based on the recognition of a greater remuneration of these assets in exchange for greater operational efficiency, was

²³ It should be stressed that the inducers used are not very volatile.

differentiated. Other incentives also apply: (i) incentive to improve service quality and (ii) an incentive to reduce losses;

- Last resort supplier - Price cap regulation plus a remuneration which is aimed at compensating the working capital needs arising from the differential between the average payment period and the average billing period.
- Companies with electricity transmission and distribution concessions in the Autonomous Regions of the Azores and Madeira - application of regulation through economic incentives: (i) regulation of the electricity Distribution and Sales activities via a price cap methodology for calculating allowed revenues; (ii) definition of reference costs of fuel oil consumed in electricity generation²⁴.

The definition of the economic targets was based on benchmarking studies of international scope, in the case of electricity transmission, and national scope for electricity distribution through the application of both parametric and non-parametric methods. The annual efficiency targets applied to the unit costs for operations were 3.5% for transmission and distribution. The mechanism for investment at reference costs, applicable to the transmission network operator, envisages the updating of the price of new equipment, also incorporating an efficiency factor, which in the period from 2012 to 2014 was set at 1.5%.

In the case of sales²⁵, the annual efficiency factor was also 3.5%.

In the Autonomous Region of the Azores, the efficiency targets applied to each of the activities were, on average, 2.5%. In the Autonomous Region of Madeira, the efficiency targets vary between 2.5% in the transmission activity and 5% in the distribution activity.

Also to be highlighted is the methodology for the indexing of the cost of capital²⁶ introduced during the 2012-2014 regulatory period due to the uncertainty of the economic and financial context. Given the economic instability, a mechanism was developed which allowed the evolution of the economic and financial situation to be reflected in the rate of return on assets. Therefore, the rates are indexed on the basis of the average daily price of the Portuguese Republic's five-year CDSs (Credit Default Swaps). Given the volatility of the market indicators, a cap and a floor were established.

In addition to monitoring the application of its own regulatory measures, the regulator must guarantee that legislative decisions are properly reflected in allowed revenue. These measures are preferably aimed at promoting the liberalisation of the market and guaranteeing the sustainability of the system acting in

²⁴ Electricity generation in the Autonomous Regions of the Azores and Madeira is regulated, and it is not liberalised because these regions have benefited from a derogation of the application of Directive 2003/54/EC.

²⁵ Due to the dimension of the Sales activity, the application of efficiency targets resulted from the analysis of the company's historical data but no benchmarking study was carried out.

²⁶ Weighted Average Cost of Capital (WACC).

terms of General Economic Interest Costs (CIEG). At the end of 2012, several laws were published which had an impact on the 2013 tariffs, including: the extinction of regulated end user tariffs for Standard Low Voltage (StLV) and respective safeguard mechanisms for economically vulnerable customers; changes to the remuneration regime of cogeneration installations; the deferral of some costs of the energy sector and allocation criteria of certain costs per voltage level or type of supply²⁷.

NETWORK CONNECTION COSTS

The rules and costs for connecting installations to the networks²⁸ take into consideration criteria of economic rationality (adherence to the connection construction costs) and the need to ensure consumer access to electricity. The rules are approved by ERSE following public consultation processes in which all interested parties participate.

DEVELOPMENT AND INVESTMENT PLAN FOR THE ELECTRICITY TRANSMISSION NETWORK

In 2013, REN, as National Electricity Transmission (RNT) operator, presented the Directorate General for Energy and Geology (*Direção Geral de Energia e Geologia* – DGEG) with a proposal for a Development and Investment Plan for Electricity Transmission for the period 2014 2023 (PDIRT-E 2013)²⁹. In turn, DGEG sent ERSE the PDIRT-E 2013 proposal received, with the regulator being responsible for organising a public consultation on its content, lasting 30 days. ERSE issued its opinion on 7 April 2014.

Under the scope of Regulation (EU) no. 347/2013 of the European Parliament and Council, of the 17th of April, applications were submitted for four electricity infrastructure projects in Portugal, including one interconnection with Spain³⁰, promoted by REN, and which are included in the PDIRT-E 2013 proposal. These projects, in accordance with the list of Projects of Common Interest (PCI) issued in October 2013, obtained the statute of PCI. To date, the RNT Operator has not submitted the investment request for any of these projects to ERSE.

²⁷ Decree-Law no. 75/2012 of the 26th of March, Ordinance no. 325-A/2012 of the 16th of October; Decree-Law no. 256/2012, of the 29th of November and Ordinance no. 332/2012 of the 22nd of October, respectively.

²⁸ Please also see section 3.1.2.3.

²⁹ In compliance with what is provided for in no. 1 of Article 36-A of Decree-Law no. 172/2006 of the 23rd of August, in the wording given by Decree-Law no. 215-B/2012, of the 8th of October.

³⁰ Internal line in Portugal, between Pedralva and Alfena (2.16.1); Internal line in Portugal, between Pedralva and Vila Fria B (2.16.2); Internal line in Portugal, between Frades B, Ribeira de Pena and Feira (2.16.3); Interconnection line between Portugal and Spain between Vila Fria - Vila do Conde – Recarei (PT) and Beariz-Fontefría (SP) (2.17).

DEVELOPMENT AND INVESTMENT PLAN FOR THE ELECTRICITY DISTRIBUTION NETWORKS

During 2013, no relevant facts worthy of mention occurred in this respect and the period for the application of the current plan, which was subject to ERSE's opinion in 2012, is in progress.

3.1.4 CROSS-BORDER ISSUES

In 2013, no changes were made to the management of the interconnections between Portugal and Spain, namely regarding the model for the daily and intraday allocation of physical capacity, with this being assigned solely to the MIBEL daily and intraday market. Congestion is resolved through the application of a market splitting mechanism. However, there were changes in terms of the allocation of financial products with fixed-term capacity, as mentioned in the point related to "cooperation".

It should be remembered that MIBEL began operating officially on the 1st of July 2007 based on a single daily market (OMIE) which sustains the Mechanism for Joint Management of the Portugal-Spain Interconnection, with the latter being regulated by the rules and principles defined in the following legal/regulatory instruments:

- EC Regulation no. 714/2009 of the European Parliament and Council;
- Access to Grids and Interconnections Code;
- Procedures Manual for the Mechanism for Joint Management of the Portugal-Spain Interconnection;
- Joint Rules for Contracting Capacity in the Portugal–Spain Interconnection.

Pertaining to the management of the fixed term for the Portugal-Spain interconnection capacity, at the end of 2013, following the joint proposal from the Board of MIBEL Regulators, the regulators in Portugal and Spain agreed to approve the rules and principles governing harmonised allocation of financial rights for the use of the interconnection capacity, taking effect as of the 1st of January 2014. To this end, ERSE changed its Access to Grids and Interconnections Code (*Regulamento do Acesso às Redes e às Interligações* – RARI) as well as the Procedures Manual for the Mechanism for Joint Management of the Portugal-Spain Interconnection.

The first auction of financial contracts for capacity rights for the first quarter of 2014 in a platform managed by the Iberian Market Operator – Portuguese Section (OMIP) took place in December 2013, attended only by the Portuguese electricity system.

REVENUE FROM CONGESTION ON INTERCONNECTIONS

In 2013, revenue from congestion on the interconnections between Portugal and Spain, resulting from the zonal price difference after the application of market splitting, totalling 10.7 million Euros, maintained the upward trend recorded in 2012, representing 40% more than in 2012, but falling 10% below the levels of 2010.

This upward trend in revenue from congestion was mainly due to an increase in the number of congestion hours, which rose from 861 to 944; congestion was recorded in both transit directions, with an outgoing average annual spread of 0.61 €/MWh, in comparison to the incoming figure of 0.84 €/MWh recorded in 2012.

While, during the first semester, the congestion recorded was predominantly outgoing (660 hours), with an average spread of 1.31 €/MWh, only 284 congestion hours were recorded in the second semester, and these were mainly incoming, with an average spread of 0.08.

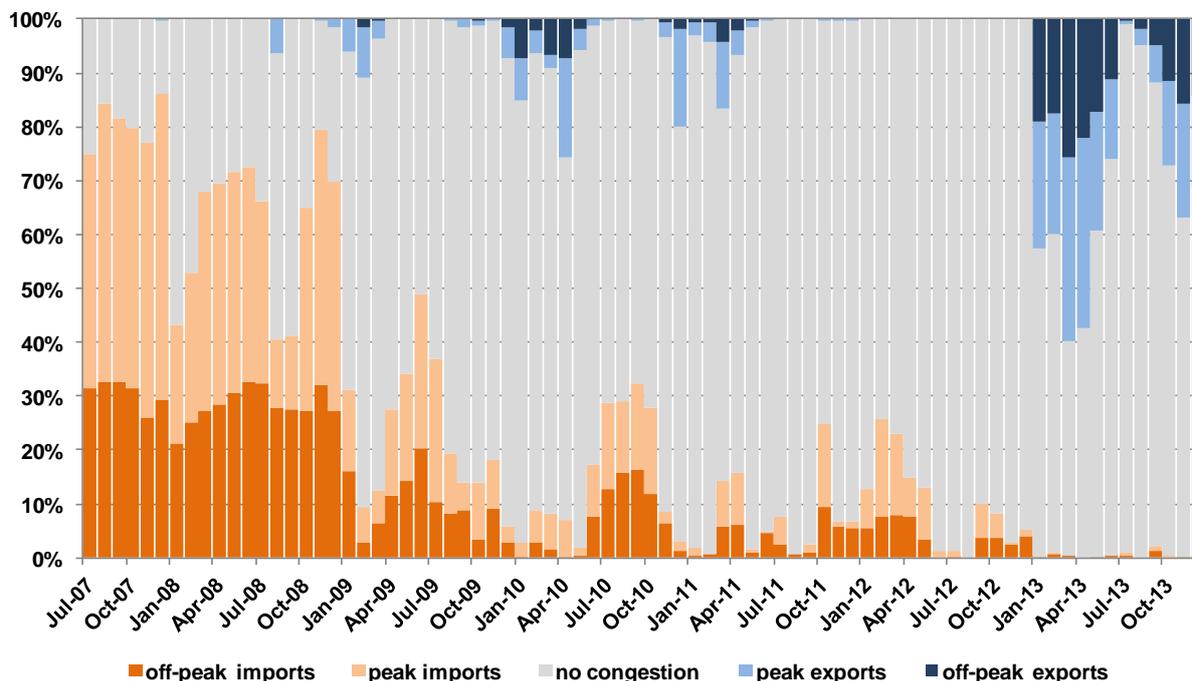
Table 3-4 – Monthly evolution of revenue from congestion in 2013

Month	Congestion		Average price PT	Average price SP	Price differential	Imports (PT < SP)	Exports (PT > SP)	Congestion Revenue (PT > SP)
	no. hours	% hours month	(€/MWh)	(€/MWh)	(€/MWh)	(MWh)	(MWh)	€103
January	133	18%	48,53	50,50	-1,97	161 674	303 881	1 350
February	118	18%	43,74	45,04	-1,31	141 433	275 012	1 142
March	194	26%	22,82	25,92	-3,10	44 023	629 636	3 295
April	125	17%	16,08	18,17	-2,08	23 096	613 515	1 929
May	42	6%	43,25	43,45	-0,20	203 767	272 546	253
June	48	7%	41,70	40,87	0,83	316 803	139 313	432
July	55	7%	51,40	51,16	0,24	1 044 899	4 875	373
August	6	1%	48,12	48,09	0,03	614 258	22 296	34
September	57	8%	50,68	50,20	0,48	668 021	57 918	548
October	37	5%	51,58	51,49	0,09	508 689	158 421	249
November	42	6%	42,10	41,81	0,30	260 051	249 134	290
December	87	12%	62,99	63,64	-0,65	365 842	186 907	878
								10 774

Source: ERSE, OMEL

The figure below shows the use of available capacity, in both directions, for the Portugal-Spain interconnection. The figure below shows the use of available capacity, in both directions, for the Portugal-Spain interconnection. The increase in outgoing congestion hours from Portugal to Spain can clearly be seen.

Figure 3-6 – Use of Portugal-Spain Interconnection Capacity



Source: ERSE, OMEL

COOPERATION

ERSE regularly cooperates with the other European regulators in the scope of the CEER and ACER in the pursuit of the internal energy market.

With Portugal being geographically located in the Iberian Peninsula, ERSE cooperates closely with the Spanish regulator, through the Board of MIBEL Regulators, namely in terms of the coordinated management of the Portugal-Spain interconnection. Similarly, in terms of the works inherent to the Southwest region of Europe (SWE REM), work is underway with a view to the successful European integration of the Iberian Electricity Market.

➤ FIXED TERM MANAGEMENT OF THE COMMERCIAL CAPACITY IN THE PORTUGAL-SPAIN INTERCONNECTION.

Throughout 2013, the Board of MIBEL Regulators and the Southwest region of Europe continued working simultaneously to integrate the Portugal-Spain interconnection in a harmonised and coordinated reference system for the fixed term allocation of the commercial capacity. In this same context, the Board of MIBEL Regulators explicitly assumed, before the ACER, the integration of the Portugal-Spain interconnection as a pilot project for the implementation of Financial Transmission Rights (FTR) on a European level for the financial allocation of commercial capacity in the aforementioned interconnection.

Bringing a new joint work cycle to a close and achieving the commitment assumed by the Board of Regulators before ACER, the MIBEL Technical Committee fulfilled the proposed harmonised allocation of financial rights for the use of interconnection capacity, by means of regulating documents prepared by ERSE.

Under these terms and with the objective of enabling the harmonised allocation of rights for the use of capacity in the Portugal-Spain interconnection from the 1st of January 2014, ERSE carried out a public consultation on the proposed changes to the Access to Grids and Interconnections Code and the respective Procedures Manual for the Mechanism for Joint Management of the Portugal-Spain Interconnection, resulting in the approval of the aforementioned documents in December 2013, as mentioned above (start of this section).

➤ COUPLING OF THE IBERIAN MARKET WITH THE NORTH-WEST REGION OF EUROPE

As mentioned in the previous year's report, the Board of MIBEL Regulators accepted the regulators' commitment, in close cooperation with the Iberian Market Operator (OMI) and with the system operators in Portugal and Spain (REN and REE) to take all the measures needed to enable MIBEL to join forces with the markets in the Northwest region of Europe (North-West Europe, NWE, which includes the markets of France, Belgium, Holland, Germany, Luxembourg, UK, Norway, Denmark, Sweden and Finland).

During 2013, the Board of MIBEL Regulators closely monitored the work performed by the Iberian Market Operator for the coupling of the market with the Northwest region of Europe. This was successfully achieved on the 13th of May 2014.

MONITORING OF RNT OPERATOR INVESTMENTS

In addition to the critical analysis carried out in the scope of the opinion on the Development and Investment Plan for the Electricity Transmission Network (PDIRT), every year ERSE carries out an analysis of the investments made by the RNT operator for the purpose of their consideration in the allowed revenue and consequent reflection in the tariffs.

3.1.5 COMPLIANCE

In the scope of the powers attributed by their Statutes and other applicable legislation, ERSE:

- Approves codes;
- Issues decisions which are binding on electricity companies;
- Conducts inquiries into the functioning of the electricity markets;

- Has the ability to demand information that electricity companies must provide to fulfil their functions;
- Issues opinions on matters requested by the Government, Parliament or other public administration entities.

In addition to the 2012 revision³¹, ERSE's statutes were also revised in 2013³². This 2013 revision includes the adoption of the provisions of the Legal Framework governing regulatory entities³³, which was also approved in 2013. Still in early 2013, ERSE's sanctioning regime³⁴, which reinforced the table of regulator competences, was also approved.

Pertaining to the generation of electricity, legislative measures were taken with effects on generation under the scope of special regimes and with historical contracts. These measures included the Economic Adjustment Programme for Portugal.

In 2013, the process continued to certify the National Transmission Network (RNT) operator under the legal and ownership separation regime (see section 3.1.1).

3.2 PROMOTING COMPETITION

3.2.1 WHOLESALE MARKET

In 2013, there was a slight increase in concentration in the electric energy generation market although there was a reduction in concentration in terms of installed capacity. Due to the hydrological regime in operation, favourable to hydropower generation by the incumbent, the level of participation of hydro plants to meet demand was quite significant, and provided the justification for the increase in concentration of the generation of electric energy.

As was the case in 2012, the most favourable development of free trading led to greater dispersion of energy contracting resources, particularly through the implementation of regulated fixed term SRG energy placement mechanisms, with guaranteed revenue, which suppliers can access.

Conditions felt in wholesale market operations in 2013 were conflicting for the purpose of setting prices in the organised market. On one hand, there were one-off factors which led to the slightly higher spread

³¹ Decree-Law no. 212/2012, of the 25th of September.

³² Decree-Law no. 84/2013, of the 25th of June.

³³ Law no. 67/2013, of the 28th of August.

³⁴ Law no. 9/2013, of the 28th of January.

between the MIBEL price areas, namely high hydrological capability and a consequent significant decrease in the use of combined cycle natural gas plants and the reduction in the weight of imports, in addition to an increase in the relative weight of the intermittent component for the generation of SRG, with a guaranteed revenue in the consumption structure which favoured the separation of the two price areas. On the other hand, the implementation of a tax regime in Spain aimed at taxing income from power plants, namely coal plants, combined cycle natural gas plants and hydro plants meant that the price differential between MIBEL areas reversed in comparison to 2012.

The number of hours of market splitting rose in comparison to 2012, in line with the evolution recorded in the price difference between the two markets, due to the existence of a more humid hydrological regime during the first semester.

From the regulatory point of view, the development of market supervision mechanisms by ERSE sought to help strengthen the transparency and integrity of the wholesale electricity market.

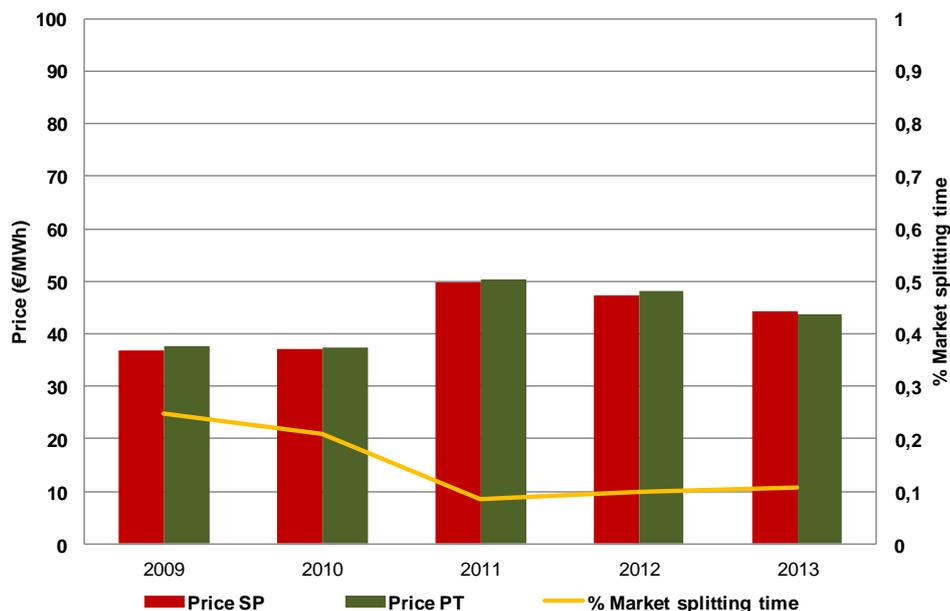
Therefore, from a general point of view, due to an high hydraulic conditions, 2013 was marked by development that was beneficial to the incumbent, whose installed hydro capacity was the greatest, leading to an increase in the global concentration of the generation of electricity. Even so, a high level of concentration persists in the electricity market, so the implementation of further measures to foster competition and promote transparency should follow on from the developments already achieved.

3.2.1.1 MONITORING THE LEVEL OF PRICES, THE LEVEL OF TRANSPARENCY, THE LEVEL AND EFFECTIVENESS OF MARKET OPENING AND COMPETITION

The evolution of price which is formed in the wholesale market in Portugal is intrinsically related to the Iberian integration and the participation of the Portuguese agents in the MIBEL context.

The price formed in the spot market is common to Portugal and Spain, except in situations in which there is congestion in the interconnection resulting in a need to apply the market splitting mechanism and so apply different prices in the two countries.

The evolution of the annual average price in the spot market, both in Portugal and in Spain, is presented in Figure 3-7.

Figure 3-7 – Evolution of the annual average price in the spot market and market splitting

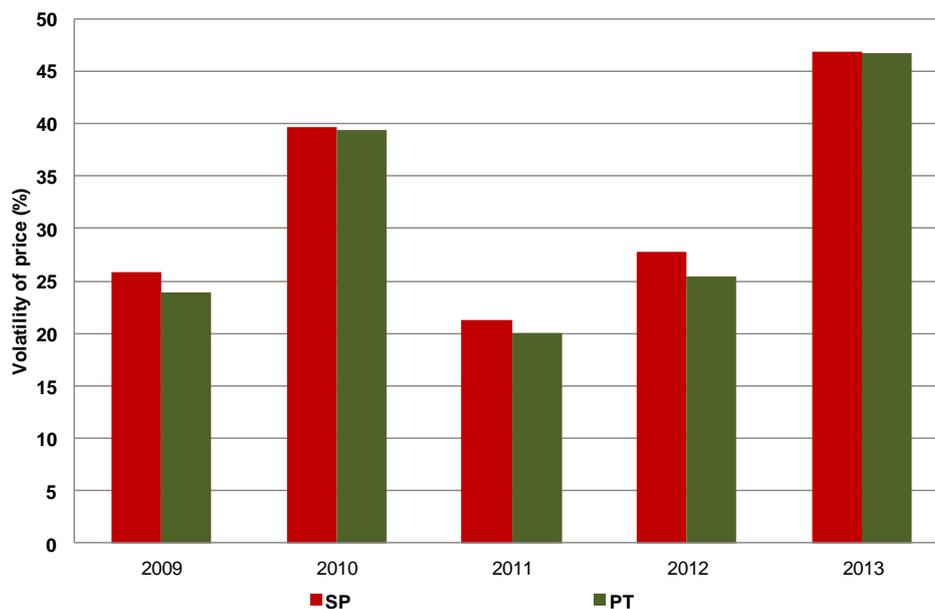
As can be seen from this figure, the average price in the spot market for Portugal, in 2013, was about €43.65/MWh, approximately 33% lower than the price recorded in 2012 (average annual price of €48.07/MWh). This reduction was mainly due to the evolution of the hydrological regime and also the decline in the price of coal in international markets, which determined the setting of the price below the marginal costs of the combined cycle thermal plants. In any case, the average market price in 2013 in Portugal was approximately 33% below the marginal cost³⁵ of combined cycle natural gas plants and approximately 33% above marginal costs of thermal coal plants.

Regarding the setting of the spot market price, the market's volatility represents an important aspect considered by market agents, namely regarding the need to cover price risks. In 2013, the volatility of the spot market price for Portugal, measured as a coefficient between the standard imbalance of prices in the year and the respective average price, was approximately 47%, which means that prices varied on average between €23/MWh and €64/MWh.

Figure 3-8 shows the evolution of the annual volatility of the spot market price, from 2009 to 2013, for both Portugal and Spain. A significant increase in the volatility of the spot price between 2012 and 2013 can be seen. These circumstances are related to the aforementioned evolution of water availability in 2012 and 2013 and the consequent increase in the relative weight of the intermittent component of generation in the consumption structure, which maintained the same levels of consumption recorded in 2012. In any case the Portuguese market has been slightly less volatile in price than the Spanish market.

³⁵ Estimated marginal cost including CO2 emission costs.

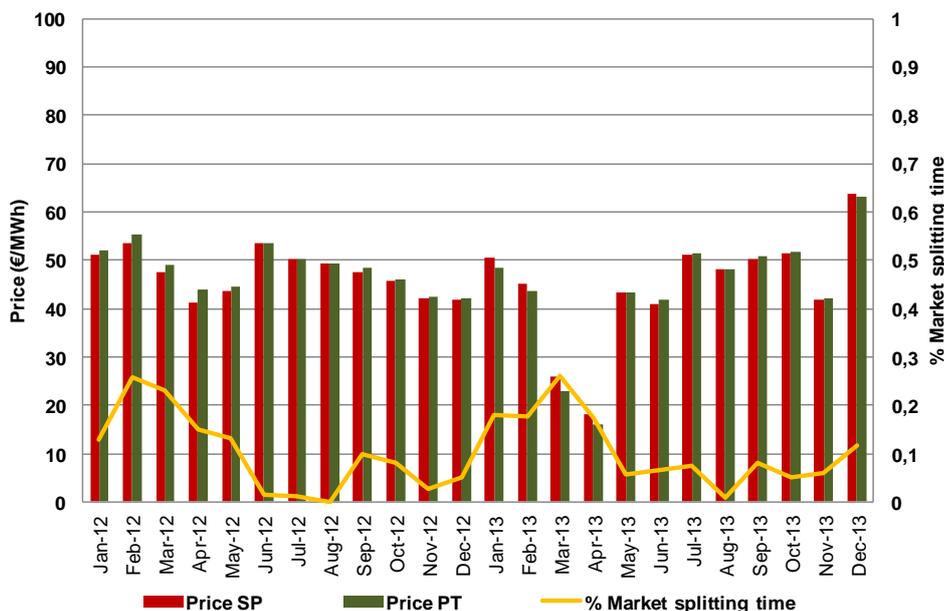
Figure 3-8 – Volatility of spot price



Note: volatility measured as a ratio between the standard imbalance of the spot price and the respective annual average

Figure 3-9 presents the evolution of prices in Portugal and Spain and the percentage of market splitting time, broken down by month for 2012 and 2013. The following can be seen in relation to 2013: (i) a reduction in the average price set in the market in 2013 in comparison to what had happened in 2012, in spite of the significant increase in volatility; (ii) the existence of a more humid hydrological regime during the first semester which largely justifies the increase in the number of outgoing market splitting hours, in comparison to 2012.

Figure 3-9 – Spot market price and market splitting time



The MIBEL operating model provides for the existence of references for forward contracting in an organised market regime, where agents can place part of their electricity needs, namely for the partial definition of the future price for the electricity to be supplied to end customers. The operating of the forward market is, in fact, an additional tool for agents to be able to mitigate the risks of the volatility of prices and ensure the availability of electricity (supply) or meet demand with characteristics of greater predictability and stability.

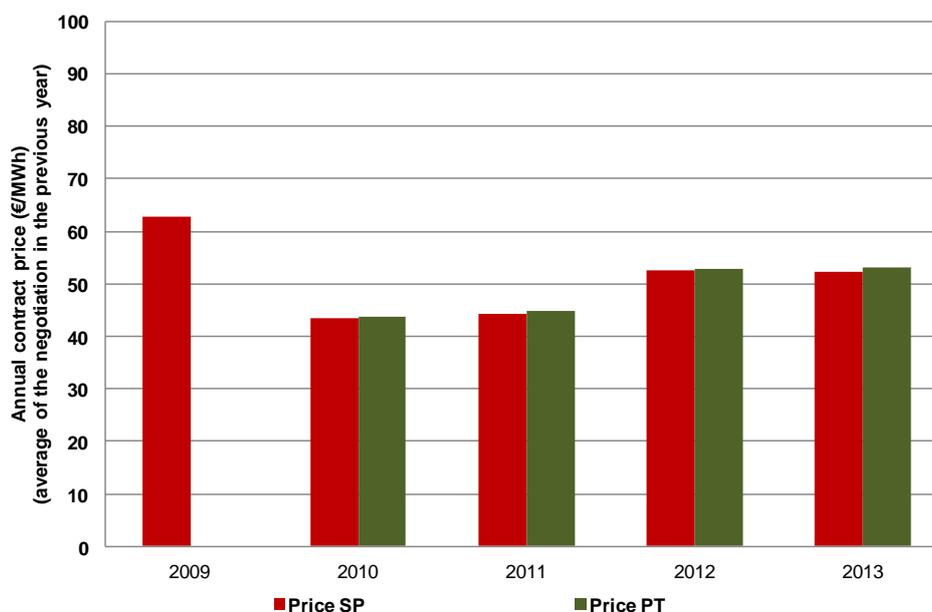
Indeed, as the spot market, in the Iberian context, is a rather liquid platform and, in the case of Portugal, in particular, approximately 80% of consumption is satisfied through contracting in this market reference system. In this sense, without an intrinsic problem of liquidity and depth within the definition of the classic indicators used (number of transactions, market volume, dispersion of volumes negotiated), there is a growing need to cover the risks of fluctuating spot market prices for which one of the most efficient and transparent answers will be the use of organised market platforms for forward contracting.

The evolution of the price set in the forward market, in this case the market formally provided for under the agreement for the creation of MIBEL (OMIP), showed that the price could be expected to remain steady between 2012 and 2013. In fact, the market agents who, in 2012, had acquired a position in the delivery contract with a base load for 2013 would have paid an average price (€53.03/MWh for Portugal³⁶)

³⁶ The value of the forward provisioning price reflects the average weighted value per contract volumes of shares of the 2013 annual contract with delivery in the Portuguese area of MIBEL, including the record of auction, continuous and OTC operations.

approximately 21.5% higher than the price set in the spot market. Figure 3-10 presents the evolution of the average market closing prices related to the annual contract, in a base load delivery.

Figure 3-10 – Evolution of the average price for the negotiation of the annual futures contract (delivery in Portugal and in Spain)

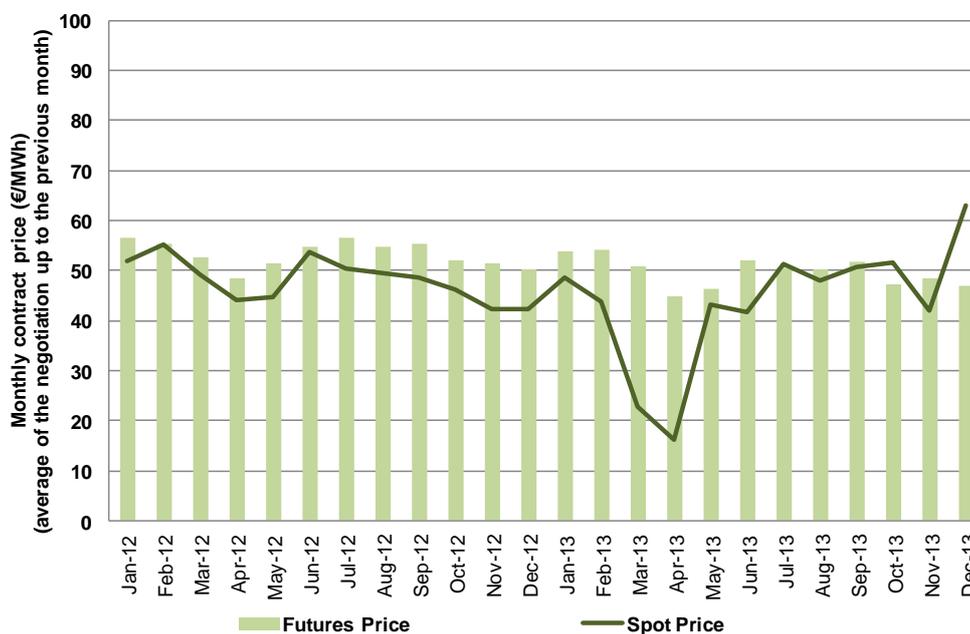


Note: the average closing price for the year prior to delivery, for a base load delivery; 2013 price corresponds to the average price set during 2012.

On the other hand, the evolution of the negotiation of monthly future contracts with a base load delivery shows an increase in the average risk premium in forward contracting in the first half of 2013 (difference between the forward price and the spot price for the corresponding month), showing a relative decline in expectations for the price set in the spot market. In the second semester of 2013, the situation was more favourable, with a reduction in the average risk premium. As for December 2013, a month in which atypical prices occurred in the spot market, agents who had ensured the coverage of their needs in the forward market for this month in advance secured gains of 16.01 €/MWh, due to the cancellation of the spot market average price risk.

Figure 3-11 presents the evolution of monthly futures contract prices in the market managed by the OMIP, and also the spot negotiation price, both for Portugal. The evolution of the futures price for monthly contracts shows a downward trend, throughout 2013, in the price of energy traded on the organised market, but higher than the evolution of the spot market, where the trend throughout the year was upward. The evolution of monthly contracts is less variable with the evolution of spot contracts during this period.

Figure 3-11 – Evolution of the average price for the negotiation of the monthly futures contract (delivered in Portugal)

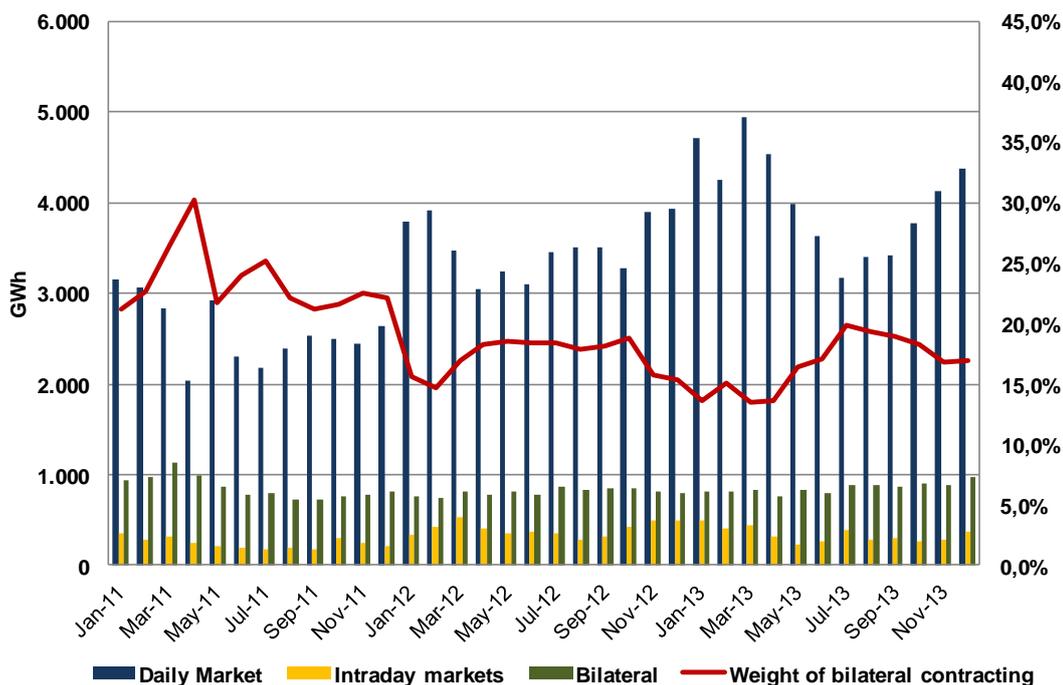


For 2013, in the scope of the application of the forward contracting mechanism for energy acquired from generators in special regime, five SRG auctions were held, with guaranteed revenue, with the placement of a total of five distinct products (one annual base load and four quarterly base loads). These five auctions resulted in the placement of total hourly power output (volume placed) of 650 MW. The variation in volume was carried out in full by the modulation of quantity in the quarterly product (400 MW for each quarter) and in the annual product (250 MW). The volume of energy placed in this instrument corresponded to approximately 11.6% of national consumption.

The auctions conducted for delivery in 2013 ensured a total placement of the minimum volumes open to negotiation having allowed the stabilisation of the placement prices for SRG electricity and consequent reduction in extra costs reflected in the tariffs to an overall amount of approximately 42.3 million euros. Furthermore, the existence of the auction mechanism allowed for the provision to the market of energy provisioning risk coverage tools (in volume and in price) which were positively evaluated by the market agents.

Regarding the spot market negotiation (daily and intraday markets), in the case of Portugal, it is much higher than the trading in bilateral contracts, as shown in Figure 3-12. It is useful, however, to bear in mind that the acquisition of fixed term products listed on the MIBEL forward market is settled in cash through the daily market.

Figure 3-12 – Breakdown of energy supply volumes between markets



For 2013, the average value of the weight of bilateral contracting in the total volume of contracting can be seen to be less than the value recorded in the recent past due to both the integration of the total SRG, with guaranteed revenue, in the spot contract reference system, and the maintenance of absolute bilateral contracting figures on level similar to 2011.

The significant change in the contracting volumes in the daily market relate to the complete implementation, in 2012, of the autonomous explicitness of the SRG volumes, with guaranteed revenue, which were no longer placed on the market in a perspective of compensation of volumes between the needs of the LRS (the instrumental buyer of SRG) and the supply of SRG generation.

The spot contracting for the wholesale market in Portugal fits into the context of deepening MIBEL in which there is a single market for Portugal and Spain with an associated mechanism for the resolution of congestion on a daily basis based on market splitting whenever the flow of electricity generated by aggregated demand and supply exceeds the commercial capacity available on the interconnection. The contracting structure in the spot market is characterised by the following aspects:

- On the demand side, the agents registered in Portugal, including the last resort suppliers, manage most of their demand in the spot market, and, in the case of the last resort suppliers, the quantity of electricity acquired from the special regime generators (legal imposition) is deducted from the electricity needs for supplying customers.
- On the supply side, with the exception of special regime producers, all other market agents direct their supply mainly towards the spot market.

The evolution, both for spot market demand and overall consumption in mainland Portugal, is given in Figure 3-13, where it can be seen that consumption is met by resorting to purchases on the spot market. During 2012, the total explicitness of the SRG supply, with guaranteed revenue, contributed decisively to this level of coverage of consumption by the demand in the daily market.

Figure 3-13 – Spot market demand and total monthly consumption

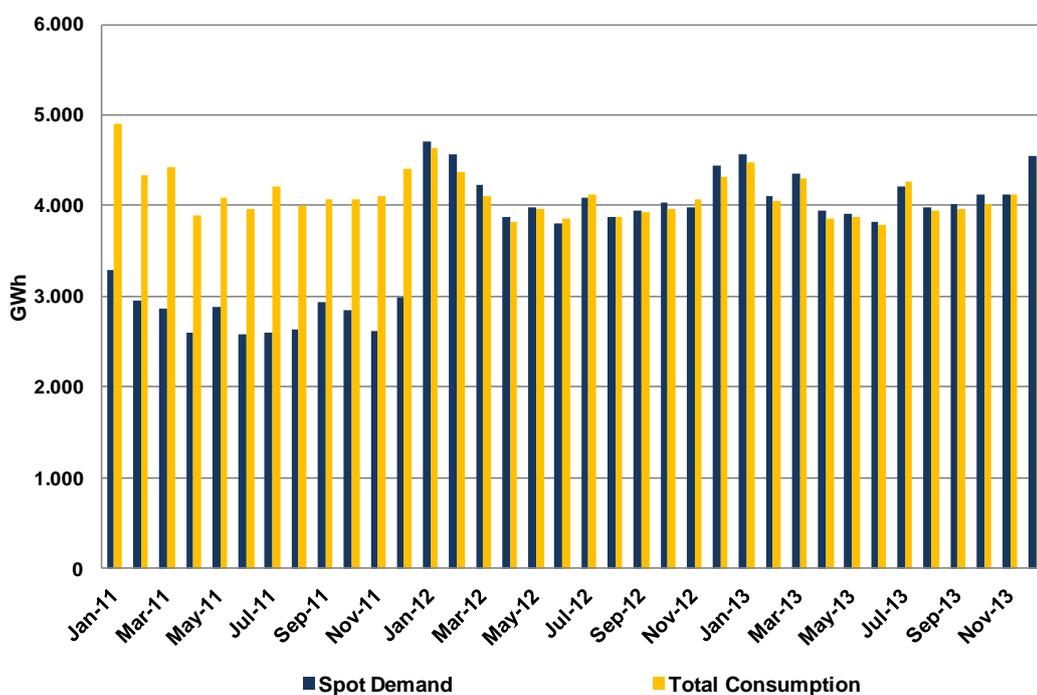
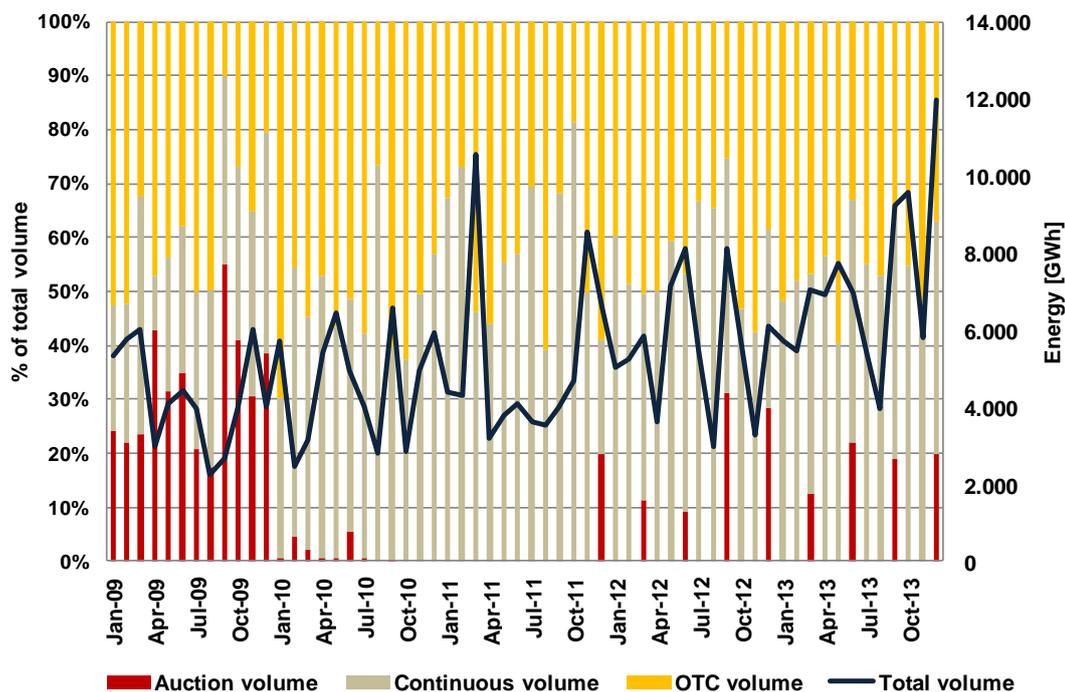


Figure 3-14 shows the evolution in the volumes recorded on the organised forward market forecast in MIBEL (OMIP). A trend towards a significant increase in operations in the continuous market and OTC operations can be seen, although with high variability over time.

Figure 3-14 – Volumes in the MIBEL forward market



The increase in the volume being negotiated in auctions in December 2011 and during the months prior to the start of each quarter of 2012 and 2013 was due to the introduction, by ERSE, of a mechanism for the placing of electricity from generation in special regime, with guaranteed revenue, designed to make means of forward procurement and/or the coverage of price risks available to suppliers in the market regime. In the last 3 auctions of 2012, a total of 250 MW were also negotiated for the annual contract for delivery in 2013, 400 MW to be delivered in the first quarter of 2013 and 200 MW to be delivered in the second quarter of 2013. In 2013, the mechanism for the placing of SRG electricity with a guaranteed revenue placed base loads for delivery in Portugal corresponding to 400 MW per quarter and 250 MW for the year, totalling a base load of 650 MW.

During December 2013, in the scope of the annual programme for the placing of SRG electricity disclosed by ERSE, contract volumes for delivery in 2014 were also negotiated, in an auction. The occurrence of the first auction for the initial allocation of financial right contracts for capacity in the Portugal-Spain interconnection for the first quarter of 2014 should also be highlighted, corresponding to a capacity of 300 MW in both directions, which allows agents to cover the spread price risk between Portugal and Spain.

The overall volume of negotiation on the forward market controlled by OMIP (including the registered operations corresponding to OTC) rose, in 2013, to over 85 TWh, which means a growth of approximately 29% in comparison to 2012.

TRANSPARENCY

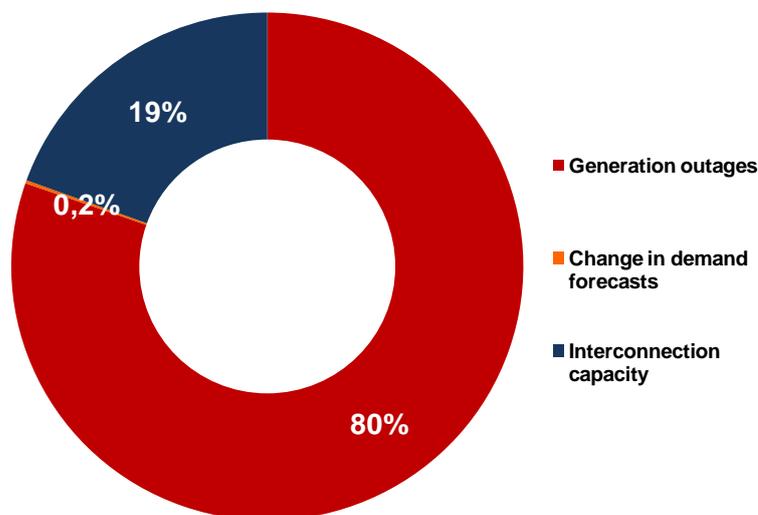
From a market monitoring point of view, it is important to consider the rules of transparency in the markets. The wholesale electricity market in Portugal benefits from a regulatory system which already imposes obligations to disclose inside information to the market. Indeed, the requirements to report relevant facts under the Commercial Relations Code have already been in force for 5 years and are comparable with the prerogative expressed in the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) regarding the requirement to report inside information.

Among the facts subject to the reporting requirement, are the non-programmed non-availabilities of electricity generation centres, and also their updating, in addition to the non-availabilities of networks (transmission and distribution) which may affect consumption or price setting. The alterations in the capacity commercially available in the Portugal-Spain interconnection are also subject to the requirement to provide information by REN, as the system manager, and also the significant imbalances in the forecast of aggregated consumption of the system and/or of each agent in particular.

The communication of inside information is made in a centralised manner, and is available on a portal managed by REN³⁷. During 2013, 2,535 relevant facts were communicated. Of these, approximately 80% correspond to the communication of production non-availabilities, their updating or alteration, and 19% to alterations in the interconnection capacity available for the market and respective price setting in the context of MIBEL, as can be seen in the following figure.

³⁷ Available on <http://www.mercado.ren.pt/Informa/Paginas/default.aspx>.

Figure 3-15 – Communication of relevant facts

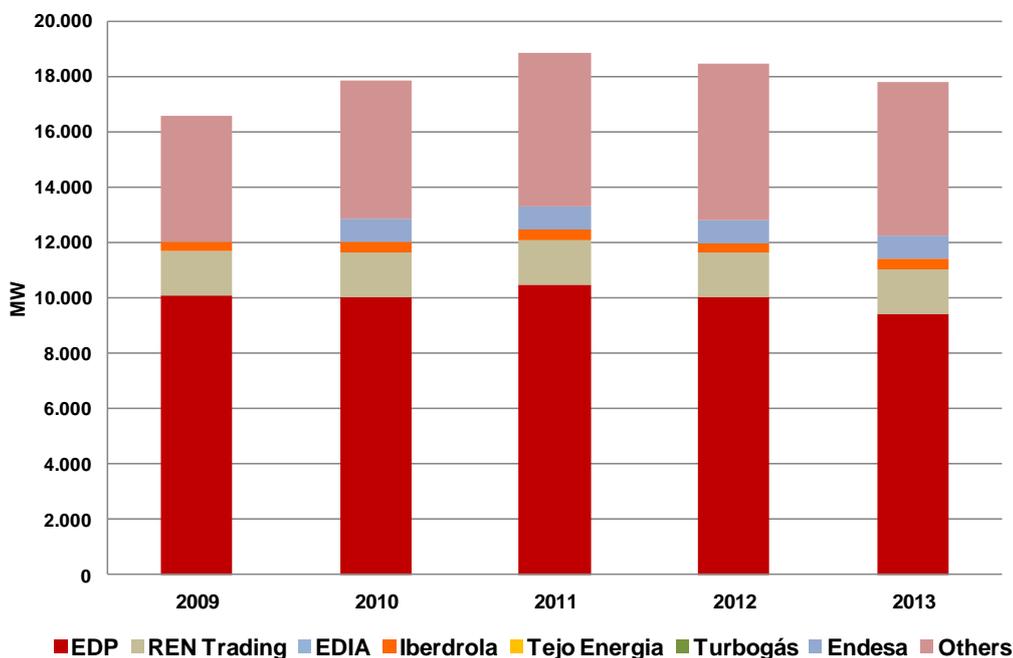


COMPETITION EFFICIENCY

The evaluation of the wholesale market should be done through the characterisation of the installed power plant generation system and its actual generation. To this end, it is important to analyse the evolution of the installed power plant generation system in terms of primary electricity used.

As a complement to the analysis of the breakdown of installed capacity by technology, it is important to characterise the breakdown of the installed power plant generation system by owning or managing company, developed in Figure 3-16, from which we can see that EDP owns most of Portugal's power plant generation systems. However, its predominance has been falling both in relative terms and in absolute terms, due to the decommissioning of 6 groups from the Carregado Plant and the decommissioning of the Setúbal Plant at the end of 2012.

Figure 3-16 – Characterisation of the power plant generation system in Portugal (by agent and installed capacity)



The EDP Group share in terms of installed capacity has been falling, mostly due to the growth in the SRG segment with guaranteed revenue, in which EDP has an individual minority position. Additionally, the continuity of the validity of the measure to minimise competition risks decided on by the Competition Authority under the scope of the concentration process which consisted of the acquisition, by EDP, of operating rights in the hydropower plants in Alqueva and Pedrogão (EDIA), which led to the assignment of operating rights of the Aguieira-Raiva hydropower plant for a 5-year period, with Iberdrola being the successful bidder in an international tender to award the respective operating rights.

During the period 2009 to 2013, the EDP share in total installed capacity fell by approximately 8%.

The characterisation of the wholesale market also includes an evaluation of the corporate concentration, both in global terms and also in terms of each of the generating technologies.

The evolution of the share of the different agents in terms of installed capacity by technology and/or regime is presented in Figure 3-17. Combining all the factors, the level of concentration in the electricity generation segment in Portugal is high in terms of installed capacity, as can be seen in Figure 3-18, which presents the Hirschman-Herfindall Index (HHI) values, measuring corporate concentration.

Figure 3-17 – Installed capacity quotas by agents in the different technologies

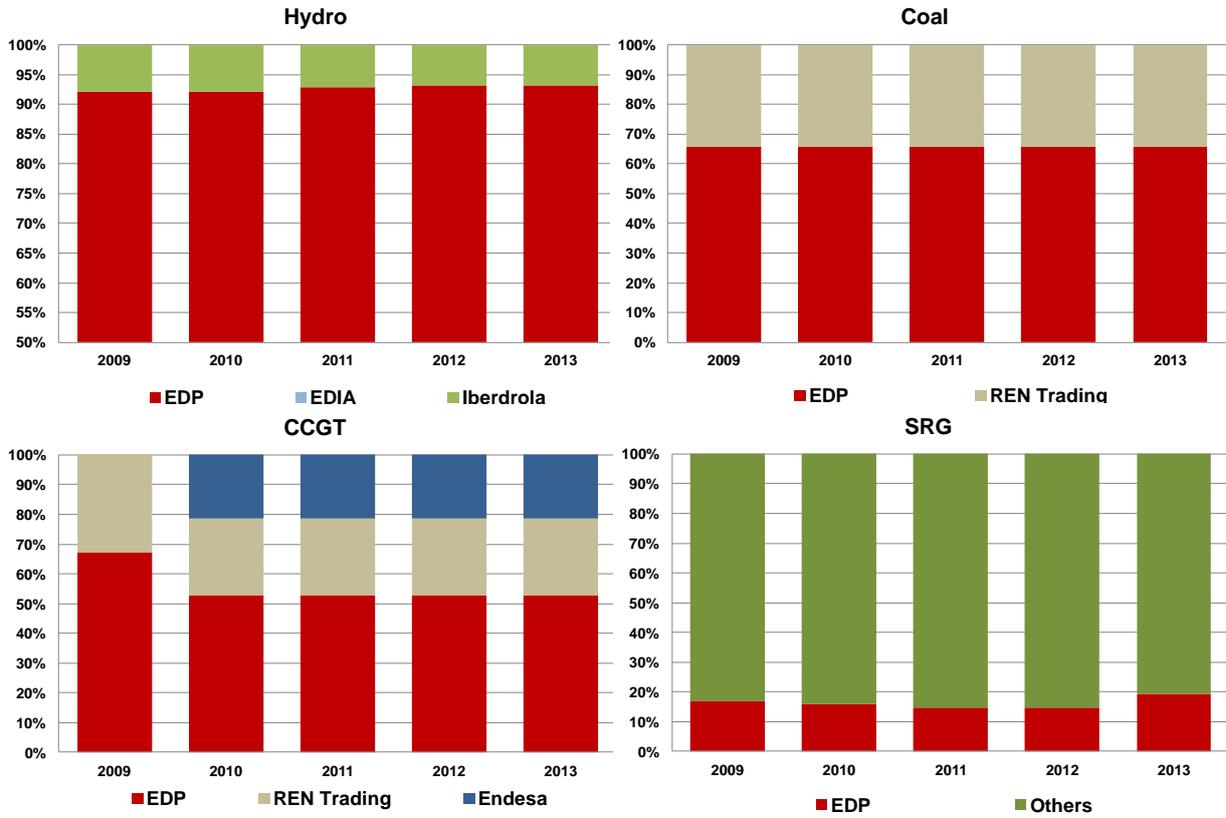
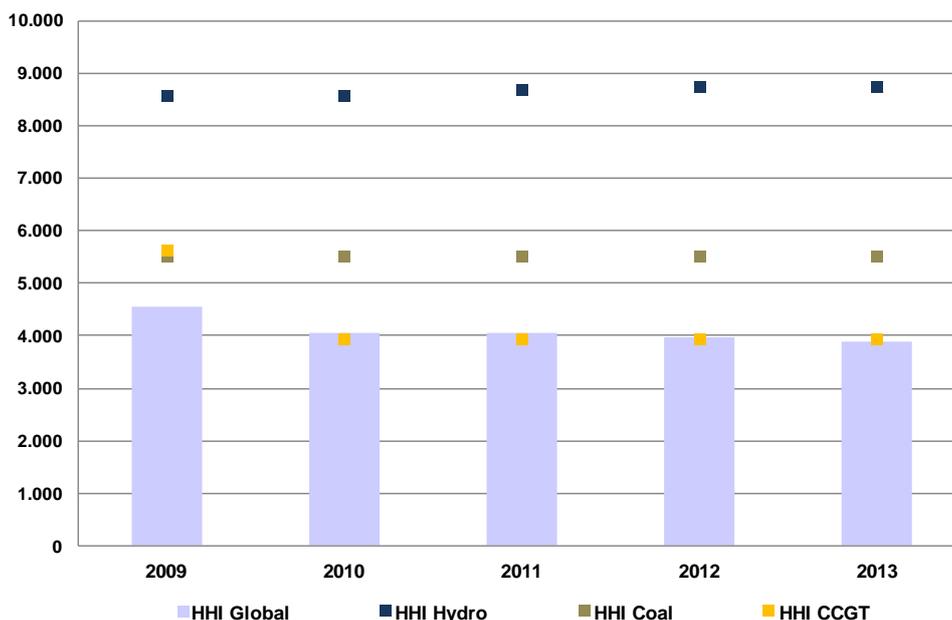


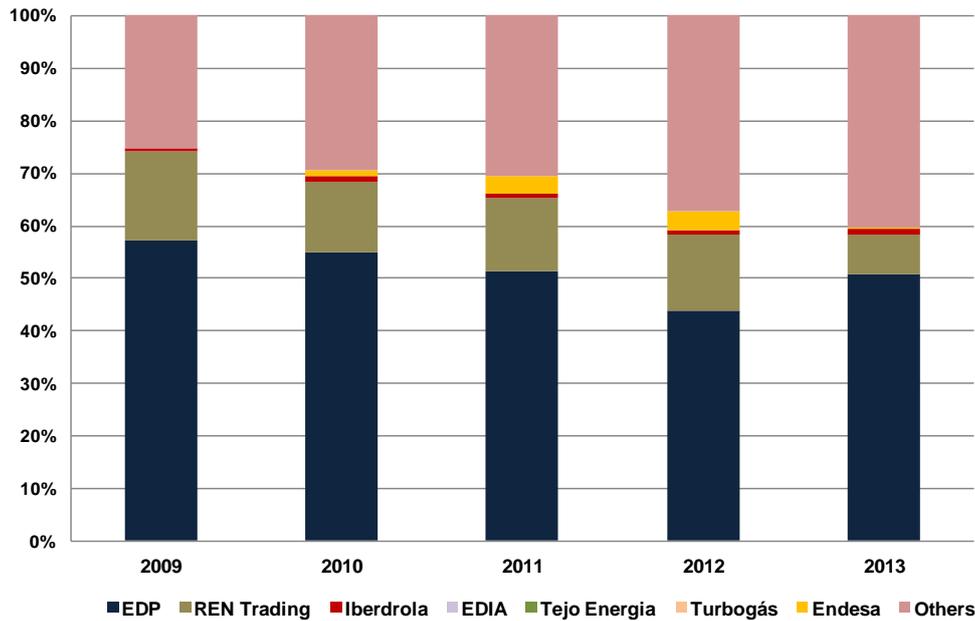
Figure 3-18 – Concentration in generation in terms of installed capacity



The HHI figures for installed capacity show an evolution, between 2009 and 2013, of a gradual reduction in the overall concentration of capacity supply in the Portuguese system, particularly via the aforementioned increase in SRG capacity. In an evolutionary perspective, the entry in 2010 of a new CCGT plant, belonging to a group of companies competing with EDP, should be noted. In the coal segment, no alterations in the market concentration were recorded and, in the case of hydro, the entry into operation of the power reinforcements from the two plants held by EDP in 2012 led to an increase in corporate concentration in this technology.

The evolution in quotas of electricity generation by agent is shown in Figure 3-19, while the same evolution in the different technologies and special regime are presented in Figure 3-20.

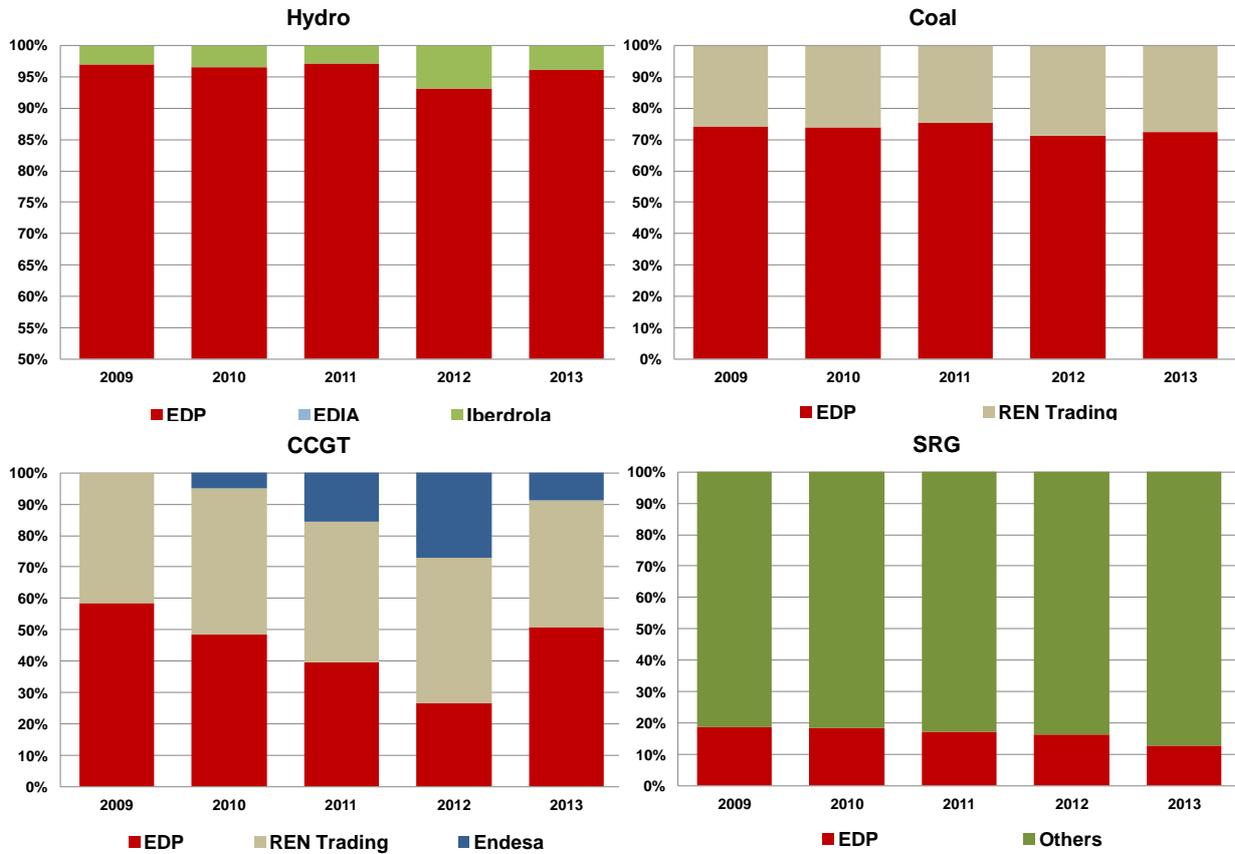
Figure 3-19 – Quotas of electricity generated by agent



Source: REN, prepared by ERSE – does not include figures for imported energy.

From the global point of view, in 2013, an increase in the EDP group's participation in total generation in mainland Portugal must be highlighted. This was mainly due to the increase in hydropower generation due to a favourable hydrological regime and a reduction in thermal generation by competitors, more evident in the combined cycle natural gas plants.

Figure 3-20 – Quotas of electricity generated by agents in the different technologies



In terms of electricity generated, the trend seen between 2009 and 2013 points towards a distinct evolution in EDP's quota of generation in the main technologies. A relative stabilisation of the incumbent's quotas in the generation of SRG occurred, although with a gradual decrease between 2009 and 2013.

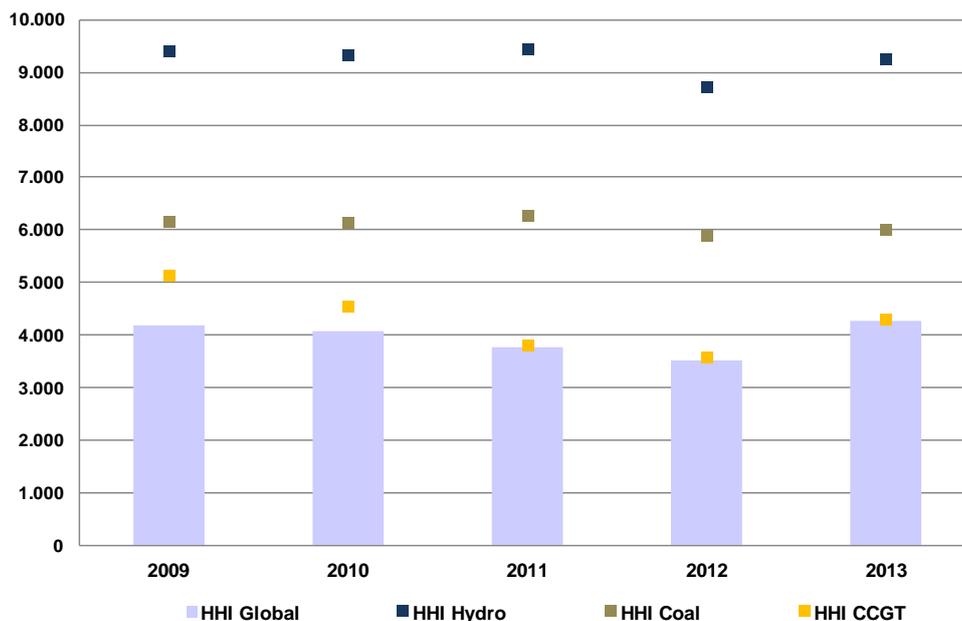
Pertaining to hydro technology, an increase in the EDP quota was recorded in 2013. This fact was due to the existence of an abundance of hydro resources in the system caused by a wet year.

In the case of combined natural gas cycles, in spite of the significant reduction seen in generation from combined natural gas plants in 2013, EDP saw its quota increase due to the reduction in generation by Endesa (Pego plant) and REN Trading (Turbogás plant).

In the case of the two coal plants, 2013 inverted the drop in the incumbent's importance in generation in 2012, aligning with the trend from the previous period. In fact, between 2009 and 2011, and despite its lower nominal income, the plant held by EDP (Sines) benefited from lower transport costs thanks to the greater proximity to the coal unloading terminal when compared to the plant operated by REN Trading (Pego). In 2012, REN Trading's generation value was significantly higher than in previous years. In 2013, EDP's quota rose once again due to the reduction in generation at the Pego plant.

The concentration indicators for the generation of electricity, presented in Figure 3-21 show that, overall, generation in 2013 was more concentrated corporately than in 2012. This evolution is sustained mainly by the increase in the level of concentration in all so-called conventional generation segments, while the position of the EDP group in special regime generation remains a minority in relation to the segment as a whole.

Figure 3-21 – Concentration in generation in terms of electricity generation



At the same time, one should bear in mind that, as a more detailed analysis is not possible, the special regime generation not controlled by EDP is, for the purposes of calculating the concentration indicators, wholly in the hands of a single entity (a single market share). Accordingly, on the one hand, the true evolution of corporate concentration in the special regime generation cannot be seen and, on the other, the figures for global concentration will be equal to or greater than those that actually exist in the current market structure.

3.2.2 RETAIL MARKET

From the point of view of retail market development, 2013 was marked by the consolidation of the liberalised segment in terms of global electricity consumption, prompted by some structural factors:

- The extinction of regulated end user tariffs and the adoption of transitory tariffs subject to an incentive to encourage customers to switch suppliers;
- The implementation of regulated risk coverage mechanisms for suppliers;
- The reinforcing of communications to end consumers about the market coverage process;

- The perfecting of supplier switching rules.

Similarly, in terms of economic and market circumstances, the reduction in energy price differences between Portugal and Spain in the wholesale market encouraged the perception of lower commercial risks among suppliers that operate from Spain and which compete against the Portuguese market leader.

The evolution of the concentration of the electricity retail market (whose liberalised segment rose significantly in volume) was characterised in 2013 by an increase in suppliers operating in the market, namely in the residential customers segment.

In 2013, the supplier switching process was marked by a significant penetration by liberalised market suppliers into the segments with the highest consumption levels, large customers and industrial customers: approximately 99.9% and 95% respectively of total consumption in each segment. The last VHV client moved to the free market in July 2013, with a regulated market for this segment ceasing to exist.

3.2.2.1 MONITORING THE LEVEL OF PRICES, THE LEVEL OF TRANSPARENCY, THE LEVEL AND EFFECTIVENESS OF MARKET OPENING AND COMPETITION

METHODOLOGY FOR MONITORING REFERENCE PRICES AND AVERAGE PRICES PRACTISED ON THE RETAIL MARKET

The suppliers send ERSE updated information on the reference prices³⁸ expected to be practised in the scope of the sale of electricity for all Low Voltage (LV) electricity supplies. Reference prices are understood to be the set of tariffs, tariff options and respective prices and indexes per billing variable offered by suppliers to their customers, as well as the conditions for the application of the tariffs, namely the characteristics for minimum consumption, duration of contracts and conditions for the revision of prices. Reference prices are the supplier's basic sales offer which does not prevent the practice of differentiated special contractual conditions such as the application of discounts or other promotional campaigns.

The information provided to ERSE by suppliers is included in simulation and decision making support tools for consumers, made available by ERSE on its website.

Furthermore, all electricity suppliers inform ERSE quarterly of the average prices actually practised in the retail market. This information is used by ERSE to monitor and supervise the retail electricity market, and

³⁸ Pursuant to Administrative Order no. 18637/2010, of the 15th of December, available at http://www.erse.pt/pt/legislacao/Legislacao/Attachments/1531/Despacho18637_%202010.pdf.

also serves as an information tool for the reports produced by official statistical data organisms (INE or EUROSTAT, for example).

TRANSPARENCY

With the aim of continuing to provide information to electricity consumers on the reference prices practised in the market, as well as the computer tools to help customers choose a supplier, ERSE continues to update and offer simulators on its website that will give electricity consumers objective information to help them make an informed choice, namely regarding the selection of the best offer on the market, based on the following simulators:

- Simulation of power to contract.
- Market price comparison simulator for StLV supplies in mainland Portugal.
- Billing simulator for VHV, HV, MV and SpLV electricity in mainland Portugal.
- Billing simulator for MV and SpLV electricity in the Autonomous Region of the Azores.
- Billing simulator for HV, MV and SpLV electricity in the Autonomous Region of Madeira.

In order to guarantee the transparency of the information made available to consumers by suppliers, ERSE also checks that the suppliers publish the offers which are being practised on the market on their websites, in terms of both price and commercial conditions, and that they are in accordance with the information on reference prices sent to ERSE within the scope of its monitoring.

In addition, under the terms of the Commercial Relations Code, suppliers with over five thousand customers are obliged to publicly disclose, through the communication means available and also on websites, their sales offers, and also the general conditions of contracts for StLV customers.

Rules are also in force pertaining to the information to be made available on customer invoices, namely information regarding the portion of access tariffs, the portion of general economic interest costs (CIEG) and the labelling of electricity.

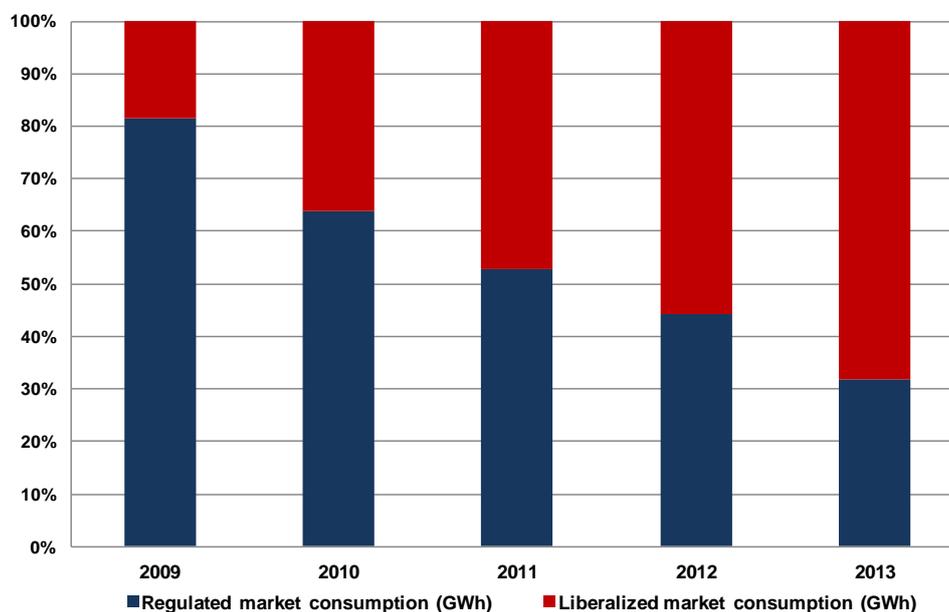
The rules for access to information regarding their consumption is regulated by ERSE under the terms of the Measuring, Reading and Data Availability Guide (*Guia de Medição, Leitura e Disponibilização de Dados*).

COMPETITION EFFICIENCY

The liberalisation process of the electricity sector in mainland Portugal followed exactly the same methodology as that used in most other European countries. The market was opened up gradually, starting with the biggest customers and the highest voltages.

The evolution of the liberalised market in Portugal can be seen in Figure 3-22.

Figure 3-22 – Breakdown of consumption between the regulated and the liberalised market



2013 consolidated the trend which has been seen since 2010, a period when the cost of electricity in the last resort tariff exceeded the price developed by the market, thereby dictating the existence of conditions conducive to regulated tariff customers migrating to the market. The increase in the size of the liberalised market was also due to the extinction of regulated tariffs which, in January 2013, covered all customers including residential customers. This evolution meant that consumption in the market regime represented approximately 68% of total consumption in 2013.

The gradual increase in the size of the market in the period analysed, in terms of the total number of customers, is largely due to the continuing entry of residential customers, which in 2013 almost tripled in comparison to the previous year.

On the other hand, it can be seen that, in 2013, the segments with greatest consumption and already covered, since 2011, by the extinction of the tariffs - large customers (VHV and HV), industrial customers (MV) and small businesses (SpLV) - registered a growth in the relative weight of the market. It should also be noted that all VHV customers have been in the free market since July 2013.

Figure 3-23 – Evolution of the liberalised market in Mainland Portugal (number of customers)

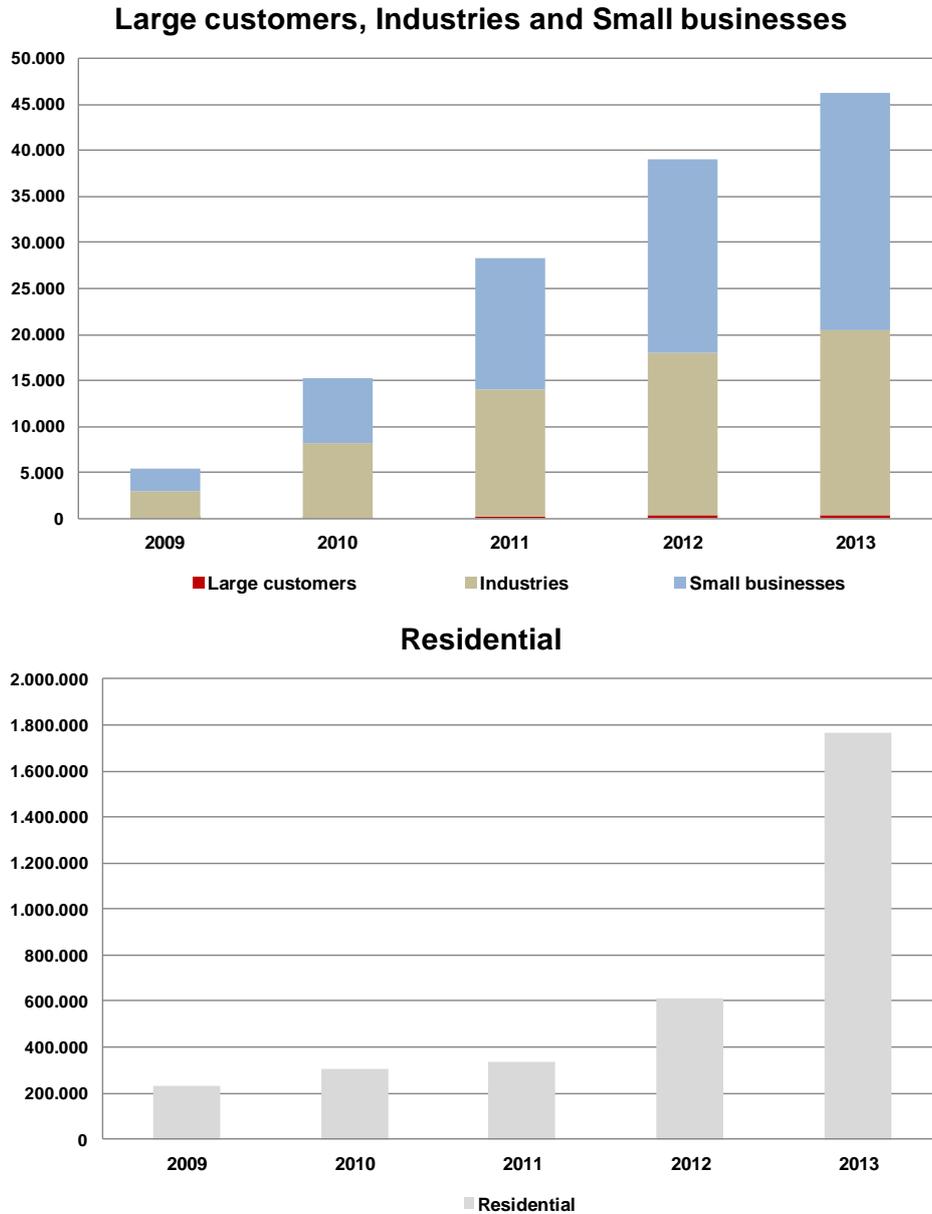
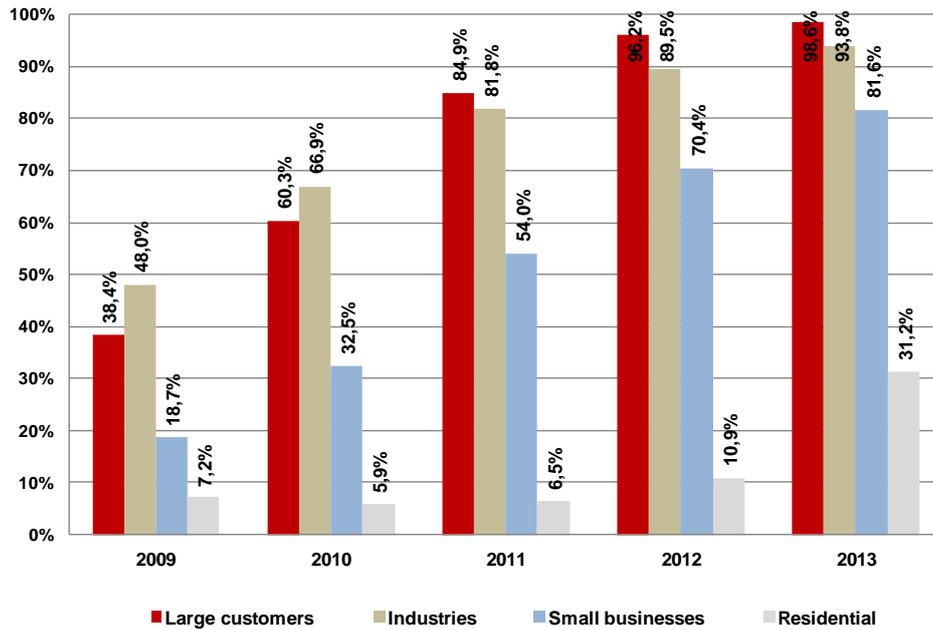


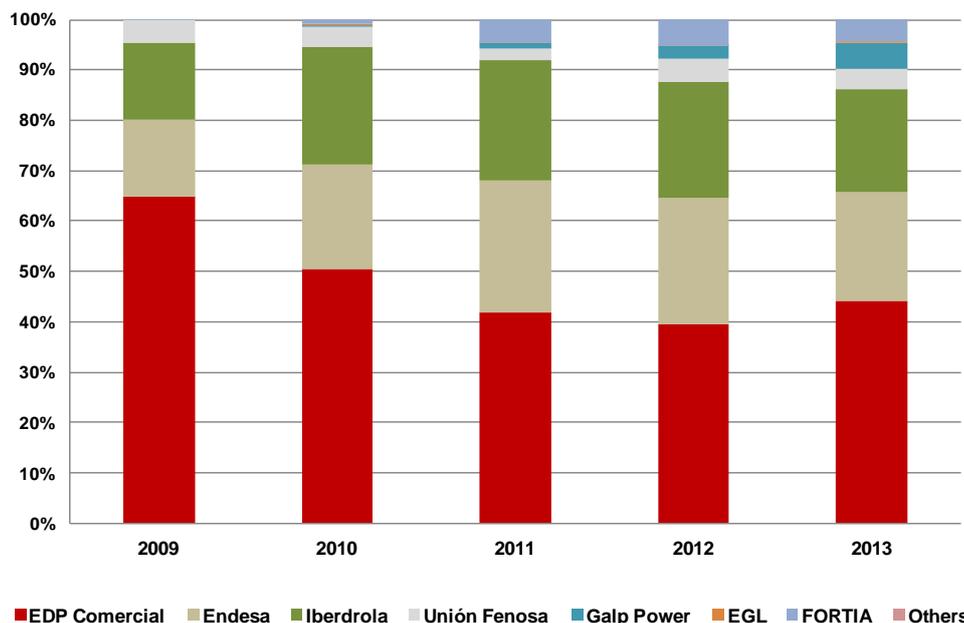
Figure 3-24 shows the portion of consumption from each customer segment that can be found in the liberalised market. It can be seen that, in 2013 as a whole, approximately 94% of consumption by industrial customers was provided by market regime suppliers. The same was true for almost 99% of consumption by large customers.

Figure 3-24 – Penetration of the liberalised market by customer segment



An analysis by segment demonstrates that the industrial customer segment is the most competitive of all, and the residential customer segment is the one which has a greater corporate concentration, with the number of suppliers in this segment increasing at the end of 2013.

In spite of the growth of the liberalised market in 2013, the global corporate concentration increased, namely in segments with lower consumption (small businesses and residential). In spite of the reduction in its market share, the EDP Group, which was the main operator until 2012, has recovered, providing approximately 44% of supplies in the free market in the last year, as can be seen in Figure 3-25.

Figure 3-25 – Supply structure in the liberalised market by supplier

An analysis of the evolution of the retail market is available on the ERSE website in the form of a monthly report, where the issues of competitive pressure on the market and each of its segments can be seen.

3.2.2.2 RECOMMENDATIONS ON SUPPLY PRICES, INVESTIGATIONS AND MEASURES TO PROMOTE EFFECTIVE COMPETITION

RECOMMENDATIONS FOR SUPPLY PRICES

In the context of regulated tariffs for the sale of electricity to StLV end customers in 2013, ERSE did not publish any recommendations on the conformity of the sales prices under the terms provided for in article 3 of Directive 2009/72/EC of the European Parliament and Council, of the 13th of July.

MEASURES TO PROMOTE EFFECTIVE COMPETITION

In the framework of sectorial regulation powers in matters related to the promotion of competition, ERSE has specific authority attributed by the legal framework governing the electricity sector and other attributions which arise from competition law.

The institutional and legal framework for competition and the electricity sector states that ERSE must be consulted by the Competition Authority in the scope of corporate concentration processes, whenever those involved are acting in the electricity market. ERSE's opinion is not binding, under legal terms, and the measures for minimising competition risks (also known as operation "remedies") may be monitored by ERSE.

The monitoring of competition in the electricity markets has structural and behavioural aspects. Action on the structural conditions of competition in the market tends to be the responsibility of sectorial regulation, namely through the regulations which must induce principles for the development of market competition. In terms of behavioural performance, ERSE, as the sector regulator, has specific powers to monitor the functioning of the electricity market, and, under the terms of its statutes, must notify the Competition Authority of possible practices which contravene competition law.

As mentioned in section **Erro! A origem da referência não foi encontrada.**, in 2013 the joint management mechanism of the Portugal-Spain interconnection came into operation. This provides for the auctioning of explicit allocation of interconnection capacity through the negotiation of contracts awarding financial rights (FTR) over the capacity in the interconnection. This mechanism is in line with European legislation and regulations and is the first European mechanism to ensure FTR which transmits the degree of depth and inter-sectorial cooperation, ensuring and safeguarding third party access to cross-border interconnections. This mechanism allows agents to cover the risk of the price differential between Portugal and Spain, and is therefore a risk management tool related to the placing of electricity by producers its acquisition by suppliers, thereby diversifying the supply sources for agents present in the two areas of the MIBEL market.

On the 15th of March 2013, World Consumer Rights Day, ERSE published a recommendation for suppliers (Recommendation no. 2/2013) relating to aspects pertaining to the contracting of electricity and natural gas and relevant to consumers: the existence and scope of loyalty periods, the availability of payment forms and the indexing of prices on the liberalised energy market. ERSE recommended to suppliers that the existence of loyalty periods and the indexing of prices practised in the contract needed to be explained beforehand (before the signing of the contract) and duly justified by suppliers (why they exist and the benefits to the consumer). Pertaining to payment forms available to customers, these must be diversified and may not exclude consumers from offers on the market.

TARIFF DEFICIT

In 2013, the amounts owed in respect of the main items of the electricity sector's tariff deficit were those shown in the following table:

Table 3-5 – Tariff deficit

Unit: 10³ EUR

	Outstanding debt in 2013
Tariff deficit 2006/2007	152.476
Tariff deficit 2008	1.334.696
Tariff deficit 2012	751.886
Tariff deficit 2013	1.274.819
Others	163.142
Total	3.677.019

The variation of the LV end user sales tariffs defined for 2006 and in StLV defined for 2007 were limited, creating a tariff deficit in regulated companies. These deficits are recovered in continuing instalments through the GUoS (Global Use of the System) tariff over a period of 10 years, starting in 2008.

In the 2009 tariffs, the tariff adjustments made in 2007 and 2008 to electricity costs were deferred for a period of 15 years with effect from 2010, as well as the extra cost of acquiring electricity from special regime generators with guaranteed revenue pertaining to 2009.

Later, in 2011, it was decided that the extra costs from SRG with guaranteed revenue would be recovered in a five-year period, taking effect from 2012 tariffs and continuing at the most until 2020. Therefore, for 2013 another tariff deficit was created which corresponded to the extra SRG cost in 2013 including the 2011 and 2012 adjustments.

3.3 SECURITY OF SUPPLY

Under Portuguese law, the powers relating to the security of supply in the electricity and natural gas sectors are the responsibility of the Government, which delegated responsibility for monitoring to the Directorate General for Energy and Geology.³⁹ However, ERSE monitors the evolution of the installed capacity and the evolution of demand, which is dealt with in greater detail below.

3.3.1 MONITORING BALANCE OF SUPPLY AND DEMAND

Last year, the capacity margin, which is defined as the difference between installed generation capacity and the maximum peak consumption for the year, in respect of installed capacity, reached 53% compared with 54% in 2012 and 51% in 2011. Although there was a reduction of 756 MW in the total installed power, the capacity margin was maintained because of the simultaneous reduction in peak consumption in comparison to the previous year.

³⁹ Republished on the 8th of October 2012 through Decree-Law no. 215-A/2012 and no. 215-B/2012.

The evolution in installed power and maximum requested power is shown in Table 3-6.

Table 3-6 – Capacity margin

	2013 (MW)	2012 (MW)	2011 (MW)	2010 (MW)	2009 (MW)	2013/2009 Variation (%)
Total installed power	17.790	18.546	18.903	17.905	16.738	6%
Thermal	5.750	6.697	7.407	7.407	6.690	-14%
Hydro	5.239	5.239	4.980	4.578	4.578	14%
SRG	6.801	6.610	6.516	5.920	5.470	24%
Maximum annual power	8.322	8.554	9.192	9.403	9.217	-10%
Capacity margin	9.468	9.992	9.711	8.502	7.521	26%
	(53%)	(54%)	(51%)	(47%)	(45%)	

Source: 2013 data obtained from REN

In addition, the 2013 electricity consumption figure was 49.2 TWh, a slight increase of 0.2% (with adjustment to take into account the effect of temperature and number of business days, the variation in comparison to the previous year is nil).

In 2013, hydrological conditions were favourable with a hydro capability factor of 1.17. Hydroelectric power plants (without guaranteed revenue and not including the mini-hydro plant) supplied 26% of electricity consumed, practically double the previous year's figure. Thermal power plants supplied 36%, with 14% of generation coming from natural gas plants (including cogeneration) and 22% from coal plants.

Deliveries from wind generators recorded their highest share ever, approximately 23%, with generation in special regime supplying 43% of consumption.

The import balance suffered a reduction of 69% and represented 5% of consumption.

The percentage breakdown of electricity generation by power source in the last 5 years is presented in Table 3-7.

Table 3-7 – Breakdown of generation

	2013	2012	2011	2010	2009
Natural gas (without SRG)	3%	11%	28%	28%	23%
Import Balance	5%	16%	6%	5%	9%
Coal	22%	24%	18%	13%	24%
Hydro (without SRG)	26%	12%	20%	28%	14%
SRG (with mini-hydro)	43%	37%	36%	34%	29%
Fuel	0%	0%	0%	1%	1%

Source: 2013 data obtained from REN

In 2013, in terms of thermal plants in standard regime, the installed capacity in hydroelectric power plants was maintained; the fuel-oil-powered Setúbal plant, with 947 MW, which had been in operation since 1979, was declassified.

In terms of generation in special regime, the installation of 174 MW of new capacity by wind generators and 62 MW by photovoltaic generators, reaching a total of 6,801 MW, should be noted.

In the development of RNT, in Trás-os-Montes, mention should be made of the new connection between the Valpaços and Vila Pouca de Aguiar substations, thereby concluding the closure of the 220 kV mesh of the “transmontano” axis between Lagoaça and Valdigem in the Douro axis and in the area of Porto, the 400 kV Armamar-Recarei and Recarei-Vermoim connections are worth mentioning, along with the introduction of the 400 kV in Vermoim.

In the region south of the Greater Porto area, the new 400/60 kV Feira substation began operating and, in the Beira Interior region, the second 150 kV connection between the Falagueira and Castelo Branco substations entered into service.

In the Lisbon region, the construction of the new 220 kV underground circuit between Alto da Mira and Sete Rios should be highlighted, as should the introduction of 400 kV at the Fernão Ferro substation in the Setúbal Peninsula.

In terms of quality of service, the Transmission Network presented the second best ever performance, with an Equivalent Interruption Time of 0.09 minutes.

Satisfaction of consumption requirements by the various means of supply is presented in Table 3-8.

Table 3-8 – Consumption supply

	2013 (GWh)	2012 (GWh)	Variation (%)
Hydro generation	13.303	5.824	128,4
Thermal generation	12.690	17.974	-29,4
SRG	21.844	18.755	16,5
Import balance	2.782	7.895	-64,8
Hydro power pumping	1.458	1.388	5,0
Total consumption	49.161	49.060	0,2

Source: 2013 data obtained from REN

Pertaining to the maximum power requested from the public grid, on the 9th of December, 8322 MW were registered, 232 MW less than that recorded in February 2012, meaning a reduction in annual maximum power for the third consecutive year.

The evolution in annual maximum power is shown in Table 3-9.

Table 3-9 – Maximum annual power

Year	Day	Power (MW)	Variation (%)
2013	9-Dec	8.322	-2,71
2012	13-Feb	8.554	-6,94
2011	24-Jan	9.192	-2,24
2010	11-Jan	9.403	2,02
2009	12-Jan	9.217	2,72

Source: 2013 data obtained from REN

The evolution in terms of installed power at the end of each year is shown in Table 3-10.

Table 3-10 – Power plant generation system

	2013 (MW)	2012 (MW)	Variation (MW)
HYDROELECTRIC POWER PLANTS	5.239	5.239	0
THERMAL POWER PLANTS	5.750	6.697	-947
Coal	1.756	1.756	0
Natural gas	3.829	3.829	0
Fuel / Natural gas / Diesel	165	1112	-947
SRG INSTALLED POWER	6.801	6.610	191
Thermal Generators	1.738	1.779	-41
Hydro Generators	413	417	-4
Wind Generators	4368	4194	174
Photovoltaic Generators	282	220	62
Wave Energy Generators	0	0	0
TOTAL	17.790	18.546	-756

Source: 2013 data obtained from REN

3.3.2 MONITORING INVESTMENT IN GENERATION CAPACITIES IN RELATION TO SECURITY OF SUPPLY

During 2013, and with regard to the new investments in generation, there were no significant developments in respect of the situation described in the previous report.

In the case of the power plant generation system, in addition to the already mentioned declassification of the Setúbal plant in 2013, the expected evolution of the electricity generation system in the standard regime until 2030, is due, in accordance with the DGEG⁴⁰, to the development of the projects for the construction of four new 400 MW CCGT groups already licensed and more recent information on the generators' investment plans.

Similarly, there was no change in the evolution of hydroelectric power generation facilities, maintaining the expected boost at existing plants, by a total of around 1500 MW, of which 1080 MW are reversible. In addition to this, there are two new hydroelectric power plants in the implementation phase, one in Baixo Sabor (168 MW reversible) and another in Ribeiradio (70 MW). The National Programme for Dams with High Hydropower Potential (*Programa Nacional de Barragens de Elevado Potencial Hidroelétrico – PNBEPH*) is expected to be completed by 2030. It envisages a series of another 10 new power plants with a total generation capacity of around 1100 MW, 810 MW of which will use reversible equipment.

According to the National Plan of Action for Renewable Energy (*Plano Nacional de ação para as Energias Renováveis – PNAER 2020*)⁴¹, the evolution of the installed capacity indicated in Table 3-11 is expected.

Table 3-11 – Forecast for SRG generation

	2014 (MW)	2020 (MW)
Wind	4742	5300
Hydro (< 10 MW)	362	400
Hydro (> 10 MW)	5499	8540
Biomass	754	828
Solar	359	720
Waves	0	6
Geothermal	29	29

Source: PNAER 2020.

⁴⁰ Report on the Monitoring of Supply Security in the National Electricity System for 2013 to 2030.

⁴¹ PNAER 2020: Part II of the Resolution of the Council of Ministers no. 20/2013, published in the official Portuguese Gazette (*Diário da República*), 1st series, 10th of April.

3.3.3 MEASURES TO COVER PEAK DEMAND OR SHORTFALLS OF SUPPLIERS

Pertaining to the security of supply in the electricity sector, during 2013, there were no incidents which resulted in the need to implement the measures to guarantee the coverage of peak demand or supplier shortfalls.

4 THE NATURAL GAS MARKET

4.1 NETWORK REGULATION

4.1.1 UNBUNDLING

CERTIFICATION OF THE TRANSMISSION NETWORK OPERATOR

In 2013, the REN Gasodutos, S.A. certification process as National Natural Gas Transmission Network (RNTGN operator), under the ownership unbundling regime, under the combined provisions of Articles 9 and 10 of Directive 2009/73/EC of the European Parliament and Council of the 13th of July and Article 3 of Regulation (EC) no. 715/2009 of the European Parliament and Council of the 13th of July continued with relevant developments which culminated with the presentation to the European Commission, by ERSE, of a proposed decision on the certification of the RNTGN operator, in 2014. Under the terms provided for in the abovementioned Article no. 3, the proposed decision is currently awaiting the European Commission's opinion so that the final decision can be approved by ERSE.

IMAGE DIFFERENTIATION

The provisions of Article 26, no. 3 of Directive 2009/73/EC of the European Parliament and Council of the 13th of July were transposed into Portuguese law through the publication of Decree-Law no. 77/2011 of the 20th of June, introducing changes to the legislation which serves as a basis for the organisation and operation of the SNGN (Decree-Law no. 30/2006 of the 15th of February). This same legislation had already been changed and re-published by Decree-Law no. 230/2012 of the 26th of October and developed by Decree-Law no. 231/2012 also of the 26th of October, changing the previous complementary legislation on the natural gas sector (Decree-Law no. 140/2006 of the 26th of July). In April 2013, the new RRC for the natural gas sector was published along with other codes covered by the regulation revision initiated in the second half of 2012. The revised codes established the terms and deadlines for the effects of approval, by ERSE, of the rules applicable to the differentiation of image and communications by the distribution network operator and the last resort supplier, in relation both to each other and to other entities that operate in the SNGN.

4.1.2 TECHNICAL FUNCTIONING

4.1.2.1 BALANCING

During 2013, the balancing rules, approved by ERSE, included the Procedures Manual for the Global Technical Management of SNGN (MPGTG).

The MPGTG details the methodologies for obtaining the breakdown of the energy that flows through the relevant points of the transmission network (RNTGN) from which the individual balances of the market agents are determined. Specifically, this corresponds to the determination of the stocks of natural gas that each market agent has in the infrastructures that constitute the RNTIAT.

In the case of RNTGN, market agents must manage the balance between the supply and demand of natural gas in the transmission network so that the individual balances are within the maximum and minimum stock allocated to each of them annually, in accordance with the methodology published in the MPGTG. This approach consists of assigning a tolerance to each market agent, proportional to the size of their customer portfolio and also taking into account the market segments they supply, namely the electricity generation market and the conventional market. The sum of the all individual tolerances reflects the accumulation capacity of the network (linepack).

Market agents whose balances violate the tolerances determined by their maximum and minimum individual stocks are considered to be in individual imbalance and a penalty is applied in line with the costs that these imbalances cause to the system. This is done in accordance with what is set out in the Incentive Mechanism to Replace Individual Balances in the MPGTG.

The Incentive Mechanism to Restore the Individual Balances applies penalties based on the storage tariff of the LNG terminal, in cases where the agents are in a situation of imbalance in the RNTGN and hold a positive stock of gas at SNGN. In situations where there is a negative stock of natural gas in the SNGN, in aggregate, the penalty is determined on the basis of the valuation of natural gas in the reference markets. What is being sought, therefore, is greater involvement by the market agents in managing supplies for their customer portfolios on the one hand, and, on the other, a suitable attribution of costs incurred with the balancing of the RNTGN.

4.1.2.2 ACCESS TO STORAGE INFRASTRUCTURES, LINEPACK AND AUXILIARY SERVICES

The involvement of the market agents in managing supplies for their customer portfolio benefits from individual tolerances to, on a daily basis, consolidate natural gas supply with demand in the transmission network. In practice, these tolerances correspond to an implicit access to the linepack, or in other words, the transmission network operator assumes, without an explicit allocation of costs to each market agent, the balance of the RNTGN, as long as the individual deviations are within the respective tolerances. The

cost of this base service (residual balance) is incorporated in the transmission network tariffs, and the implicit access to the linepack is proportional to the capacity used by the market agents in the RNTGN, incorporating a policy of positive discrimination in favour of the smaller market agents who, in relative terms, benefit from larger tolerances.

In addition to the implicit access to the linepack in the transmission network, a regulated third party access regime (rTPA) is applied explicitly to the storage of natural gas in the Carriço underground storage facility and at Sines LNG terminal. ERSE approves the capacity allocation mechanisms detailed in the Procedures Manual for Access to the SNGN Infrastructures (MPAI) and the tariffs for the use of said infrastructures, ensuring that there will be sufficient capacity to meet the commercial needs of the market agents.

ERSE monitored the access conditions to the storage facilities, especially in cases of potential congestion, particularly in 2013 at Carriço facility. It should be highlighted that, to date, there has been capacity available to satisfy requests from the market agents.

4.1.2.3 THIRD PARTY ACCESS TO STORAGE

In 2013, the third party access to the natural gas storage facilities was governed by a regulated regime.

It should be noted that Decree-Law no. 30/2006 of the 15th of February, in the wording given by Decree-Law no. 230/2012, of the 26th of October, and Decree-Law no. 140/2006 of the 26th of July, in the wording given by Decree-Law no. 231/2012, of the 26th of October, states that, in respect of third party access to RNTIAT networks and infrastructures, the regime of regulated access is maintained, extending it, however, to the possibility of new concessions for underground storage facilities, for a different purpose than the constitution and maintenance of safety stocks, benefiting from a system of negotiated access.

4.1.2.4 CONNECTIONS

The codes in force do not establish any indicator or standard related to the connections to the networks; nevertheless network operators are obliged to send ERSE, every semester, information on the number of connections made, applicants' contributions broken down by type of item, total length of the items built, average quote periods and average execution periods and the number of alterations made to existing connections.

4.1.2.5 QUALITY OF SERVICE

The Quality of Service Code for the natural gas sector envisage, in technical terms, the monitoring of the quality of service provided by the various infrastructure operators, and covers three areas: continuity of service, natural gas attributes, and the pressure of natural gas supplied to customers. The Quality of

Service Code define the rules for the evaluation and characterisation of the quality of the natural gas supply service, and applies to customers, suppliers and sector infrastructure operators.

ERSE publishes an annual report on the quality of service in the natural gas sector, according to the provisions established in the RQS, aimed at briefly characterising the quality of service provided by natural gas sector entities.

Regarding the LNG terminal, general indicators have been established for service continuity with the objective of evaluating the service provided by this infrastructure in the following processes: reception of LNG from tankers and carriers (for the supply of satellite LNG units) and the injection of natural gas into the transmission network.

In the 2012-2013 gas year, the most significant aspects in terms of the performance of the LNG terminal were the following:

- The number of carriers experiencing a delay in loading corresponded to 9% of the total. This value compares to 19% and 13% from the 2010-2011 and 2011-2012 gas years respectively, with the main causes for delay being the non-availability of the loading bays and technical problems and operational non-availabilities at the LNG terminal.
- The number of unloadings from LNG carriers was 31, a reduction of 1 in comparison to the previous year. Two incidents of delays were recorded with the unloading of LNG carriers. Only one was the responsibility of the LNG terminal operation which resulted in a delay of 9 minutes;
- The natural gas injection assignments for the transmission network recorded a compliance of 100%, as in previous years.

In terms of the continuity of service associated with the underground storage, it is important to evaluate the management of the natural gas flow between this infrastructure and the transmission network. In the gas year 2012-2013 the compliance of the injection and extraction assignments and energy storage compliance was 100%.

The evaluation of the continuity of the supply service to the transmission network is done through general indicators which consider the number and duration of interruptions at the points of delivery. In the last four years, there were no interruptions in the transmission network.

In the distribution networks, as with the transmission network, performance is evaluated through indicators which consider the number and duration of interruptions. In the 2012-2013 gas year, there were no interruptions at 5 out of the 11 existing distribution networks (Duriensegás, Beiragás, Dianagás, Sonorgás and Paxgás) and only 0.3% out of approximately 1.3 million customer installations suffered interruptions (lowest value since the 2007-2008 gas year), but no customer was affected by more than one interruption. The great majority (67%) of the interruptions in the distribution network were due to

random cases or cases of force majeure (c.f.f.m.), caused by third party interventions in the networks. The average duration of the interruptions per customer was less than 2 minutes in all the distribution networks. The standards set for the values of the various indicators were met.

In the last four years, all the limits set out in the RQS for the natural gas characteristics monitored by the transmission network operator and the operator of the LNG terminal were respected.

All distribution network operators presented information on the monitoring of the pressure in their networks. In the 2012-2013 gas year, the pressure supplied was monitored at 535 points in the distribution networks. There were one-off incidents of non-compliance with the pressure limits set out in the applicable legislation and in the monitoring methodologies which, according to the distribution network operators, had no impact on the supply of natural gas to customers.

4.1.2.6 SAFEGUARD MEASURES

In the event of a sudden crisis in the energy market or of a threat to the physical or other safety of people, equipment or installations, or to the integrity of the networks, as a result of a serious accident or other event of force majeure, the member of the Government responsible for energy may take any transitional and temporary safeguard measures needed⁴².

In 2013, there were no incidents which required the implementation of the safeguard measures established in article 46 of Directive 2009/73/EC of the European Parliament and Council, of the 13th of July.

4.1.3 NETWORK AND LNG TARIFFS FOR CONNECTION AND ACCESS

PROCEDURES AND METHODOLOGY FOR CALCULATING NATURAL GAS INFRASTRUCTURE ACCESS TARIFFS

In April 2013, the new Natural Gas Tariff Code⁴³ came into effect, introducing a set of significant changes related to the procedures and methodology for calculating natural gas infrastructure access tariffs. They are summarised below:

- **Regulatory harmonisation in the Iberian plan and in the context of the European network codes which arose from the third package of internal electricity market directives.** In this context, a capacity allocation method was defined with a binding reservation, with the interconnection capacity offered in an aggregated manner in the two interconnections, in a single

⁴² Article 48 of Decree-Law No. 231/2012, of the 26th of October.

⁴³ Approved by Regulation no. 139-E/2013, of the 16th of April.

virtual interconnection point. Annual, quarterly, monthly and daily capacity products were introduced in the capacity contracting model which allows the various suppliers to adapt their capacity needs to the consumption profile of their market portfolio. Additionally, a decision was taken to change the capacity allocation year to the period running from the 1st of October to the 30th of September of each calendar year, in line with the period adopted in the European Network Code for Capacity Allocation Mechanisms and with the period agreed upon in the capacity allocation harmonisation process for the Portugal-Spain interconnection, taking effect from 2014.

- **Change in the capacity allocation model and in the tariff for the use of high pressure infrastructures.** The tariff is now applied to the reserved capacity values, changing the previous model where the tariff was applied to the actual capacity used. This change is aimed at motivating the correct programming of the use of infrastructures and adequate planning of their use by market agents, since a charge now applies for capacity reserved in excess of requirements. This capacity contracting model does not apply to the exit points for High Pressure end users, distribution networks and installations supplied by UAG. For these, the capacity allocation model continues to depend on consumption.
- **Efficiency measures in regulation through the consolidation/implementation of incentive-based regulation and the adoption of mechanisms to reduce the impact of demand volatility.** In line with what is established in the Framework Guidelines on the Transmission Tariff Structure, it was decided that the discount which derives from the interruptibility of the interconnection should come from the probability of an interruption and that the price of capacity counterflow products should take into account the reduced marginal costs, namely associated to the necessary information system and administrative costs.
- **Improvement in the tariff flexibility tools to adapt the tariff model to the periodical and seasonal uses of natural gas.** In this context, a new grid access tariff option was created, as well as for network use tariffs by activity. This involves a base annual capacity, defined *ex ante* by the customer and a price associated to the monthly capacity determined *ex post* depending on actual consumption.

The approval of the Tariff Code and the amendments to same, by ERSE, requires prior public consultation and an opinion from the Tariff Council. The tariff fixing process, including the time frame, is also defined by law and in ERSE's codes.

The following brief explanation of the new Portuguese tariff system serves to contextualise the tariff calculation methodology. The infrastructure access tariffs that are applied to all natural gas consumers for access to the respective infrastructures, and more specifically, the tariffs for the Use of the Transmission

Network, the Use of the Distribution Network, the Use of the LNG Reception, Storage and Regasification Terminal, and the Use of Underground Storage.

Generally speaking, these infrastructure access tariffs are paid by suppliers on behalf of their customers. They may be paid directly by customers benefiting from the status of Market Agent, i.e. customers buying energy directly on the markets, and who are responsible for managing imbalances arising from differences between the capacity contract, demand forecasts for their customer portfolios and actual consumption recorded, depending on the sales margins defined by ERSE⁴⁴.

NETWORK ACCESS TARIFFS PRICES

The variation in the average price of Infrastructure Access Tariffs for the 2013-2014 gas year, relative to the previous gas year (2012-2013), are shown in the following tables.

Table 4-1 – Evolution of Infrastructure Access Tariffs for the 2013-2014 gas year

Access tariffs per pressure level	Average price 2012-2013 (EUR/MWh)*	Average price 2013-2014 (EUR/MWh)	Variation
Power Plant Access	2,88	3,05	5,80%
HP Customer Access	2,22	2,15	-3,3%
Access MP	5,65	6,52	15,3%
Access LP>	18,28	20,66	13,1%
Access LP<	37,48	40,48	8,0%

*Application of 2012 tariffs to the demand forecast for 2013

Table 4-2 – Tariff evolution per activity 2013-2014 / 2012-2013

Tariffs per activity	Tariffs 2012-2013, consumption 2013-2014*	Tariffs 2013-2014, consumption 2013-2014	Variation
Sines Terminal	1,41	1,41	0,0%
Underground Storage	9,97	7,25	-27,3%
Use of Transmission Network	2,43	2,16	-11,5%
Use of Distribution Network	10,91	12,40	13,6%
Global Use of the System	0,62	0,79	27,6%

* Application of 2012 tariffs to the demand forecast for 2013

The figures below give the breakdown and structure of the average price of the Network Access tariffs by the various tariffs which they are comprised of, for each pressure level. High pressure access does not include electricity generation centres.

⁴⁴ Under the terms of ERSE Directive no. 24/2013, of the 6th of December.

Figure 4-1 – Breakdown of the average price of Network Access Tariffs

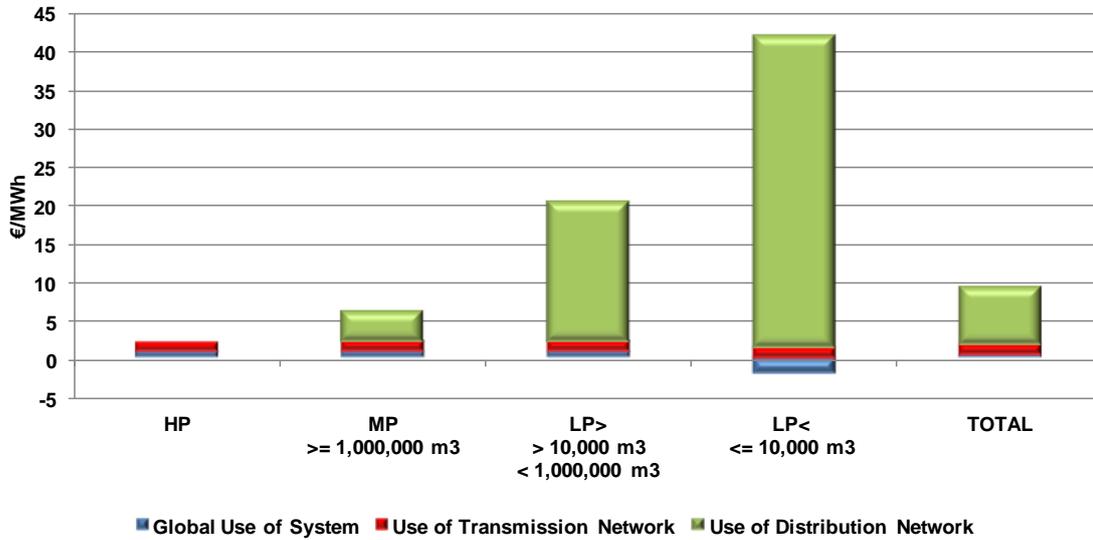
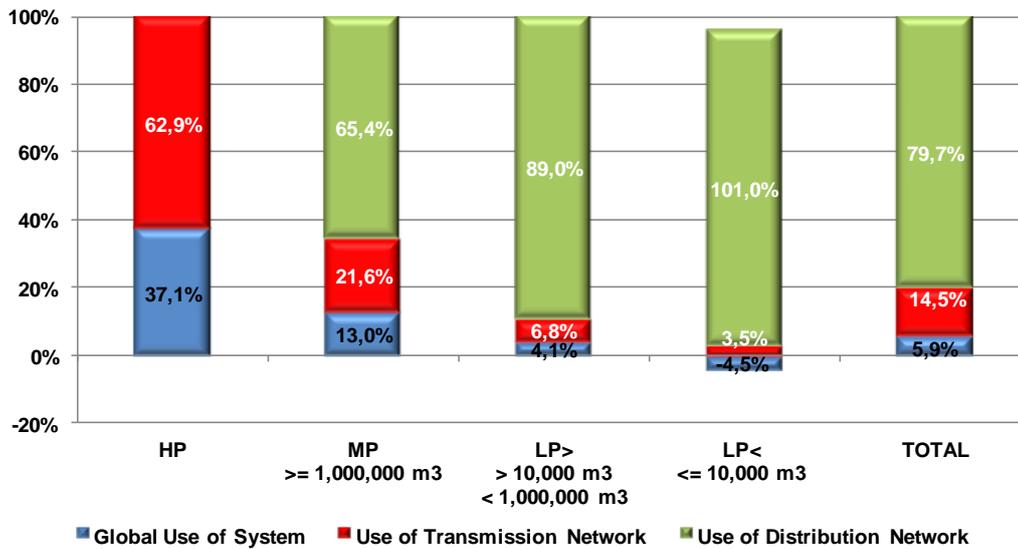


Figure 4-2 – Structure of the average price of Network Access Tariffs



REGULATED TARIFFS AND ACTIVITIES OF THE NATURAL GAS SECTOR

In the natural gas sector there are some regulated activities whose allowed revenues are established by ERSE and are recovered by the following tariffs: Global Use of System, Use of Transmission Network, Use of the LNG Reception, Storage and Regasification Terminal, Use of Underground Storage, Use of MP Distribution Network, Use of LP Distribution Network, Energy and Supply.

The prices for the tariffs for each activity are established in such a way that their structure reflects the structure of marginal or incremental costs and also enables the recovery of allowed revenue.

TARIFF ADDITIVITY APPLIED TO THE NATURAL GAS INFRASTRUCTURE ACCESS TARIFFS

Customers who intend to use natural gas infrastructures, namely the networks, the LNG terminal and underground storage, must pay the respective access tariffs.

Network access is paid by all consumers of natural gas. Network access tariffs are calculated by adding the following tariffs together: Global Use of System, Use of Transmission Network and Use of Distribution Network. Prices of access tariffs for each billing variable are determined by adding up the corresponding tariff prices per activity. Insofar as the tariffs making up this sum are based on marginal costs, cross-subsidisation between consumers is avoided and efficient use of resources is promoted.

Tariffs for the Use of the LNG Reception, Storage and Regasification Terminal and the Use of Underground Storage are paid only by users of these infrastructures.

This tariff calculation methodology allows for detailed knowledge of the various tariff components by activity or service. Therefore, each customer can know exactly how much they pay, for example, for the use of the MP distribution network, and how that value is considered in terms of billing. The transparency in the formulation of the tariffs, which is a consequence of the implementation of this type of system, gains special importance for customers who have no experience in selecting of supplier and in particular for customers who are less informed.

FORMS OF REGULATION IN THE DEFINING OF ALLOWED REVENUE

The start of the 2013-2014 to 2015-2016 regulatory period began in 2013 and an analysis of activities' performance during the previous regulatory periods was performed, as well as an evaluation of the parameters and the cost inducers used. ERSE also assessed the forms of regulation of the natural gas sector's activities, which resulted in some changes. The main changes, per activity, were the following:

- Reception, Storage and Regasification of LNG - application of a price cap methodology to OPEX with the redefinition of the parameters; application of a tariff adjustment attenuation mechanism which recognises the positive externalities for the entire national gas system associated to this activity.
- Underground Storage - introduction of a price cap methodology for OPEX regulation.
- Sale and Purchase of Natural Gas - definition of two functions arising from the sale and purchase of natural gas in the scope of long term supply contracts and the market; inclusion of a

mechanism for the progressive acquisition on the market by wholesale last resort suppliers whose definition will be subject to sub-regulation.

The definition of regulatory methodologies and the selection of inducers in high pressure activities, in particular those applied to OPEX, were based on a benchmarking analysis.

The definition of the efficiency targets for natural gas distribution companies was based on a nationwide benchmarking study with the application of parametric and⁴⁵ non-parametric methods⁴⁶. In the case of Trading, as this activity is smaller in scale, the definition of the efficiency targets did not require any specific benchmarking analysis but rather an analysis of the company's historical data through questionnaires submitted to each operator.

The annual efficiency targets applied to the OPEX varied between (i) 1.5% and 3% in the case of LNG reception, storage and regasification; (ii) 1.5% for transmission, (iii) 1.5% and 4% for underground storage; (iv) 1.5% and 5.8% per company, in the case of distribution, and (v) 3% for all last resort suppliers.

The methodology for the indexing of the cost of capital,⁴⁷ introduced in the 2013-2014 to 2015-2016 regulatory period should also be mentioned. This will enable the evolution of the economic and financial context to be reflected, thereby compensating equity and other risks. Therefore, the remuneration rates will be updated on the basis of the average daily price of 10-year treasury bonds issued by the Portuguese Republic. Given the volatility of the market indicators, a cap and a floor were established.

At the end of 2012, several laws were published impacting the tariffs for 2013-2014. Among these were the law which adapted the activity of purchasing and selling natural gas to the market regime and established an incentive for the progressive acquisition of natural gas on the market by wholesale last resort suppliers,⁴⁸ and the law establishing the sanctioning regime for the energy sector⁴⁹.

DISPUTED DECISION

In terms of appealing against a decision or methodology used by the regulating entity, under the terms provided for in no. 1 of article 41 of Directive 2009/73/EC of the 13th of July, it should be noted that the natural gas distribution network concessionaires brought lawsuits against ERSE, challenging the approval of tariffs for use of the networks relating to the following gas years:

⁴⁵ *Ordinary Least Squares*, OLS, with *panel data*.

⁴⁶ *Data Envelopment Analysis*, DEA.

⁴⁷ WACC.

⁴⁸ Decree-Law no. 231/2012, of the 26th of October.

⁴⁹ Law no. 9/2013, of the 28th of January.

- 2010-2011 Gas Year: 1st July 2010 to 30th June 2011;
- 2011-2012 Gas Year: 1st July 2011 to 30th June 2012;
- 2012-2013 Gas Year: 1st July 2012 to 30th June 2013;
- 2013-2014 Gas Year: 1st July 2013 to 30th June 2014;

These lawsuits were duly challenged and are currently under investigation and trial in the competent administrative court with no decision having been taken thus far.

NETWORK CONNECTION COSTS

The commercial conditions for connection to the natural gas networks are set by ERSE. The rules and costs for connecting installations to the networks take into consideration criteria of economic rationality (adherence to the connection construction costs) and the need to ensure consumer access to natural gas. The rules are approved by ERSE following public consultation processes in which all interested parties participate.

4.1.4 CROSS-BORDER ISSUES

The Capacity Allocation Mechanisms (CAM) and the of Congestion Management Procedures (CMP) applied to the SNGN infrastructures are set out in accordance with the provisions of the Natural Gas Infrastructures and Interconnections Access Code (RARII) which ERSE is responsible for publishing.

The RARII features a set of principles aimed at bringing forward the implementation of the rules set forth in EU Regulation no. 984/2013 of the Commission of the 14th of October 2013, which established the network code for the CAM in gas transmission networks and which completed EC Regulation no. 715/2009 of the European Parliament and Council, of the 13th of July in respect of the conditions for access to the natural gas transmission networks.

According to RARII, ERSE is responsible for the approval of the MPAI, which was published for the first time in 2013. This manual includes the rules previously established in the CAM and CMP for the SNGN infrastructures.

The MPAI includes a thorough revision of the capacity allocation rules with the introduction of the capacity reservation concept through an *ex ante* allocation of annual, quarterly, monthly and daily capacity products in the infrastructures. Capacity is mainly allocated by means of auctions, using the approach set out in EU Regulation no. 984/2013 of the Commission, of the 14th of October.

The proposals presented by the relevant infrastructure operators, namely the Transmission System Operator (TSO), the LNG terminal Operator (LSO) and Storage System Operators (SSOs) and also the contributions received in the scope of the consultation process involving the entities to which the manual applies were taken into account during the preparation of the MPAI.

Insofar as capacity allocation is concerned, it must be stressed that, no Third Party Access refusals have been registered in the SNGN infrastructures until now. However, in 2013, the rules and procedures to be applied to the Carriço underground storage facility were revised and the rules and procedures applicable to the RNTGN and the Sines LNG terminal regarding this matter were published for the first time.

The capacity allocation mechanisms in force only allocate capacity on an annual basis, i.e. the current framework does not allow long term commitments for the time being. This explains why the implementation of EU Regulation no. 984/2013 of the Commission, of the 14th of October, regarding the harmonised capacity allocation in the interconnections is not subject to significant constraints on the Portuguese side.

ACCESS TO INTERCONNECTIONS

In the context of ACER's Gas Regional Initiative for the South of Europe, which aims to implement a regional natural gas market, the harmonisation of the CAM in the three countries of the south region (Portugal, Spain and France) has been set as priority. As such, according to the European guidelines and in the context of MIBGAS, the Portuguese and Spanish TSOs allocate capacity in the interconnections through a Joint Capacity Allocation Mechanism in the Portugal/Spain Interconnections (namely at Valença do Minho and Campo Maior).

Work to implement the Joint CAM in the Portugal/Spain Interconnections began in 2011, and is based on the Framework Guidelines on Capacity Allocation published by ACER and later, on EU Regulation no. 984/2013, of the Commission, of the 14th of October. ERSE and CNMC are responsible for the approval of this mechanism, which is subject to consultation extended to all stakeholders.

With the Joint CAM in the Portugal/Spain Interconnections in place, harmonised procedures for capacity allocation in the interconnections were established, resulting in bundled capacity products allocated on a Virtual Interconnection Point (VIP), with a progressive elimination of the differences which still exist in the methodologies applied on each side of the border.

This mechanism was implemented initially in 2012, taking effect between the 1st of October 2012 and the 30th of September 2013 and is presently in its second year of implementation (between October 2013 and September 2014). In the first allocation year, there was no demand for the annual and quarterly capacity products at the respective auctions and the capacity was later allocated in time frames of a shorter duration. These were carried out in a non-harmonised manner, according to the rules and

principles implemented in each country. In 2013, there were new auctions (annual and quarterly), with capacity being allocated in the VIP, both for annual and quarterly products. From October 2014, the capacity in the interconnections between Portugal and Spain has been allocated in a harmonised manner for annual, quarterly, monthly and daily products, in the form of auctions for all capacity products with the exception of the daily products to which the First Come First Served (FCFS) principle will be applied as an interim step, until September 2015.

The allocation of harmonised capacity in the interconnections between Portugal and Spain is suffering from a sharp drop in the capacity available at the Campo Maior interconnection due to the long term capacity contracts which existed prior to the implementation of the Joint CAM in the Portugal-Spain interconnections. In light of this, it will be necessary to wait for the conclusion of the aforementioned contracts, in force on the Spanish side, for a wider application of this concept.

COOPERATION

In 2013, the Joint CAM in the Portugal/Spain Interconnections was revised with a view to achieving greater harmonisation, following the cooperation between ERSE and CNMC initiated in 2011 for this purpose.

The Portuguese and Spanish transmission network operators have been cooperating closely with each other to improve the inter-operability of the two systems. This cooperation has resulted in management agreements for the Portugal-Spain interconnections coherent with the Interconnection Agreements provisions established in the Network Code for Interoperability and Data Exchange prepared by ENTSOG and currently going through comitology at the European Commission.

As a result of the decision to implement the Joint CAM in the Portugal-Spain Interconnections, the cooperation between the operators became more effective with the setting of more ambitious objectives regarding the allocation of capacity and CMP in the interconnections.

The VIP concept, aggregating the Campo Maior and Valença do Minho interconnections, is currently operational and the capacity products being allocated in the VIP range as far as the monthly product. The annual, quarterly and, from October 2014, monthly auctions uses the European PRISMA platform and the daily products are allocated in FCFS until September 2015. From October 2015, the allocation of daily products will also take place via auctions.

In addition to capacity products, ERSE and CNMC have been taking steps to progressively eliminate the pancaking tariff and promote the mutual recognition of the market agents.

Furthermore, in 2013, ERSE and CNMC also began the preparation for a study on possible models for the integration of the Iberian natural gas market, provided for in the Southern Gas Regional Initiative work plan. This integration of markets is comprised in the European Target Model for natural gas, defined by

ACER. The models analysed include the possibility of the creation of a natural gas hub for the Iberian Peninsula. The regulators hope that the creation of a natural gas hub and of an organised market will introduce greater transparency and competitiveness in the natural gas wholesale market. This study was put up for public consultation in the first semester of 2014.

MONITORING OF RNTGN OPERATOR INVESTMENTS

In May 2013, REN Gasodutos submitted a proposal for a Development and Investment Plan for RNTIAT (PDIRGN) for the period between 2014 and 2023.

This plan is set out in Decree-Law no. 140/2006 of the 26th of July, which was revised in 2011 through Decree-Law no. 77/2011 of the 20th of June, and later in 2012, by Decree-Law no. 231/2012 of the 26th of October. Both these legislative changes transposed into Portuguese law the provisions of the third package of community law on the internal natural gas market, namely the approach established in Directive 2009/73/EC of the European Parliament and Council of the 13th of July, as well as the standards from EC Regulation no. 994/2010 of the European Parliament and Council of the 20th of October, regarding the security of supply.

Therefore, pursuant to Decree-Law no. 140/2006 of the 26th of July, in the wording given to it in Decree-Law no. 231/2012, of the 26th of October, ERSE submitted the aforementioned PDIRGN proposal for public consultation and later prepared its opinion in which it suggests revising the forecasts for the nationwide demand of natural gas downwards, to levels more in line with the current economic climate, as well as greater cooperation with the Spanish TSO concerning the project for the third interconnection between Portugal and Spain. In its opinion, ERSE took into consideration the coherence between the PDIRGN and the Ten-Year Network Development Plan (TYNDP) published by ENTSOG concerning the European networks and infrastructures. Presently, the 2013 PDIRGN proposal is being revised for formal approval by the minister responsible for energy.

On an annual basis, prior to the publication of tariffs for the natural gas sector, ERSE evaluates the investments in progress, safeguarding the coherence between the values presented for the investment projects and those submitted by REN in the PDIRGN.

Pursuant to EU Regulation no. 347/2013 of the European Parliament and Council, of the 17th of April, applications were submitted for two projects included in the 2013 PDIRGN proposal, with a view to obtaining the statute of PCI, namely the third interconnection with Spain, promoted by REN Gasodutos, and new underground storage cavities, promoted by REN Armazenagem and Transgás Armazenagem. Of these projects, only the third natural gas interconnection between Portugal and Spain was included in the first list of Projects of Common Interest (PCI no. 5.4), included in a group of investment projects aimed at allowing a two-way flow of gas between Portugal, Spain, France and Germany and which, in

turn, incorporates the priority line of the North-South interconnections in Western Europe. To date, REN Gasodutos has not submitted the investment request for this PCI to ERSE.

4.1.5 COMPLIANCE

In the scope of the powers attributed by their Statutes and other legislation applicable, ERSE has met the obligations inherent to its capacity as regulator, such as:

- Approves codes.
- Issuing decisions binding on natural gas companies;
- Carrying out surveys into the functioning of the natural gas markets;
- Has the capacity to demand, from natural gas companies, information relevant to the compliance with their functions.
- Issues opinions on matters requested by the Government, Parliament or other public administration entities.

As mentioned in the chapter related to electricity, the alteration of ERSE's Statutes in 2013, brought about by Decree-Law no. 84/2013, as well as the approval of ERSE's sanctioning regime by Law no. 9/2013, of the 28th of January, must be highlighted. These approvals reinforce the table of competences and independence of the regulator, in line with the objectives of the Third Energy Package.

In compliance with national legislation, the regulated natural gas end user sales tariffs were extinguished on the 1st of January 2013. With the exception of economically vulnerable consumers, all other consumers who do not choose a supplier from the market are subject to the application of transitory tariffs, revised quarterly.

The first European Network Code for the internal natural gas market⁵⁰, on the capacity allocation mechanisms in the natural gas interconnections, was published in October 2013. This network code should be implemented by November 2015. In 2013, ERSE carried out a regulatory revision of the natural gas sector which prepared the national model for capacity allocation in natural gas infrastructures for the application of EU Regulation 984/2013. During the year, capacity was allocated in the interconnection between Portugal and Spain through a coordinated mechanism which was designed as part of a project to bring forward the implementation of the network code, as mentioned in section 4.1.4.

After the analysis of the data relating to supplier switching collected throughout 2012, which consolidated justifiable doubts that the information received was not sufficiently consistent for ERSE to be able to

⁵⁰ EU Regulation No. 984/2013 of the Commission, of the 14th of October.

validate and disclose it as a truthful and reliable portrayal of the natural gas market, ERSE decided to conduct an independent audit of the natural gas distribution companies that supplied this information.

The natural gas distribution companies belonging to the Galp Group and Tagusgás were audited in 2013 and shortcomings were detected in the information provided which jeopardised the integrity and traceability of the information.

The final audit report confirms that there are still specific issues relating to the reporting of information that must be effectively and urgently addressed by the distribution network operators in order to accommodate the recommendations made by the auditor. These changes will be carried out in 2014 in accordance with the network operators' action plan, approved by ERSE.

4.2 PROMOTING COMPETITION

4.2.1 WHOLESALE MARKET

The wholesale natural gas market in Portugal is relatively isolated due to degree of integration with the Spanish market still being in its initial stages, and a condition of relatively low attractiveness due to its absolute size. Due to a reduction of approximately 71% in demand for natural gas from the large power plants and an adverse economic climate, the volume of natural gas supplied in 2013 was 5% lower than in 2012.

The integration of the market and the boosting of the wholesale natural gas market are adversely affected by the condition of indivisibility in the management of gas supply transactions through the LNG terminal and the dual charging of the interconnection with Spain, as well as the absence of a transparent and liquid reference price for the whole Iberian system.

4.2.1.1 MONITORING THE LEVEL OF PRICES, THE LEVEL OF TRANSPARENCY, THE LEVEL AND EFFECTIVENESS OF MARKET OPENING AND COMPETITION

PRICES

The natural gas wholesale market in Portugal does not really have a reference for the setting of prices based on an organised or regulated market. On the other hand, Portugal is not a natural gas producer, so negotiation and procurement form the first segment of the sector's value chain.

In this context, the Portuguese market is supplied with natural gas through entries into the system via the interconnection with Spain (Campo Maior and Valença) and the port terminal at Sines (LNG terminal), by means of long-term contracts.

The supply of natural gas through the interconnections is essentially based on the contract between Sonatrach and the Galp group (representing 86% of the import balance in 2013) which includes obligations to purchase and the payment of quantities consumed or not (take or pay clause). This contract presupposes the existence of annual supplies of around 2.5 bcm for the duration of the contract, i.e. until 2020.

Supply through the terminal is, essentially, based on contracts of the same nature, where the LNG comes from Nigeria. This contract follows price rules defined in contracts, and envisages to an annual volume of approximately 3.42 bcm.

Other agents of less importance in the Portuguese market supply natural gas from Spain, (where there is a liquid wholesale market, with supplies from Algeria, Nigeria, Trinidad and Tobago, Egypt, Qatar, Oman, Norway, Libya and Equatorial Guinea, among others) and also through the entry of carriers in the Sines LNG terminal.

TRANSPARENCY

In spite of a process being underway to systematise the rules of transparency and integrity of the market at European level, it is acknowledged that the use of long term natural gas contracting mechanisms makes the transparency and the symmetry of information on the market difficult. This is also the case in the natural gas sector in Portugal, where, in spite of the existence of regulated mechanisms for wholesale contracting, information about the operation of the market is still limited.

Moreover, the absence of a specific negotiation hub in the Iberian context, which allows an explicit reference price and registration of negotiation volumes, whether spot, or with a fixed term, is an added difficulty in the task of providing the natural gas market with more information and transparency.

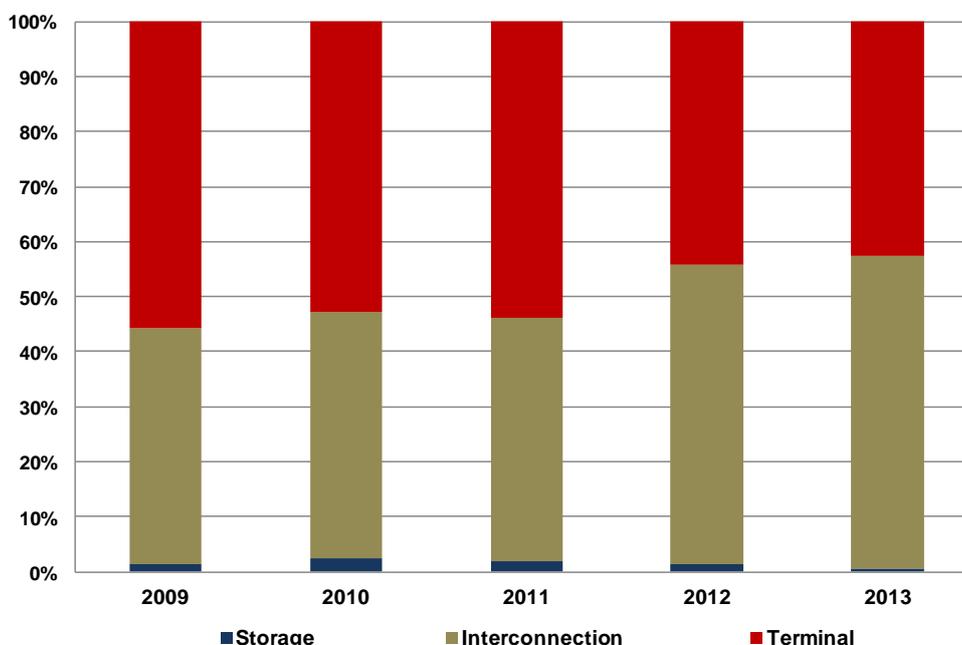
As the information on the characterisation of the transactions includes, in itself, commercially sensitive information, it is clear that, in the regulatory context, one can forecast the existence of mechanisms which, on one hand, ensure the safeguarding of commercially sensitive information and, on the other, provide the conditions for the integrity of the market and its transparency.

COMPETITION EFFICIENCY

As Portugal does not have its own production, the main countries which supply natural gas are Algeria and Nigeria. This is done mainly through long term take or pay contracts. The characteristics of the supply are described in Figure 4-3. It can be seen that until 2011, the terminal (contracts for LNG from Nigeria) was responsible for most of the natural gas introduced in the Portuguese market. However, from 2012 onwards, a gradual reduction in the importance of the terminal as opposed to the use of the interconnection, at both the Campo Maior and Valença entrances, became clearly visible, with the

interconnection with Spain being the main supply route in 2013, representing approximately 57% of the total volume of gas contracted. Moreover, at the start of the 2000s, the latter was essentially used for continuous outgoing international traffic to Spain, a situation which has been inverted over the last years.

Figure 4-3 – Breakdown of supply by infrastructure



For the 2012-2013 gas year, there was no auction to release excess quantities of natural gas (which result from the take or pay supply contracts which allow for the placement of contractual quantities on the market through the holding of auctions).

4.2.2 RETAIL MARKET

According to the schedule defined by the Government, end user tariffs published by ERSE for all customers ceased to exist on the 1st of July 2013 with the extinction of regulated end user tariffs to customers whose annual consumption is less than 500 m³, concluding the liberalisation process of the natural gas retail market.

This schedule follows the previous regulated tariff extinction process in 2012, which already covered the group of customers whose annual consumption was greater than 500 m³.

Although all natural gas consumers have been able to freely choose their supplier since January 2010, the schedule now defined concludes the liberalisation process for the natural gas retail market. In real terms, at the end of 2013, more than 86% of natural gas consumption within the conventional segment (excluding standard regime power plants) was being supplied by liberalised market suppliers.

The number of customers who switched from a tariff supply to the market supply or who began consumption directly in the liberalised market was, at the end of 2013, approximately 3.5 times higher than in December 2012. By the end of 2013, more than 530,000 consumers, in a universe of approximately 1.2 million, had switched supplier through the respective platform, most of them from the residential segment.

4.2.2.1 MONITORING THE LEVEL OF PRICES, THE LEVEL OF TRANSPARENCY, THE LEVEL AND EFFECTIVENESS OF MARKET OPENING AND COMPETITION

METHODOLOGY FOR MONITORING REFERENCE PRICES AND AVERAGE PRICES PRACTISED ON THE RETAIL MARKET

ERSE monitors the retail natural gas market and advises customers and other agents, seeking to foster transparency as a critical factor for efficiency. In this context it is responsible for analysing the market evolution at various levels, including those relating to prices practised.

Natural gas suppliers have to regularly publish their offers and send ERSE the reference prices⁵¹ they expect to practise and actually practised prices in the retail market. The reference prices should constitute a supplier's basic sales offer, but this does not prevent them from practising differentiated and special contractual conditions such as discounts or other promotional campaigns, in accordance with the sales strategy of each supplier.

Furthermore, all natural gas suppliers regularly inform ERSE of the average prices actually practised. This information is used by ERSE to monitor and supervise the retail electricity market, and also serves as an information tool for the reports produced by official statistical data organisms (INE or EUROSTAT, for example).

TRANSPARENCY

With the aim of continuing to provide information to natural gas consumers on the reference prices practised in the market, as well as the computer tools to help consumers choose a supplier, ERSE has provided a simulator on its website since August 2012 that provides natural gas consumers with objective information so that they can make informed choices, namely regarding the selection of the best offer on the market. The simulator compares prices in mainland Portugal for installations with annual consumption of less than 10,000 m³.

⁵¹ Pursuant to ERSE Order no. 3677/2011, of the 24th of February.

In order to guarantee the transparency of the information made available to consumers by suppliers, ERSE also checks that the suppliers publish the offers which are being practised on the market on their websites, in terms of both price and commercial conditions, and that they are in accordance with the information on reference prices sent to ERSE within the scope of its monitoring.

In addition, under the terms of the Commercial Relations Code, suppliers with over 5,000 customers are obliged to publicly disclose, through the communication means available and also on websites, their sales offers, and the general conditions of contracts for customers who consume up to 10 000 m³.

Rules are also in force pertaining to the information to be made available on customer invoices, namely information regarding the portion of access tariffs, the volume of natural gas measured and energy conversion factors (from m³ to kWh), and the labelling of the natural gas.

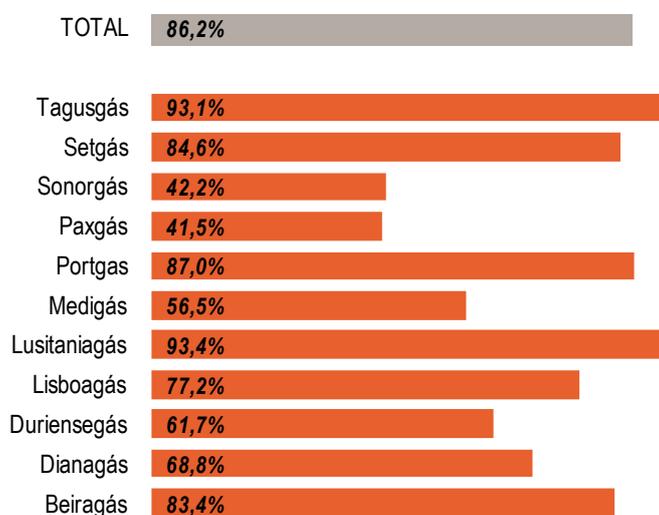
The rules for access to information regarding their consumption is regulated by ERSE under the terms of the Measuring, Reading and Data Availability Guide (*Guia de Medição, Leitura e Disponibilização de Dados*).

COMPETITION EFFICIENCY

Since July 2012, transitory tariffs have been applied to last resort suppliers' customers whose annual consumption is greater than 500 m³, with this extinction having been extended to all end users since January 2013.

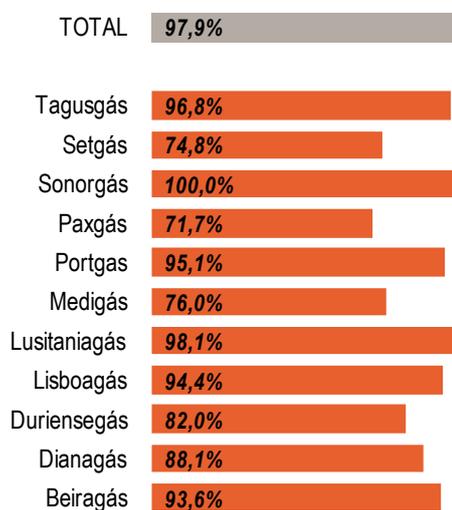
In terms of the effective liberalisation of the market, excluding the group of supplies to power plants in the standard regime, Figure 4-4 presents the market share (in consumption), in 2013, which is being supplied by suppliers in the liberalised market. It can be seen that over two thirds of the total consumption, with the exception of power plants, is provided by market suppliers and this value is generically higher among the leading natural gas distributors.

Figure 4-4 – Effective opening of the natural gas market in 2013 (total energy consumption, excluding electricity generating plants)



It is also important to note the occurrence of the opening of the market in 2013 in the customer segment with greatest consumption, as the extinction process of regulated tariffs occurred sooner for these customers, a fact which is shown in Figure 4-5.

Figure 4-5 – Effective opening of the natural gas market in 2013 (customers with annual consumption greater than 10,000 m³ (Energy))



Overall, the values specifically relating to the customer segment with annual consumption of greater than 10,000 m³ follow the same rationale as all customers. It should be noted that almost 98% of consumption from this group of customers is already being supplied by liberalised market suppliers.

The management of the supplier switching process is being handled by the national transmission network operator (REN Gasodutos), with the procedures and timelines for switching being approved by ERSE.

In 2012, the information obtained, namely pertaining to the structure of the market in each distribution network, still did not meet the consistency and regularity recommended by ERSE. This fact was repeatedly passed onto the different parties involved and led to the public communication where ERSE determined that an independent audit would be conducted on the natural gas distributing companies of the Galp group and Tagusgás.

This audit was carried out in the second half of 2013 and proved and documented the systematic and company-wide non-compliance in respect of deadlines and the reporting obligations that distribution network operators subject to audits must meet, and also demonstrated that there were significant shortcomings in the procedures used by the distribution network operators that jeopardised the integrity and traceability of the information, as well as the fulfilment of regulatory deadlines.

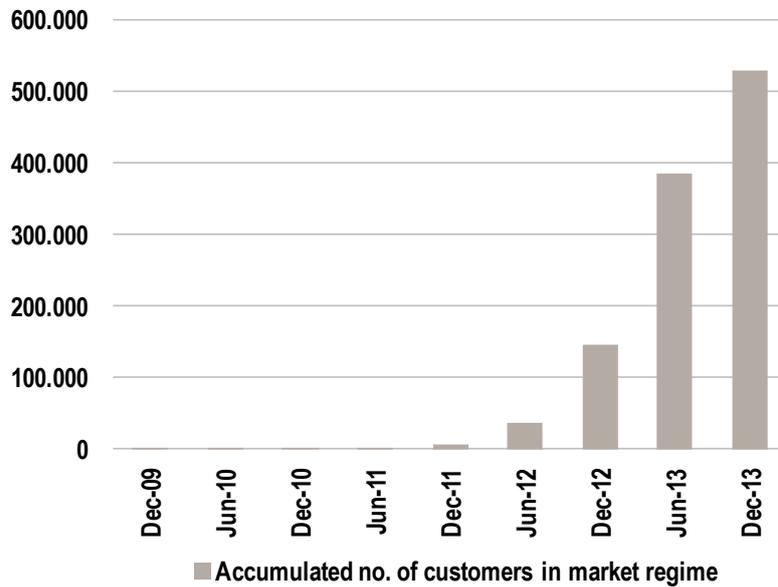
The final audit report confirms that there are still specific issues relating to the reporting of information that must be effectively and urgently addressed by the distribution network operators in order to accommodate the recommendations made by the auditor. These changes will be carried out in 2014 in accordance with the network operators' action plan, approved by ERSE. In this scope, the Competition Authority was notified of these facts so as to analyse possible infractions of the rules of competition in force.

Still, a somewhat more in-depth characterisation of the retail natural gas market can be made for 2013 with data that is more reliable than in previous years.

Therefore, based on the information processed by the supplier switching manager, the number of customers who switched from a tariff supply to the market supply or who began consumption directly in the liberalised market was, in 2013, approximately 4 times higher than in December 2012.

Figure 4-6 shows the evolution in the accumulated number of customers in the liberalised market from the end of 2009 to the end of 2013, whose new supplier selection process was performed via a platform managed by REN Gasodutos. From this figure it can be seen that, at the end of 2013, more than 530,000 customers had switched supplier through the aforementioned platform.

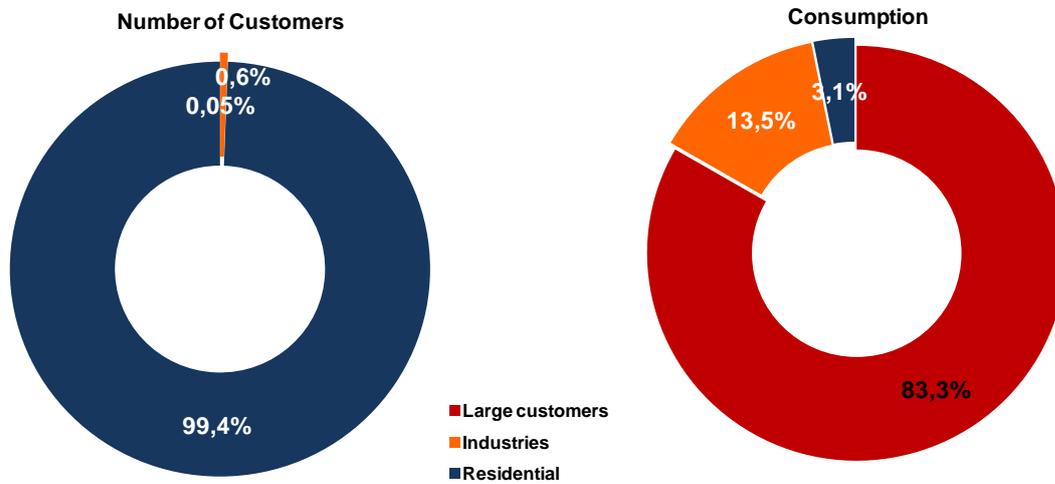
Figure 4-6 – Number of customers switching supplier in the scope of the platform managed by REN Gasodutos



Of the customers in the market, almost 3,000 are large customers (annual consumption greater than 1 million m³), or customers in the industrial segment (annual consumption greater than 10,000 m³), which only translates into approximately 0.65% of the total number of liberalised market customers, as can be seen from the analysis of Figure 4-7. In terms of consumption, these customers represent over 96.8% of the total consumption in the liberalised market.

In terms of the number of customers, the residential segment is the largest one in the liberalised natural gas market, representing almost all customers, but only representing approximately 3% of the total consumption in this market.

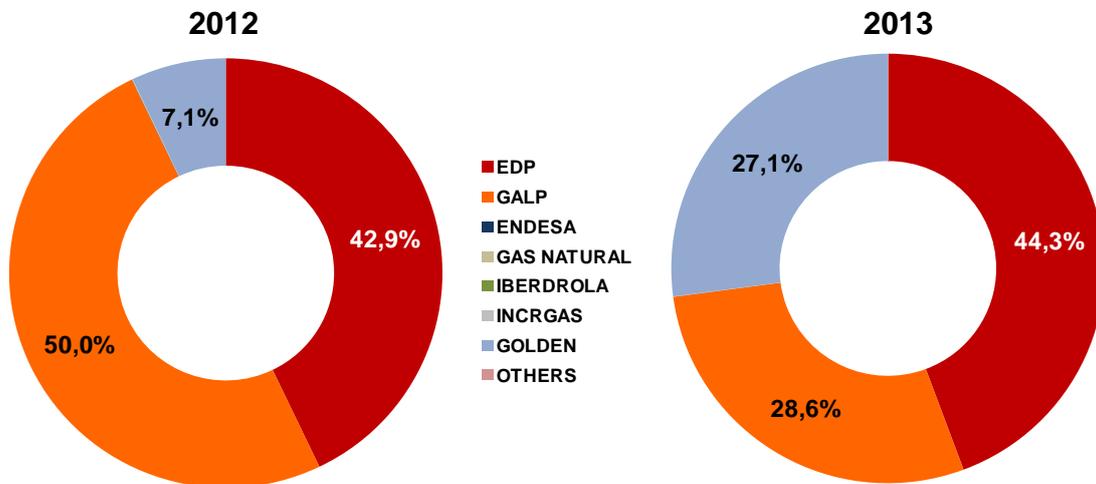
Figure 4-7- Breakdown of the number of customers and consumption in the liberalised market by customer segment at the end of 2013



EVOLUTION OF SALES

Regarding the activity of attracting customers by suppliers on the market, a substantial part refers to the migration between portfolios of the two main operators. Indeed, as shown in Figure 4-8, it can be seen that in 2012 around 96% of the total number of customers in the liberalised market were supplied mainly by GALP but also EDP, which shows that the retail gas market is still highly concentrated. In 2013, a greater distribution between these two operators was seen and Goldenergy, which has been focusing on the residential segment, grew substantially, increasing its customer portfolio 14 times in comparison to the previous year. Thus there was a reduction in corporate concentration in 2013 in respect of the number of customers in their portfolio, despite the fact that only three suppliers continue to attract residential customers.

Figure 4-8 – Breakdown of customers attracted by suppliers in the market in December 2012 and December 2013



Note: the number of customers belonging to the suppliers Endesa, GN Fenosa, Iberdrola and Incrygas represents 0.04% of the total.

Based on the information of consumption supplied, Figure 4-9 shows the breakdown of consumption by supplier, explaining the market structure in 2012 and 2013. This structure shows a corporate concentration which can be seen to be inferior in consumption to what is identified in terms of customer numbers, in spite of the increase in Galp's share. This information about the market structure relates to the overall group of customers supplied by market suppliers.

Figure 4-9 – Breakdown of consumption supplied by suppliers in the market in December 2012 and December 2013

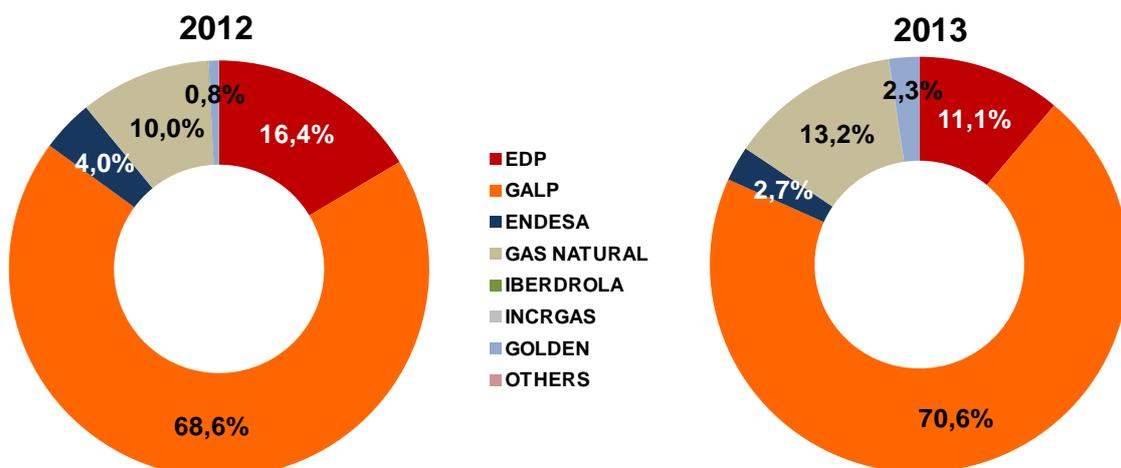
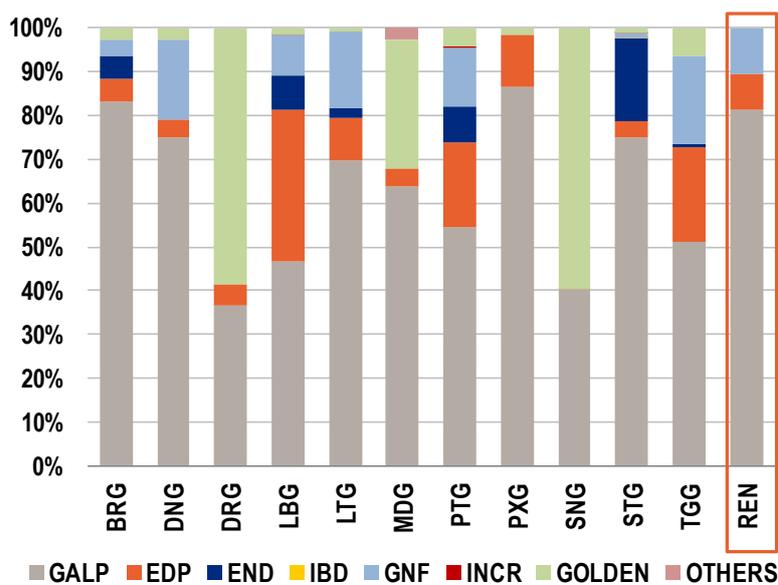


Figure 4-10 shows the breakdown of market share by distribution network, in terms of consumption supplied. Therefore, with the exception of Lisboaágas (LBG), Sonorgás (SNG) and Duriensegás (DRG),

the Galp group holds a market share greater than 50% in all the distribution networks. The same is true in relation to customers directly connected to the transmission network (REN) in which the GALP group holds a market share of almost three-quarters of consumption supplied.

Figure 4-10 – Breakdown of consumption supplied by suppliers in the liberalised market 2013 and by distribution and transmission network



Note: BRG – Beiragás; DNG – Dianagás; DRG – Duriensegás; LBG – Lisboagás; LTG – Lusitaniagás; MDG – Medigás; PTG – Portgás; PXG – Paxgás; SNG – Sonorgás; STG – Setgás; TGG – Tagusgás. END – Endesa; IBD – Iberdrola; GNF – Gas Natural Fenosa; INCR – Incrygas; Golden – Goldenergy.

In 2013, the natural gas group Fenosa occupied the second position in terms of share of natural gas supply, with its position based on distribution networks operated by Dianagás, Lusitaniagás and Tagusgás.

The EDP group, was the third operator in the market in 2013 (it took second place the year before), its position being more significant in the distribution networks operated by Lisboagás, Portgás and Tagusgás.

Goldenergy, which already occupies majority positions in the distribution networks of Duriensegás and Sonorgás, should also be taken into account.

Endesa’s largest market share is in the distribution network managed by Setgás.

4.2.3 RECOMMENDATIONS ON SUPPLY PRICES, INVESTIGATIONS AND MEASURES TO PROMOTE EFFECTIVE COMPETITION

RECOMMENDATIONS FOR SUPPLY PRICES

In the context of regulated tariffs for the sale of natural gas to end users in LP with annual consumption of less than or equal to 10,000 m³, in 2013 ERSE did not publish any recommendations on the conformity of the sales prices under the terms provided for in Article 3 of Directive 2009/73/EC of the European Parliament and Council of the 13th of July.

MEASURES TO PROMOTE EFFECTIVE COMPETITION

On the 15th of March 2013, World Consumer Rights Day, ERSE published a recommendation for suppliers (Recommendation no. 2/2013) relating to aspects pertaining to the contracting of electricity and natural gas and relevant to consumers: the existence and scope of loyalty periods, the availability of payment forms and the indexing of prices on the liberalised energy market.

ERSE recommended to suppliers that the existence of loyalty periods and the indexing of prices practised in the contract needed to be explained beforehand (before the signing of the contract) and duly justified by suppliers (why they exist and the benefits to the consumer). Pertaining to payment forms available to customers, these must be diversified and may not exclude consumers from offers on the market.

TARIFF DEFICIT

Tariff deficits correspond to the difference between the revenue that the tariffs should recover within a period and the revenue accepted by the regulator related to this period, due to tariff limitations.

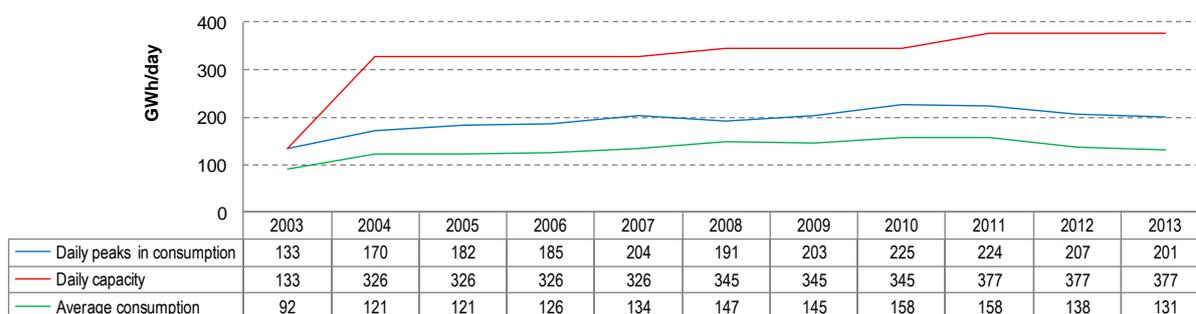
In the natural gas sector, there is no tariff deficit to be reported.

4.3 SECURITY OF SUPPLY

4.3.1 MONITORING BALANCE OF SUPPLY AND DEMAND

Figure 4-11 shows the evolution of the capacity offered in SNGN⁵², average daily consumption and annual peak consumption of natural gas, between 2003 and 2013.

Figure 4-11 – Evolution in the capacity offered in SNGN, daily average consumption and consumption peaks between 2003 and 2013



Source: REN Gasodutos

The analysis of the previous figure shows a large gap between the capacity offered in SNGN and the annual consumption peaks, especially from the time when the Sines LNG terminal began operating in 2004. In 2013, the average daily consumption and the peak consumption represented, respectively, 34.8% and 53.3%, of the entry capacity offered in SNGN, which reflects the margin that exists between the capacity available for commercial purposes and the capacity used.

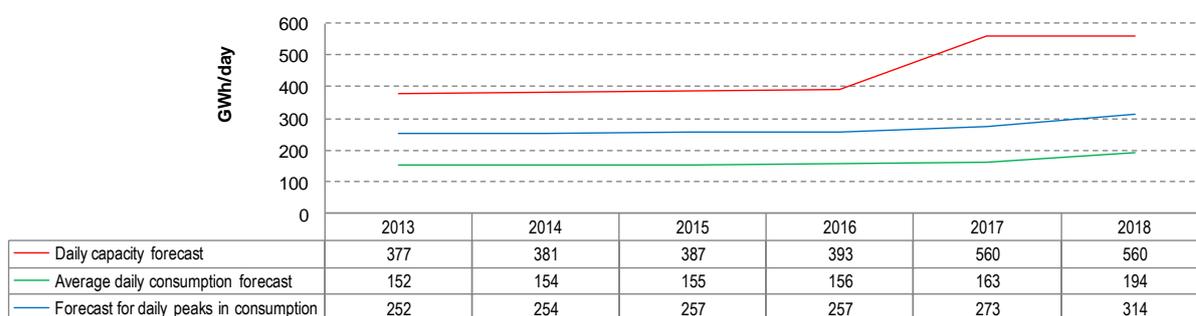
ERSE monitors the allocation of capacity in RNTGN, in particular the level of capacity offered for commercial purposes in comparison to the used capacity.

4.3.2 EXPECTED FUTURE DEMAND, AVAILABLE SUPPLIES AND ADDITIONAL CAPACITY

Figure 4-12 presents the forecast for the evolution of the capacity offered in SNGN, average daily consumption and annual peak in consumption of natural gas, between 2013 and 2017.

⁵² The capacity offered in SNGN corresponds to the sum of the entry capacities of the Campo Maior and Valença do Minho interconnections and the connection between RNTGN and the Sines LNG terminal.

Figure 4-12 – Evolution in the capacity offered in SNGN, daily average consumption and consumption peaks between 2013 and 2017



Source: REN Gasodutos

An analysis of the figure above clearly shows the increase in capacity offered in SNGN, due to the entry into operation of the capacity reinforcement at Sines LNG terminal (June 2012), allowing for a comfortable gap to be maintained between the capacity offered for commercial purposes and the estimated capacity usage for the coming years. According to REN's forecasts, average daily consumption and peak consumption will represent, respectively, 34.6% and 56.1%, of the entry capacity offered in SNGN in 2017.

4.3.3 MEASURES TO COVER PEAK DEMAND OR SHORTFALLS OF SUPPLIERS

The Portuguese market is essentially supplied by natural gas from Algeria and LNG from Nigeria. Indeed, the construction of the Sines LNG terminal, which began operating in 2004, was mainly related to the diversification of supply sources and the promotion of security of supply.

Another initiative to promote the security of supply and diversification of the supply sources is the integration of the Portuguese market into an Iberian market. Indeed, in 2013, the presence of market agents in SNGN, with a significant activity in Spain, led to an increase in the use of the interconnections, with the Portuguese market benefiting from a wider diversification of supply sources such as the Spanish market.

In addition to the measures adopted to safeguard the security of supply and the covering of peak consumption, on the supply side, there are also measures which have been planned and implemented for the demand side, namely the interruptibility of large consumers. Indeed, the power plants of Tapada do Outeiro and Lares have bi-fuel groups, and were granted the interruptibility statute by DGE, for the purpose of maintaining natural gas safety stocks. In this context, it is possible to act on the demand side in a situation of covering peak consumption or when there is a disruption in supply to SNGN.

The legislative framework in force also establishes public service obligations regarding the constitution and maintaining of natural gas safety stocks which are intended to give SNGN the means to respond to

situations when there are disruptions in the supply and/or coverage of extreme peak consumption. In this context, the reinforcing of the Carriço underground storage infrastructure and the reinforcing of the storage component of the Sines LNG terminal make it possible to ensure compliance with the public service obligations established by Portuguese law and community regulations, namely Decree-Law no. 140/2006 of the 26th of July, in the wording given to it by Decree-Law no, 231/2012 of the 26th of October, and EC Regulation no. 994/2010 of the European Parliament and Council of the 20th of October, respectively.

5 CONSUMER PROTECTION AND DISPUTE SETTLEMENT

5.1 CONSUMER PROTECTION

ERSE's mission to protect the rights and interests of energy consumers translates into the pursuit of certain functions and consequent conducting of various tasks, based on the regulatory framework itself. To this end, it is worth highlighting legislative measures in 2013 that directly affected ERSE's activity. In turn, ERSE undertook regulatory activity towards the implementation of the legislative options published and triggered mechanisms for verifying compliance with legal and regulatory provisions, as well as providing information and clarification to consumers, and actively participating in the resolution of disputes submitted for its intervention.

Thus, in 2013, the following legislative initiatives are worth highlighting:

- Publication of Law no. 9/2013, of the 28th of January which approved the sanctioning regime for the Energy Sector, concluding the transposition to the third energy package, especially the provisions of the Directives related to the internal electricity and natural gas market, respectively Directive 2009/72/EC and Directive 2009/73/EC.
- Amendment to the Statutes of ERSE through Decree-Law no. 84/2013, of the 25th of June, providing for an increase in some of ERSE's powers and this entity's explicit competence in the alternative resolution of disputes through mediation and conciliation of disputes and the promotion of arbitration.
- Law no. 67/2013, of the 28th of August, approved the Legal Framework governing Regulating Entities, standardising and consolidating the legal requirements to be met by independent administrative entities with regulatory functions. The changes introduced to ERSE's Statutes through Decree-Law no. 84/2013 already reflected the guidelines set by the aforementioned Legal Framework, Article 47 of which, entitled "Consumer Protection", lists the following aspects:
 - It is a duty of the regulating entities.
 - There must be representation of the consumer associations in the boards of the regulating entities.
 - They must provide information, guidance and support to consumers.
 - They must promote the treatment of complaints through the alternative resolution of disputes (mediation, conciliation and arbitration) upon request from the interested parties.
 - They may issue recommendations or even order the adoption of measures needed for the proper redress of consumer rights.

- Although more limited in scope, the change to the law of essential public services (Law no. 23/96, of the 26th of July, through Law no. 10/2013 of the 28th of January, is also worthy of note. This served, in particular, to extend the minimum advance notice of interruption of supply from 10 to 20 days.

The measures of a regulatory nature which had the greatest impact on consumer protection in 2013 were the following:

- Revision of the Commercial Relations Code for the natural gas sector, including the conditions in which the supply of this essential service must be ensured, including to economically vulnerable customers.
- Revision of the Service Quality Code relating to natural gas, extending a set of service quality obligations to suppliers in the liberalised market.
- Approval of the Service Quality Code for the electricity sector which was previously the responsibility of the Directorate General for Energy and Geology.
- Approval of Directive no. 16/2013 of the 20th of September, aimed at the operationalization of the exemption of the payment of the audio-visual contribution in the scope of the supplier switching process.
- Approval of Directive no. 17/2013 of the 23rd of September, applicable to the adjustments to electricity and natural gas invoices based on consumption estimates, setting criteria for payment by instalments when the value of the adjustment exceeds 25% of the average monthly consumption during the previous 6 months.

In order to verify compliance with the regulatory conditions it had approved, ERSE arranged for audits to be conducted on the systems for the recording and calculation of quality of service indicators in some companies and in respect of the conditions for the provision of information on the development of the natural gas retail market.

ERSE also verified and monitored the changes introduced by some liberalised market suppliers in respect of the general terms of the supply contracts proposed, and those presented by new suppliers.

On the 15th of March 2013, World Consumer Rights Day, ERSE issued and published its Recommendation no. 2/2013 aimed at the adoption of more transparent commercial practices, allowing consumers to make more informed and conscious choices, namely in terms of contract loyalty, provision of different forms of payment and the indexing of prices.

With regard to the information given to consumers, in addition to answering individual requests, handled in the scope of dispute management, ERSE prepares and updates the information content published on the Energy Consumer Portal, which can be found on ERSE's institutional website. Also with the objective

of providing energy consumers with clearer information, both directly and indirectly, ERSE organises or participates in, at the invitation of other entities, information and training sessions on the issues of greatest concern to electricity and natural gas consumers. In 2013, ERSE was present at six events, with particular emphasis being given to the topics of the extinction of regulated tariffs and supplier switching.

As far as the resolution of conflicts of a commercial and contractual nature is concerned, ERSE employs mediation and conciliation procedures, through which it can recommend the resolution of disputes or suggest to the parties that they find a mutually agreeable solution, but it may not impose these measures on the parties involved. In parallel, and as a result of a case analysis, ERSE recommends the use of arbitration, especially when carried out in the scope of existing arbitration centres for consumption conflicts. To follow, more detailed information is provided on the handling of complaints by ERSE in 2013.

5.2 DISPUTE SETTLEMENT

ERSE directly intervenes in the resolution of disputes by encouraging the use of voluntary arbitration and making use of other mechanisms for settling disputes on a voluntary basis, through which it can recommend the resolution of specific cases.

ERSE promotes frequent inspections of records of complaints and of the installations of the electricity suppliers to assess their compliance with the law and sector codes, particularly in relation to specific obligations relating to the Complaints Book.

In 2013, ERSE's information and energy consumer support service received 12,735 complaints, of which 10,887 were related to the electricity sector and 1,833 to the natural gas sector.

Of the total complaints received, 7,768 (approximately 61%) were complaints written in the Complaints Books of the companies against whom the complaints were lodged; 6,841 of these related to the electricity sector and 927 to the natural gas sector.

Billing, interruptions of supply, commercial quality of service and supply contracts were once again the topics which required most attention from ERSE in 2013, in the electricity sector and in the natural gas sector.

Additionally, ERSE received a total of 2,539 written requests for information in 2013. In the electricity sector, the majority of requests for information related to the following topics: supplier switching (705); tariffs and prices (341); supply contract (312) and billing (181). In the natural gas sector, the commonest requests for information related to: tariffs and prices (67); supplier switching (61) and network connections (58).

Every working day, from 3 p.m. to 6 p.m., ERSE's energy consumer information and support service provides information via a dedicated low-cost telephone line⁵³.

⁵³ The consumer pays only the cost of a local call with the remainder being covered by ERSE.

6 ACRONYMS

- ACE – Energy Consumers Support Office
- ACER – Agency for the Cooperation of Energy Regulators
- Bcm – billion cubic meters
- CAM – Capacity Allocation Mechanism
- CAPEX – Investment costs
- CCGT – Combined Cycle Gas Turbine
- CEER – Council of European Energy Regulators
- CIEG – General Economic Interest Costs
- CMP – Congestion Management Procedures
- CMVM – Comissão de Mercados e Valores Mobiliários
- CNMC – *Comisión Nacional de Mercados y Competencia*
- CNMV – *Comisión Nacional de Mercados de Valores*
- DGEG – Directorate-General for Energy and Geology
- DSO – Distribution System Operator
- DUoN – Distribution Use of Network
- DUoN (HV) – Distribution Use of Network in HV
- DUoN (LV) – Distribution Use of Network in LV
- DUoN (MV) – Distribution Use of Network in MV
- ERI – Electricity Regional Initiative
- ERSE – Energy Services Regulatory Authority
- FTR – Financial Transmission Rights
- GRI – Gas Regional Initiative
- GUoS – Global Use of the System
- HP – High pressure (pressure whose value is greater than 20 bar in relation to atmospheric pressure)
- HV – High Voltage (voltage between phases whose effective value is greater than 45 kV and less than or equal to 110 kV)

- LP – Low pressure (pressure whose value is less than 4 bar in relation to atmospheric pressure)
- LRS – Last Resort Supplier
- LRWS – Last Resort Wholesale Supplier
- LV – Low Voltage (voltage between phases whose effective value is less than or equal to 1 kV)
- LNG – Liquefied Natural Gas
- MIBEL – Iberian Electricity Market
- MIBGAS – Iberian Natural Gas Market
- MP – Medium pressure (pressure of 4 bar or more and equal to or less than 20 bar in relation to atmospheric pressure)
- MPAI – Procedures Manual for Access to SNGN Infrastructures
- MV – Medium Voltage (voltage between phases whose effective value is greater than 1 kV and less than or equal to 45 kV)
- OMIE – Iberian Energy Market Operator – Spanish Section, SA.
- OMIP – Iberian Market Operator - Portuguese Section
- OPEX – Operating costs
- OTC – Over The Counter
- PCI – Project of Common Interest.
- PDIR – RNTIAT Development and Investment Plan
- RARII – Access to Networks, Infrastructures and Interconnections Code.
- RNT – National Electricity Transmission Network.
- RNTGN – National Natural Gas Transmission Network.
- RNTIAT – National Transmission, Storage Infrastructure and LNG Terminal Network.
- RQS – Quality of Service Code.
- RRC – Commercial Relations Code.
- RT – Tariff Code.
- SpLV – Special Low Voltage (LV supply or delivery where contracted power is (i) Mainland Portugal - greater than 41.4 kW, (ii) Autonomous Region of the Azores – equal to or greater than 20.7 kW and is achieved by way of maximum power at 15 minute intervals, (iii) Autonomous Region of Madeira greater 62.1 kW).

- StLV – Standard Low Voltage (LV supply or delivery where contracted power is (i) Mainland Portugal - 41.4 kW or lower, (ii) Autonomous Region of the Azores – 215 kW or lower and is not achieved by way of maximum power at 15 minute intervals, (iii) Autonomous Region of Madeira 62.1 kVA or lower).
- SRG – Generation in Special Regime
- SEN – National Electricity System.
- SNGN – National Natural Gas System.
- TSO – Transmission System Operator.
- TUoN – Transmission Use of Network
- VIP – Virtual Interconnection Point.
- VHV – Very High Voltage (voltage between phases whose effective value is greater than 110 kV).
- WACC – Weighted Average Cost of Capital.