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DOS SERVIÇOS ENERGÉTICOS

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1 FOREWORD

Since 2011, and more notably in 2012, the electricity and natural gas sectors in Portugal have been marked by the rapid consolidation of the liberalization of the retail markets due to legislative initiatives towards the extinction of regulated end user tariffs.

In particular, 2012 is the last year, for all customers, of regulated end user tariffs charged to electricity and natural gas customers, with the exception of the tariffs for economically vulnerable customers.

In the context of the construction of the internal energy market, and over and above the abovementioned liberalization process, the conclusion of the change to Portuguese law following the Third Energy Package, including the amendment of the Statutes of the sector regulator, should be noted. With regard to the natural gas sector, the process of revising the regulations initiated in 2012 should also be noted. In 2013, its effects will allow a significant harmonisation with the ongoing European regulations, namely the regulation on capacity allocation mechanism and the start of the joint capacity allocation in interconnections between Portugal and Spain, in an initiative of early adoption of the abovementioned European regulations within the context of the gas regional initiatives.

International cooperation and the regional integration of electricity and natural gas markets, namely the Iberian Peninsula, are priorities in the management of the sectors and in the actions undertaken during 2012, aimed at the existence of better conditions for both agents and consumers alike. The deepening of the Iberian Electricity Market (MIBEL), led by the respective Board of Regulators, and the gradual construction of the Iberian Natural Gas Market (MIBGAS), through the bilateral cooperation of the regulating entities of the two Iberian countries and the South Gas Regional Initiative (SGRI) are highlighted. With the extinction of the regulated tariffs in Portugal, the Iberian integration of markets occurs on a wholesale level but also, increasingly, at a retail level through the frequent performance of the market agents in both countries simultaneously.

In the segment of domestic customers in particular, the extinction of end user tariffs , which started in 2012, contributed to the effective liberalization of this market segment and, as such, has produced a structural change in the electricity and gas markets, which experienced an increasing horizontal integration of the two markets in terms of supply.

2012 was marked by the accelerated pace of the liberalization of the markets, with special emphasis on the domestic segment, and the increasing integration of markets on an Iberian scale, in both electricity and natural gas. The Energy Services Regulatory Authority (ERSE), in accordance with their duties, actively promoted this transformation of the market through its regulatory tools and oversaw this evolution, reinforcing their intervention in terms of the supervision and the monitoring of the markets and prices, as well as consumer protection and information.

2 MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

2012 marked the energy sector in Portugal in a particular manner due to the reforms outlined in the context of the Financial Assistance Programme between Portugal, the European Union, the International Monetary Fund and the European Central Bank. Particularly of note among these reforms are the privatization of sector companies where the Government was still a shareholder and the calendar for the liberalization of the natural gas and electricity retail market, with the extinction of regulated end user tariffs for domestic consumers.

The extinction of regulated end user tariffs for domestic consumers, which started with a first threshold for extinction on the 1st of July and was completed on the 31st of December 2012, led to an important transformation in the natural gas and electricity retail markets, in particular in the domestic segment, which has resulted, among other aspects, in the diversity of offers and in the integration of offers between the electricity and natural gas sectors. These changes have heightened the level of competition in the domestic segment and have raised the profile of the liberalized market, with a direct consequence on the growth in consumption in the liberalized market (which, for the first time, exceeded 50% and reached 56% at the end of the year) and an increase of 80% in the number of customers supplied by suppliers in the market regime.

The completion of the process for the extinction of regulated tariffs with an ambitious calendar determined the reinforcement of communications made to end users about the liberalization process and selection of the supplier, specifically through: i) cooperation agreements between ERSE and domestic and business consumer associations, with the organisation of several local information sessions throughout mainland Portugal, with ERSE providing human and logistical support to the entities involved, ii) provision of market price comparison simulators with ERSE developing a new simulator to compare the price of natural gas offers and with the permanent publication and updating of prices and commercial terms of offers on the market at any time; and iii) sending information directed to the last resort suppliers' customers. ERSE also undertook intensive activity to monitor the content of information from suppliers and the contract conditions of their offers. A dialogue between the regulator and suppliers led to the change and improvement in information provided by the suppliers and their regulatory compliance.

During a transitory period defined up to the end of 2015, transitory regulated tariffs will be fixed every quarter to encourage a change in supplier. Economically vulnerable customers continue to have access to regulated social end user tariffs, which are subject to the limitation of the tariff variation established annually by the Government. These vulnerable customers include consumers who are encompassed in a restricted group of government social support instruments. In 2012, approximately 666,000 electricity and 17,000 natural gas consumers were eligible for this social tariff.

In terms of legislation, the modification to the legal regime of natural gas and electricity sectors related to the Third Energy Package,[1] which included the changes to the regulator statutes, was completed[2]. In early 2013, the law ratifying the regulator's fines and penalties schemes was approved[3].

Legislative initiatives were also taken due to the renegotiation of contracts and incentive schemes between the Government and electricity sector companies, provided for in the Financial Assistance Programme, and led to the reduction in some costs due to energy, sustainability or general economic interest policy measures, designated General Economic Interest Costs (CIEG).

In the electricity and natural gas wholesale markets, regional integration was reinforced and both sectors continue to be at very different maturity stages.

In the electricity sector, the regulatory harmonisation in the MIBEL area continued with the individualisation of special regime generation due to the portfolio of last resort supplier consumption pertaining to the participation in the daily market. In 2012, the MIBEL Board of Regulators published a study on regulatory harmonisation proposals for the "integration of special regime generation in the MIBEL and in the operation of the respective electricity systems".

Also worth mentioning is the continued growth of generation in the special regime with structural consequences in the electricity sector. Although the energy injected by these producers has been adversely affected by the extremely unfavourable hydrological conditions in 2012, at the end of the year this type of generation became predominant in Portugal due to the particular weather conditions and the reduction in demand. This fact underlines the interest and need to approach the work carried out by the MIBEL Board of Regulators for the integration of the special regime generation in the Iberian market.

In the natural gas sector, the regional integration of wholesale markets in 2012 was streamlined through the regulatory pathway in unilateral initiatives and through cooperation between transmission network regulators and operators within the SGRI. In June 2012, a harmonised auction of interconnection capacity of natural gas between Portugal and Spain was held for the first time. The rules adopted closely followed the European Network Code on Capacity Allocation Mechanisms, constituting a pilot project for the adoption of this network code, monitored by ACER.

Also following on from the development and approval of the European network codes, in 2012 ERSE initiated a process to revise the natural gas regulations (completed in early 2013) in which the regulations were substantially changed with a view to regulatory harmonization within Europe, guided by the network codes being developed. These alterations took shape in 2013, significantly altering the participation of

[1] Through Decree-Laws no. 215-A/2012 and no. 215-B/2012, both of the 8th of October, for the electricity sector, and Decree-Laws no. 230/2012 and 231/2012, both of the 26th of October, for the natural gas sector.

[2] Through Decree-Law no. 212/2012, of the 25th of September.

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

market agents as 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 a maximum period of one year and adopted the European calendar of the capacity allocation year, meaning from October of each year to September of the following year. Within the regulatory changes mentioned which began in 2012, it is important to consider some which, due to their effect, will have an impact on the design of the natural gas market. On the one hand, the introduction of a market reference in the acquisition of natural gas by last resort suppliers and the implementation of market mechanisms for the trading of natural gas by the National Natural Gas System (SNGN) should be noted, as should the introduction of regulatory improvements which make operations in the retail market closer to the consumer, on the other. The regulatory revision was also an opportunity to deepen the regulation with incentives in the regulated activities of the natural gas sector with the application of efficiency targets in all regulated activities.

Through bilateral cooperation, ERSE and the *Comisión Nacional de Energía* in Spain held a public consultation and published the respective conclusions about the harmonization of tariffs for access to natural gas interconnections between Portugal and Spain. The study acknowledged the existence of additional costs for market agents who use the interconnection to participate in the market of the neighbouring country, which can represent up to 3 €/MWh. The public consultation held provided a set of proposals for the path to regulatory harmonization in the Iberian gas market. Some priorities were consensual in the stakeholders' analysis, including the need to transpose the directives of the domestic natural gas market in Portugal and Spain, the modification of the tariff systems for access to the transmission network in accordance with European regulations and the harmonization of aspects related to interconnection capacity allocation, congestion management and rules of balance, guided by the European network codes being prepared. The reduction in the interconnection access rate was also identified by most stakeholders as a necessary step for the integration of the Iberian market. The medium-term goal identified by the market agents as being essential to the existence of an Iberian natural gas market is the definition of a virtual trading hub within the Iberian Peninsula, for which there are identified projects which ERSE has been monitoring.

Still pertaining to the natural gas market, in 2012, the persistence of difficulties and doubts about the quality of the information provided by the distribution network operators regarding the characterization of the retail market, led to a decision by ERSE, in 2013, that this information should be subject to an independent audit. This action is intended to provide consumers and the market with a minimum level of information about the development of the retail market.

In 2012, ERSE also approved a measure to promote the integration of markets which has resulted in the elimination of the transmission exit tariff from Portugal to Spain. This measure, together with the expansion of capacity available in the LNG and regasification storage at the Sines LNG terminal, reinforced the possibility of trade between Portugal and Spain, facilitating the entry of agents into the

Portuguese market. These actions contributed to the appearance of new users at the LNG terminal in Sines in early 2013.

In terms of the context surrounding the electricity and natural gas sectors, one relevant fact from 2012 has already been mentioned: the privatization of the sector companies in which the Government was a shareholder, with the effective loss of shareholder control. In 2012, due to the domestic energy market directives, ERSE continued the certification process of the electricity and natural gas transmission network operator.

The scenario of the global reduction in the consumption of both natural gas and electricity, correlated with a decrease in generation in combined cycle gas turbine (CCGT) power plants under the ordinary regime, is also relevant. In comparison to the previous year, the net demand[4] for electricity fell 2.9% in 2012 and natural gas consumption in 2012 fell by 13% due to a sharp reduction in consumption from power plants (-44%) and an increase in consumption in the conventional market (+6%), especially in high pressure. This trend towards global reduction in consumption has put pressure on the regulated tariffs for access to networks and infrastructures, due to the fixed costs of these activities, associated to investment.

In terms of consumer protection, a paradigm shift has been noted in the quality of service regulation, closely associated with the effective liberalization of the retail markets. The updating of quality of service regulation in the natural gas sector began in 2012, with a revision in the electricity sector being initiated in 2013 to be applied, for the first time, to the market suppliers in aspects of commercial quality. This change is associated with a strengthening of the regulatory obligations imposed on market suppliers in the areas of information and transparency of the business relationship in order to ensure that the rapid transition to a liberalized market is done while protecting less informed consumers.

In the electricity sector, following the detection of anomalies in meters from a wide range of multiple tariff measuring equipment from the LV distribution network operator in mainland Portugal, compensation was awarded to consumers with affected multiple tariff meters. This process was then completed with the start, also in 2012, of the detailed audits to be conducted both in mainland Portugal and in the Autonomous Regions of the Azores and Madeira regarding the same topic. These audits will be analysed and measures will be taken in 2013.

Still on measuring issues, in 2012 ERSE presented the results of a study on smart electricity and natural gas meters, including a cost-benefit analysis, which involved an extensive public consultation on the issue. The results from the study were published and sent to the Government, to support a decision on the adoption of these smart meters.

[4] The net demand corresponds to the input of electricity into the networks, including net imports from Spain and excluding consumption of hydro plants for pumped storage. Similarly, the net demand is equal to the electricity supplied to customers plus transmission and distribution losses.

3 THE ELECTRICITY MARKET

3.1 NETWORK REGULATION

3.1.1 UNBUNDLING

CERTIFICATION OF THE TRANSMISSION NETWORK OPERATOR

In 2012, the certification process for REN - Rede Eléctrica Nacional, S.A., as a National Transmission Network (RNT) operator for electricity with an ownership unbundling scheme 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, was characterised by relevant developments.

On one hand, the re-privatization of 40% of the share capital of REN - Redes Nacionais, SGPS, SA, which controls 100% of the capital of REN - Rede Eléctrica Nacional, S.A., was carried out. Through this, the Portuguese Government reduced its shareholding in the share capital of REN – Redes Energéticas Nacionais, SGPS, S.A. to 11%, thereby relinquishing control. The companies State Grid International Development Limited and Oman Oil Company S. A. O. C. become the main shareholders of the corporate group, with 25% and 15% of its share capital, respectively. This change in the shareholder structure was reflected, throughout the year, in changes to the members elected to the management bodies of REN – Redes Energéticas Nacionais, SGPS, S.A.

On the other hand, the changes introduced to Decree-Law no. 29/2006 of the 15th of February, by Decree-Law no. 215-A/2012 of the 8th of October, clarified some aspects related to the transposition of Directive 2009/72/EC of the European Parliament and Council of the 13th of July, reinforcing the inspection powers of the RNT operator activities by ERSE as the national regulatory authority and by the Portuguese State, as granting entity.

Lastly, Law no. 9/2013, of the 28th of January, granted ERSE powers in the scope of the penalties scheme in the energy sector and, in addition, were modified ERSE's Statutes, in order to comply with provisions established regarding the topic in Directive 2009/72/EC of the European Parliament and Council of the 13th of July.

IMAGE DIFFERENTIATION

The provisions of article 26, no. 3 of Directive 2009/72/EC of the European Parliament and Council of the 13th of July were transposed into Portuguese law through the publication of Decree-Law no. 78/2011 of

the 20th of June, introducing changes to the legislation which serves as a basis for the organization and operation of the National Electricity System (SEN) (Decree-Law no. 29/2006 of the 15th of February). This same legislation had already been changed and re-published by Decree-Law no. 215-A/2012 of the 8th of October and developed by Decree-Law no. 215-B/2012 also of the 8th of October, changing the previous complementary legislation on the electricity sector (Decree-Law no. 172/2006 of the 23rd of August).

For the purposes 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, between themselves and in relation to other entities that operate in the SEN, pursuant to the Regulation of Commercial Relations (RRC), the companies carrying out these activities presented the corresponding proposals to ERSE. The image differentiation proposals continued to be analysed throughout 2013 as a result of the various developments which occurred in terms of the liberalisation of the sector.

3.1.2 TECHNICAL FUNCTIONING

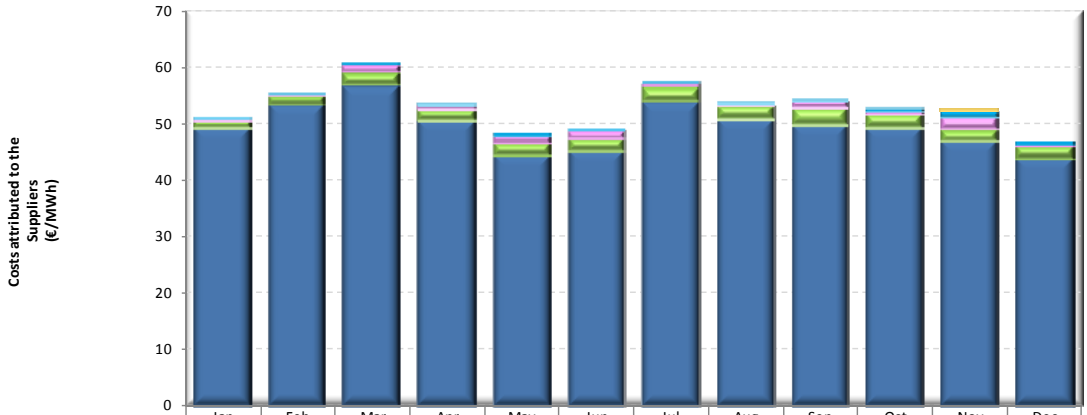
3.1.2.1 BALANCING

In 2012, 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 putting into operation due to its role as Global Technical Manager of the System.

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 2012. 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 2012

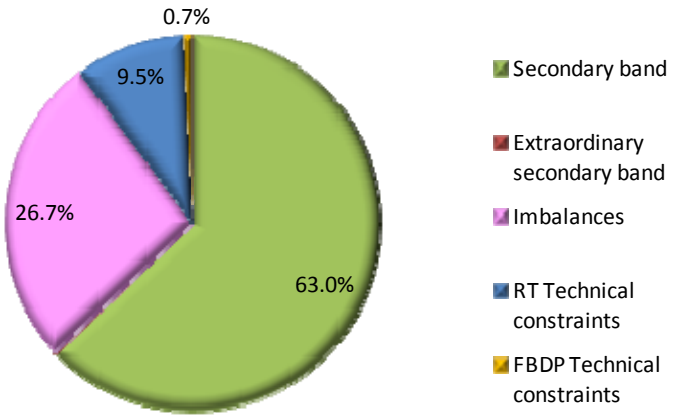


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total ancillary services markets	2.00	2.21	3.74	3.08	3.91	4.14	3.53	3.06	4.57	3.53	5.41	3.05
FBDP Technical constraints	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
RT Technical constraints	0.19	0.23	0.23	0.25	0.43	0.35	0.18	0.14	0.34	0.38	0.95	0.45
Imbalances	0.45	0.45	1.26	0.78	1.28	1.35	0.58	0.18	1.27	0.63	1.90	0.37
Extraordinary secondary band	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.01
Secondary band	1.36	1.53	2.25	2.05	2.20	2.45	2.78	2.75	2.96	2.50	2.34	2.22
Daily and Intraday Market	49.17	53.24	57.02	50.54	44.47	45.09	53.89	50.70	49.86	49.18	46.99	43.92

Throughout 2012, the ancillary services market represented an average weighted cost of approximately €3.49/MWh sold in comparison to the weighted marginal price in the daily and intraday market of approximately €49.51/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.

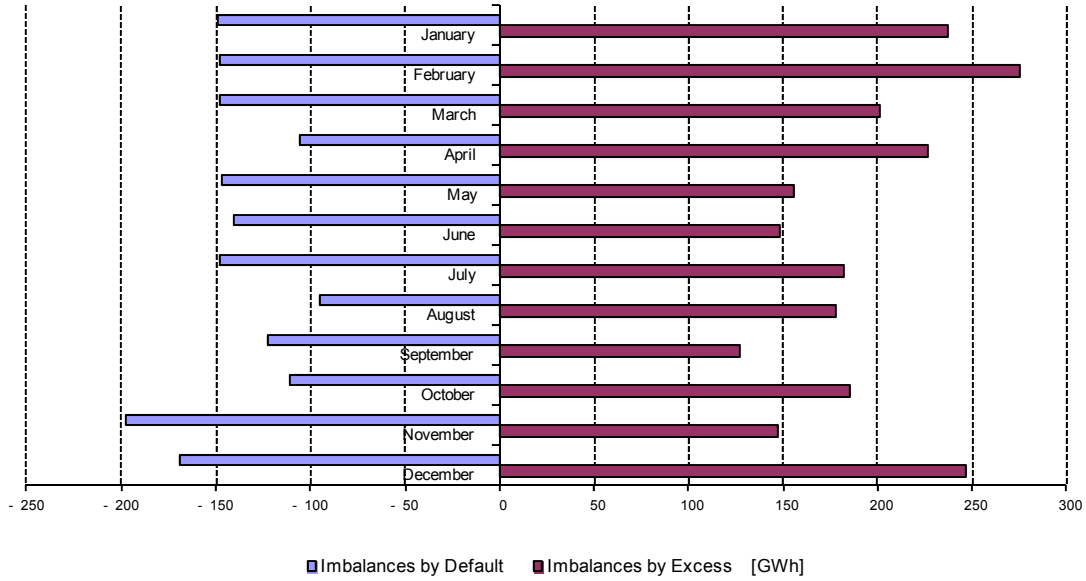
Figure 3-2 - Breakdown of the ancillary services market costs in 2012



2012

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 2012, with the representation of the imbalances by default and imbalances by excess.

Figure 3-3 - Evolution of Imbalances in 2012



3.1.2.2 QUALITY OF SERVICE

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

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 regulations.

In 2011, the value of energy not distributed was greater than the reference value fixed for the regulation period, representing a penalty of around 726,000 euros on the activity of MV distribution in 2013.

On the basis of the information available to date, the value of energy not distributed in the MV and HV distribution networks in 2012 will lead to an increase in revenue in the MV Distribution activity in 2014 of approximately 1.476 million euros.

CONTINUITY OF SUPPLY IN 2012

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 system where electricity is delivered to customers' premises or to another system. The transmission system indicators are calculated taking into account all interruptions at the points of delivery and the distribution system indicators take into account interruptions lasting more than 3 minutes.

Table 3-1 shows the figures for continuity of supply indicators, available to date, registered in Mainland Portugal, in 2012.

Table 3-1 - Continuity of supply indicators in Mainland Portugal, 2012

Voltage Level	Indicator	Interruptions	
		Programmed	Accidental
Transmission	EIT (min)	-	0.00
	SAIFI	-	0.00
	SAIDI (min)	-	0.00
MV Distribution	ICEIT (min)	0.006	48.585
	SAIFI (int/PdE)	0.001	1.479
	SAIDI (min/PdE)	0.197	69.943
LV Distribution	SAIFI (int/customer)	0.008	1.619
	SAIDI (min/customer)	1.678	78.422

Note: Provisional figures.

Source: REN, EDP Distribuição

In 2012, 14,339 instances of non-compliance with the individual standards of continuity of supply were recorded. The total value of compensation to customers was approximately 92,500 euros.

3.1.2.3 CONNECTIONS

The RQS for mainland Portugal establish general indicators and respective standards for the budgeting activity and the construction of connections to low voltage networks, tasks performed by the network operators. The indicators apply to simple situations, or in other words, when there is a network with available capacity in the proximity of the installation to be connected.

The indicators and standards set are the following:

- Quotes made within 20 working days - standard 95%;
- Connections carried out within 20 working days - standard 95%.

In addition to what is set out in the RQS, the RRC obliges the network operators to send to ERSE, every semester, information on the number of connections made, applicants' contributions broken down by type of item, total extension of the items built, average quote periods and average execution periods.

The RQS provides an individual indicator and the respective standards for the repairing of defects in the customer's individual supply. This is an obligation imposed on network operators. Therefore, after being contacted by the customer, the network operator must arrive at the customer's installation to carry out the repair within a maximum period of between 3 to 5 hours.

Regarding accidental interruptions, the RQS sets a general indicator and respective standard which guarantees that, in at least 85% of cases, the customer's supply is re-established within 4 hours.

3.1.2.4 SAFEGUARD MEASURES

During 2012, there were no incidents which required the implementation of the safeguard measures established in article 42 of Directive 2009/72/EC of the European Parliament and Council of the 13th of July.

3.1.2.5 GENERATION IN SPECIAL REGIME

Generation in special regime (SRG) is considered as the activity licensed under the scope of special legal regimes, in the scope of the adoption of policies aimed at encouraging the generation of electricity, namely through the use of renewable endogenous resources or combined heat and electricity generation technologies. The SRG sector has shown a very significant evolution in recent years.

In Portugal, SRG is considered as the generation of electrical energy:

- Based on water resources, mostly from situations restricted to 10 MW of installed capacity;
- Which use other sources of renewable energy;
- Based on waste (urban, industrial and agricultural);
- By micro and mini generation[5];
- Through a cogeneration process, in which renewable cogeneration is included.

In Portugal, the energy generated by SRG must be bought by the last resort supplier, with the application of feed-in tariffs. The differentiation of the retribution of the 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 logic, seeking to quantify them in terms of power (investment in new facilities), energy (cost of fuel) and environment (giving value to CO_2 emissions avoided). 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 Portugal[6].

The community standard (Directive 2009/29/EC of the European Parliament and Council of the 13th of July) is interpreted on a national level in order to establish the priority of the SRG in relation to generation in the standard regime, both for access to the network and in the administrative order, unless the safety of the supply is at risk. There are, however, limitations to the nominal power of each SRG facility which can

[5] Note: 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. Mini generation corresponds to the generation of electrical energy with an installed power of up to 250 kW.

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

be connected at each point of the network, depending on the availability of the network itself to accommodate these connections.

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

Pertaining to costs with imbalances, during 2012, in a study prepared by the Board of MIBEL Regulators, the payment of the imbalances by SRG was identified as one of the aspects to be harmonized between Portugal and Spain in the integration of SRG in MIBEL. This situation occurs from the fact that in Spain the SRG answers directly for the costs with imbalances, which is not the case in Portugal, as mentioned above, although the respective generation volumes are integrated in the same market reference.

3.1.3 NETWORK TARIFFS FOR CONNECTION AND ACCESS

PROCEDURES AND METHODOLOGY FOR CALCULATING GRID ACCESS TARIFFS

In 2012, the methodology for calculating electricity grid access tariffs was maintained.

ERSE is responsible for preparing and publishing the Tariff Regulation 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 Regulation is preceded by public consultation and by an opinion from the Tariff Board. The ERSE tariff fixing process, including the time frame, is also defined in the regulations.

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.

The following tariffs are approved for each regulated activity: Global Use of System, Use of the VHV and HV Transmission Network and Use of HV, MV and LV Distribution Networks.

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 as regards the energy's end use. The tariff options are available to all consumers.

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 the sum are based on marginal costs, cross-subsidisation is avoided and an efficient allocation of resources is guaranteed.

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 a supplier and in particular for customers who are less informed.

NETWORK ACCESS TARIFFS PRICES IN 2012

The variation in the average price of the Grid Access Tariffs, in mainland Portugal, in 2012 in comparison to 2011, is presented in the table below:

Table 3-2 -Variation in Network Access Tariffs for 2012

	Variation 2012/2011
Network Access Tariffs	**-0.4%**
Access to VHV Networks	19.5%
Access to HV Networks	19.5%
Access to MV Networks	16.0%
Access to SpLV Networks	16.0%
Access to StLV Networks	-7.7%

The figures below show the breakdown, by regulated activity, of the average price of the Grid Access tariffs in 2012 and the structure of the average price per regulated activity for each voltage level.

Figure 3-4 - Breakdown per regulated activity of the average price of Network Access Tariffs

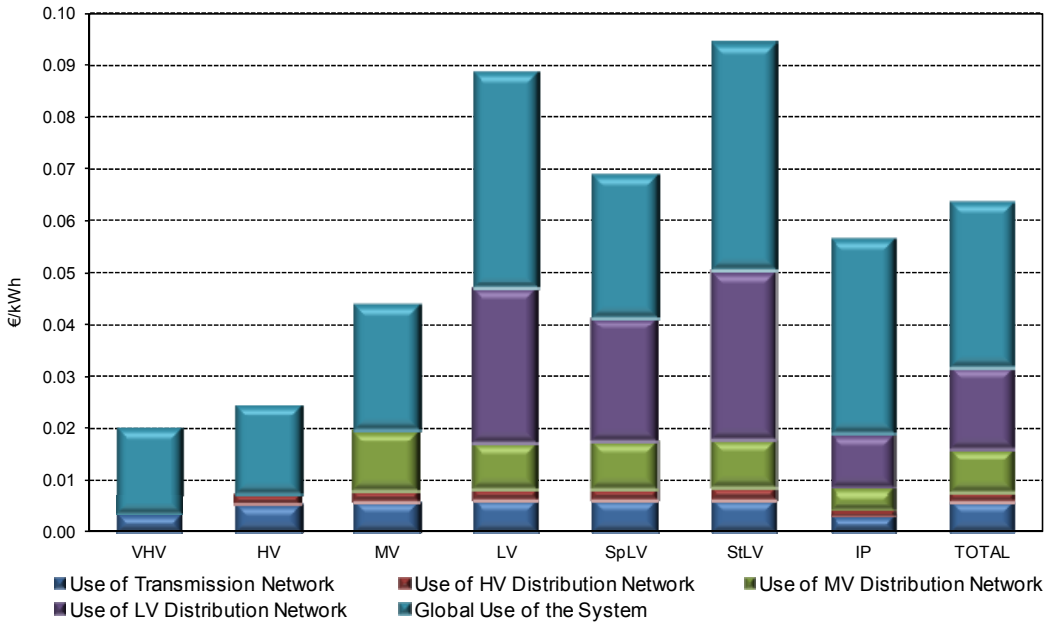
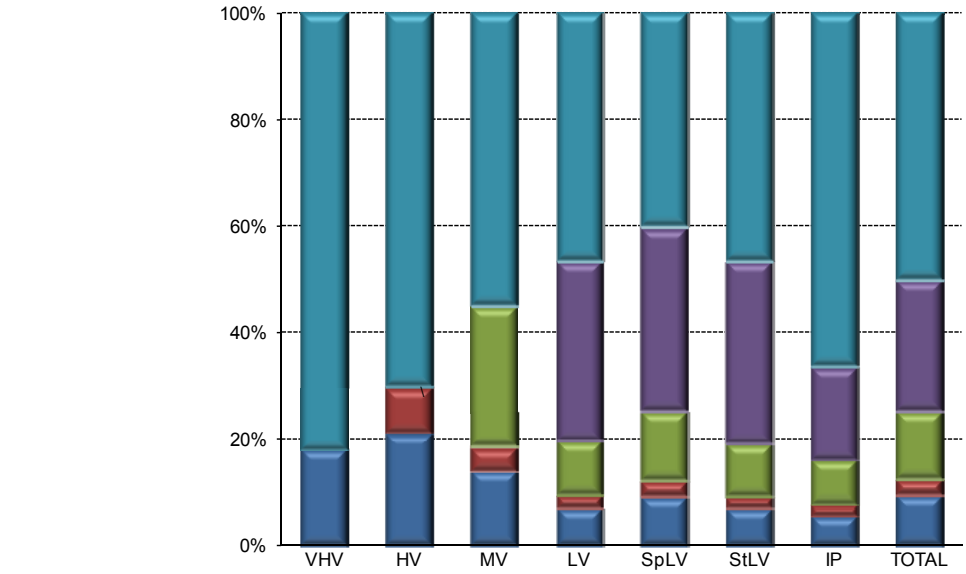


Figure 3-5 - Average price structure per regulated activity for each voltage level



	VHV	HV	MV	LV	SpLV	StLV	IP	TOTAL
Global Use of the System	82.1%	70.1%	55.1%	46.8%	40.2%	46.7%	66.5%	50.2%
Use of LV Distribution Network				33.7%	34.6%	34.4%	17.6%	24.6%
Use of MV Distribution Network			26.6%	10.3%	13.3%	10.0%	8.3%	12.9%
Use of HV Distribution Network		8.7%	4.6%	2.3%	3.0%	2.3%	2.1%	3.1%
Use of Transmission Network	17.9%	21.1%	13.7%	6.9%	8.9%	6.7%	5.6%	9.2%

FORMS OF REGULATION IN THE DEFINING OF ALLOWED REVENUE

A new regulation period began in 2012, where the regulation methodologies were re-evaluated and new parameters were defined for each of the regulated activities. In short, per operator, the regulatory models subjacent to this regulatory period consist of:

- Transmission network operator - The current model based on economic incentives was maintained: (i) application of a price cap type methodology to operational costs; (ii) incentive for efficient investment in the transmission system through the use of reference prices in valuing new equipment to be incorporated into the system, whose greater risk is offset by a differentiated rate of return; (iii) the 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 type methodology applied to unit operational costs (OPEX) and costs accepted on an annual basis in the case of cost with capital (CAPEX), taking into account the investment plans proposed by companies. In this regulation 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 differentiated. A penalising mechanism was also introduced for over investment which is based on a lower return on investments. Other incentives were also applied: (i) incentive to improve service quality; (ii) incentive to reduce losses;

- Last resort supplier - Price cap type 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.
- Electricity transmission and distribution concessionaire companies in the Autonomous Regions of the Azores and Madeira – increase in the application of regulation through economic incentives: (i) regulation of the electricity Distribution and Supply activities through a price cap methodology; (ii) definition of reference costs of fuel oil consumed in electricity generation[7];(iii) incentive to promote environmental performance.

The definition of the economic targets, with the objective of reducing costs, 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 factors applied to the unit operational costs 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 2012 to 2014 was set at 1.5%.

In the case of supply[8], 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.

CONNECTIONS TO NETWORKS

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 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

During 2012, there were no relevant facts which occurred in this respect. In 2011, DGEG sent to ERSE, for its opinion, the proposal for the Development and Investment Plan for the Electricity Transmission

[7] 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 of the European Parliament and Council of the 26th of June.

[8] Due to the dimension of the Supply activity, the application of efficiency targets arose from a specific study of the company's historical data but no benchmarking study was carried out.

Network (PDIRT) for the period 2012-2017, prepared by the RNT operator, with ERSE having requested its revision under the terms described in the report of the previous year.

DEVELOPMENT AND INVESTMENT PLAN FOR THE ELECTRICITY DISTRIBUTION NETWORKS

As mentioned in the report from the previous year, in 2011, DGEG sent to ERSE, for its opinion, the proposal for the Development and Investment Plan for the Electricity Distribution Network (PDIRD) for the period 2012-2016, prepared by the HV and MV distribution network operator.

Generally speaking, ERSE considered that the PDIRD 2012-2016 proposal was based on general principles and criteria considered appropriate to the planning of the distribution networks, highlighting the fact that this proposal stands out due to the documents presented beforehand, corresponding to a real evolution in the sense of what is expected from a distribution network development and investment plan.

In 2012, considering the analysis carried out and benefitting from the consultation of the Consulting Board and the Tariff Board, ERSE gave its favourable opinion on the PDIRD 2012-2016 proposal, while drawing attention to the comments and suggestions which must be considered when preparing future PDIRD proposals.

3.1.4 CROSS-BORDER ISSUES

In 2012, there were no changes made regarding the management model for interconnections between Portugal and Spain, namely regarding the model for the assignment of capacity, with this being assigned solely to the MIBEL daily and intraday market. Congestion is resolved through the application of a market splitting mechanism.

MIBEL began operating officially on the 1st of July 2007 and is 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 Regulations;
- Procedures Manual for the Mechanism for Joint Management of the Portugal-Spain Interconnection;
- Joint Rules for Contracting Capacity in the Portugal–Spain Interconnection.

Regarding the fixed term management of the Portugal–Spain interconnection capacity, no alteration was registered, and the Committee of Chairmen's position in favour of the preference for the use of financial products, of an option type, in line with the proposal from the Board of MIBEL Regulators, "Joint fixed

term management mechanism for the Spain-Portugal interconnection", from May 2010, should be borne in mind.

Lastly, the Board of MIBEL Regulators gave a positive valuation to the possibility of auctioning financial products for the future fixed term management of the interconnection on a harmonised platform on a European level. Regarding this, works are in progress between Spanish and Portuguese system operators so that a CASC.EU[9] platform is used in the future.

REVENUE FROM CONGESTION ON INTERCONNECTIONS

In 2012, revenue from congestion on the interconnections between Portugal and Spain, resulting from the zonal price difference after the application of market splitting, rose to around double that recorded in 2011, increasing to 7.8 million euros.

This substantial increase in revenue was mainly due to the increase in the price differential between the Portuguese area and the Spanish area worsening to €0.84/MWh, in comparison to €0.53/MWh the previous year. There was also a slight increase in the number of congestion hours on the interconnection, increasing by 117 hours in comparison to the previous year.

Table 3-3 - Monthly evolution of revenue from congestion in 2012

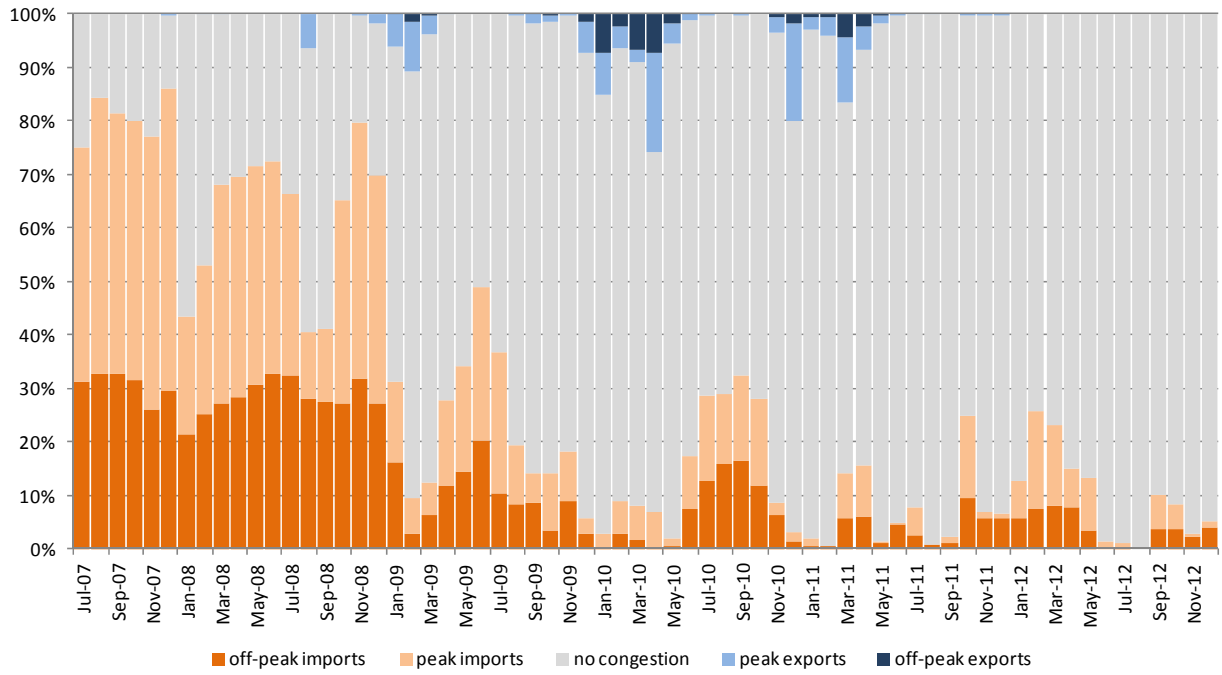
Month	Congestion		Average price PT	Average price SP	Price differential	Imports (PT < SP)	Exports (PT > SP)	Congestion Revenue
	no. hours	% hours	(€/MWh)	(€/MWh)	(€/MWh)	(MWh)	(MWh)	10^3 €
January	95	0	52	51	1	12,372	929,725	1,298
February	179	0	55	53	2	40,231	702,827	1,605
March	171	0	49	48	2	36,185	787,597	1,501
April	108	0	44	41	3	12,885	843,819	1,092
May	98	0	45	44	1	20,036	755,513	875
June	10	0	54	53	0	5,649	719,834	42
July	9	0	50	50	0	13,082	645,289	56
August	0	0	49	49	0	43,432	405,323	0
September	72	0	48	48	1	45,829	492,818	458
October	61	0	46	46	0	47,979	817,022	437
November	20	0	42	42	0	200,451	300,260	183
December	38	0	42	42	0	40,670	550,904	229
								7,774

Source: ERSE, OMEL

[9] Platform used in the holding of explicit auctions in the allocation of products for the fixed term management of the interconnections.

The figure below shows the use of available capacity, in both directions, for the Portugal-Spain interconnection.

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



Source: ERSE, OMIE

The slight increase in the number of congestion hours is explained, in full, by the congestion situations verified in the direction of the importer, with no congestion being registered in the exporter direction.

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 in a more direct manner 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.

At the end of 2011, regarding the fixed term management of the Portugal–Spain interconnection capacity, the Board of Regulators confirmed, through its Committee of Chairment, its preference for the use of financial products, of an option type, in line with the proposal from the Board of MIBEL Regulators, "Joint fixed term management mechanism for the Spain-Portugal interconnection", from May 2010.

During 2012 and simultaneously regarding the Board of MIBEL Regulators and the Southwest region of Europe, works were undertaken to integrate the Portugal-Spain interconnection in a harmonised and coordinated referential for the fixed term allocation of the commercial capacity. In this context, the Board of MIBEL Regulators explicitly assumed, before the ACER, the integration of the Portugal-Spain interconnection with the pilot project for the implementation of Financial Transmission Rights (FTR) on a European level for the commercial capacity allocation in the given interconnection.

To reach this objective, the two system operators of Portugal and Spain carried out a survey of the conditions needed for participation in the European CASC-EU platform, having raised, with that entity, others questions regarding the feasibility of the implementation of the FTR, in accordance with European legislation and regulation on financial markets and products. ERSE, as the entity with the authority for the purpose, assumed, before the Portuguese system operator, the tariff consideration of costs related to a participation in the aforementioned negotiation platform.

- STUDY ON THE "REGULATORY HARMONISATION OF THE INTEGRATION OF SPECIAL REGIME GENERATION IN MIBEL AND IN THE OPERATION OF THE RESPECTIVE ELECTRICITY SYSTEMS"

In June 2012, the Board of MIBEL Regulators published a study on the "Regulatory Harmonisation of the Integration of Special Regime Generation in MIBEL and in the operation of the respective Electricity Systems", which resulted from the public consultation initiated in November 2011. This study identified a set of issues which, being directly or indirectly related to generation in special regime, have an impact on the regulatory harmonisation of the integration of this type of generation in MIBEL.

This document covers various aspects related to the SRG and its integration in the operation and working of the systems and the market, from the guidelines for the security of supply, the efficiency in the implementation of the commitments assumed regarding environmental sustainability and the economic efficiency imposed by an environment of fiscal austerity and the need to improve competitiveness.

Among the main conclusions from this study, there are performance recommendations aimed at the urgent implementation of harmonised and coordinated mechanisms for the fixed term allocation of capacity in the Portugal-Spain interconnection, which allow for the reduction of the commercial operating risks of market agents who operate in MIBEL's two national markets. It was also noted that this situation is particularly pressing given the high levels of SRG in the Iberian systems, which raise, more frequently,

the need to maintain the security of the Iberian systems through interconnection capacity reductions, both before daily market and after the closure of this market price.

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

The Board of MIBEL Regulators accepted the commitment[10] of the regulators, in a 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 so that MIBEL can 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) before the end of 2012.

During 2012, the Board of MIBEL Regulators closely monitored the works performed by the Iberian Market Operator for the coupling of the market with the Northwest region of Europe and, in October, identified the compatibility of the algorithms for the setting of the price as an aspect already consolidated by the IMO.

Even so, the coupling of the Iberian market with the Northwest region of Europe was not obtained within the commitment framework expressed in November 2011 due to reasons which relate to the convergence and coupling of other European regions.

MONITORING OF RNT OPERATOR INVESTMENTS

In addition to the critical analysis carried out in the scope of the opinions 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:

- 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.

[10] In a notice from the Board of MIBEL Regulators dated the 30th of November 2011.

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 regulations, particularly in relation to specific obligations relating to the Complaints Book.

In 2012, ERSE's statutes were revised by Decree-Law no. 212/2012 of the 25th of September. This revision emerged from the signing of the "Memorandum of Understanding" where several commitments are established in the scope of the electricity and natural gas sectors which had, as their main objective, to complete the liberalisation of the markets, promote competition, reinforce Portuguese integration into MIBEL and MIBGAS and guarantee the sustainability of the National electricity system. One of the measures that needed to be implemented urgently was the full transposition of the Third Energy Package of the European Union into Portuguese legislation, with the intention of strengthening the role of the regulator, particularly in matters relating to sanctioning.

With this change, the representativeness of the various groups of interest on the Consulting Board and on the Tariff Board of ERSE was also widened. The independence of the members of this entity's management was also reinforced with the enlarging of the impediments and incompatibilities regime and the establishing of a mechanism to ensure the non-coinciding of mandates of the different members.

Furthermore, Decree-Laws no. 215-A/2012 and no.215-B/2012 of the 8th of October, which change, respectively, Decree-Law no. 29/2006 of the 15th of February and Decree-Law no. 172/2006 of the 23rd of August, were published, complementing the transposition process of Directive 2009/72/EC of the European Parliament and Council of the 13th of July, which establishes the common rules for the internal energy market.

Underlying this revision are the objectives of promoting competitiveness, price transparency, proper operation and the effective liberalisation of the electricity and natural gas markets.

Regarding electricity generation, the concepts of generation under the ordinary and special regime were changed and the requirements on issues of independence and legal separation and ownership unbundling of the operator of the National Electricity Transmission Network (RNT) were strengthened.

To this end, in addition to the revision of the certification procedure and re-analysis of the certification, the certification procedure in relation to third countries is envisaged along with the respective revision, and well as alternative models to the legal separation and ownership unbundling models of the RNT operator so as to ensure ERSE's freedom in the conclusion and decision of said procedures.

During 2012, neither ACER nor the European Commission specifically directed any decisions to ERSE. However, under the fixed term management of the interconnection between Portugal and Spain, the Board of MIBEL Regulators, in response to a request from ACER, undertook to implement the said border, and, as a pilot project at the European level, financial products for fixed term capacity allocation (FTR). Thus, the identified need for the implementation of harmonised and coordinated mechanisms for the fixed term management of interconnection at the Portugal-Spain border was addressed.

3.2 PROMOTING COMPETITION

3.2.1 WHOLESALE MARKETS

There was a slight fall in the concentration in the electricity generation market in 2012 in terms of both installed capacity and also energy generated. The increase in installed production capacity of the SRG and the corresponding energy generated, above all from the use of wind, a segment in which the incumbent is not the largest participant, significantly contributed to this evolution.

The most favourable development of market led to greater dispersion of energy contracting resources, particularly through the implementation of regulated fixed term energy placement mechanisms for the SRG, which suppliers can access.

Conditions felt in wholesale market operations in 2012 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 price differential between the MIBEL areas, namely weak hydraulicity and a consequent increase in the use of coal thermal power plants and the increase in the weight of imports, in addition to an increase in the relative weight of the intermittent generation of SRG in the consumption structure which favoured the separation of the two price areas. On the other hand, there were factors of a structural nature, such as the total integration of the SRG in the spot contracting reference which began in late 2011, which allowed for a reduction in structural differences of the power generation plants in each of the areas of MIBEL.

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

Therefore, from a general point of view, 2012 was marked by a favourable development in the electricity wholesale market which led to a reduction in the overall concentration of electricity generation. 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

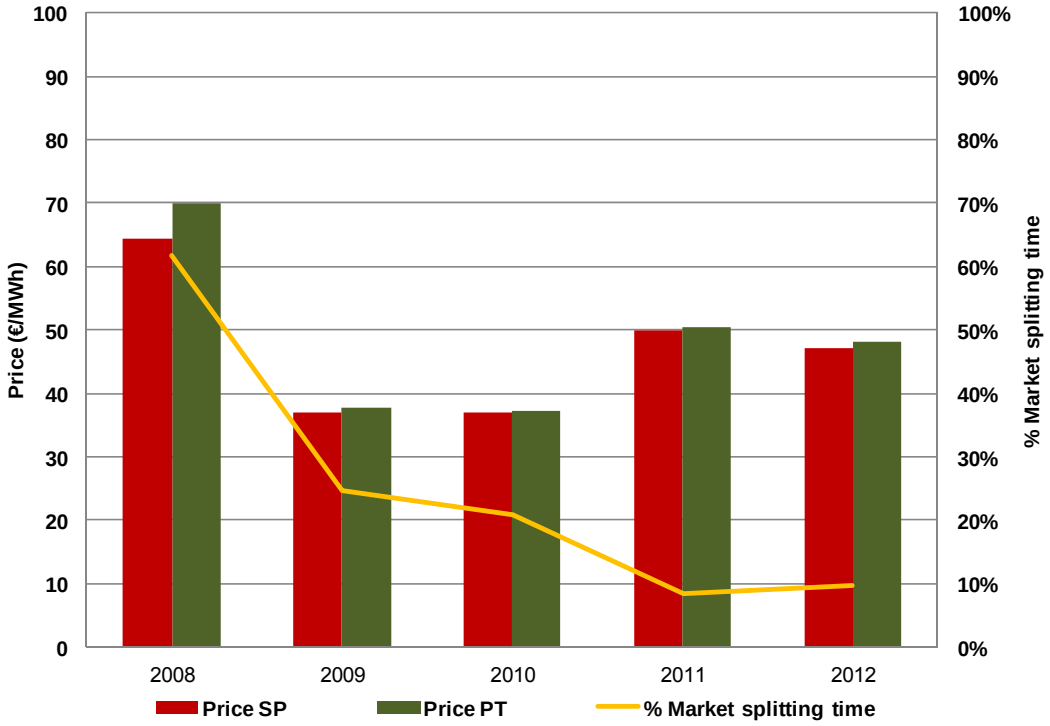
PRICES

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



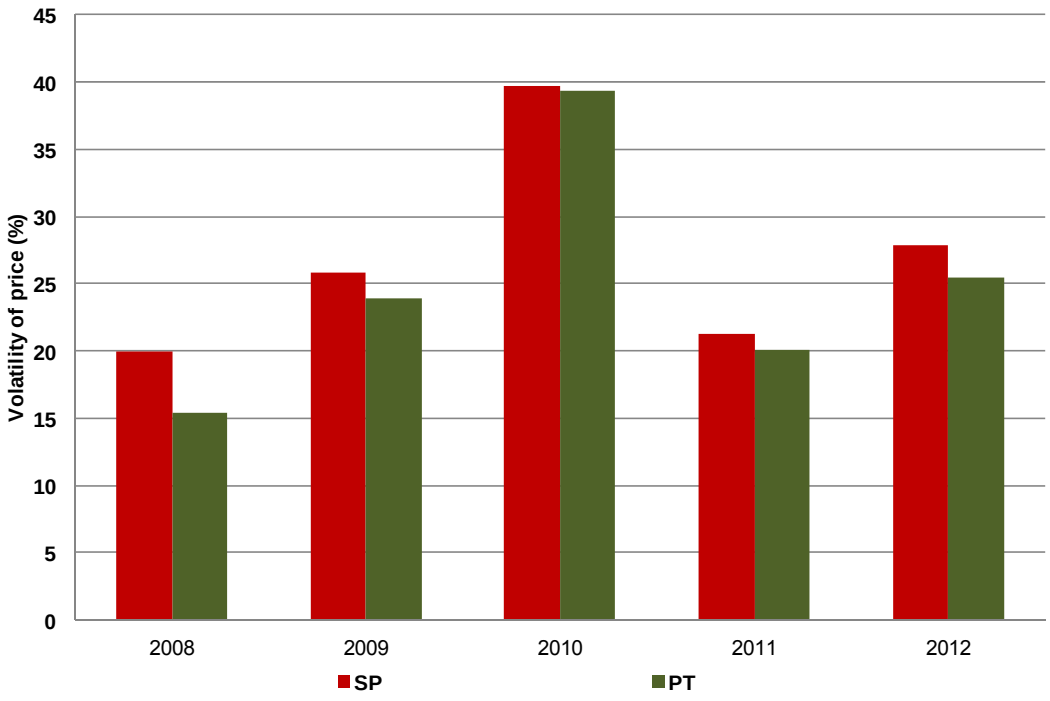
As can be seen from this figure, the average price in the spot market for Portugal, in 2012, was about €48.07/MWh, approximately 5% lower than the price recorded in 2011 (average annual price of €50.45/MWh). This reduction was mainly due to the decline in the price of coal which determined the setting of the price below the marginal costs of the combined cycle thermal plants as water availability was lower in 2012 than in 2011. In any case, the average market price in 2012 in Portugal was

approximately 31% below the marginal cost[11] of combined cycle natural gas plants and approximately 23% 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 2012, 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 25%, which means that prices varied on average between €40/MWh and €60/MWh.

Figure 3-8 shows the evolution of the annual volatility of the spot market price, from 2008 to 2012, for both Portugal and Spain. A small increase in the volatility of the spot price between 2011 and 2012 is seen. These circumstances are related to the aforementioned evolution of water availability in 2011 and 2012 and the consequent increase in the use of thermal coal plants, in addition to an increase in weight relating to the intermittent component of generation in the consumption structure, which fell in comparison to 2011. In any case the Portuguese market has been slightly less volatile in price than the Spanish market.

Figure 3-8 - Volatility of spot price

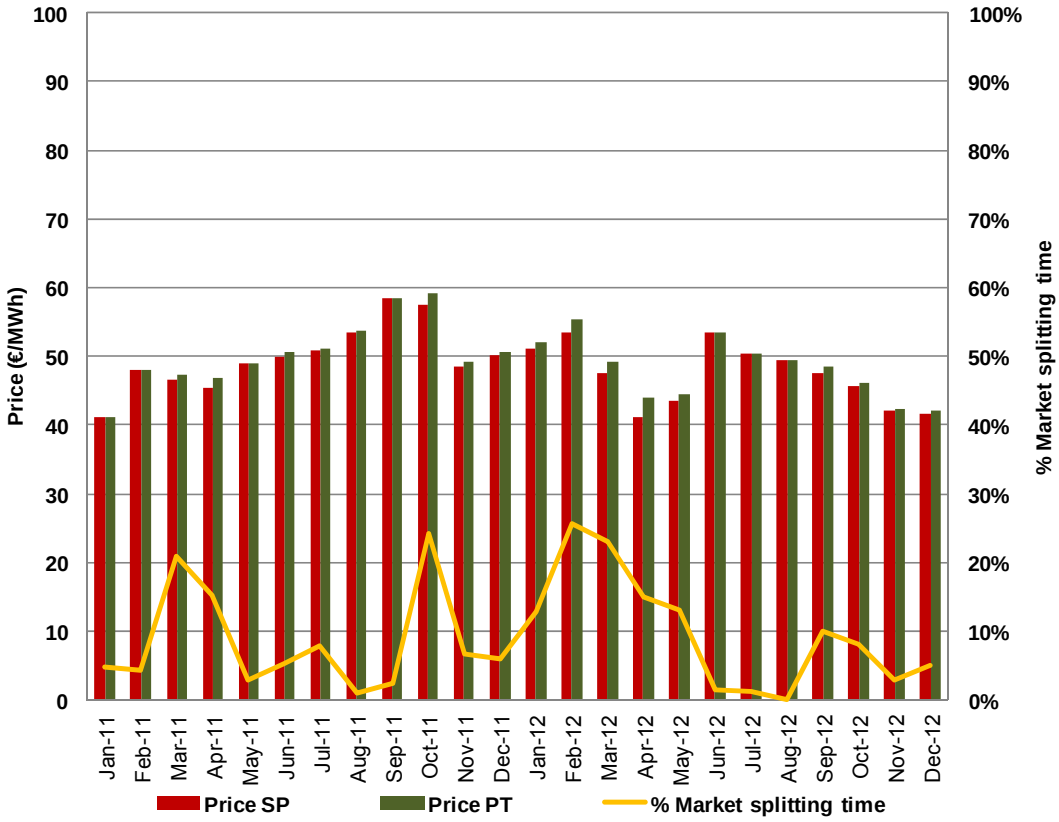


Note: volatility measured as a ratio between the standard imbalance of the spot price and the respective annual average

[11] Estimated marginal cost including CO_2 emission costs.

Figure 3-9 presents the evolution of prices in Portugal and Spain and the percentage of market splitting time, broken down by month for 2011 and 2012. Regarding 2012, one can see: (i) a reduction in the average price set in the market in 2012 in comparison to what had happened in 2011, in spite of the increase in volatility; (ii) the occurrence, in 2012, of some congestion periods in the Portugal-Spain interconnection, particularly more sensitive in the months of February and April.

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

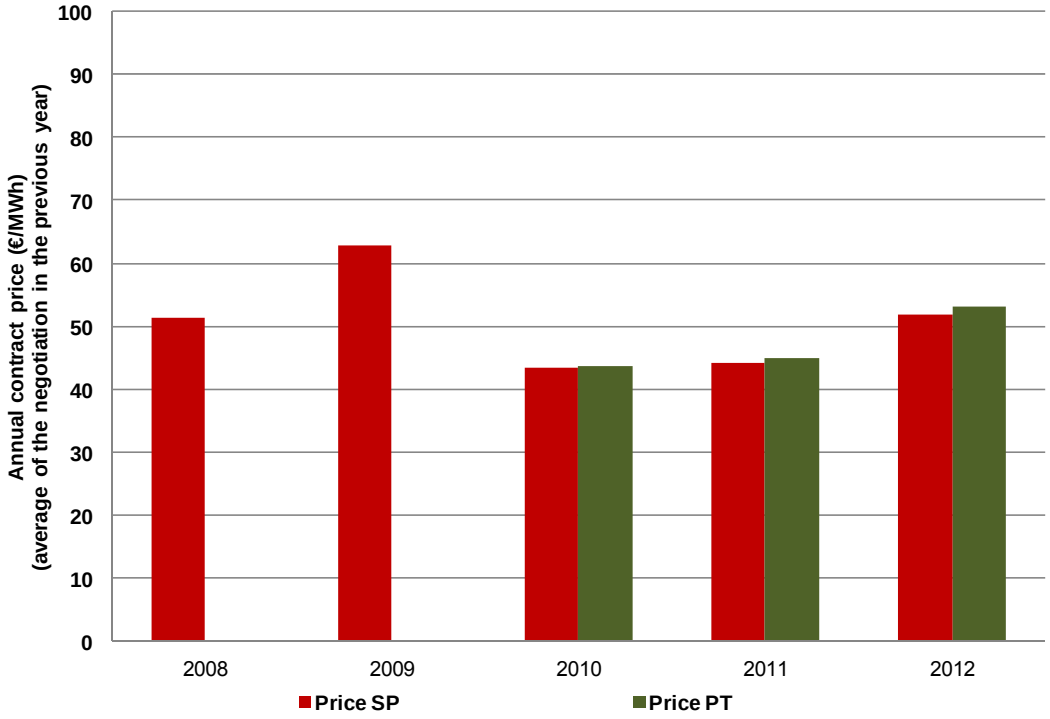


The spot market, in the Iberian context, is a rather liquid platform and, in the case of Portugal, in particular, represents the most significant portion of contracting in this market referential, representing more than 80% of consumption. In this sense, without an intrinsic problem of liquidity and 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 forecast in the scope of the agreement for the creation of MIBEL - OMIP -, demonstrated an expectation for an increase in price of approximately 18% between 2011 and 2012. In fact, the market agents who, in 2011, had acquired a position in the delivery contract with a base load for 2012 would have paid an average price

(€53.00/MWh for Portugal[12]) approximately 10.25% 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



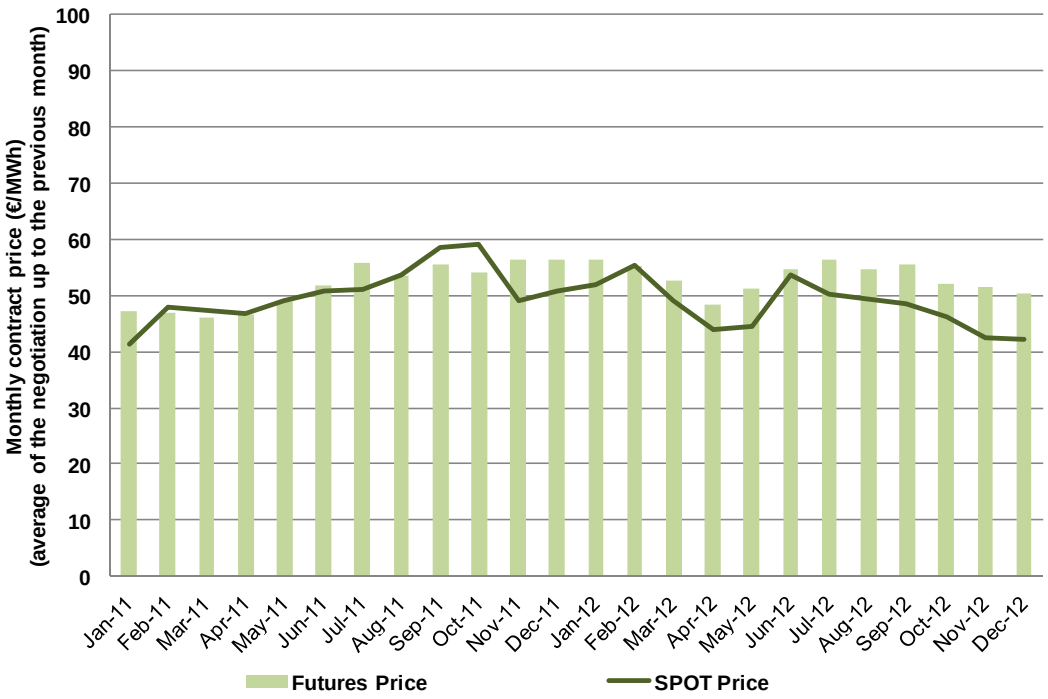
Notes: the average closing price for the year prior to delivery, for a base load delivery; 2012 price corresponds to the average price set during 2011.

On the other hand, the evolution of the negotiation of monthly futures contracts with a base load delivery shows a relative decline in expectations in light of the price set in the spot market for the corresponding month, with the average risk premium in forward contracting increasing in the second half of 2012.

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 average monthly prices in the forward market, in 2012, was greater than in 2011, by approximately 1.60 €/MWh.

[12] The value of the forward provisioning price reflects the average weighted value per contract volumes of shares of the 2012 annual contract with delivery in the Portuguese area of MIBEL, including the record of auction, continuous and OTC operations.

Figure 3-11 - Evolution of the average price for the negotiation of the monthly futures contract delivery in Portugal

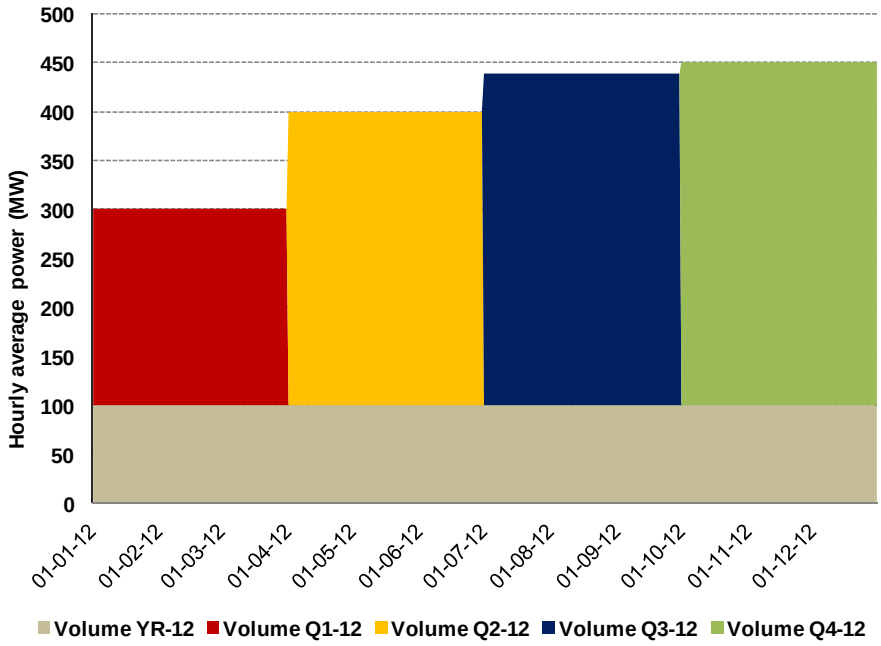


At the end of 2011, through the revision of the regulatory framework, ERSE introduced a forward contracting mechanism which allows for a placement, in quarterly and annual maturities, of energy acquired from generators in special regime. This mechanism was implemented with three main purposes: (i) allowing the existence of conditions for provisioning and/or coverage of price risks, (ii) the stabilisation and greater regulatory predictability of revenue values with the placement of SRG energy on the market (reflecting on the stabilisation of corresponding over costs) and (iii) the promotion of liquidity in forward contracting products with delivery in the Portuguese area of MIBEL.

During 2012, in the scope of the application of the forward contracting mechanism for energy acquired from generators in special regime, four SRG auctions were held, with the placement of a total of five distinct products (one annual base load and four quarterly base load). These four quarterly auctions resulted in a total hourly power placement (volume placed), which varied between 300 MW in the first quarter of the year and 450 MW in the fourth quarter of the year. The variation in volume was carried out in full by the modulation of quantity in the quarterly product (200 MW in the first quarter, 300 MW in the second, 338 MW in the third and 350 MW in the fourth quarter). The volume of energy placed in this instrument corresponded to approximately 7.1% of national consumption.

Figure 3-12 graphically presents the profile of quantities which occurred in the four auctions held in 2012.

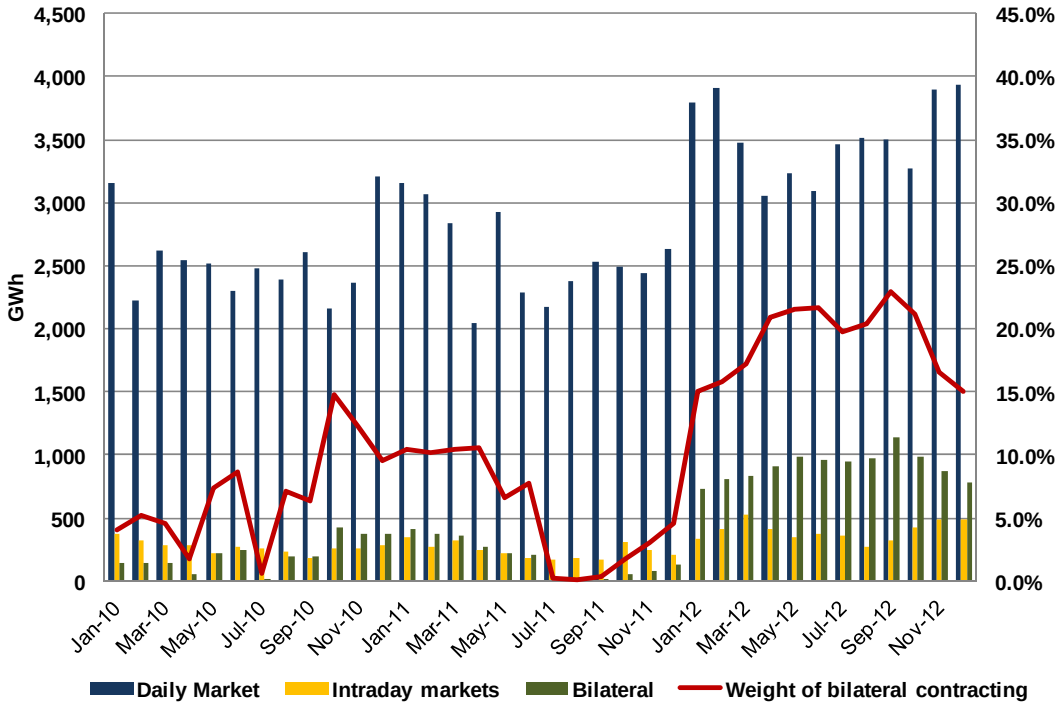
Figure 3-12 - Volume placed in SRG auctions in 2012



The auctions carried out for delivery in 2012 ensured a total placement of the minimum volumes open to negotiation having allowed the stabilisation of the energy placement prices of SRG and consequent reduction in over costs passed on to the tariffs in an overall amount of approximately 17 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 3-13. It is useful, however, to bear in mind that the acquisition of term products listed on the MIBEL futures market is settled in cash through the daily market.

Figure 3-13 - Breakdown of energy supply volumes between markets



For 2012, the average value of the weight of the bilateral contracting in the total volume of contracting can be seen to be less than the value recorded in the recent past due to the integration of the total SRG in the spot contract referential and the maintenance of absolute bilateral contracting on a level lower than in 2011. Indeed, the trend throughout the year was that of a relative stabilisation of the weight of bilateral contracting with its magnitude being more stable than it was in recent years.

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 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 evolution, both for spot market demand and overall consumption in mainland Portugal, is given in Figure 3-14, 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 contributed decisively to this level of coverage of consumption by the demand in the daily market.

Figure 3-14 - Spot market demand and total monthly consumption

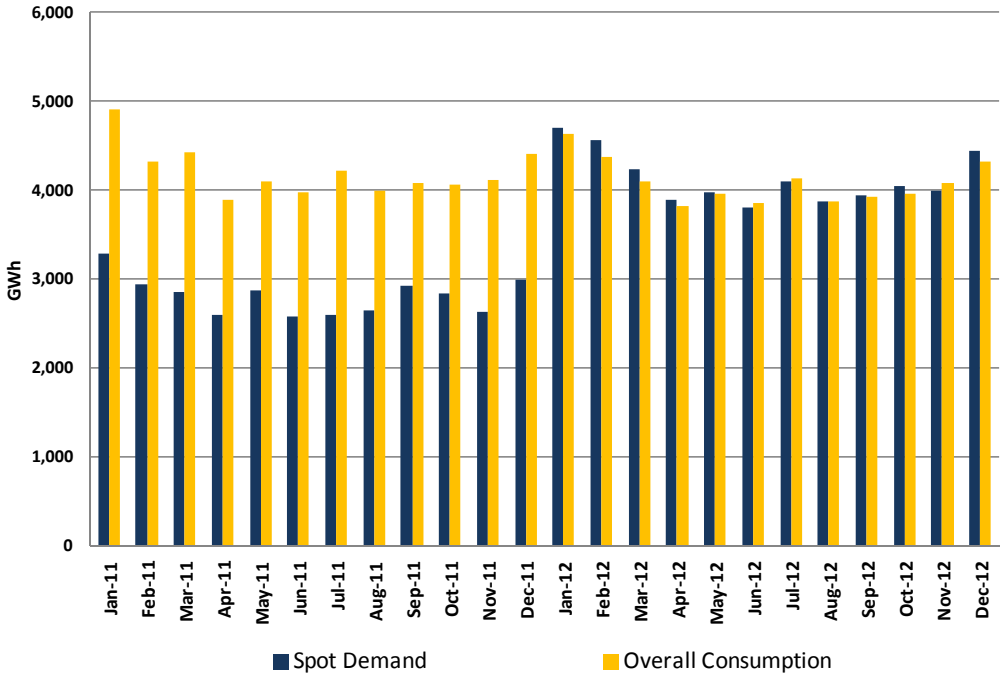
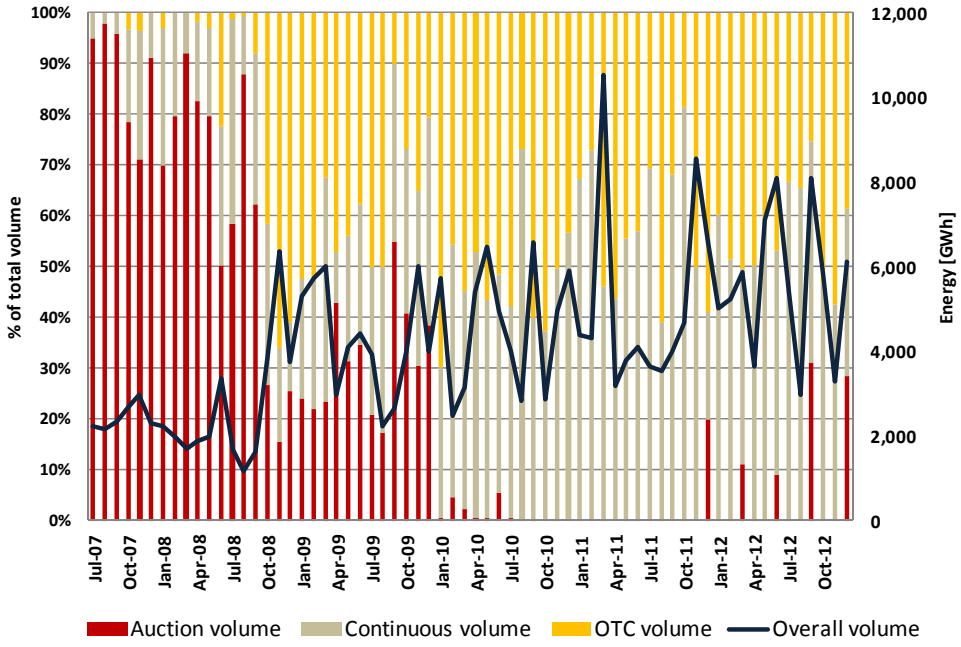


Figure 3-15 shows the evolution in the volumes recorded on the organised forward market forecast in MIBEL (OMIP). A trend towards a significant increase in operations in the continuous market and OTC operations can be seen, although with high variability over time.

Figure 3-15 - Volumes in the MIBEL forward market



The increase in the volume being negotiated in auctions in December 2011 and in the months of March, June, September and December 2012 was due to the introduction, by ERSE, of a mechanism for the placing of electricity from special regime generation designed to make means of forward procurement and/or the coverage of price risks available to suppliers in the market regime.

The overall volume of negotiation on the forward market controlled by OMIP (including the registered operations corresponding to OTC) in 2012 exceeded 66 TWh, which means a growth of approximately 9% in comparison to 2011.

TRANSPARENCY

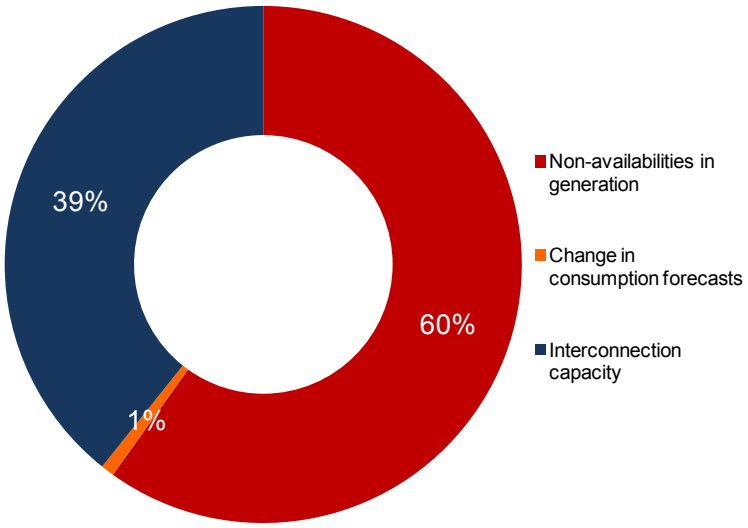
From a market monitoring point of view, it is important to consider the rules of transparency in the markets. The wholesale electricity market in Portugal benefits from a regulatory system which already imposes obligations to disclose inside information to the market. Indeed, the requirements to report relevant facts under the Regulation of Commercial Relations 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 power plants, 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 centralised, and is available on a portal managed by REN[13]. During 2012, 1,588 relevant facts were communicated. Of these, approximately 60% correspond to the communication of production non-availabilities, their updating or alteration, and 39% 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.

[13] Available on http://www.mercado.ren.pt/Informa/Paginas/default.aspx.

Figure 3-16 - Communication of relevant facts

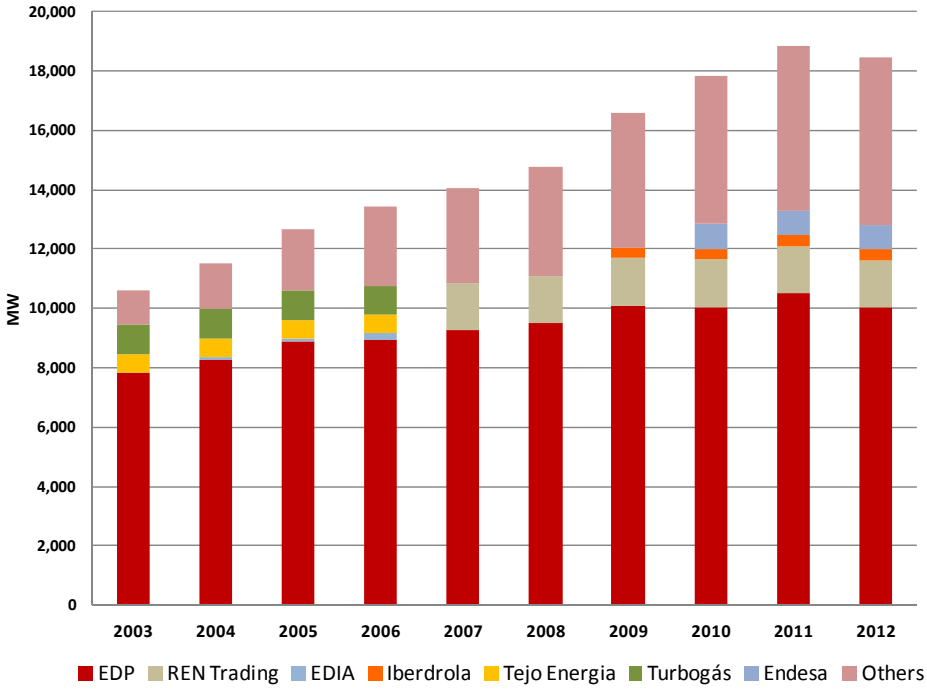


COMPETITION EFFICIENCY

The evaluation of the wholesale market should be done through the characterisation of the installed power plant generation system and its actual generation. For this, it is important to analyse the evolution of the installed power plant generation system in terms of primary electricity used, which is dealt with in chapter 3.3.1 of this document.

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 3-17, from which we can see that EDP owns most of Portugal's power plant generation systems. However, its presence has been falling both in relative terms and in absolute terms, namely due to the decommissioning of 6 groups of the Carregado Plant.

Figure 3-17 - Characterisation of the power plant generation system in Portugal by technology and installed capacity



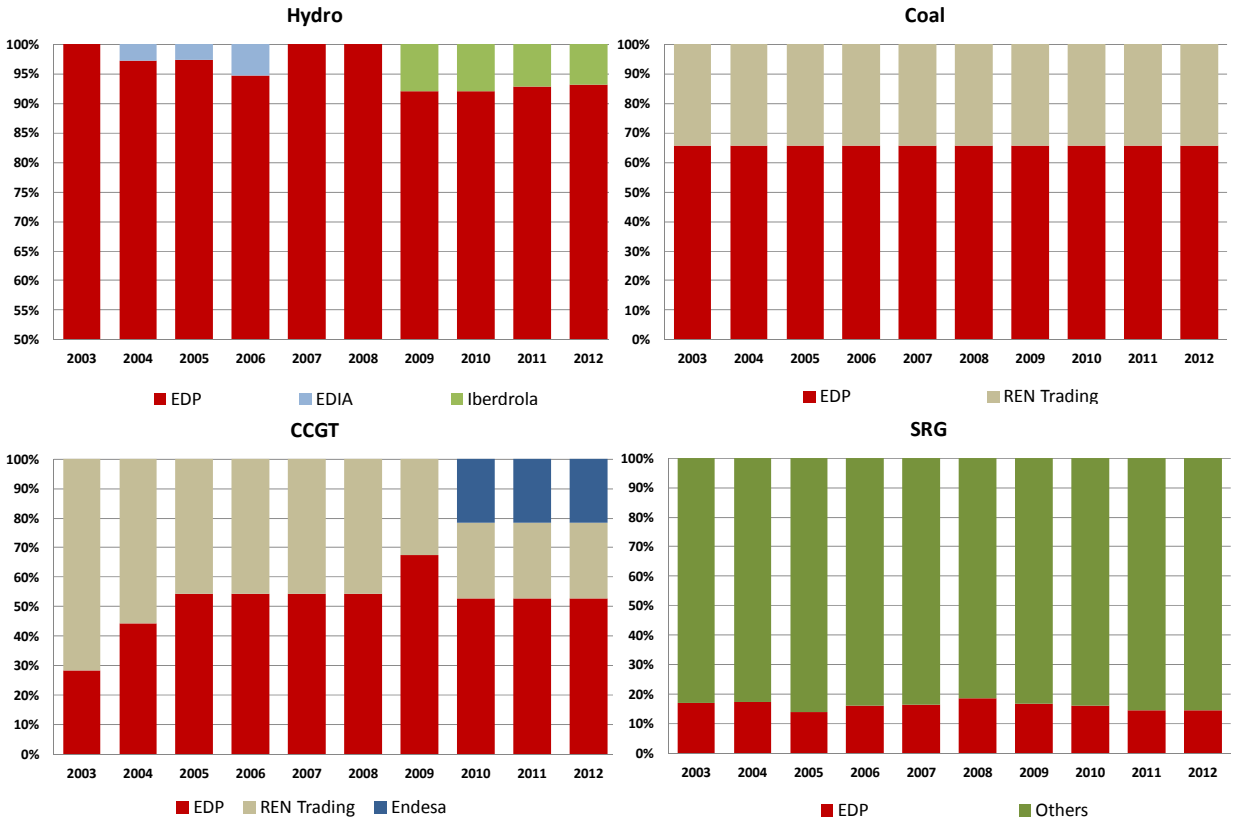
The EDP Group share in terms of installed capacity has been falling, mostly due to the growth in the SRG segment in which EDP has an individual minority position.

During the period 2003 to 2012, the EDP share in total installed capacity fell approximately 18%, with a reduction between 2009 and 2012 of approximately 7%.

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 3-18.

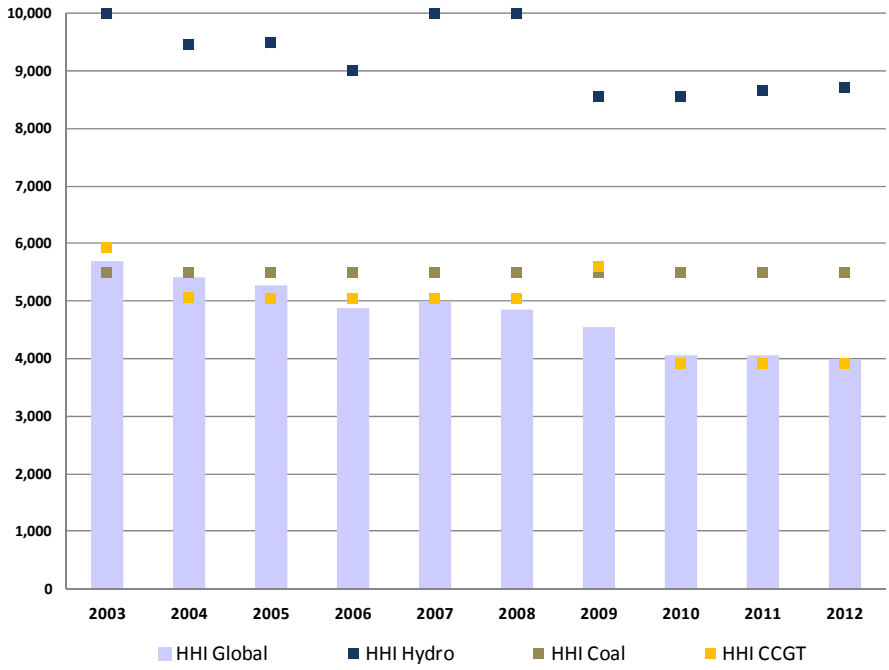
Figure 3-18 - Installed capacity quotas by agents in the different technologies



Note: Until 2007, the values of REN Trading correspond to Turbogás, in the case of CCGT, and to Tejo Energia, in the case of coal.

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 3-19, which presents the Hirschman-Herfindall Index (HHI) values, measuring corporate concentration.

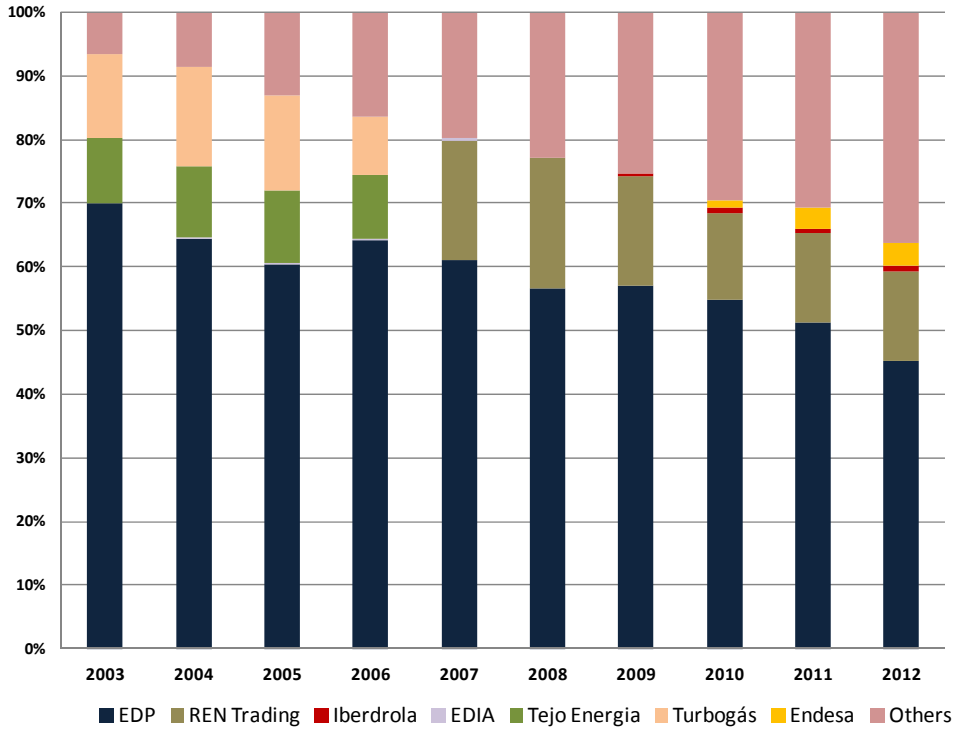
Figure 3-19 - Concentration in generation in terms of installed capacity



The HHI figures for installed capacity show an evolution, between 2003 and 2012, of a gradual reduction in the overall concentration of capacity supply in the Portuguese system, particularly via the aforementioned increase in SRG capacity. In the coal segment, no alterations in the corporate concentration were registered and, in the case of hydro, the entry into operation of the power reinforcements of the two plants held by EDP led to an increase in corporate concentration in this technology.

The evolution in quotas of electricity generation by agent is shown in Figure 3-20, while the same evolution in the different technologies and special regime are presented in Figure 3-21.

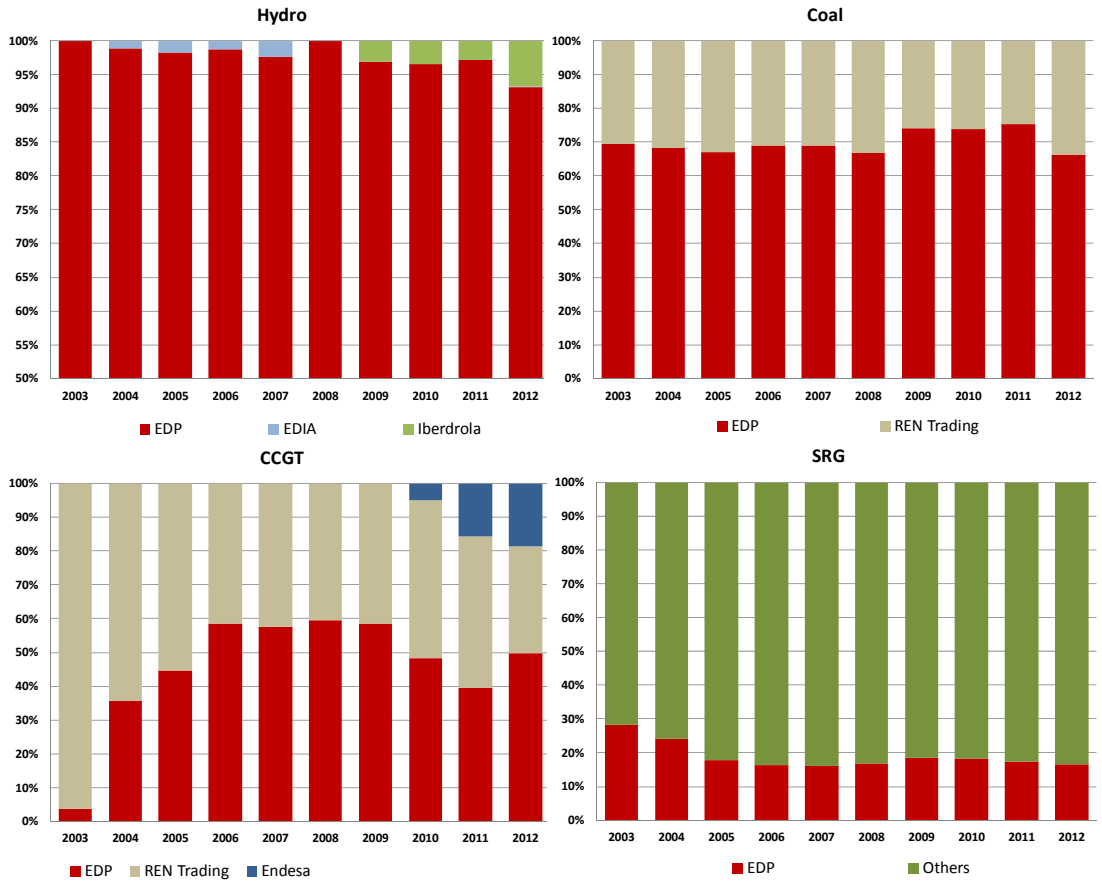
Figure 3-20 - Quotas of electricity generated by agent



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

Overall in 2012, a fall in the EDP group's participation in total generation in mainland Portugal must be highlighted. This was mainly due to the increased contribution of other agents that operate in the SRG segment and the increase in the generation of the new combined cycle plant owned by Endesa.

Figure 3-21 - Quotas of electricity generated by agents in the different technologies



Note: Until 2007, the values of REN Trading correspond to Turbogás, in the case of CCGT, and to Tejo Energia, in the case of coal.

In terms of electricity generated, the trend seen between 2003 and 2012 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 slight decrease between 2009 and 2012.

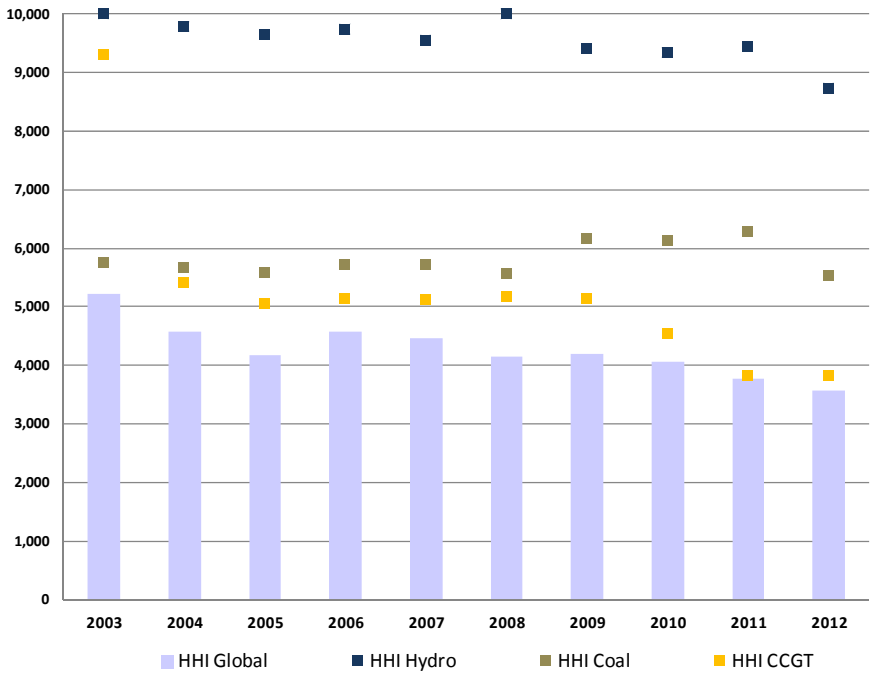
In case of hydro technology, a reduction in the EDP quota was recorded in 2012. This fact is due to the small amount of water in the system caused by a dry year.

In the case of combined natural gas cycles, in 2012, EDP saw its quota increase due to the reduction in generation from REN Trading.

In the case of coal, the increase in importance of the incumbent from 2009 to 2011 is explained by the hierarchy of marginal costs of the two plants in mainland Portugal. In fact, even though the plant held by EDP has lower nominal revenue than the one which is currently operated by REN Trading, the proximity of the Sines plant (EDP) to the coal unloading terminal makes the cost of transport minimal in comparison to the Pego plant, which is located approximately 200 km away from the same coal point of delivery. However, and in spite of this fact, this situation inverted in 2012, with REN Trading's net demand being significantly higher than those recorded in previous years, which can be attributed to issues in the management of the coal provisioning contract of that plant.

The concentration indicators for the generation of electricity, presented in Figure 3-22 show that, overall, generation in 2012 was less concentrated corporately than in 2011. This evolution is sustained mainly by the reduction in concentration in the hydro and coal segments, while the position of the EDP group in special regime generation remains a minority in relation to the segment as a whole.

Figure 3-22 - 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 development of corporate concentration in the special regime generation cannot be seen and, on the other, the figures for global concentration will be mostly those that actually exist in the current market structure.

3.2.2 RETAIL MARKET

From the point of view of retail market development, 2012 was marked by the consolidation of the liberalised segment in terms of global electricity consumption, prompted by some structural factors:

- extinction of regulated end user tariffs;
- 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 2012 by a greater dispersion of market shares and, consequently, by a decline in the indicators of market concentration.

In 2012, the supplier switching process was marked by a significant penetration by open market suppliers into the segments with the highest consumption levels, large customers and industrial customers: approximately 97% and 92% respectively of total consumption in each segment.

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

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

ERSE monitors the retail electricity market and informs customers and other agents in order to foster transparency. In this context it is responsible for analysing the market evolution at various levels, including those relating to prices practised. This monitoring of market prices is complemented by the reports produced by the official bodies (INE and EUROSTAT) and is of great importance to the electricity sector.

Electricity suppliers have to send ERSE the reference prices each year[14] and inform consumers of them, as well as sending, quarterly, the average prices actually practised by retail market suppliers.

With the objective of improving the collection of reference price information and average prices practised, in 2011 ERSE published the new rules for the monitoring of reference prices and average prices practised in the retail electricity market. This process was based on consulting electricity suppliers operating in mainland Portugal and in the Autonomous Regions.

The reference prices sent by the various suppliers operating in the market in mainland Portugal allowed ERSE to provide a price simulator for StLV facilities on its website. In the scope of the new rules which were approved at the end of 2010, suppliers will also send ERSE the reference prices for facilities in

[14] Reference prices should be viewed as a set of tariffs, tariff options and respective prices and indexes per billing variable offered by suppliers to their customers, and also the conditions for the application of the tariffs, namely the characteristics for minimum consumption, duration of contracts and conditions for the revision of prices.

SpLV, which will allow ERSE to make this information available also to all those who are interested. The average prices practised enable the creation of a database aimed at analysing retail market operations. Based on the information sent, ERSE prepares a bulletin where it carries out the analysis and treatment of the information received regarding both the reference prices and the average prices practised.

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.

A monthly report on the liberalised market is also published on the ERSE website with information related to evolution in terms of the number of customers, consumption and market shares.

With the European and national legislation on the electricity sector as reference, the regulations approved by ERSE list the main information which must be included in the content of any electricity supply contract. In the case of a last resort supplier, the general contract conditions must contain the minimum information approved by ERSE. Suppliers in the market regime must send ERSE a copy of the general contract conditions proposed to customers which must also be published on their respective websites. For suppliers who have offers to supply electricity to StLV customers, the corresponding contract proposals must be presented on their websites, in the form of a public offer.

Periodically, ERSE carries out an evaluation of the general contract conditions in force and gives supplier suggestions as to alterations that may be more in accordance with information requirements on the market at any given time. Whenever justified, ERSE also makes recommendations to electricity suppliers, taking into account the adoption of commercial practices which are more appropriate to a better operation

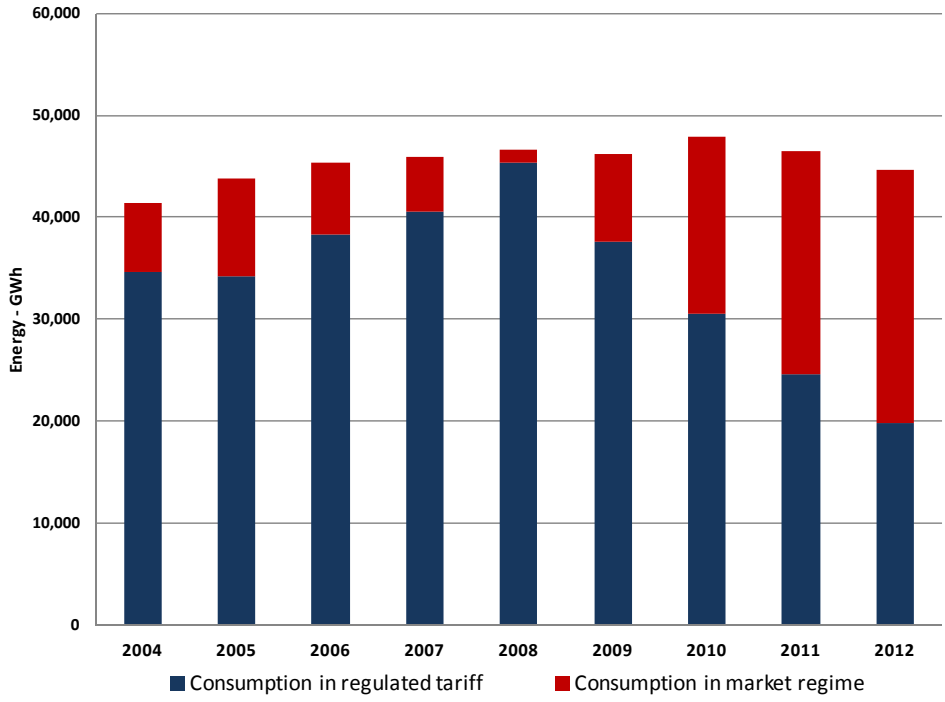
of the market and subsequent increase in the satisfaction of the collective needs of consumers. These recommendations are not binding, but ERSE, and the public in general, must be informed of their non-acceptance or execution and the reason for their not being observed.

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 inFigure 3-23.

Figure 3-23 - Breakdown of consumption between the regulated and the liberalised market



2012 consolidated the trend which has been seen since 2010, a period when the cost of electricity in the last resort tariff exceeded the price that the market has been developing since 2009, thereby dictating the existence of conditions conducive to customers supplied at the regulated tariff migrating to the market. The increase in the size of the liberalised market was also due to the process of the extinction of the regulated tariffs which, in January 2013, covered all customers including residential customers.

This evolution meant that consumption in the market regime represented approximately 56% of total consumption in 2012.

The gradual increase in the size of the market from 2007, in terms of the total number of customers, is largely due to the continuing entry of residential customers which in 2012 grew more than 80% in comparison to the previous year. It can be seen that, in 2012, 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.

Figure 3-24 - Evolution of the liberalised market in Mainland Portugal (no. of customers)

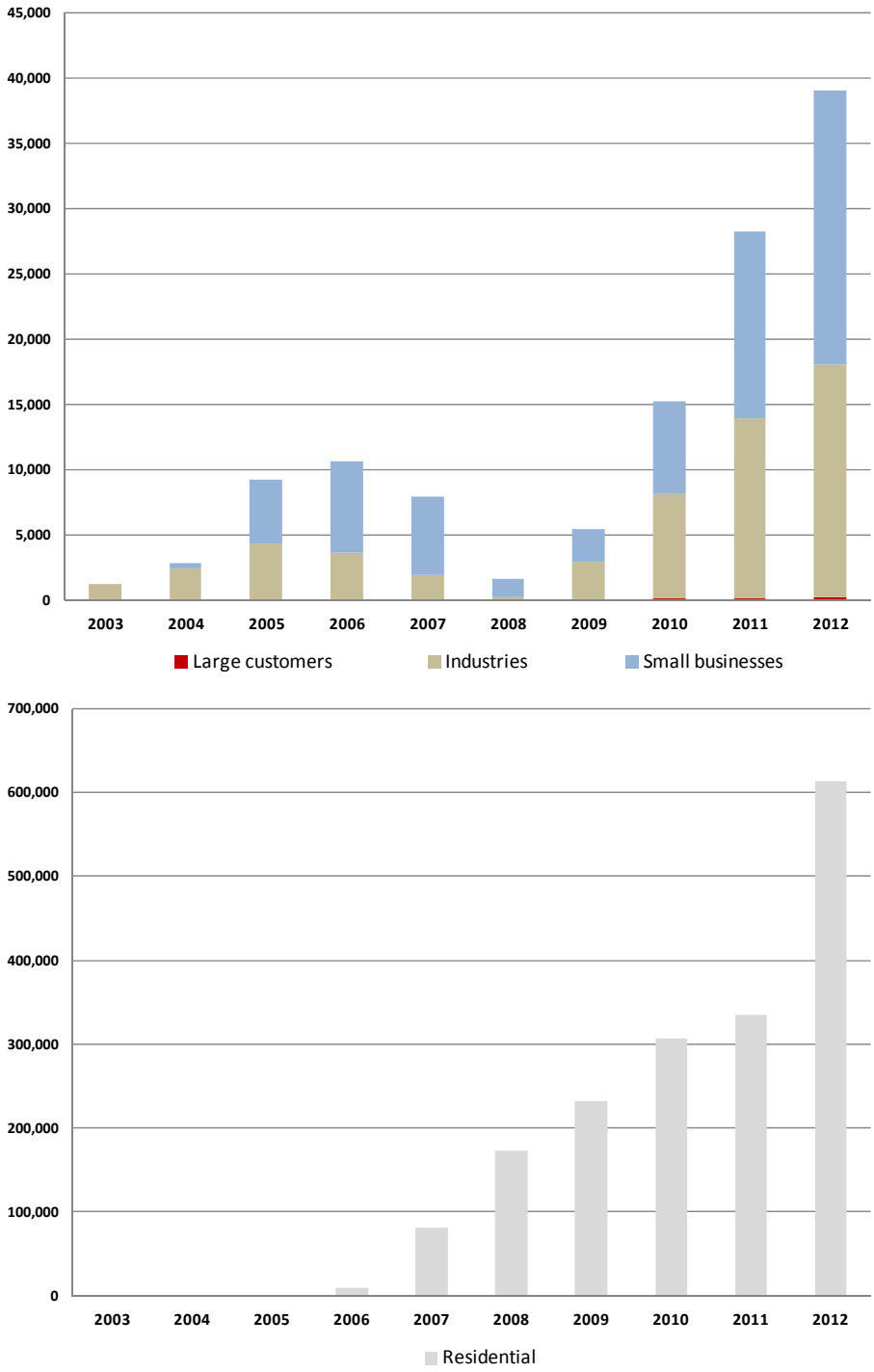
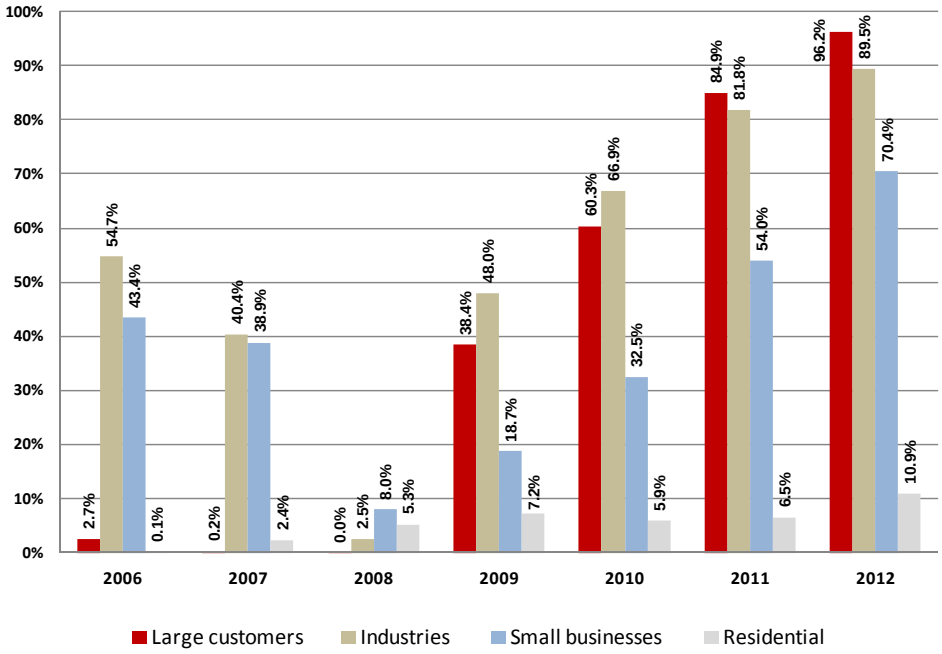


Figure 3-25 shows the part of the consumption from each segment of customers that can be found in the liberalised market. One can see that, in 2012, approximately 90% of consumption by industrial customers was guaranteed by market regime suppliers. The same occurred with more than 96% of consumption by large customers.

Figure 3-25 - Penetration of the liberalised market by customer segment

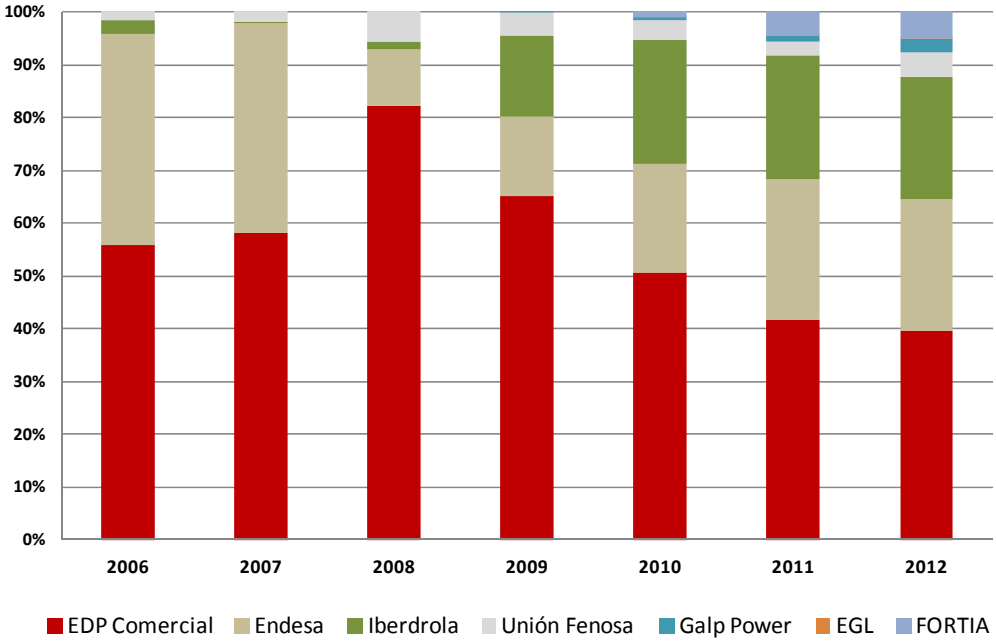


An analysis by segment lets us see that the industrial customer segment is the most competitive of all, and the residential customer segment is the one which has a greater corporate concentration and a lower number of suppliers.

The evolution in the liberalised market, in terms of growth in 2012, also corresponded to a reduction in the corporate concentration. There has been a reduction in the market share of the EDP Group, the main operator, from 2008 until 2012 which, in the last year, represented approximately 40% of supplies in the liberalised market, as can be seen in Figure 3-26.

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

Figure 3-26 - Supply structure in the liberalised market by supplier



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

RECOMMENDATIONS FOR SUPPLY PRICES

In the context of regulated end user tariffs of electricity to StLV in 2012, ERSE did not publish any recommendations on the conformity of the retail 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 of 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 sectoral 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 go against competition law.

In 2011, with the first effects in 2012 and as an example of regulatory actions to promote competition, ERSE approved a mechanism for the fixed term placement of special regime generation, aimed at providing suppliers with access to the forms of provisioning and/or the covering of the price risk appropriate to their plans for contracting with end customers thereby promoting more effective competition in the market.

Regarding the monitoring of the electricity market, especially the wholesale market, ERSE has specific monitoring powers which are attributed to them by the legal framework in force and which establish what is provided for in the Third Package of internal electricity market directives. In the execution of these powers, ERSE has in operation wholesale market monitoring and supervision systems which accompany the price setting conditions and possible occurrences of situations of abuse in the market by Portuguese agents. This monitoring and supervision also includes the collaboration which exists in the institutional framework of the Iberian electricity market (MIBEL), namely regarding the sharing of information and knowledge with the entity responsible for regulating the financial markets in Portugal (CMVM – Comissão dos Mercados e Valores Mobiliários) and in Spain (CNMV – Comisión Nacional del Mercado de Valores), and also the regulating entity for the electricity sector in Spain (CNE – Comisión Nacional de Energía).

In June 2012, ERSE held a clarification session with all market operators related to the implementation of European regulations related to the integrity and transparency in energy wholesale markets (REMIT), which was aimed at establishing a fair level of preparation for compliance with the provisions of the regulations. These rules are related to the promotion of a more transparent market and the affirmation of more effective competition in the electricity sector.

TARIFF DEFICIT

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

The main situations which generate tariff deficit in Portugal are listed below.

Tariff deficit first appeared in 2006. End user tariffs to LV, defined for 2006, were limited so that their variation would not be greater than the variation expected from the Price Index implicit in Private Consumption. In the case of end user tariffs to StLV, defined for 2007, their variation was limited to 6%.

These limitations created tariff deficits in regulated companies, and these deficits are recovered in constant payments through the Global Use of the System (GUoS) tariff paid by all consumers over a period of 10 years, starting in 2008.

In 2008, the tariffs did not have any limitation which would lead to the creation of a tariff deficit. In the 2009 tariffs, due to the substantial increase in energy acquisition costs which occurred in 2008, and in accordance with Decree-Law no. 165/2008 of the 21st of August, the 2007 and 2008 tariff adjustments related to energy costs were deferred for a period of 15 years taking effect from 2010. The over cost of SRG forecast for 2009 was also deferred.

To date, the over cost due to SRG corresponded to the difference between the average acquisition price for SRG and the average acquisition price for energy from LRS in the wholesale market. This difference is absorbed in the GUoS tariff.

Again, in 2010 and 2011, there was no creation of tariff deficit; however, in 2012 another tariff deficit was created which corresponded to the SRG over cost in 2012.

This deficit resulted from the publication, in 2011, of Decree-Law no. 78/2011 of the 20th of June, more specifically article 73-A, which changes the repercussion of over costs relating SRG in the tariffs. According to this law, the SRG over costs, including the adjustments from the two previous years, must be incorporated in the allowed revenue to be recovered by regulated companies within a five year period, starting from the tariffs for 2012.

In 2012, the debt values from the main items of the tariff deficit of the electricity sector were the following:

Table 3-4 - Tariff deficit

Unit: 10^3 EUR

	Debt in 2012
Tariff deficit 2006/2007	189,515
Tariff deficit 2008	1,438,352
Tariff deficit 2012	973,326
Others	252,406
Total	**2,853,599**

3.3 SECURITY OF SUPPLY

In the Portuguese legal framework, re-published on the 8th of October 2012 through Decree-Laws no. 215-A/2012 and no. 215-B/2012, the powers related to the security of supply in the electricity sector and in the natural gas sector were the responsibility of the Government who delegated responsibility for monitoring to the Directorate General for Energy and Geology. 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

Over the last year, the capacity margin, which is defined as the difference between installed generation capacity and the maximum peak load for the year, referred to as installed capacity, grew to 54% compared with 51% in 2011 and 47% in 2010. Although there was a reduction of 357 MW in the total installed power, the increase in the capacity margin is due to the strong reduction in peak consumption in comparison to the previous year.

The evolution in installed capacity and maximum requested power is shown in Table 3-5.

Table 3-5 - Capacity margin

	2012 (MW)	2011 (MW)	2010 (MW)	2009 (MW)	2008 (MW)	2012/2008 (%)
Total installed power	18,546	18,903	17,905	16,738	14,924	24%
Thermal	6,697	7,407	7,407	6,690	5,820	15%
Hydraulic	5,239	4,980	4,578	4,578	4,578	14%
SRG	6,610	6,516	5,920	5,470	4,526	46%
Maximum annual power	8,554	9,192	9,403	9,217	8,973	-5%
Capacity margin	9,992	9,711	8,502	7,521	5,951	68%
	(54%)	(51%)	(47%)	(45%)	(40%)	

Source: 2012 data obtained from REN

In addition, consumption of electricity in 2012 was 49.1 TWh, with a fall over the previous year of 2.9% (3.6% after correction for the effect of temperature and number of business days).

In 2012, the hydrological conditions were extremely unfavourable with a hydraulicity index of 0.48. Hydroelectric power plants only supplied 12% of consumption, approximately half of that seen in the

previous year. The thermal power plants ensured a share of 35% with 11% of generation coming from natural gas plants and 24% from coal plants.

Deliveries from wind generators recorded their highest share ever, approximately 20%, with generation in special regime supplying 37% of consumption.

The import balance rose 181% and represented 16% of consumption.

In 2012, there was an increase in installed capacity in hydroelectric plants in the standard regime, with the entry into service of the reversible Alqueva II power plant, with 254 MW, resulting in an installed capacity in large hydroelectric plants of 5.24 GW.

In terms of thermal plants in standard regime, the Carregado plant, running on fuel oil, with 710 MW, was declassified.

In terms of generation in special regime, an installation of 113 MW of new capacity by wind generators, 65 MW by photovoltaic generators, and 5 MW by hydropower generators should be noted, making a total of 6,610 MW.

In the development of RNT in 2012, the interventions for the improvement for consumer supply are highlighted. In Trás-os-Montes, the new 220/60 kV sub-station in Valpaços entered into service. In Porto, two new 220kV underground circuit connections also entered into service, one between the Vermoim and Prelada substations, and the other between the Valongo transition station and the Ermesinde substation.

In Lisbon, also to support the supply of consumers, the second underground circuit Alto de Mira – Zambujal, with 220 kV, entered into operation along with the new underground circuit between Prior Velho and Alto de São João.

In the north and south coastal zone of the Tagus, the new 400 kV connection between Marateca and Fanhões was concluded, bringing increased reliability in the north-south axis and also in the supply to the consumers in Lisbon and the Setúbal peninsula.

In terms of quality of the service, the Transmission Network returned its best ever performance, with an Equivalent Interruption Time of zero minutes.

The percentage breakdown of electricity generation by power source in the last 5 years is presented in Table 3-6.

Table 3-6 - Breakdown of generation

	2012	2011	2010	2009	2008
Natural gas (without SRG)	11%	28%	28%	23%	25%
Import Balance	16%	6%	5%	9%	19%
Coal	24%	18%	13%	24%	21%
Hydraulic (without SRG)	12%	20%	28%	14%	11%
SRG (with mini-hydro)	37%	36%	34%	29%	23%
Fuel	0%	0%	1%	1%	1%

Source: 2012 data obtained from REN

Satisfaction of consumption by the various means of supply is presented in Table 3-7.

Table 3-7 - Consumption supply

	2012 (GWh)	2011 (GWh)	(%)
Hydraulic generation	5,824	10,221	-43.0
Thermal generation	17,974	23,495	-23.5
SRG	18,755	18,185	3.1
Import balance	7,895	2,813	180.7
Hydro power pumping	1,388	737	88.3
Total consumption	49,060	50,504	-2.9

Source: 2012 data obtained from REN

Regarding the maximum power requested from the public grid, on the 13th of February, 8554 MW was registered, a value of 638 MW less than that recorded in January 2011 meaning a reduction in annual maximum power for the 2nd consecutive year.

The evolution in annual maximum power is shown in Table 3-8.

Table 3-8 - Maximum annual power

Year	Day	Power (MW)	Variation (%)
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
2008	02-Dec	8,973	-1.50

Source: 2012 data obtained from REN

The evolution in terms of installed power at the end of each year is shown in Table 3-9.

Table 3-9 - Power plant generation system

	2012 (MW)	2011 (MW)	(MW)
HYDROELECTRIC POWER PLANTS	5,239	4,980	259
THERMAL POWER PLANTS	6,697	7,407	-710
Coal	1,756	1,756	0
Natural gas	3,829	3,829	0
Fuel / Natural gas / Diesel	1,112	1822	-710
SRG INSTALLED POWER	6,610	6,516	94
Thermal Generators	1,779	1,868	-89
Hydraulic Generators	417	412	5
Wind Generators	4194	4081	113
Photovoltaic Generators	220	155	65
Wave Energy Generators	0	0	0
TOTAL	18,546	18,903	-357

Source: 2012 data obtained from REN

3.3.2 MONITORING INVESTMENT IN GENERATION CAPACITIES IN RELATION TO SOS

During 2012, regarding to new investments in generation, there were no developments in respect of the situation described in the previous report.

Under these terms, in addition to the already mentioned declassification of the Carregado plant in 2012, the expected evolution of the electricity generation system in the standard regime until 2020, is due, in accordance with REN[15], to the development of the projects for the construction of four new 400 MW CCGT groups already licensed and more recent information on the investment intentions of generators. However, in light of the current circumstances, these new investments may be revised.

The evolution of hydroelectric power generation facilities also did not experience any alterations, with increased capacity expected in existing plants, by a total of around 1,500 MW, of which 1,080 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 (PNBEPH) is expected to be completed by 2020. It envisages a series of another ten new power plants with a generation capacity of 1,100 MW, 810 MW of which will use reversible equipment.

[15] Report on the security of supply for the period from 2009 to 2020.

Regarding the SRG, as there were no modifications to the National Action Plan for the Renewable Energy (PNAER) during 2012, the evolution forecast for the installed capacity indicated in Table 3-10 was maintained.

Table 3-10 - Forecast for SRG generation

	2014 (MW)	2019 (MW)
Wind	5,600	6,950
Hydro (< 10 MW)	550	700
Biomass	913	943
Solar	580	1360
Waves	48	150
Geothermal	30	50
Cogeneration	2,230	2,590

Sources: "National Action Plan for Renewable Energy under Directive 2009/28/EC", DGEG.
"RNT Development and Investment Plan 2009-2014 (2019)" REN.

3.3.3 MEASURES TO COVER PEAK DEMAND OR SHORTFALLS OF SUPPLIERS

During 2012, 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 GAS MARKET

4.1 NETWORK REGULATION

4.1.1 UNBUNDLING

CERTIFICATION OF THE TRANSMISSION NETWORK OPERATOR

In 2012, the REN Gasodutos, S.A. certification process as 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 was characterised by relevant developments.

On one hand, the re-privatization of 40% of the share capital of REN – Redes Energéticas Nacionais, SGPS, S.A., which controls 100% of the capital of REN Gasodutos, S.A., was carried out. Through this, the Portuguese Government reduced its shareholding in the share capital of REN – Redes Energéticas Nacionais, SGPS, S.A. to 11%, thereby relinquishing control. The companies State Grid International Development Limited and Oman Oil Company S. A. O. C. become the main shareholders of the corporate group, with 25% and 15% of its share capital, respectively. This change in the shareholder structure was reflected, throughout the year, in changes to the members elected to the management bodies of REN – Redes Energéticas Nacionais, SGPS, S.A.

On the other hand, the changes introduced to Decree-Law no. 30/2006, of the 15th of February by Decree-Law no. 230/2012 of the 26th of October, clarified some aspects related to the transposition of Directive 2009/73/EC of the European Parliament and Council of the 13th of July, reinforcing the inspection powers of the RNTGN operator activities by ERSE, as the national regulatory authority, and by the Portuguese State, as granting entity.

Lastly, Law no. 9/2013, of the 28th of January granted ERSE powers in the scope of the penalties scheme in the energy sector, transposing, in addition to the alteration to ERSE's Statutes, the provisions established regarding the topic in Directive 2009/73/EC of the European Parliament and Council of the 13th of July.

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

organization and operation of the National Natural Gas System (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 electricity sector (Decree-Law no. 140/2006 of the 26th of July).

The process to revise the regulations, which include the RRC applicable to the natural gas sector, began in the second semester of 2012, setting out the terms and deadlines for the effects of approval, from 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. The RRC and other regulations covered by this regulatory revision have already been approved and were published in April 2013.

4.1.2 TECHNICAL FUNCTIONING

4.1.2.1 BALANCING

During 2012, the balancing rules included the Manual for Global Technical Management Procedures of SNGN (MPGTG) approved by ERSE. In fact, in 2012, the document of reference for the execution of the balances became the MPGTG. This document brought together, with the due revisions, the material previously distributed in the Manual for the Procedures of Account Settling (MPAC) and the Manual for System Operating Procedures (MPOS).

The MPGTG provides details of the methodologies for determining the breakdown of the relevant points of RNTGN from which the individual balances of the market agents are calculated. Specifically, this corresponds to the quantities of natural gas that each market agent has in the infrastructures which make up the RNTIAT.

In the case of RNTGN, market agents must manage the balance between the natural gas supply and demand 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 translates into a tolerance attributed to each market agent, proportional to the size of their customer portfolio and in accordance with 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 replace the individual balances applies penalties based on the storage tariff of the LNG terminal, in cases in which 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 balance 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 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 unambiguous allocation of costs, the balance of the market agents, as long as the imbalances are within the respective individual tolerances. The cost of this base service (residual balance) is incorporated in the tariffs for the use of the transmission network, and the implicit access to the linepack is proportional to the capacity attributed in the RNTGN to the market agents.

In addition to the implicit access to the linepack in the transmission network, a regulated third party access regime (rTPA) is applied explicitly for the storage of natural gas in the underground storage infrastructure of Carriço and at the Sines LNG terminal. ERSE approves the mechanisms for the attribution of capacity and the use tariffs for the abovementioned infrastructures, safeguarding the existence of the capacity available for the commercial management of the market agents.

ERSE monitored the access conditions to the storage infrastructures, especially the situations of possible congestion at the Carriço infrastructure, verified in 2012, noting that there has thus far been capacity available to satisfy requests from the market agents.

2012 was also marked by the entry into service of the third storage tank of the Sines LNG terminal which represented an addition of 988 GWh to the LNG storage capacity at the SNGN. This additional storage capacity allowed the regime governing third party access to natural gas storage, in the form of LNG, to be put into practice in contrast to the previous limit of 1580 GWh, which only allowed for the offering of standard services, aggregating the reception, storage and regasification of LNG.

4.1.2.3 THIRD PARTY ACCESS TO STORAGE

In 2012, the regulated third party access regime for natural gas storage infrastructures was applied at the SNGN.

It should be noted that Decree-Law no. 77/2011 of the 20th of June, and Decree-Law no. 231/2012 of the 26th of October, state that, in respect of third party access to networks, the structure of regulated access to the SNGN infrastructure is maintained, opening up, however, the possibility of new concessions for underground storage, not destined for the constitution and maintenance of emergency reserves, benefiting from a system of negotiated access.

4.1.2.4 CONNECTIONS

The regulations 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.

The RQS provides a general indicator and the respective standards for the repairing of defects in the customer's individual supply. This is an obligation imposed on network operators. Therefore, after being contacted by the customer, the network operator must arrive at the customer's installation, to carry out the repair, within a maximum period of between 4 hours (domestic customers) and 3 hours (non-domestic customers), in 90% of situations evaluated in a gas year[16].

4.1.2.5 QUALITY OF SERVICE

The RQS 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 RQS 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.

The annual report on the quality of service in the natural gas sector published by ERSE, provided in the RQS, is 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 autonomous LNG units) and the injection of natural gas into the transmission network.

[16]A gas year corresponds to a twelve month period, between the 1st of July in one year and the 30th of June in the following year, for which the natural gas tariffs are set and a quality of service report is prepared.

In the gas year 2011-2012, the most significant aspects in terms of the performance of the LNG terminal were the following:

- In the gas year 2011-2012, the number of carriers experiencing a delay in loading corresponded to 13% of the total. This value compares to 12% and 19% from the gas years 2009-2010 and 2010-2011 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.
- In the gas year 2011-2012, the number of unloadings from LNG carriers was 32, a reduction of 13.5% in comparison to the previous year. Like the previous gas year, there were no delays in the unloadings from LNG carriers.
- The natural gas injection appointments 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 2011-2012 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 three 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 gas year 2011-2012, of the 11 existing distribution networks, 5 did not register any interruptions (Dianagás, Duriensegás, Medigás, Paxgás and Sonorgás) and only 0.6% of the 1.3 million customer installations registered interruptions (lowest value since the gas year 2007-2008). No customer was affected by more than one interruption. The great majority (69%) 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 characteristics of natural gas 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. The supply pressure was monitored at 476 points in the distribution networks. There was an increase in the number of permanently monitored points in the networks of three operators (Lisboagás, Lusitaniagás and Portgás) and a reduction in the number of points not permanently monitored in the networks of four operators (Beiragás, Duriensegás, Setgás and Tagusgás).

In the gas year 2011-2012, there were one-off situations of non-compliance with the regulated 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 2012, 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 2012, the methodology for calculating natural gas infrastructure access tariffs was maintained.

The calculation of the tariffs complies with the calculation methodology previously set in the Tariff Regulation Code. ERSE is responsible for compiling and publishing the Tariff Regulation Code, and it must be submitted for public consultation and be the subject of an opinion from the Tariff Board prior to its approval. The tariff fixing process, including the time frame, is also defined in the regulations.

The following brief characterisation of the new Portuguese tariff system serves to contextualise the tariff calculation methodology.

Thus, the infrastructure access tariffs that apply to all natural gas consumers for access to the infrastructures in question are considered, more specifically the Network Access, Use of the LNG Reception, Storage and Regasification Terminal and Use of Underground Storage.

Generally speaking, these infrastructure access 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.

NETWORK ACCESS TARIFFS PRICES IN 2012

The variation in Infrastructure Access Tariffs for the 2012-2013 gas year, relative to the previous gas year, 2011-2012, are shown in the following table.

Table 4-1 - Variation in Infrastructure Access Tariffs for the gas year 2012-2013

Network Access Tariffs	Tariff variation 2012-2013/2011-2012
Customers in LP (up to 10,000m3/year)	12.0%

Network Access Tariffs	Tariff variation 2012-2013/2011-2012
Customers in HP (only includes TGCC)	21.9%
Customers in HP (does not include TGCC)	2.3%
Customers in MP and LP (above 10,000m3/year)	8.4%

High Pressure Network Access Tariffs	Tariff variation 2012-2013/2011-2012
Tariff for Use of LNG Terminal	7%
Tariff for Use of Underground Storage	-1%
Tariff for Use of Transmission Network	11%
Tariff for Global Use of System	-5%

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

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

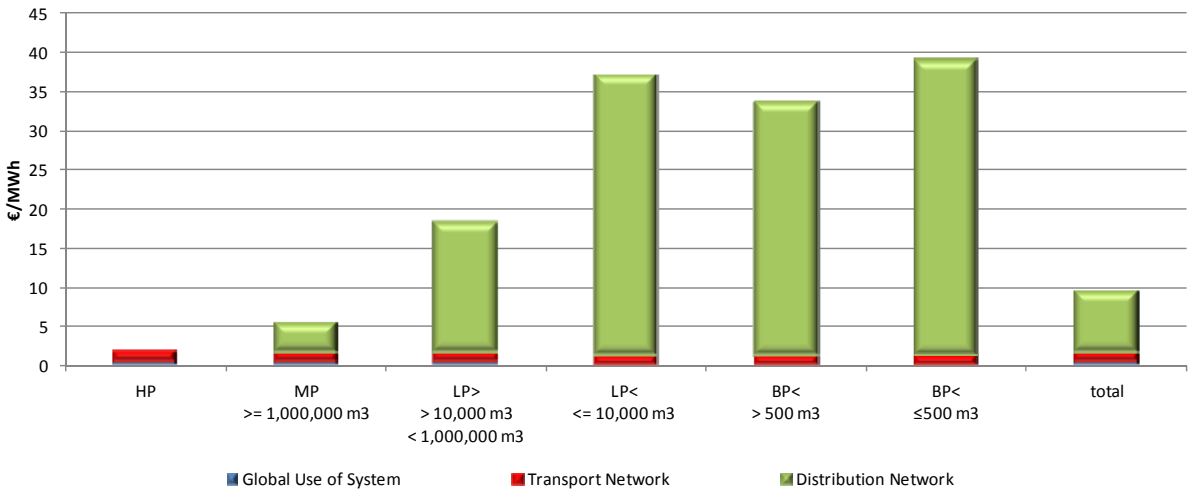
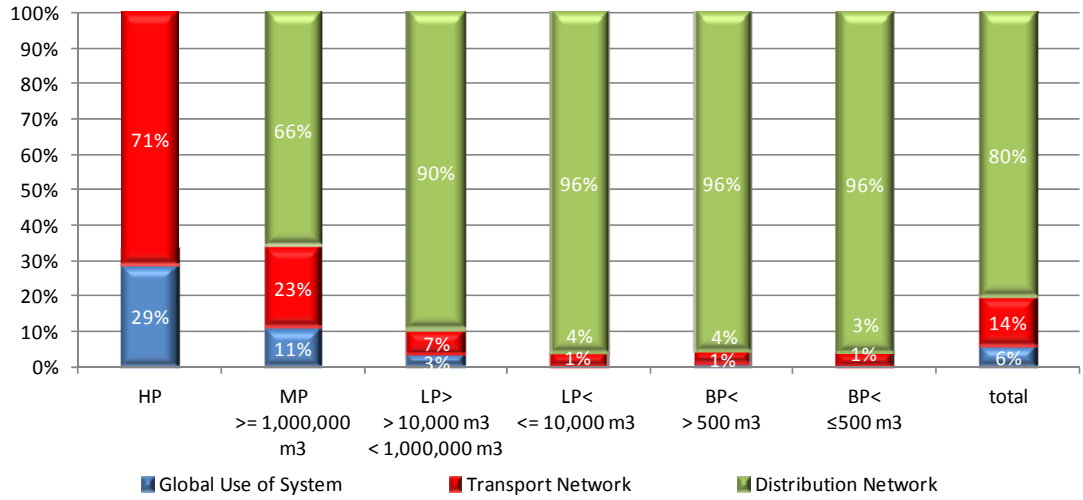


Figure 4-2 - Structure of the average price of Network Access Tariffs



REGULATED TARIFFS AND ACTIVITIES OF THE NATURAL GAS SECTOR

In the natural gas sector there are various regulated activities whose allowed revenue is established by ERSE and is recoverable by the following tariffs: Global Use of System, Use of Transport 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, this situation prevents cross-subsidisation between customers and ensures an efficient allocation of resources.

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 a supplier and in particular for customers who are less informed.

FORMS OF REGULATION IN THE DEFINING OF ALLOWED REVENUE

2012 was the third year of application of the new forms of regulation established in 2009 for the three-year period running from 2010-2011 to 2012-2013. As mentioned in the reports for the previous years, ERSE assessed the forms of regulation of the natural gas sector's activities, which resulted in some alterations.

The definition of the efficiency targets of natural gas distribution companies was based on a nationwide benchmarking study using parametric (OLS with panel data) and non-parametric (DEA) methods. In the case of the Trading activity, as this 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.

The annual efficiency factors applied to the unit operating costs (OPEX) vary between (i) 0.5% and 3.8% per company, in the case of distribution, and (ii) 3% for all last resort suppliers.

The implementation of regulation through incentives, applicable to the OPEX, was applied to almost the entire value chain of the natural gas sector, meaning reception, storage and the regasification of LNG, transmission, distribution and the supply of natural gas. It was only not applied to the activity of underground storage and the technical and global management of the SNGN.

During 2012, ERSE launched a public hearing open to all sector stakeholders aimed at getting to know their opinion on the regulator's proposal for the new economic regulation period which runs from July 2013 to June 2016. The main alterations in terms of the regulation methodologies for the next regulation period are listed below:

- Reception, Storage and Regasification of LNG: (i) price cap type methodology to be applied at OPEX level; (ii) creation of a tariff adjustments attenuation mechanism;
- Underground Natural Gas Storage: price cap type methodology to be applied at OPEX level;
- Natural Gas Purchasing and Supply to last resort suppliers: creation of a mechanism for the progressive acquisition of natural gas on the market by the Last Resort Wholesale Supplier (LRWS).

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 setting of tariffs for use of the networks relating to the following gas years:

- Gas year 2010-2011: 1st July 2010 to 30th June 2011;
- Gas year 2011-2012: 1st July 2011 to 30th June 2012;
- Gas year 2012-2013: 1st July 2012 to 30th June 2013.

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.

CONNECTIONS TO NETWORKS

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.

RNTIAT DEVELOPMENT AND INVESTMENT PLAN

In 2012, the revisions to the PDIR, submitted by REN in 2011, were not submitted, which led to their non-approval by the minister responsible for energy. However, Decree-Law no. 77/2011 of the 20th of June and Decree-Law no. 231/2012 of the 26th of October set out a new approach to the approval of the investment plans, which are now submitted to a public consultation, led by ERSE, prior to approval. In the first quarter of 2013, a new process for approving the PDIR, integrating the revisions needed for the PDIR proposal submitted in 2011, was initiated for the natural gas sector and submitted for public consultation.

4.1.4 CROSS-BORDER ISSUES

The mechanisms for capacity allocation and the resolution of congestion in the SNGN infrastructures are set out in accordance with the provisions of the Regulation for Access to Network, Infrastructures and Interconnections (RARII) which ERSE is responsible for publishing.

2012 was marked by the regulatory revision of the natural gas sector during which all the regulations within ERSE's sphere of responsibility were revised, including the RARII. During the revision of the RARII, a set of principles were added to anticipate the implementation of the rules given in the Network Code regarding the allocation of capacity (Network Code on Capacity Allocation Mechanisms), for which ENTSOG is responsible, also published in 2012.

According to the RARII, ERSE is responsible for the approval of the Procedures for Access to SNGN Infrastructures Manual (MPAI) which will be published in 2013, changing the rules currently in force, integrated in the capacity allocation mechanisms and procedures for the management of congestion of SNGN infrastructures. The MPAI must consider the substantiated proposals presented by SNGN infrastructure operators and will, later, be submitted to a consultation process involving the entities to which it applies.

Regarding the capacity allocation, it must be stressed that, with the current infrastructures, no actual situations of congestion have been noted in the SNGN infrastructures. Therefore, given the lack of storage capacity, rules and procedures to be applied to the storage infrastructures in this respect were approved in 2011. Conversely, as there was excess capacity in the transmission network and at the Sines LNG Terminal, no congestion resolution mechanisms were approved for these infrastructures. However, in the RARII, the main guidelines for their approval have been set.

The capacity allocation mechanisms in force only allocate capacity on an annual basis, i.e. long term commitments are not allocated. This is why the transition of the current rules to those in the Network Code regarding the capacity allocation is not subject to strong constraints on the Portuguese side.

ACCESS TO INTERCONNECTIONS

In the context of ACER's south of Europe regional gas initiative, which aims to implement a regional natural gas market, the harmonisation of the capacity allocation mechanisms in the three countries of the south region (Portugal, Spain and France) has been set as priority. Through this, according to the European guidelines and in the context of MIBGAS, the Portugal and Spain interconnected network operators must allocate capacity in their interconnections through a Mechanism for the Allocation of Joint Capacity in the Portugal/Spain Interconnections (Valença do Minho and Campo Maior).

The works for the implementation of the Mechanism for the Allocation of Joint Capacities in the Portugal/Spain Interconnections began in 2011, and are based on the Framework Guidelines on Capacity Allocation published by ACER. ERSE and CNE are responsible for the approval of this mechanism, and is subject to consultation extended to all stakeholders.

The Mechanism for the Allocation of Joint Capacities in the Portugal/Spain Interconnections is expected to harmonise procedures for the allocation of capacity, implementing bundled products, eliminating the

differences which are currently seen in the methodologies applied on each side of the border. This mechanism was implemented in 2012 taking effect between the 1st of October 2012 and the 30th of September 2013 but the auctions for the allocation of capacity for annual and quarterly products remain deserted. This fact is due to two aspects: on one hand, the continuation of the existence of transmission network use contracts, with a duration greater than one year, on the Spanish side of the interconnections, and on the other, the option of market agents to requisition capacity for shorter periods of time which, in the current context, are attributed according to the rules and principles currently implemented in each country.

In light of this, we must wait for the conclusion of some transmission network use contracts on the Spanish side, whose commitments, in terms of capacity, limit a wider application of this concept.

COOPERATION

In 2012, the Mechanism for the Allocation of Joint Capacities in the Portugal/Spain Interconnections, following the cooperation between ERSE and CNE initiated in 2011 for this purpose, was concluded and implemented.

The Portuguese and Spanish transmission network operators have been cooperating closely with each other with a view to the inter-operability of the two systems. This cooperation was established through Portugal/Spain interconnection management agreements, however, there was no harmonisation of the capacity products for the interconnections. As a result of the decision to implement the Mechanism for the Allocation of Joint Capacities 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 in the interconnections. Therefore, notwithstanding the limited response of the market operators to the Mechanism for the Allocation of Joint Capacities in the Portugal/Spain Interconnections, the operators of both countries implemented the capacity allocation mechanism, adopting a Virtual Interconnection Point (VIP), having also initiated joint auctions for the aforementioned VIP and obtained recognition from the market agents in both systems.

In addition to capacity products, ERSE and CNE made efforts to progressively eliminate the pancaking tariff and the mutual recognition of the market agents.

Pertaining to the first aspect, the harmonisation of the network access tariff systems is particularly relevant. The distortions and difficulties which may result from the application of the access tariffs to traffic between Spain and Portugal for the creation of an Iberian market must be studied, together with the pancaking effects and the discrimination between the domestic flows and traffic. In this context, in 2011, ERSE and CNE prepared a comparative study of the network access tariffs applicable to the traffic between Portugal and Spain. The study was submitted for public consultation in January 2012 with a view to obtaining proposals from interested parties on the harmonisation of the tariffs. The public consultation

document, in addition to characterising the natural gas tariff systems in Spain and Portugal, presented an analysis of the prices paid for the use of the interconnections. A price differential of approximately 3 €/MWh, applied by a supplier who used the interconnection to supply the market of one of the countries with gas injected in the adjacent country, was observed. This price differential may represent approximately 10% of the natural gas wholesaler price for a combined cycle installed in Portugal and supplied with gas from Spain. Lastly, the document submitted for consultation put a set of questions to market agents on the integration of the gas markets in Portugal and Spain and the access tariffs for the interconnections.

In 2012, ERSE and CNE finalised the analysis of the document with the comments received in the scope of the public consultation. The public consultation received answers from 16 market agents and network operators, representing the main agents who participate in the Iberian natural gas market. The comments received were analysed and a summary document of these comments was prepared. All the information is available on the ACER, CNE and ERSE websites. The document presents the positions of the market agents and serves as a milestone for the tariff harmonisation process. Next the comments received will be analysed and the final proposal will be drafted for network access tariff harmonisation rules to be applied to traffic in MIBGAS which will allow them to be applied in each country by the authorities responsible for the establishing them.

Pertaining to the second aspect, ERSE and CNE submitted a proposal of mutual recognition of the natural gas supply licences for MIBGAS to the respective governments.

MONITORING OF RNTGN OPERATOR INVESTMENTS

In early 2011, REN presented the RNTIAT Development and Investment Plan (PDIR) for the period between the 2nd semester of 2011 and the first semester of 2014, with a global time frame from 2011 to the end of 2020.

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 legislation alterations adopted, for the domestic legal framework, what was established in the third package of community law on the internal natural gas market. Even though the PDIR was submitted before the publication of the abovementioned Decrees, it was verified that this document already integrated 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 to Portugal.

At the beginning of the second semester of 2011, ERSE presented their opinion on the PDIR limiting its position to a downward revision on the expected demand for natural gas on a national level, more in line with current economic circumstances. ERSE took into consideration for its opinion the coherence

between the PDIR and the ENTSOG plan for the development of European networks and infrastructures, especially the infrastructures for which there are formal decisions for their development.

The 2011 PDIR proposal was not approved by the ministries, and so it is expected that the PDIR proposal for the natural gas sector to be submitted in 2013 meets the criteria of the new legislation, in particular the conducting of a public consultation for the approval of the aforementioned plan.

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 PDIR.

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:

- Issuing decisions binding on natural gas companies;
- Carrying our 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.

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 the installations of the natural gas suppliers to assess their compliance with the law and regulations of the sector, particularly in relation to specific obligations relating to the Complaints Book.

Based on what is described in the similar chapter regarding electricity, it should be stressed that the alteration to ERSE's Statutes, brought about by Decree-Law no. 2012/2012 of the 25th of September, was aimed at the integration of the measures given in the Third Energy Package whose objectives focused on the increase in competition, the creation of an efficient regulation and incentives to investments that benefit consumers.

Decree-Law no. 74/2012 of the 26th of March extended the elimination of the regulated natural gas end user tariffs with annual consumption of less than or equal to 10,000 m^3. In particular, the extinction of regulated end user tariffs for customers with annual consumption greater than 500 m^3 from the 1st of July 2012 or with annual consumption of less than or equal to 500 m^3 from the 1st of January 2013 was carried out. The same Decree-Law determined a regime for the application of transitory tariffs during

which last resort suppliers will continue to supply natural gas to customers who do not decide to switch supplier.

Lastly, the publication of Decree-Law no. 230/2012 of the 26th of October which proceeded with the fifth change to Decree-Law no. 30/2006 of the 15th of February and Decree-Law no. 231/2012 of the 26th of October which was the third alteration to Decree-Law no. 140/2006 of the 26th of July, complementing the transposition process of Directive 2009/73/EC of the European Parliament and Council of the 13th of July, should be underlined.

During 2012, there was no decision from ACER or from the EC specifically directed at ERSE.

4.2 PROMOTING COMPETITION

4.2.1 WHOLESALE MARKETS

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 20% in demand for natural gas from the large electricity generation centres and an adverse economic climate, the volume of natural gas supplied in 2012 was lower than in 2011.

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, 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, 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.

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.

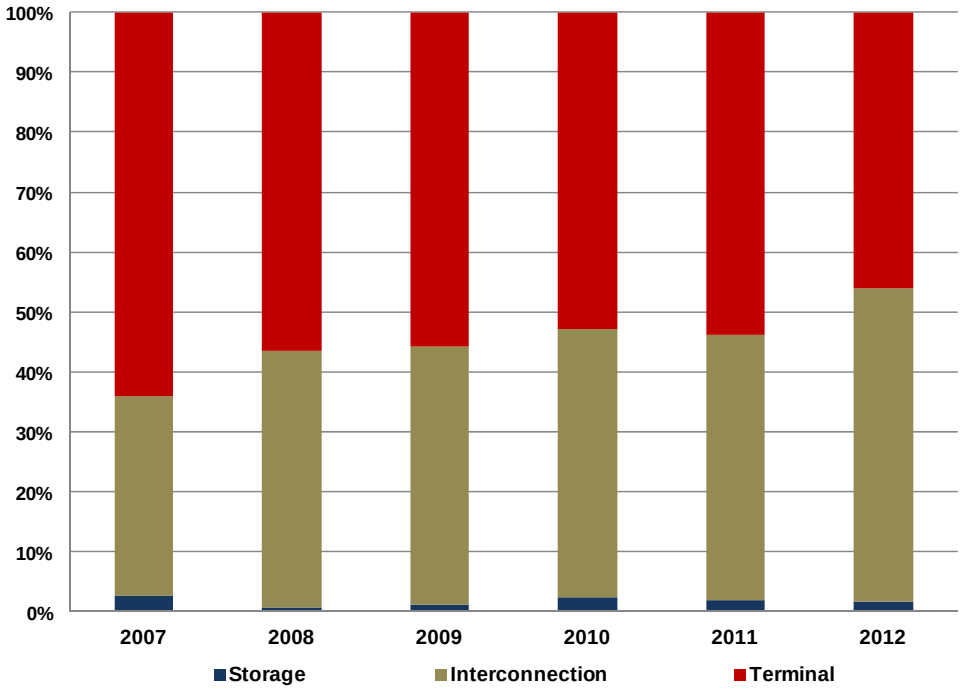
As the information on the characterisation of the transactions includes, in itself, commercially sensitive information, it is clear that, in the regulatory context, one can forecast the existence of mechanisms which, on one hand, ensure the safeguarding of commercially sensitive information and, on the 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 characterisation of the supply is shown in Figure 4-3, where it can be seen that until 2011, the terminal (contracts for LNG from Nigeria) was responsible for most of the natural gas sold on the Portuguese market. The value in 2012 amounted to around 46% of the total amount of gas contracted. However, a gradual reduction in the importance of the terminal as opposed to the use of the interconnections, at both the Campo Maior and Valença entrances, is worth noting, with the interconnection with Spain being the main supply route in 2012, representing approximately 52% of the total volume of gas contracted. Moreover, in relation to the

latter, at the start of the decade of 2000, it was essentially used for continuous outgoing international traffic to Spain, a situation which has been inverted over the last five years.

Figure 4-3 - Breakdown of supply by infrastructure



The legal framework for the sector, namely that created by the laws published during 2006, has since established both the unbundling of activities and the operation of the sector on a market-driven basis. To this end, the take or pay type supply contracts themselves fall into a regime which allows the placement of contractual quantities onto the market through auctions to release excess quantities of natural gas.

In 2009, ERSE introduced auctions to release excess quantities of natural gas, the first of which was held in the 2009-2010 gas year. With the objective of stabilising the liberalisation process of the sector and giving market agents some predictability in the programming of their operations, ERSE determined the holding of identical auctions for the next two gas years.

From the three annual auctions initially planned, only the auction related to the 2009-2010 gas year was actually held (on the 10th of February 2009). As for the other two auctions (for the 2010-2011 and 2011-2012 gas years) ERSE advised that they would not be held as the minimum competition conditions had not being met regarding the placing of the quantities of gas for auction.

4.2.2 RETAIL MARKET

During the first semester of 2012, a change in legislation led to a calendar for the extinction of regulated tariffs for the sale of natural gas, as provided for in the Memorandum of Understanding signed between Portugal and the European Union, the European Central Bank and the International Monetary Fund.

According to the calendar defined by the Government, end user tariffs published by ERSE for customers with annual consumption of less than or equal to 10,000 m^3 and greater than 500 m^3 ceased to exist on the 1st of July 2012. This set of customers corresponds, in majority, to larger households and small companies.

This calendar follows the previous regulated tariff extinction process which already covered the group of customers with annual consumption of more than 10,000 m^3.

Although all natural gas customers have been able to freely choose their supplier since January 2010, the calendar now defined concludes the liberalisation process for the natural gas retail market. In real terms, at the end of 2012, more than 80% of natural gas consumption within the conventional segment (excluding standard regime power plants) was being supplied by market regime suppliers.

The number of customers who switched from a regulated tariff to the market or who began consumption directly in the liberalised market was, in 2012, approximately 24 times higher than in 2011. At the end of 2012, more than 145,000 consumers, in a universe of approximately 1.2 million, switched supplier through the respective platform and, of these, more than 2,500 were consumers from the industrial market, which translates into more than 60% of the total number of consumers in this segment.

During 2012, and in spite of the improvements introduced in the supplier switch platform over recent years, so as to allow agents to make supplier changes through automated procedures, and also include the tools needed to generate information for the monitoring process, the information provided by some suppliers regarding the retail market were not consistent enough to be validated and analysed by ERSE.

The values collected throughout 2012 consolidate justifiable doubts that the information received and circulated by ERSE corresponded to a truthful and reliable report of the natural gas market.

Therefore, ERSE determined that an independent audit should be conducted on the natural gas distribution companies from the GALP group and Tagusgás, in order to reinstate the transparency conditions and guarantee the trust of consumers in the real description of the natural gas market, which is relevant to more than 1.2 million customers. In this scope, the Competition Authority was also notified of these facts so as to analyse possible infractions of the rules of competition in force.

Therefore, the values presented in this report correspond to the best information in ERSE's possession, but is not yet completely certified by an independent entity that guarantees that said information corresponds to the truthful and reliable characterisation of the natural gas retail market.

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

METHODOLOGY FOR GATHERING 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. This monitoring of market prices is supplemented by the reports issued by the official bodies (INE and EUROSTAT) and is of great importance to those who participate in the electricity sector.

Natural gas suppliers have to send ERSE the reference prices each year [17] and also send the average prices actually practised by retail market suppliers quarterly.

In 2010, with the objective of defining a methodology for the monitoring of reference prices and average prices practised by natural gas suppliers, ERSE began the process to establish the respective rules for monitoring reference prices and average prices practised on the natural gas retail market based on consulting natural gas suppliers in mainland Portugal. The new rules were published in December 2010, and the supervision of the prices began in 2011.

The reference prices sent by the various suppliers operating in the market, in mainland Portugal, allowed ERSE to provide a price simulator for installations with annual consumption of less than 10,000 m^3 on its website in 2012. The average prices practised, which ERSE only began receiving in 2011, under the scope of the aforementioned ordinance, permit a database to be set up in order to analyse retail market operations.

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 customers choose a supplier, ERSE has provided a simulator on its website since August 2012 that will give natural gas consumers objective information so that they can make informed choices, namely regarding the selection of the best offer on

[17] Reference prices should be viewed as a set of tariffs, tariff options and respective prices and indexes per billing variable offered by suppliers to their customers, and also the conditions for the application of the tariffs, namely the characteristics for minimum consumption, duration of contracts and conditions for the revision of prices.

the market. The simulator compares prices in mainland Portugal for installations with annual consumption of less than 10,000m^3.

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.

With the European and domestic legislation for natural gas as a reference, the regulations approved by ERSE list the main information which must be included in the content of any natural gas supply contract. In the case of a last resort supplier, the general contract conditions must contain the minimum information approved by ERSE. Suppliers in the market regime must send ERSE a copy of the general contract conditions proposed to customers, which must also be published on their respective websites. For suppliers who are able to supply natural gas to customers with an annual consumption of up to 10 000 m^3, the corresponding contract proposals must be presented on their websites, in the form of a public offer.

Periodically, ERSE carries out an evaluation of the general contract conditions in force and gives supplier suggestions as to alterations that may be more in accordance with information requirements on the market at any given time. Whenever justified, ERSE also makes recommendations to natural gas suppliers, taking into account the adoption of commercial practices which are more appropriate to a better operation of the market and subsequent increase in the satisfaction of the collective needs of consumers. These recommendations are not binding, but ERSE, and the public in general, must be informed of their non-acceptance or execution and the reason for their not being observed.

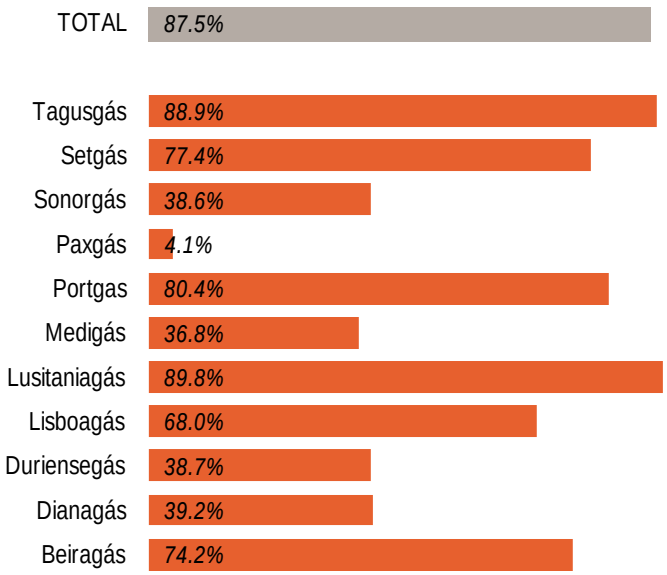
COMPETITION EFFICIENCY

In 2011, the framework defined in the Third Package was transposed into domestic law relating to the natural gas sector, with the sales activity being based on the market. Last resort sales were left with a residual role in the scope of the protection of vulnerable customers. Therefore, the national legislator defined the calendar for the extinction of the regulated tariffs for last resort suppliers. The process began with the larger consumers. Since July 2012, transitory tariffs have been applied to last resort suppliers' customers with annual consumption greater than 500 m^3.

In terms of the effective liberalisation of the market, excluding the group of suppliers to electricity generation centres in the standard regime, Figure 4-4 presents the market share (in consumption), in 2012, which is being supplied by suppliers in the market regime. The information is given for the distribution networks with the exception of the two smaller ones for which values were not defined. It can be seen that over two thirds of the total consumption, with the exception of that of electricity producers, is

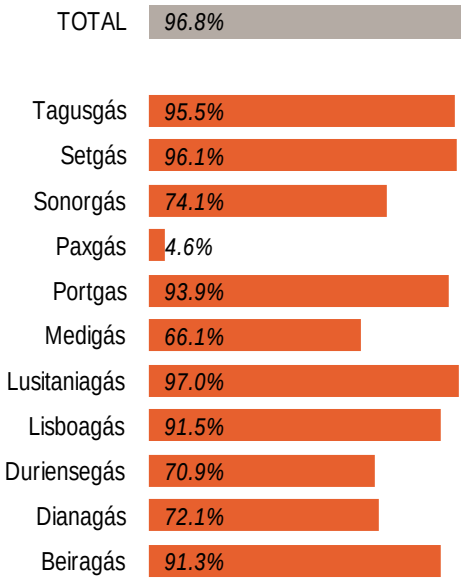
guaranteed by market suppliers and this value is generically higher among the leading natural gas distributors.

Figure 4-4 - Effective opening of the natural gas market in 2012
Total energy consumption, excluding electricity generation centres



Taking into account that during 2012 the extinction of the regulated tariffs for customers with annual consumption greater than 10,000 m^3 was carried out, and that only in July 2011 did the tariff extinction include customers with consumption greater than 500 m^3, it is important to note the occurrence of the opening of the market in 2012 in the customer segment with greatest consumption, a fact which is shown in Figure 4-5.

Figure 4-5 - Effective opening of the natural gas market in 2012
Customers with annual consumption greater than 10,000 m³ (Energy)



Globally speaking, the values specifically relating to the customer segment with extinct tariffs (customers with an annual consumption of greater than 10,000 m^3) follow the same rationale as all customers. It should be noted that more than 96% of consumption from this group of customers is already being supplied by market regime suppliers.

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

As mentioned earlier, REN Gasodutos is the body entrusted with the operationalisation of the supplier switching process. It began to implement the logistical platform for this purpose in 2009. The process was undertaken in stages so as to respond to the opening up of the market to all industrial consumers and to enable domestic customers to switch suppliers.

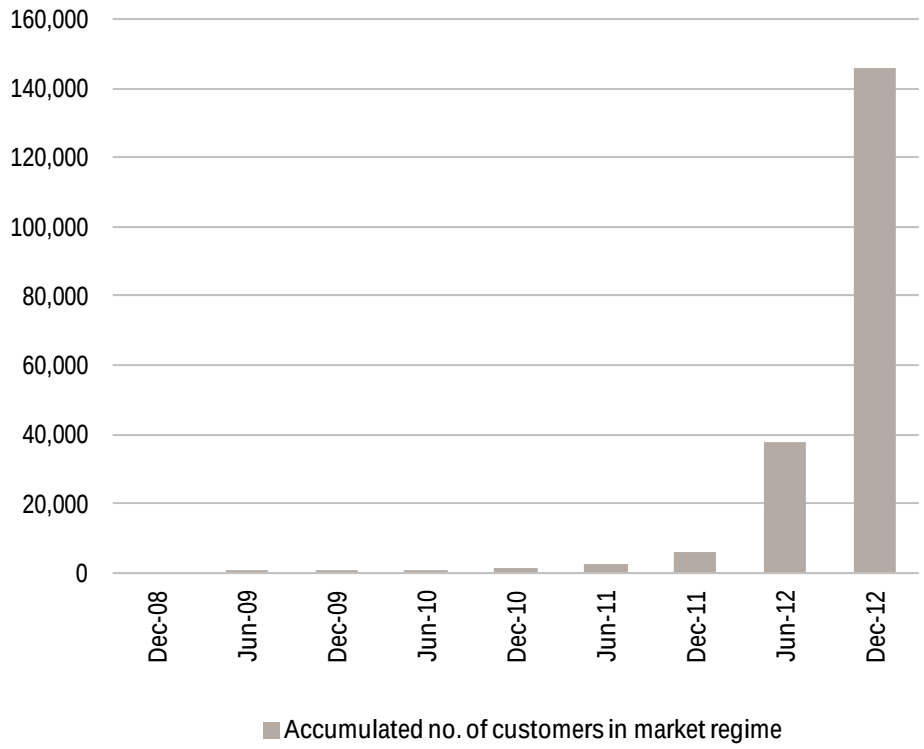
In 2012, the information obtained, namely pertaining to the structure of the market in each distribution network, still did not meet the consistency and regularity recommended by ERSE. This fact was repeatedly passed onto the different parties involved and led to the public communication where ERSE determined that an independent audit would be conducted on the natural gas distributing companies of the GALP group and Tagusgás. In this scope, the Competition Authority was notified of these facts so as to analyse possible infractions of the rules of competition in force.

However, based on the information available, the natural gas market for 2012 can be characterised in similar fashion to 2011 but in slightly more depth than was possible in previous years. 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 2012, approximately 24 times higher than what was seen in December 2011.

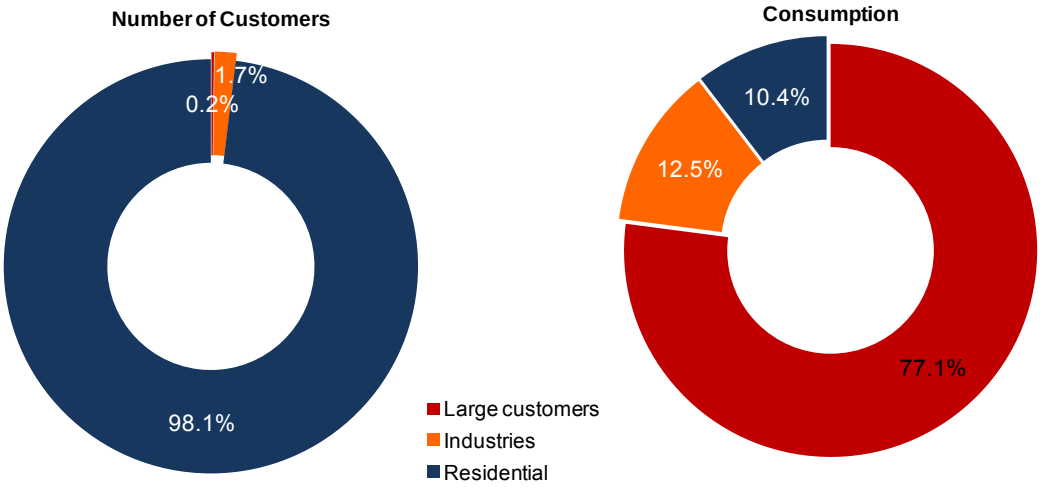
Figure 4-6 shows the evolution in the accumulated number of customers in the liberalised market from the end of 2008 to the end of 2012, whose new supplier selection process was processed via a platform managed by REN Gasodutos. From this figure it can be seen that, at the end of 2012, more than 145,000 customers had switched supplier through the above-mentioned 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, more than 2,800 are large customers (annual consumption greater than 1 million m^3), or customers in the industrial segment (annual consumption greater than 10,000 m^3), which translates into approximately 2% of the total number of customers in the free market, as can be seen by analysing Figure 4-7. In terms of consumption, these customers represent almost 90% of the total consumption in the free market.

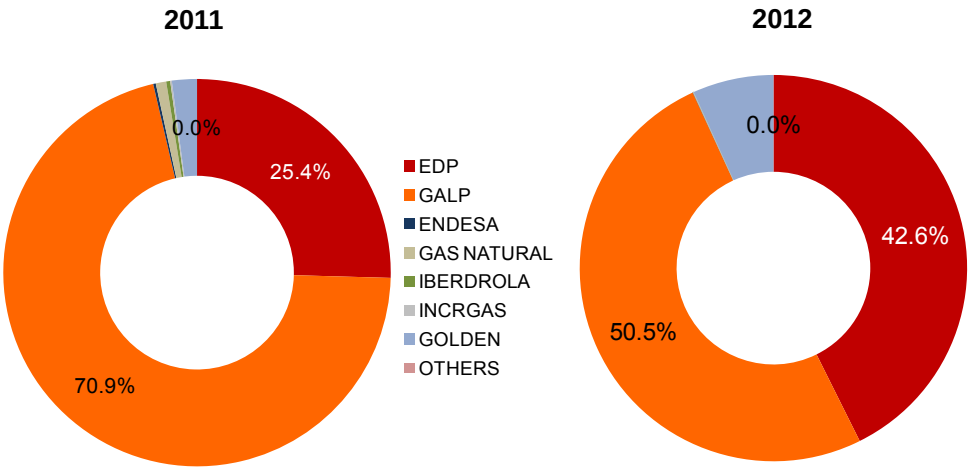
Figure 4-7 - Breakdown of the number of customers and consumption in the liberalised market by customer segment at the end of 2012



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 around 96% of the total number of customers who switched supplier in 2011 are supplied mainly by GALP but also EDP, which shows that retail gas market is still highly concentrated. Even so, in 2012, customer distribution between these two operators was less one-sided and there was substantial growth by Goldenergy, which has committed to the residential segment. Thus there was a reduction in the corporate concentration in 2012 pertaining to the number of customers in their portfolio.

Figure 4-8 - Breakdown of customers attracted by suppliers in the market in December 2011 and December 2012



Based on the information of consumption supplied, Figure 4-9 shows the breakdown of consumption by supplier, explaining the market structure in 2011 and 2012. This structure shows a corporate concentration which can be seen to be inferior in consumption to what is identified in terms of number of customers. 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 2011 and December 2012

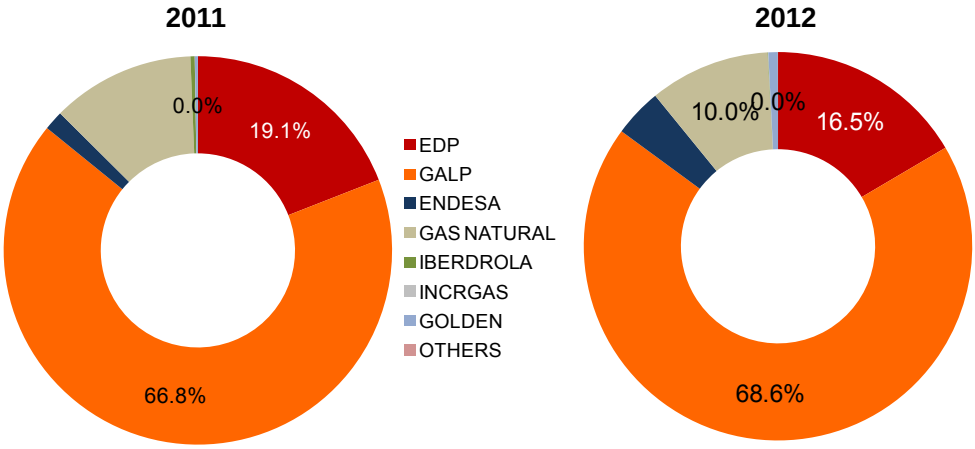


Figure 4-10 shows the breakdown of market share by distribution system in terms of consumption supplied. Therefore, with the exception of Lisboagás (LBG), Sonorgás (SNG) and Duriensegás (DRG), the GALP group holds a market share greater than 50% in all the distribution networks. The same is true

in relation to customers directly connected to the transmission network in which the GALP group holds a market share in the supplied consumption of almost three-quarters.

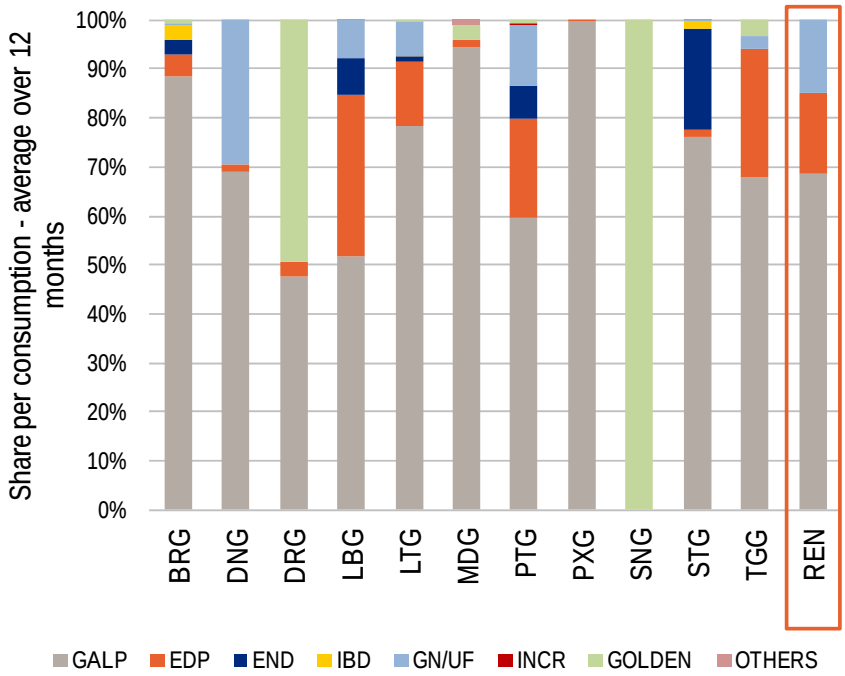
The EDP group takes second position in terms of share of natural gas supply, with its position based on distribution networks operated by Lisboagás (LBG), Lusitaniagás (LTG), Portgás (PTG), Setgás (STG) and Tagusgás (TGG).

The Gas Natural group, the third market operator, has a more significant position in the distribution networks managed by Dianagás (DNG), Portgás (PTG) and Lisboagás (LBG).

Goldenergy, the most prominent entrant, has a more significant position in the distribution network managed by Duriensegás (DRG), in addition to the Sonorgás (SNG) network, where it is the only supplier operating.

Endesa presents its largest market share in the distribution network managed by Setgás (STG).

Figure 4-10 - Breakdown of consumption supplied by suppliers in market regime in 2012 and by distribution and transmission system



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

RECOMMENDATIONS FOR SUPPLY PRICES

In the context of regulated natural gas end user tariffs in LP with annual consumption of less than or equal to 10,000 m^3 in 2012, 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

In June 2012, ERSE held a clarification session with all market operators related to the implementation of European regulations pertaining to the integrity and transparency in energy wholesale markets (REMIT), which was aimed at establishing a fair level of preparation for compliance with the provisions of the regulations. These rules are related to the promotion of a more transparent market and the affirmation of more effective competition in the natural gas sector.

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.

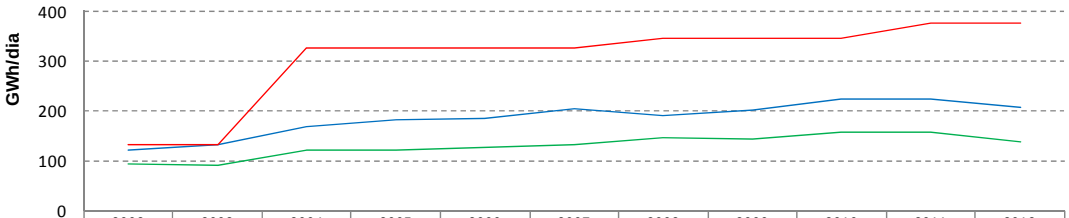
4.3 SECURITY OF SUPPLY

4.3.1 MONITORING BALANCE OF SUPPLY AND DEMAND

Figure 4-11 shows the evolution of the capacity supply in SNGN[18], average daily consumption of natural gas and annual peaks in consumption, between 2002 and 2012.

[18] 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 4-11 - Evolution in the supply capacity in SNGN, daily average consumption and consumption peaks between 2002 and 2012



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Daily consumption peaks	121	133	170	182	185	204	191	203	225	224	207
Daily supply capacity	133	133	326	326	326	326	345	345	345	377	377
Daily average consumption	95	92	121	121	126	134	147	145	158	158	138

Source: REN Gasodutos

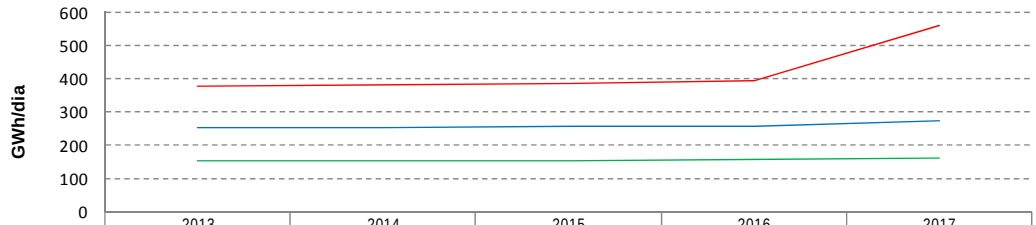
The analysis of the previous figure shows a large gap between the capacity offered in SNGN and the peaks in consumption, especially from the time when the Sines LNG terminal began operating in 2004. In 2012, the average daily consumption and the peak in consumption represented, respectively, 54.9% and 36.5%, of the entry capacity offered in SNGN, which represents the gap that exists between the capacity available for commercial purposes and the capacity used.

ERSE monitors the attribution of capacity in RNTGN, in particular the level of capacity which exists for commercial purposes in comparison to the capacity used.

4.3.2 EXPECTED FUTURE DEMAND AND AVAILABLE SUPPLIES AS WELL AS ENVISAGED ADDITIONAL CAPACITY

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

Figure 4-12 - Forecast for the evolution in the supply capacity in SNGN, daily average consumption and consumption peaks between 2013 and 2017



	2013	2014	2015	2016	2017
Forecast daily consumption peaks	252	254	257	257	273
Forecast daily supply capacity	377	381	387	393	560
Forecast daily average consumption	152	154	155	156	163

Source: REN Gasodutos

Through the analysis of the figure above, the increase in supply capacity in SNGN can be clearly seen, due to the entry into operation of the capacity reinforcement of the Sines LNG terminal (June 2012), the Aveiras compression station (end of 2015) and the third interconnection to Spain (end of 2016), allowing a comfortable gap to be maintained between capacity available for commercial purposes and forecasted capacity use for the coming years. According to REN's forecasts, average daily consumption and peak consumption will represent, respectively, 48.8% and 29.1%, of the entry capacity offered in SNGN in 2017.

4.3.3 MEASURES TO COVER PEAK DEMAND OR SHORTFALLS OF SUPPLIERS

The national 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 increase in the security of supply.

Another of the initiatives aimed at the security of supply, the diversity of the supply sources and the coverage of peaks in consumption, is the integration of the Portuguese and Spanish markets in the scope of MIBGAS. Indeed, in 2012, 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 the diversification of supply sources in Spain.

In addition to the measures adopted to safeguard the security of supply and the covering of peaks in 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 electricity generating plants of Tapada do Outeiro and Lares have bi-fuel groups, and were granted the interruptibility statute by DGEG, for the purpose of forming security reserves. In this context, it is possible to act on the demand side in a situation of covering peaks in consumption or when there is a disruption in supply to SNGN.

The legislative framework in force also provides for the constitution of backup reserves which are intended to give SNGN the means to respond to situations when there are breaks in the supply and/or coverage of extreme peaks in consumption. In this context, the reinforcing of the Carriço underground storage infrastructure and the reinforcing of the storage component of the Sines LNG terminal enable compliance with the requirements set in Portuguese law and community regulations, namely 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 IN ELECTRICITY AND GAS

5.1 CONSUMER PROTECTION

In the scope of the transposition to the third energy package, especially the provisions of Annex I to the Directives related to the internal electricity and natural gas market, respectively Directive 2009/72 EC and Directive 2009/73/EC, both from the European Parliament and Council, of the 13th of July, in 2012, the following developments were registered in terms of consumer protection:

- Under the regime established for the process of the extinction of regulated sales tariffs for end customers, Decree-Law nos. 74/2012 and 75/2012, both of the 26th of March, established additional protection measures for economically vulnerable customers, respectively for natural gas and electricity. These measures led to the following rights:
    - Demands for payment of the electricity or natural gas supply service must be sent to economically vulnerable end customers, in writing, no less than 20 working days prior to the date set for the payment of the bill;
    - In case of late payment that justifies the disruption of supply, this can only occur after the economically vulnerable end customer has been sent a final written demand for payment no less than 15 days in advance.

  These mechanisms for safeguarding economically vulnerable end customers were reiterated in the regulation of the electricity sector, with the alteration of the RRC through Regulation no. 468/2012 of the 12th of November and in the regulation of the natural gas sector already approved in 2013;
- The base legislation on the organization and operation of the SEN and SNGN was also modified and republished in 2012, respectively through Decree-Law no. 215-A/2012, complemented by Decree-Law no. 215-B/2012, both of the 8th of October, and Decree-Law no. 230/2012, complemented by Decree-Law no. 231/2012, both of the 26th of October. This same legislation established and highlighted measures to strengthen the protection of electricity and natural gas consumers, in terms of information, the contracting of supply services and the resolution of conflicts, with emphasis on the following aspects:
    - Indication of ERSE as the single point of contact responsible for publishing information to consumers through its website;
    - Increased responsibility for retailers to keep consumers informed for the duration of supply contracts and in the pre-contractual stage;
    - Contracts to contain information on the main rights and obligations of consumers, in accordance with Annex I of the electricity and natural gas directives;

  - Duty to provide information to customers about their consumption, with sufficient frequency so that they are able to regulate and manage their own consumption;
  - Promotion of the use of procedures for out-of-court resolution of disputes, in particular the mechanism of arbitration provided by the arbitration centres for consumer disputes (compulsory when the consumer expressly chooses this option);
  - Ensure the handling of complaints by independent entities such as ERSE and DGEG, the latter for technical issues;

- The same base and complementary legislation widens the supply obligation of last resort suppliers to situations in which a supplier in the market regime is temporarily prevented from selling electricity or natural gas, or when an absence of supply is registered in the market in given geographical areas, through the application of a specific tariff. Economically vulnerable customers retain the right of choice between a market regime supplier and a last resort supplier. In parallel, the obligation to present supply proposals by suppliers in the market regime, within their respective scope of activity, is reiterated, and their terms must be sent to ERSE for approval;
- Worthy of note for the protection of electricity consumers, in 2012, ERSE approved Directive no. 2/2012 of the 6th of January and Directive no. 8/2012 of the 21st of June. Directive no. 2/2012 approved the new Guide for the Measuring, Reading and Availability of Data, containing rules, namely regarding measuring, reading and consumption estimation equipment for billing purposes and the correction of errors. Directive no. 8/2012 addressing the management of the supplier switching process introduced, specifically, the procedures needed for the establishment of the maximum terms provided for in Directive 2009/72/EC of the European Parliament and Council, of the 13th of July for the supplier switching process (to be done in three weeks), and the final settlement of accounts (six weeks after the change);
- The studies on the cost-benefit analysis of the implementation of intelligent meters in the electricity sector and in the natural gas sector were concluded.

5.2 DISPUTE SETTLEMENT

ERSE's information and energy consumer support services are based on three main intervention axes: information, training/education and resolution of conflicts.

In 2012, ERSE received 7,053 complaints, of which 5,670 were related to the electricity sector and 1,347 to the natural gas sector.

Of the total complaints received, 4,721 (approximately 66%) were complaints from the Complaints Books of the companies against whom the complaints were lodged, with 80% of these relating to the electricity sector and 20% relating to the natural gas sector.

Billing, the interruption of supply, the quality of the commercial service and the supply contract are the topics which required most attention from ERSE in 2012, in the electricity sector and in the natural gas sector. In the case of the latter, the quality of the commercial service was an exception.

The weight of complaints related to the customer service of the service providers, which is included within the quality of the commercial service, is significant and is often characterised by complaints made on impulse for which the obligatory existence of a Complaints Book in regulated sector companies is a contributing factor.

In 2012, ERSE also received a total of 2,570 requests for information, of which 2,039 (about 79%) related to the electricity sector and 236 (9%) to the natural gas sector. The remaining 12% related to other services. The topics which required the most clarification from ERSE were how to switch supplier, the tariffs and prices and the connections to the networks.

The telephone service operated by ERSE daily between 3 p.m. and 6 p.m., received 1,503 telephone calls in 2012, meaning an average of 125 calls a month.

ACRONYMS

- ACE – Energy Consumers Support Office.
- ACER - Agency for the Cooperation of Energy Regulators
- CCGT – Combined Cycle Gas Turbine.
- CEER – Council of European Energy Regulators.
- CIEG – General Economic Interest Costs.
- CNE – Comisión Nacional de Energía (Spain).
- CRE – Commission de Régulation de l'Énergie (France).
- DGEG − Direção-Geral de Energia e Geologia.
- 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 – Entidade Reguladora dos Serviços Energéticos (Portugal)
- 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).
- LNG – Liquefied Natural Gas.
- 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).

- 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).
- MPGTG - Manual for Global Technical Management Procedures of SNGN
- MV – Medium Voltage (voltage between phases whose effective value is greater than 1 kV and less than or equal to 45 kV).
- OMIE – OMI – Polo Español, SA.
- OMIP – Operador do Mercado Ibérico (Portugal), SGPS, SA.
- OTC – Over The Counter
- PDIR – RNTIAT Development and Investment Plan
- RARII – Regulation for Access to Networks, Infrastructures and Interconnections.
- RNT – National Electricity Transmission Network.
- RNTGN – National Natural Gas Transmission Network.
- RNTIAT – National Transmission, Storage Infrastructure and LNG Terminal Network.
- RQS - Quality of Service Regulations
- RRC - Regulation of Commercial Relations.
- RT – Tariff Regulation.
- SEN – National Electricity System.
- 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).
- SNGN - National Natural Gas System.
- SRG - Generation in Special Regime
- TSO – Transmission System Operator.

- TUoN –Transmission Use of Network
- VHV – Very High Voltage (voltage between phases whose effective value is greater than 110 kV).