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# **SPANISH ENERGY REGULATOR'S NATIONAL REPORT TO THE EUROPEAN COMMISSION 2012**

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## 1 FOREWORD

2011 has been a year of intense activity in the context of European energy regulation and, at national level, in the process of implementation of the new legal provisions set forth by the Third Energy Package. On February 4<sup>th</sup>, the European Council set the ambitious target of 2014 for the completion of the Internal Energy Market. Throughout the year, decisive policy and regulatory developments have taken place accordingly. One of the most outstanding contributions of the Regional Initiatives for achieving this overarching 2014 goal was the adoption of the four cross-regional roadmaps for the implementation of the electricity target model, together with the definition of regional pilot projects for capacity allocation platforms in gas.

Later, on March 3<sup>rd</sup>, the abovementioned Energy Package came into force, creating a new institutional framework for European market integration, with ACER as one of its central elements. The Agency's role fully complements the European mandate of NRAs according to the Third Package. This consists of their duty to promote, in close cooperation with each other and the Agency, a competitive, secure and environmentally sustainable internal market in electricity and gas within the Community, and effective market opening for all customers and suppliers ensuring appropriate conditions for the effective and reliable operation of electricity and networks, taking into account long-term objectives; to this end, the national regulatory authorities have the duty to collaborate on cross-border issues with each other and with the Agency.

The Spanish energy market has made significant progress to adapt to this new legal framework and in particular in the context of completion of the first Framework Guidelines and Network Codes. This is posing a huge challenge for CNE, TSOs and stakeholders who are engaged in intensive work to put in place the detailed framework that is needed for the creation of the Internal Energy Market.

Furthermore, this market needs appropriate infrastructures to transport the energy and sufficient supervision to ensure integrity and transparency. The final approval of the Energy Infrastructure Package announced by the end of this year will definitely contribute in this regard. CNE is fully aware of these needs and is paving the way for the timely implementation of the related regulation.

The approval of the Sustainable Economy Act (Law 2/2011) constituted one of the cornerstones of the Spanish Government's strategy to define a sustainable growth model for the Spanish economy. It also partially transposed the Third Energy Package by reinforcing the independence of the NRA and abolishing the appeal of CNE decisions to the Minister of Industry, Tourism and Trade.

More recently, the transposition process has been completed by the Royal Decree-Law 13/2012 which has granted new powers and reinforced duties to CNE on unbundling, consumers protection, the approval of methodologies concerning transmission and distribution access tariffs, balancing services, access to interconnection infrastructures, capacity allocation and congestion management procedures, enforcement powers and imposition of penalties.

Finally, the permanent commitment of CNE with the European dimension has been recently acknowledged by a specific mandate, included in the Royal Decree-Law 13/2012, to promote the development of competitive regional markets and remove obstacles to the cross border energy trade which will be, without a doubt, very beneficial for further progress in the creation of the EU Internal Energy Market.

Alberto Lafuente  
President of CNE

## 2 MAIN DEVELOPMENTS IN THE GAS AND ELECTRICITY MARKETS

The Sustainable Economy Act (Law 2/2011) is one of the cornerstones of the Spanish Government's strategy to define a sustainable growth model for the Spanish economy. The main axes of the Spanish government's energy policy are: guaranteeing security of supply, economic efficiency and environmental sustainability.

As such, the Act will stimulate R&D and innovation by increasing tax deduction for innovative activities. Specific measures will benefit companies in renewable energy, and other climate change mitigation sectors.

The Sustainable Economy Act sets national targets for 2020 in accordance with European objectives in renewable energy: a 20% share of renewable sources in gross final energy consumption, including at least 10% of renewable sources in the transport sector.

The Sustainable Economy Act also requires the Government to produce an energy renewable planning document, which has been passed on 11th November 2011 by the Cabinet of Ministers. It includes, among other aspects, forecasts on the behavior of future energy demand and the necessary resources to satisfy it; the evolution of market conditions to guarantee energy supply and the criteria for environmental protection. This forecast exercise lays the foundations for the subsequent binding energy planning.

On the other hand, the new Law partially transposed the Third Package legal requirements concerning NRA (Chapter IX of Directive 2009/72/EC and Chapter VIII of Directive 2009/73/EC) such as, among others, the need to be able to take decisions in relation to all relevant regulatory issues, to be fully independent from any other public or private interests, to contribute to the independence of the national regulatory authority from any political or economic interest through an appropriate rotation scheme, taking due account of the availability of human resources and of the size of the Board.

According to this new legal provision, the Spanish regulator is a public body with its own legal personality, patrimony and full capacity to act with full independence from the public administration and any commercial interests in the development of its activities. In this regards, both the persons responsible for its management and staff should act independently from any market interest and should not seek or take direct instructions from any government or other public or private entity when carrying out the regulatory tasks. However, that requirement is without prejudice to close cooperation with other Spanish NRAs (such as National Competition Commission) and energy regulators in the European and international frameworks.

As for the Board of CNE, it is composed by the Chairperson and six Commissioners who are elected for a single period of 6 years (they cannot be re-elected). They are chosen among acknowledged professionals in a preliminary meeting between the candidates and

the Commission of Industry of the Parliament. Afterwards, they are appointed by Royal-Decree issued by the Government, following a proposal from the Ministry of Industry. During their mandates, they are not allowed to perform any other activities. Once the mandate expired, members of the Board may not perform any activity related to the energy sector for a period of two years, receiving an economic compensation in this respect.

The people in charge of the management of CNE and other staff, if invited by the President, may participate in the Board meetings without voting rights. Under no circumstances, are members of Government and high officials of the public administration allowed to attend the abovementioned meetings.

The people in charge of the management of CNE will be appointed by the Board, following the President's proposal. The selection procedure will be based on principles of equality, merit and ability and following a public notice of vacancies.

The President, members of the Board, the people in charge of the management and staff who have previously work in the energy sector shall communicate this circumstance to the Board and, in case of the members of the Board, this information should be published.

CNE shall publish all these decisions referring to both external and internal scope, except the information of confidential nature and other preliminary aspects in the performance of its activities. The abovementioned decisions shall be appealed to the Court as they bring the administrative appeals process to an end. In this regard, Law 2/2011 has abolished the possibility of appealing to the Minister of Industry, Energy and Tourism the decisions by CNE.

More recently, on 30 March 2012, the Spanish Government approved the Royal Decree-Law 13/2012 (hereinafter, "RDL"). Said RDL, as regards the Spanish energy sector, has adopted measures to contain the deviations produced by the mismatches between costs and revenues in the electricity and gas sector, and completes the transposition of provisions of the Third Package into the Spanish legislation.

The new legal measures are aiming to:

- Correct the imbalance in the Spanish electricity system through a set of measures to resolve the current imbalance between cost of production and revenues in tariffs (tariff deficit) for 2012.
- Reduce costs in the electricity system so that feed-in tariffs are sufficient to cover the cost of production of regulated activities and achieve a tariff/costs balance in the electricity system by 1 January 2013.

- Prevent the current development model of the gas sector from producing similar imbalances to those in the electricity sector. The heavy investments made in the gas sector in recent years and the decrease in demand have already created an imbalance between revenues and costs, albeit much lower than the existing imbalances in the electricity sector.
- Transpose the European directives related to the energy to the Spanish legal system (Directive 2009/72/CE regarding the electricity sector; Directive 2009/73/CE in relation to the gas sector; Directive 2009/28/CE for the promotion of renewable energies).

Regarding the electricity sector, the Royal Decree-Law transposes the unbundling provisions attributing CNE the duty to certificate and monitor the continuing compliance of transmission system operators with the requirements established in the abovementioned legal provisions. Concerning consumers protection, the concept of vulnerable consumer has been set up as well as certain measures to protect them; the competent public bodies, together with CNE shall establish single contact points to inform consumers about their rights and existing proceedings for solving disputes. Finally, the State Administration will be able to launch mechanisms on international cooperation with the aim of complying with legal requirements of Directive 2009/28/EC leading to foster the development of RES, reduce GHG emissions and promote energy efficiency.

Concerning the NRA, the Royal Decree-Law confirms the designation of CNE as the single regulatory authority at national level to deal with energy issues, regardless the duties attributed to the National Competition Commission. In this regards, duties and powers of CNE has been strengthened with a view to promoting the competitive functioning of energy markets, fostering the development of the internal energy market and competitive regional markets. In particular, new powers assigned to CNE refers to the approval of methodologies concerning transmission and distribution access tariffs, balancing services, access to interconnection infrastructures, capacity allocation and congestion management procedures, enforcement powers and imposition of penalties and consumers protection.

Main measures adopted in the **electricity sector** to correct the tariff deficit are summed up as follows:

#### *Transmission and distribution*

The accrual of revenues generated by transmission and distribution facilities (taking effect for earnings accrued from 1 January 2012) whose commissioning has taken place in a given year ("year n") will begin on 1 January of the second subsequent year ("year n+2").

The approval of a new Royal Decree will be sought, under which compensation for investment will only be available for those transmission and distribution assets currently operating and not yet redeemed.



Granting of new administrative authorizations for transmission assets is suspended until the Government approves a new energy network development plan.

Distributors' revenues associated with supply activities are removed as most of these activities are currently carried out by commercialization entities (suppliers).

### *Generation*

Due to lower demand and excess of capacity, the following economic incentives for electricity producers will be reduced:

Capacity payments (incentives that reward incoming generation capacity providing for appropriate system adequacy; incentive is twofold, thus rewarding both investment -long term incentive- and availability on SO's demand -short/medium term incentive)..

Subsidies for national coal combustion are limited and subsidies for thermal power plants using national coal is reduced by 10%.

In offshore and insular electricity systems, additional criteria to calculate the revenue of power plants included in the ordinary regime are adopted (supplementary incentives for fuel will take into account the efficiency in the management of the acquisition; supplementary incentives for guaranteeing power will be based on the current availability of the plants; incentives for the recovery of investment will include reasonable items; etc).

### *Consumers*

Supplementary incentives for management services relating to the interruption of demand by large consumers are reduced (incentives which reward the capacity of consumers that acquire energy on the electricity market to reduce the power demanded in response to an order given by the system operator).

### *Electricity System Operator*

Its regulated revenue will be paid by the agents in the system who use its services at a regulated price set according to a methodology to be approved by the Government.

### *Increase in revenue*

The last resort tariff ("*tarifa de ultimo recurso*") increased by 7% on average compared to the previous tariff.

With the objective of reducing costs in the system, the surpluses of CNE and the Institute for Energy Diversification and Saving (IDAE) from activity in previous years, will be considered and used as liquid income for the electricity system.

As regards gas sector, the Royal Decree-Law transposes the unbundling provisions obliging TSO of basic transmission networks to be certified and attributing CNE the duty to certificate and monitor the continuing compliance of transmission system operators and independent transmission operators with the requirements established in the abovementioned legal provisions. On the other hand, CNE shall be responsible for the approval of the methodology for calculating the access tariffs to transmission, regasification and storage facilities belonging to the basic network, granting binding decisions to gas undertakings, imposing penalties in case of non-compliance and guaranteeing the effectiveness of consumers' protection measures. In this regard, shippers shall assume new obligations concerning domestic consumers.

The Order ITC 2906/2010 and the Royal Decree-Law 13/2012 revised some infrastructure projects to adjust them to the changes in the gas demand forecast, which are lower than expected. In particular, projects for new regasification plants and pipelines not deemed economically profitable for the system have been cancelled or postponed, excluding international commitments and those pipelines mainly used for the local supply of natural gas.

In parallel, some measures were adopted in the **gas sector** to adapt the grid planning to the new scenario of reduced gas demand in Spain:

The granting of new administrative authorizations for transmission and supply pipelines and regulation and measurement stations is suspended, except for those required in order to comply with international commitments such as gas interconnections, as well as infrastructures needed to deal with the demand of new gas consumers as long as there are no additional costs to the system.

The granting authorization of new re-gasification plants in the peninsula is also suspended (including the granting of the administrative authorization, the approval of project execution and the start-up certificate of assets) until demand for gas justifies otherwise.

The amendments related to the **transposition of European Directives** within the Energy Sector show as follows:

The incorporation of new rules into the Spanish legal system to achieve an effective separation between transmission and distribution activities, on one hand, and generation and commercialization activities, on the other, both in the electricity and gas sectors.

The Royal Decree-Law 13/2012 establishes the model for gas TSO unbundling in Spain:

- The unbundling model adopted for the main TSO (ENAGAS, with more than 95% of transport pipelines) is "*Ownership unbundling*".

- Small gas TSOs in Spain can opt between Ownership unbundling model or ISO model.
- CNE will be in charge of the certification procedure as foreseen by the Directives taking the utmost account of the European Commission's opinion. It is also foreseen that transmission system operators and independent transmission system operators from outside the European Union can be certified correspondingly.

The role of national regulatory authorities is strengthened; in particular, CNE will be entitled to: (i) approve the methodology to calculate the tariffs for basic access services; (ii) impose penalties; and (iii) issue binding solutions for the companies.

Consumer protection will be increased by establishing new measures regarding access to personal and consumption data, prices associated to the cost of services, etc.

The vulnerable consumer concept is defined provisionally in electricity as those with the right to opt for social benefits (the so-called social bonus, in Spanish "bono social" such as pensioners, the unemployed, etc.). The definition of vulnerable consumer and the corresponding measures to guarantee their supply of electricity and gas will be established by the Government.

#### *Other legal provisions on horizontal issues:*

On March 16 2011, in line with discussions occurring at European level, the Spanish government asked the Nuclear Safety Council (CSN) to review the safety systems in place at Spanish nuclear power plants. In particular, it was asked to perform additional seismic studies together with additional studies on the threat posed by flooding.

Afterwards, on September 15 2011, the CSN sent a preliminary report on test conducted on the durability of nuclear power plants to the EU. All the Spanish plants were found to comply with safety specifications.

In the meantime, on May 28 2011, Law 12/2011 governing the new system of civil liability for nuclear plant operators were published. The law raises the mandatory minimum liability for operators in the event of an accident to 1.200 million Euros (from 700 million Euros). The law also enlarges the concept of "nuclear damage" to include environmental damage, restoration measures and predetermined profits and extends the time limit for bringing claims for personal injury from 10 to 30 years.

Regarding guarantees of origins (GOs), Order ITC/2914/2011 was published on 31st October. It amended the former Order ITC/1522/2007 so as to transpose pending pertaining provisions in this regard of the RES Directive 2009/28/EC into the Spanish legislation. CNE has been formally appointed to issue RES and high-efficiency CHP GOs.

The Royal Decree 1307/2011, of 26 September was enacted on 11 October, amending Royal Decree 437/2010, of 9 April, implementing the securitisation of the deficit in the electricity system, adapting its content to the amendments over deficit established in Royal Decree-Law 14/2010, of 23 December. This introduces the possibility of private placements, which would increase the possibility of placing the deficit in the markets.

By Order ITC/3127/2011, the Spanish Ministry of Industry updated the scheme for capacity payments to reward generation by hydro, coal, gas and fuel oil. Under the scheme, capacity payments ranging between €1.220/MW (\$1,649) and €4.640/MW will be paid for a full year to plants which remain on standby to cover peaks of demand or reductions in national wind generation.

At the beginning of 2012, the Royal Decree 1/2012, the Spanish government temporarily suspended the support mechanisms for new renewable energy projects. The suspension has not retroactive effect in the sense that it does not affect those projects already in the pre-register.

In February 2012, CNE launched a public consultation process seeking input and elaborated a report on possible measures that can be taken to tackle the tariff deficit problem afflicting the domestic power sector. This public consultation follows a request to CNE to look into the issue made by the Industry Ministry's Secretary of State for Energy.

On the other hand, CNE has recently carried out a public consultation between 25 May and 21 June for a new mechanism of capacity payments. The conclusions of this consultation will feed into the review of the current mechanism.

## ***2.1 Main developments in electricity markets in 2011***

### **i) Wholesale market**

The concentration of the wholesale market has not changed significantly. The three biggest operators cover around 60% of the energy share. Consequently, the market power of dominant operators remains in a similar level to last year.

The degree of integration across borders has not changed significantly since last year's report. Spanish and Portuguese day-ahead and intraday electricity markets are fully integrated in the MIBEL. In the context of the ACER's cross- regional roadmaps,

integration of day-ahead market with NWE initiative<sup>1</sup> is being pursued. The SWE<sup>2</sup> region is implementing the electricity target model as set forth by the European Energy Work Plan with the aim to have an internal (European) energy market. However, due to the scarce cross-border capacity, the electricity exchanges with France (and consequently, the chances for price convergence) are rather limited.

As for the electricity trade in the Iberian PX, it has decreased 5% (measured in terms of energy) on a year and bilateral contracts have also decreased. The day-ahead average price in OMEL (Spanish side) during 2011 was 49.93 €/MWh. The final weighted average market price, including capacity payments, technical restrictions and balancing was 60.13 €/MWh (about 30% higher than previous year average). This increase has been produced by the spot market price rise, since it represents the 84% of the final weighted average market price. The fuel prices have grown during 2011 pushing up the spot market price. Besides, year 2010 was characterized by a huge hydro and wind output, decreasing the price during that year.

In relation to the mechanism to promote Spanish coal production (Royal Decree 134/2010, of 12 February, amended by Royal Decree 1221/2010, of 1 October), on 10 February 2011 a resolution was passed establishing the amounts of coal to be consumed in 2011, the maximum output covered by this mechanism, and the energy production prices to be applied. This mechanism began to be applied at the end of February 2011 which should finish on December 31 2014.

During a meeting in Lisbon on the 21<sup>st</sup> January 2011, OMIP and OMEL reported to the Council of Regulators of the Iberian Electricity Market (MIBEL), composed by the financial and energy sectors supervisors (CMVM, CNE, CNMV, ERSE), that the entity which will be OMIClear's clearing house in Spain had been created.

OMIClear is the Clearing House and Central Counterparty of trades made in the MIBEL Derivatives Market and OTC trades registered with it. OMIClear is responsible for the registration, clearing, settlement and risk management of those transactions.

This initiative represents an important step to the establishment of the Iberian Market Operator (OMI) aiming at providing new added value services, so that MIBEL participants may benefit from the synergies between spot and derivatives markets in both countries.

On the other hand, on May 9 2011, the Price Coupling of Regions (PCR) algorithm development was announced.

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<sup>1</sup> North-Western Europe, thus comprising France, Belgium, The Netherlands, Luxembourg, Germany, United Kingdom, Denmark, Finland and Sweden plus Norway.

<sup>2</sup> South-West Europe thus comprising Portugal, Spain and France.

The PCR project, which is currently being discussed with energy Regulators and Transmission System Operators (TSOs) all across Europe, faces the unprecedented challenge of contributing to delivering a Europe-wide coordinated day-ahead power price formation mechanism. Over the last months, the PCR project was mainly developed under a close cooperation between a core subset of Exchanges, namely APX-Endex/Belpex, EPEX Spot, NordPool Spot, OMEL and GME. The PCR Parties have decided to use an existing algorithm based on mathematical optimization methods that have already been applied and proven effective in several energy exchanges Day Ahead implicit auction spot markets as a starting point for further development. This starting point will be used for the development of a fully functional algorithm able to cover the full scope of PCR and support the European single price coupling target model.

Moreover, in October 2011, an exchange of shares between the two Holding Companies – the Portuguese OMIP SGPS and the Spanish OMEL - took place leaving OMIP held in equal parts by these two OMI holdings. From now on, OMIP and OMIE share the same Board of the Directors and all the group companies have adopted a new corporative image in terms of the layout, in order to strengthen and highlight the brand OMI –Iberian Market Single Operator. As a consequence, the implementation of the international treaty, signed by Portugal and Spain in 2004, to create the Iberian Electricity Market has been practically accomplished.

Further measures aiming to promoting the competition were set up by Royal Decree 302/2011 of 4 March, which regulates the sale of products to be settled by price differences for certain facilities of the special regime (i.e. RES plus CHP) and their purchase by last resort suppliers in the electricity sector. The Royal Decree establishes a mechanism through which suppliers of last resort must acquire financial contracts for a maximum amount of energy equivalent to the difference between the volumes they have applied for and those allocated to them through the CESUR auction. The selling agents are the special regime generators under the tariff option (pure feed-in tariff scheme, as opposed to feed-in premium one). The price of this energy will be equivalent to the difference between the CESUR price and the spot price.

On the other hand, Royal Decree 1544/2011, published in November 2011, requires producers to pay an access rate for energy delivered into the system of 0,5 Euros/MWh (in addition to paying for energy delivered, pumping plants pay for the 30% of electricity consumed).

## **ii) Retail market**

During 2011, the degree of concentration of the retail market has not changed significantly. At the end of 2011, Endesa still held the highest aggregate (last resort and free market) share in terms of both number of customers and energy supplied with market shares of

41,2% and 45%, respectively. Focusing the attention on the free market, Endesa still leads in terms of energy supplied with a quote of 36,3%, though Iberdrola has increased its base of customers, surpassing 3,6 million, (47,1% of customers in the free market) by December, 2011.

During 2011, more than 2,9 million customers switched supplier in the electricity market (around 2 million of such switches were from last resort supply to the liberalised market). The switching rate increased from 7,4% in 2010 to 10,6% in 2011.

The “Supplier Switching Office (OCSUM)” was set up with the aim of monitoring and facilitating supplier switching procedures. CNE has the duty to supervise OCSUM activities.

Royal Decree-Law 13/2012, of March 30<sup>th</sup> has also granted CNE new powers to issue binding decisions in relation to electricity undertakings and to decide on appropriate measures ensuring the full effectiveness of consumer protection measures.

Accordingly, CNE has the function to ensure the compliance with any prescribed regulation and procedures in relation to the switching of electricity supplier (Function 22<sup>nd</sup>).

Additionally, CNE has the function to supervise the consumer protection measures, and the power to declare who is responsible for deficiencies of energy supply to consumers (Function 29<sup>th</sup>), as well as submitting regulatory proposals in relation to quality of service, supply and consumer protection measures to the Ministry and the Autonomous Communities.

CNE is also competent to supervise the adequacy of consumer prices and their supply conditions to the Electricity Act and related regulation.

When enforcing the above described functions, CNE has the power to impose all reasonable measures necessary to attain the objective of ensuring a high quality of service, especially for vulnerable customers, and the compatibility of the exchange of data processes needed to switch supplier (amongst other objectives set forth by the law).

CNE has launched a new web price comparison tool for gas and electricity offers<sup>3</sup>. Retail prices have increased significantly compared to the previous year, especially in the small customers segment.

From a regulatory perspective, Ministerial Order ITC/3353/2010, of 28 December, established that access tariffs would remain unchanged from 1 January 2011, while costs payable by consumers had increased. Nevertheless, Resolution of 28 December 2010,

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<sup>3</sup> <http://www.comparador.cne.es/comparador/index.cfm?js=1&e=N>

establishing the last resort tariff (LRT) to be applied in the first quarter of 2011, stipulated an average increase of 9.8% in this tariff due to an increase in the price of CESUR energy auction.

In the first three quarters of 2012, the LRT for electricity remained unchanged while access tariffs increased by 10.9%, roughly equivalent to the reduction in energy prices. For the remaining low-voltage tariffs, access tariffs have gone up 7%, while medium- and high-voltage tariffs have increased 2%.

Spanish Ministry of Industry approved the Ministerial Order ITC/688/2011, of 30 March, establishing the access tariffs and last resort tariff (LRT) applicable from 1 April 2011. This legal provision raised the last resort tariff – the regulated price for low energy users – for gas by 4.1%, but kept the electricity tariff (which customers with a contracted consumption lower than 10 kW can apply for) unchanged for the following months. The Ministry of Industry sets the electricity tariff by taking into account the access tariffs to the power grid and the price of power in the CESUR auctions held by market operator OMEL, which take place every three months. This Order also set the provisional interest rate, pending enacting regulations, applicable to the 2010 deficit until it is securitised at 2%.

Ministerial Order ITC/2585/2011, of 29 September, established the access tariffs and LRT applicable from 1 October 2011. The LRT remains unchanged while access tariffs have decreased by 12%, equivalent to the increase in energy costs following the CESUR (Contratos de Energía para el Suministro de Último Recurso) auction.

As a consequence, the shortfall between the access tariffs collected during the first nine months of 2011 and the system costs during the same period has led to a revenue deficit in regulated activities.

In this regard, Spain's Supreme Court forced the country's government to increase power tariffs for end-users backdated to January 1 2012, following a successful appeal against a tariff freeze by certain utilities. The court upheld an appeal by the two utilities against the freezing of power tariffs in the first quarter, ruling out that the access fees used when determining the Last Resort Tariff had remained low. As a consequence, the court has ordered the Ministry of Industry to increase the access fees, backdated to January 1.

### **iii) Public Service Obligations and Consumer Protection**

As the retail market has become more active, there has been an increase in the number of consumer complaints.

In Spain, the Autonomous Communities have a general responsibility for customer complaint handling. In the case of last resort tariffs customers and access to distribution



networks, as well as for billing issues, the Autonomous Communities are also competent for the dispute settlement. CNE has the power to supervise the switching processes and to declare the infringement of switching rules. It also supervises the correct application of specific measures for vulnerable customers such as the social bonus (“bono social”). All other issues are dealt with by jurisdictional courts when consumer arbitration is not available.

As mentioned, the Royal Decree-Law 13/2012, of March 30<sup>th</sup> has granted CNE new powers to issue binding decisions in relation to electricity undertakings and to decide on appropriate measures ensuring the full effectiveness of consumer protection measures.

Accordingly, CNE retains the function to ensure the compliance with any prescribed regulation and procedures in relation to the switching of electricity supplier (Function 22<sup>nd</sup>).

Additionally, CNE has been granted the power to report and to handle, in coordination with other competent authorities, consumer complaints and has the duty to have at consumers disposal all the information related to consumer rights, regulation in force and procedures to settle disputes, as well as reporting annually to the Ministry on complaints received and making proposals for better regulation (Function 32<sup>nd</sup>). The necessary coordination between regional bodies and national regulator in the handling of consumer complaints is still to be articulated.

Moreover, CNE has now the function to supervise the consumer protection measures, and the power to declare who is responsible for deficiencies of energy supply to consumers (Function 29<sup>th</sup>), as well as submitting regulatory proposals in relation to quality of service, supply and consumer protection measures to the Ministry and the Autonomous Communities.

When enforcing the above described functions, CNE has the power to impose all reasonable measures necessary to attain the objective of ensuring a high quality of service, especially for vulnerable clients, and the compatibility of the exchange of data processes needed to switch supplier (amongst other objectives set forth by the law).

CNE has also the power to impose penalties to DSOs and suppliers for breach of consumer protection rules as well as for other breaches of regulation including the breach of CNE binding Resolutions.

Furthermore, the Royal Decree-Law 13/2012 also establishes the following new measures concerning consumer’s protection:

- The concept of vulnerable consumer has been set up as well as certain measures to protect them;

- The competent public bodies, together with CNE, shall create a single point of contact to provide consumers with all necessary information concerning their rights and existing proceedings for dispute settlement.
- It also requests suppliers and distributors to offer customers a call centre service in charge of handling consumer's questions and complaints.

#### **iv) Infrastructure**

In 2011, the electricity interconnection between the Spanish peninsula and the Balearic Islands, known as the Rómulo project, was concluded. Royal Decree 1623/2011, of 14 November, regulates the effects of the entrance in operation of the link between the peninsular electrical system and the Mallorca-Menorca subsystem.

This link is the first submarine transmission interconnection in direct current that exists in Spain and its development has represented a landmark of world reference due to its unique nature and technical complexity as it is a 2 x 200 MW, 250 kV DC high-voltage submarine connection, 273 km in length, that runs at a maximum depth of 1,485 meters, which makes it the second deepest cable in the world.

This electricity link is key to improve the reliability of the electricity supply of the Balearic Islands' system and, at the same time, allows its partial integration into the Iberian electricity market and facilitates the reduction of generation prices on the islands.

#### **Spanish Interconnections with France and Portugal**

To have a greater electricity exchange capacity with our neighbouring countries is key to obtain a greater security of supply and to integrate renewable energy sources.

Therefore, the new electricity interconnection line between Spain and France, whose commissioning is foreseen in 2014, is a high-priority project, as it will allow our present exchange capacity with Europe to be doubled to reach 6 % of the maximum Spanish demand.

This interconnection, of about 65 km in length, will mainly be underground and, to cross the Pyrenees, a tunnel of 8.5 km shall be constructed. In addition, this latter part will be deployed as a direct current interconnector, thus requiring the construction of two converter stations at both ends of the line. All these characteristics turn the project into a technological challenge of the highest level.

Regarding the interconnection with Portugal, work is being carried on the Portugal Norte interconnection project, whose objective is to strengthen the interconnection between

Galicia and northern Portugal. It is foreseen that this project shall be concluded in 2015 and during 2011 work has taken place regarding the preliminary permitting procedures and land selection.

In the PT-ES interconnection, cross-border capacity has slightly increased in the beginning of 2011 after the entry into service of new infrastructures, thus rearranging and upgrading links between substations alongside river Duero's axis. Several projects are ongoing with the aim to reach 3.000 MW in 2015. Capacity is implicitly allocated on a day-ahead and intraday basis. In 2011, this interconnection was congested only 9% of the time, much lower than 2010 values (21%).

#### **v) Integration of renewables**

Throughout 2011, the Spanish electricity market has continued working towards an improved integration of renewable energies into the electricity system, which allows a reduction of CO<sub>2</sub> emissions and keeping security and quality of supply.

In 2011, generation coming from renewable sources accounted for 33% of the total production of the electricity system. Noteworthy was the contribution of wind power generation, 16%, which places it in third position for energy produced, only headed by nuclear and combined cycles.

Similarly, on 6 November a new historical maximum in the contribution of wind energy generation to the demand coverage was registered, reaching practically 60% of the demand on that day.

The Royal Decree 661/2007 and the Sustainable Economy Act required the Government to draw up renewable energy plans in order to reach the renewable energy national targets. Hence, the Renewable Energy Plan (REP) 2011-2020 has been officially produced, and via IDAE (Institute for Energy Diversification and Savings), by the Secretariat of State for Energy of the Ministry of Industry, Energy and Tourism. The REP 2011-2020 sought to incorporate the primary elements from the NREAP 2011-2020 dated 30th June 2010, plus additional analysis, among which stands out a detailed sectorial analysis covering, among other aspects, a technological development outlook and costs forecast. Additionally, the REP 2011-2020, as stipulated by the Spanish legislation, had to undergo a Strategic Environmental Assessment process so as to steer from the very outset the Plan's preparation towards the environmental objectives, harmonising those with the planning process, in order to add to its environmental sustainability.

During the preparation of this plan, the Sub commission in the Spanish Parliament in charge of outlining the Spanish energy strategy for the next 25 years, adjusted the national

2020 target to 20,8% share of renewable energy in the gross final energy consumption to respond to the effects of the current economic downturn and administering the total amount of financial support nationally assigned to renewable energy development while still exceeding the minimum target set up by Directive 2009/28/EC. The adjustment of the objective was transferred to the then upcoming REP 2011-2020.

The latter was finally approved by the Cabinet of Ministers on 11th November 2011, and subsequently, the NREAP 2011-2020 was accordingly amended and submitted to the European Commission on 5th January 2012.

In order to support the Plan's contents, fifteen general and sectorial studies have been completed. They have thoroughly analysed numerous technical, economic, social and environmental aspects, all crucial during the development of the different chapters of the REP.

From the regulatory perspective, the Royal Decree 1699/2011 regulating the connection of small power plants to the electricity grid determined the administrative, contractual, economic and technical conditions for the connection to the distribution electricity grid for small renewable energy, hydro and CHP installations.

Its main aim is to streamline administrative procedures to speed up the connection of small power plants to the electrical system. The scope of application, subject to certain grid connection requirements, includes all renewable energy power plants, with the exception of CHP installations, of nominal power below 100 kW, and on the other hand CHP installations and biomass power plants of nominal power below 1000 kW.

This regulation will allow small businesses and the domestic sector to access small scale electricity generation so, once the upcoming net metering regulations are in place, they can self-consume the energy produced. The gradual entrance of these small power producers into the Spanish electrical system will pave the way for the development of distributed generation, replacing the current centralised model made up by big installations with a model more oriented towards distributed generation. Such change will translate in reduced energy losses within the grid and smaller economic investments in transport and distribution electric infrastructure, in addition to increased primary energy savings. With regard to consumers, they will benefit from higher security of supply and energy autonomy.

On the other hand, the Royal Decree 647/2011 sets up the regulation on load management activity within the electricity system involving energy charging services. Two important demand management measures stand out within this Royal Decree:

- Development of a load management body: The Decree introduces a mechanism enabling the implementation of new energy demand measures addressed to electric vehicle charging. This body will allow for electricity reselling destined to electric vehicle charging.

- Super off-peak hourly discrimination addressed to electric vehicle charging: In general, the off-peak hours slow charging of electric vehicles, typically taking place over-night, will enormously contribute to the harmonization of both daily curves, namely electricity demand, and its associated generation. This will result in a more efficient use of electricity infrastructures and a maximization of non-manageable renewable energy integration.

Finally, Order ITC/2452/2011, of 13 September was enacted on 16 September, revising certain CHP/renewables tariffs and premiums. Among other aspects it stipulates the rental price for meters which can be used for remote management.

#### **vi) Security of Supply**

In 2011, demand decreased 2.1% from 2010 values (yet still below 2007 data) and capacity installed increased in 1.879 MW up to 100.576 MW (1.9% more than 2010 values). Since installed capacity largely exceeds peak demand (44.107 MW, 1.7% less than 2007 maximum), no threats are detected as regards system adequacy.

According to Royal Decree 661/2007, the renewable generation is involved in voltage level control of the network, while maintaining a certain range of power factor depending on the time period, while the TSO has ability to temporarily modify the value for certain generators issues. This model is suitable when the installed power of these facilities is not high, but nowadays this is not the Spanish reality because of type of renewable penetration. That's why it's needed to change its participation in voltage level control enabling security of their integration, and must be modified towards participation based on voltage sets point and the action of control - reactive power- suits and varies according to the specific needs of the system at any given time.

In the same way, the growth of generation technologies based on power electronics, superseding the conventional synchronous generators, makes that from the system disappear some capabilities and benefits, like security of supply during disturbances, voltage level control, regulation frequency, etc, which are necessary for the proper and safe operation of the system. In this sense, it is undergoing revision of the Operation Procedure 12.2 to incorporate a new chapter for application to future facilities, establishing technical requirements in order to adequate the growing penetration of the power electronics based generation.

#### **vii) Regulation/Unbundling**

In 2010, Royal Decree-Law 6/2010, of 9<sup>th</sup> April, came into force modifying the unbundling requirements contained in article 14 of the Electric Power Act and applying the legal and

functional unbundling measures which were already imposed on production and supply activities to energy recharge services.

Since 2010, vertically-integrated companies have implemented their compliance programmes and submitted required reports on the unbundling measures they have adopted to CNE and to the Ministry.

As for the unbundling of the transmission system operator, Endesa, Gas Natural Fenosa and Hidrocarbónico sold their remaining transmission assets to REE, completing the process required by Law 17/2007 which established REE as the sole transmission agent.

As mentioned before, Royal Decree-Law 13/2012 transposes the unbundling provisions contained in the Third Package attributing CNE the duty to certificate and monitor the continuing compliance of transmission system operators with the requirements established in the abovementioned legal provisions. In this regard, CNE submitted the draft decision on the certification of REE to the EC on March 28 2012 as ownership unbundling TSO. The EC approved on 24 May a favourable opinion on the preliminary certification decision.

## ***2.2 Main developments in gas markets in 2011***

### **i) Wholesale market**

Natural gas consumption in 2011 in Spain reached 375 TWh, 6% lower than in 2010. Conventional natural gas demand decreased by 3,5% over December 2010. Also, there have been a decrease of 30,3% in the use of gas in electricity generation mainly due to the increase of production with coal.

The imports basket of the Spanish gas system roughly keeps the structure of the previous years, resulting in a very high diversification of sources (up to 14 different countries). Algeria stood out once again with a share of 38%, then Nigeria (19%), Qatar (18%), Norway (8%), Trinidad and Tobago (7%) and Egypt (6,5%).

Most of this gas was imported in the shape of LNG (66%) while the remaining 34% arrived via pipeline. Such a high proportion of LNG make Spain be the fourth main LNG destination in the world. Countries of origin of imports of natural gas by pipeline are Algeria with 80% and Norway with the remaining 20%. Note that the international MEDGAZ pipeline directly linking Spain and Algeria, started operation in April 2011, accounting for 17% of the gas imported via pipeline.

Medgaz is a 8 billion cubic meter/year pipeline that connects the Algerian city of Beni Saf with Almeria in southern Spain. Medgaz operating company is owned by the five major companies, with Sonatrach holding a 36% stake, Iberdrola and Cepsa 20% each and Endesa 12% and GDF Suez 12% each.

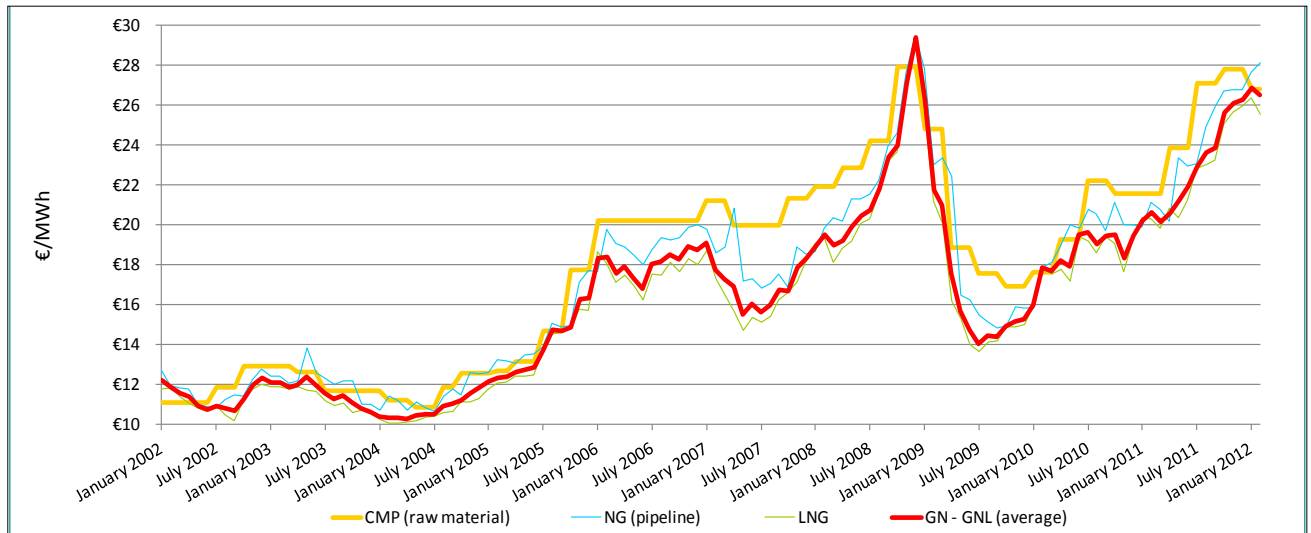


Figure 1. Evolution of natural gas border prices in Spain (€/MWh), 2002-2011.

Since there is no organised gas hub at present to provide a price reference for gas in Spain, CNE has developed an index for natural gas border prices. In the year 2011, natural gas border prices has increased 30%, from 20,2 €/MWh up to 26,3 €/MWh.

Most of the gas in the Spanish market is negotiated through bilateral OTC trading, by means of an electronic platform developed by ENAGAS (the so-called MS-ATR) with more than 30 active traders, who can trade gas in eight different balancing points: the six existing LNG terminals; a virtual balancing point (AOC) and a virtual storage point.

The trend for the number of transactions in the Spanish OTC gas market has continued to grow in 2011, with up to 45.200 transactions registered on the MS-ATR. However, the volume of energy traded over the counter decreased 44%, down to 565 TWh, due to the increase of transactions in the virtual balancing point AOC, which are lower in energy.

In April 2010, CNE published a road map to develop a gas exchange in Spain. The objective is to accelerate the creation of a gas hub in the Spanish Gas System in order to promote competitiveness, transparency, and reducing the lack of transparency of the current OTC market.

**ii) Retail market**

The gas market in Spain is fully liberalized since 2003. The number of gas customers in 2011 surpassed 7 millions, with 97.573 new customers.

At the end of 2011 there were 20 supplying companies operating as retailers in the Spanish gas market. At this time, new entrants had already got more than 60% of market share in terms of energy, which reveals a fair level of competition in the Spanish gas market. There are five suppliers designated as suppliers of last resort.

On 31 December 2011, the number of consumers supplied at a free price was 4.697.474 (64, 5% of all consumers), while the number of consumers supplied at the regulated tariffs was 2.580.431 (35,4% of the consumers). Free price consumers have increased 517.000, representing 7% of total gas costumers. There has been an increase in the switching rate since 2006. The switching rate in gas in 2011 was quite remarkable: the number of customers that have changed of supplying company was around 1,4 million (more than 70% of switches took place in the free market, and only less than 30% was due to a move from a last resort supplier to the free market). The gas switching rate increased from 12% in 2010 to nearly 20% in 2011.

The figure below shows the share of supplies in the Spanish market in 2011 by company, in terms of energy volume:

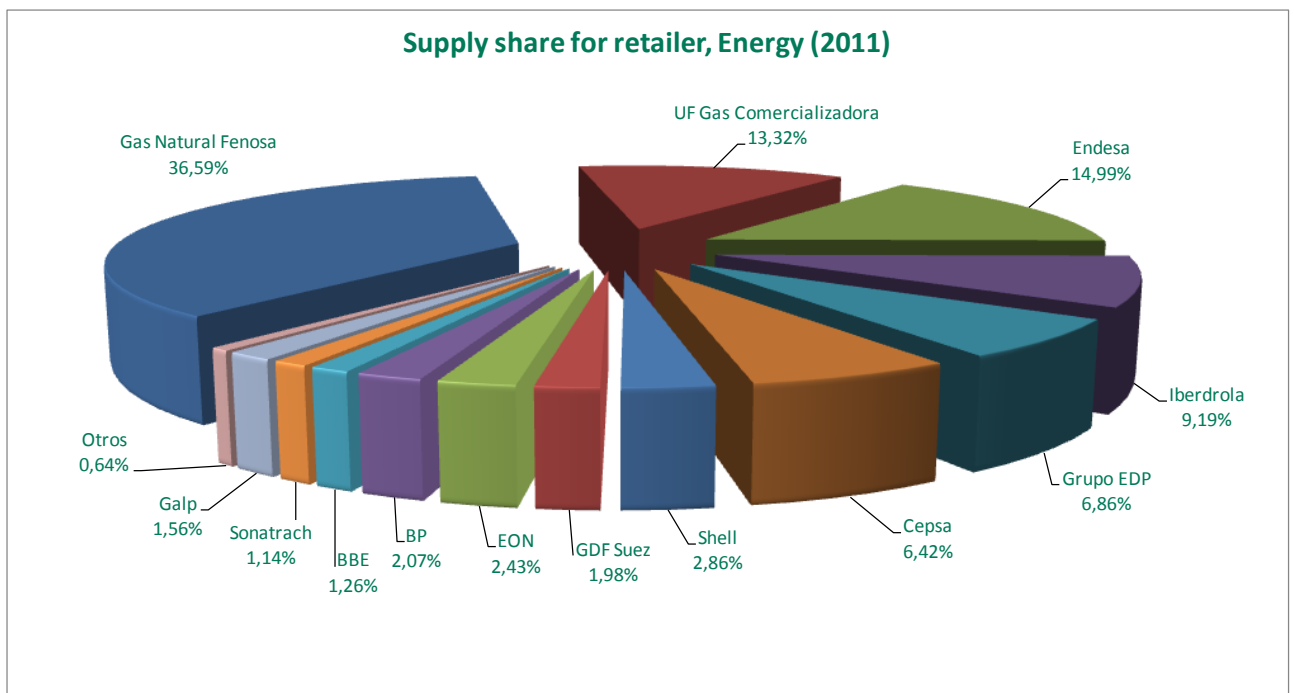


Figure 2. Share of natural gas supplies by company (in energy volume)



In terms of number of customers, the sharing-out of supplies at 31 December 2011 was:

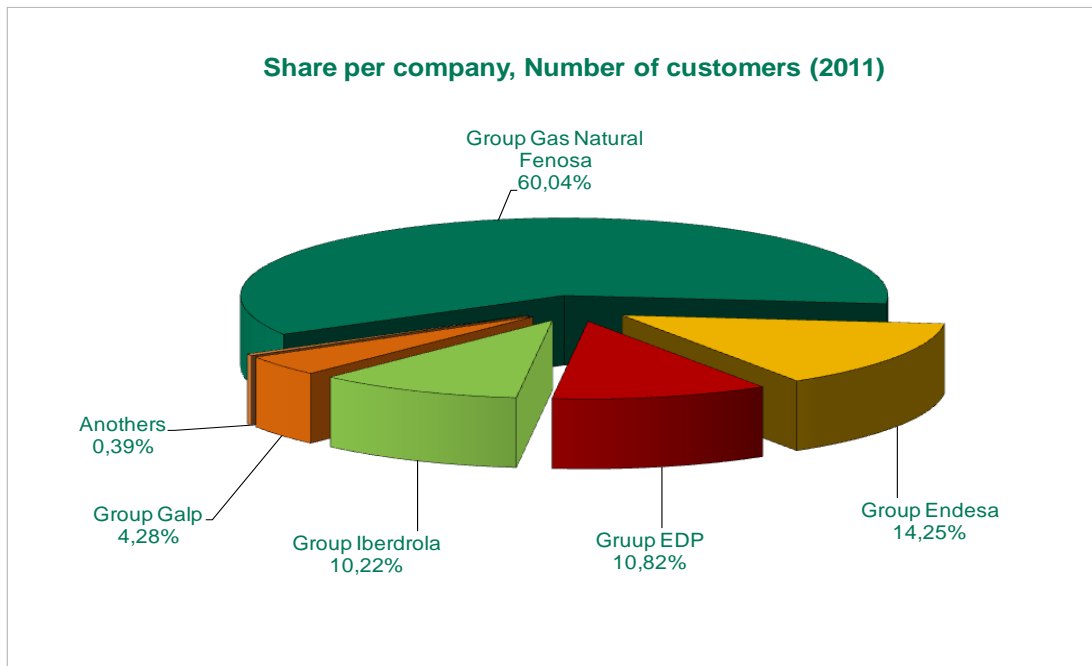


Figure 3. Share of natural gas supplies by company (in number of customers)

### iii) Public Service Obligations and Consumer Protection

The Law 12/2007, dated 2<sup>nd</sup> July, establishes the calendar for both the elimination of end-user regulated prices and the introduction of last resort tariffs, aimed at consumers connected to a gas pipeline pressure lower than 4 bars in the gas sector, since January 1<sup>st</sup> 2008.

The “Supplier Switching Office (OCSUM)” monitors and facilitates the supplier switching process. Existing regulation establishes the time frames in which the DSO must answer the switching requests.

The Royal Decree-Law 13/2012, of March 30<sup>th</sup>, has recently reinforced CNE powers regarding consumer protection measures. It is worth to highlight the following new measures concerning consumer’s protection:

- The new article 57 of the Hydrocarbons Act empowers the Ministry to approve a last resort tariff for certain kind of customers and to establish specific supply conditions

for vulnerable customers. The concept of vulnerable customer of gas as well as the specific supply conditions should still be defined.

- The competent public bodies, together with CNE, shall create a single point of contact to provide consumers with all necessary information concerning their rights and existing proceedings for dispute settlement.
- It also requests suppliers and distributors to offer customers a customer care (including a call center service) in charge of handling consumer's questions and complaints.

As a measure to promote market transparency, CNE has launched a new web price comparison tool for gas and electricity offers. The tool was opened to the public at a press conference on 26 of April 2011. The tool is available at the following website: <http://www.comparador.cne.es>.

The comparison tool includes more than 400 active offers of gas, electricity or dual supply from about 20 different companies.

#### **iv) Infrastructure**

Six LNG terminals are operational in the Spanish gas system and a new LNG terminal in Gijón (Asturias) is foreseen for 2013. All LNG terminals are subject to regulated TPA, allowing the access to new capacity by new entrants, and there is available capacity in all regasification plants.

Spain has several international gas pipeline connections to Algeria through Morocco, to Portugal through Tuy and Campo Maior, and to France through Larrau and Irún.

While LNG terminals represent around 61 bcm/year of entry capacity to the transmission network, the connection from Algeria through Morocco represents 12 bcm/year, the Medgaz pipeline has 8 bcm/year and the connection with France at Larrau, 3 bcm/year.

Spanish and French Administrations and Regulatory Authorities are currently working in an Open Season procedure for developing new capacities in this interconnection, in two axes (Western and Eastern axes) as of 2013 and 2015, respectively.

Some capacity expansions in current infrastructure were accomplished and further new facilities were incorporated into the Spanish gas system in 2011, including both LNG terminals and new transmission pipelines.

The main new gas infrastructure was the international pipeline Medgaz.

Also in 2011 the LNG storage capacity was increased in Barcelona and Sagunto LNG terminals.

Forthcoming investments for the next three years, it is worth to mention a new LNG terminal in Gijón (Asturias), the increase of the capacity of the Spain-France interconnections and three new underground storages. The underground storage facilities of Marismas, Castor and Yela, with a projected capacity of nearly 3 billion cubic meters, are expected to be completed in 2012 and 2013.

#### **v) Security of Supply**

The Spanish regulatory gas framework includes several provisions oriented to preserve security of gas supplies, as provided by European Directive 2003/55/EC and Regulation (EU) nº 994/2010 of the European Parliament and of the Council, of 20 October 2010, concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC.

According to these provisions, suppliers procuring more than 7% of gas imports to Spain must diversify their portfolio in case supplies to the Spanish market coming from a single country reach 50% of all supplies. In addition, all gas retailers must keep gas stocks of 20 days of firm sales in the previous year.

#### **vi) Regulation/Unbundling**

Royal Decree-Law 6/2009, modifying article 67 of the Hydrocarbons Act (Law 34/1998), consolidated ENAGAS, the independent transmission system operator, as the sole owner of the main network of primary transmission of natural gas. The new legal provisions set up by Royal Decree-Law 13/2012 strengthens this model, attributing to the main owner of the network primary transmission assets (“ENAGAS”) the construction and management of those facilities.

As mentioned before, small gas TSOs in Spain can opt between Ownership unbundling model or ISO model.

In 2011, Law 12/2011 has modified the Hydrocarbons Act and has required Enagas to transfer the operation of the transmission system and the actual transport (with the ownership of the assets) into two different companies within the group.

In March 2011, CNE approved the acquisition of Iberdrola’s natural gas grid assets for €12.5 million by the country’s gas grid operator Enagas. With the deal, Enagas would buy

100% of Iberdola Infraestructuras Gasistas, Iberdrola's gas grid branch, which has a 1.1 km line in Cartagena. In accordance with a previous agreement with Iberdrola, Enagas would additionally take over a six km pipeline at Arcos de la Frontera in Cadiz province, connecting to a gas fired combined cycle power plant in the region. The company would also control 50% of Infraestructuras Gasistas de Navarra, which owns and operates a 13 km line to a combined cycle power plant in Castejon in the Navarra province.

During 2011, vertically-integrated companies have implemented their compliance programmes and submitted required reports on the unbundling measures they have adopted to CNE and to the Ministry.

As mentioned before, the Royal Decree-Law 13/2012 transposes the unbundling provisions obliging TSO of basic transmission networks to be certified and attributing CNE the duty to certificate and monitor the continuing compliance of transmission system operators and independent transmission operators with the requirements established in the abovementioned legal provisions. In this regard, CNE submitted the draft decision on the certification of ENAGAS to the EC on April 20 2012 as ownership unbundling TSO.

## 3 THE ELECTRICITY MARKET

### 3.1 Network regulation

#### 3.1.1 Unbundling

##### **o Articles 10,11 2009/72/EC and Article 3 Regulation (EC) 714/2009**

The Royal Decree-Law 13/2012 sets forth that CNE will be in charge of the certification procedure as foreseen by the Directives. In Spain, there is a single TSO for electricity: REE. On 4 November 2011, REE submitted a notification requesting to be certified. CNE decided to deal with the certification procedure and submitted a preliminary decision to the EC on 28 March proposing the certification of REE as an Ownership Unbundled TSO.

The EC approved on 24 May 2012 a favourable opinion on the preliminary certification decision and CNE is currently drafting the final decision.

Article 11 of Directive 2009/72/EC is not applicable since REE is not controlled by persons from a third country.

The current legislative framework set forth in the Electric Power Act 54/1997 as amended by Law 17/2007, represents the consolidation of the TSO model in the Spanish System.

Law 17/2007 declared that REE, the transmission system operator, would be the sole transmission company in Spain and that this company will own the whole network. Accordingly, during 2010, Endesa, Gas Natural Fenosa and Hidrocantábrico sold their remaining transmission assets to REE, completing the process required by Law 17/2007.

By Law, REE SAU is the subsidiary for regulated activities within the REE Group, the holding company being Red Eléctrica Corporación S.A. REE SAU cannot own any shares in companies involved in the generation of electricity or in supply. REE SAU is exclusively dedicated to system operation, management of the transmission grid and transmission. This subsidiary holds all the assets necessary to carry out the activities and assumes all related contracts. On top of the general legal and functional unbundling requirements between regulated and unregulated activities within the group, there are further functional unbundling and accounting separation requirements between SO activities, management of the transmission grid and other activities (transport).

Furthermore, in order to guarantee the independence of the system operator, the Law limits share capital ownership in REE. These equity limits are applicable to the holding company that owns 100% of the regulated activities subsidiary.

Thus, a single person or society cannot, directly or indirectly, own more than 5% share capital or use more than 3% of voting rights. For electricity companies, the limit goes down to 1% of voting rights. The State, via SEPI, must hold at least 10% share capital.

At the date of preparation of this report, the significant shareholders of REC (RED ELECTRICA CORPORACION, S.A.) are those shown in the following table, according to public information of the CNMV:

<b>RED ELECTRICA CORPORACION, S.A. Significant shareholders</b>	<b>% Direct shareholding</b>	<b>% Indirect Shareholding</b>
Sociedad Estatal de Participaciones Industriales (SEPI)	20,00	
TALOS CAPITAL LIMITED	3,087	
FIRST EAGLE INVESTMENT MANAGEMENT, LLC		3,055
FIDELITY INTERNATIONAL LIMITED		1,004
HSBC HOLDINGS, PLC		3,239
MFS INVESTMENT MANAGEMENT		3,046
THE CHILDREN'S INVESTMENT FUND MANAGEMENT (UK) LLP		3,087

*Table 1. Relevant stakeholders in RED ELECTRICA CORPORACION S.A.*

### **o Article 26 of Directive 2009/72/EC. Unbundling of distribution system operators**

Article 14 of Electric Power Act (Law 54/1997), amended by Law 17/2007, Royal Decree-Law 6/2010 and Royal Decree-Law 13/2012 sets forth unbundling requirements for DSOs in line with the Directive 2009/72.

Most of the unbundling requirements were introduced in the Spanish legislation in the year 2010. DSOs are permitted to form part of a group that undertakes other activities including: power generation, energy recharge services and selling of electricity provided that a separate company performs the regulated activities (legal unbundling).

In addition, functional unbundling for DSOs is required. This includes management separation and measures relating to effective decision-making rights, in accordance with the 2003 and 2009 Directives.

During 2010, vertically-integrated companies have implemented their compliance programs (code of conduct for unbundling activities) and submitted required reports on the unbundling measures they have adopted to CNE and to the Ministry. CNE has been monitoring these unbundling measures since 2008. Among the measures adopted and explained in the aforementioned reports, the followings are worthy to note:

- Measures related to the reorganization of the legal companies that form part of the vertically integrated undertaking including the transfer of assets, personnel and share holdings in order to comply with unbundling requirements.
- The modification of the job functions of certain workers, and of the persons in charge of the management of the regulated activities.
- Reference to measures still being carried out as well as planned for the next years;
- Revision of the remuneration and contracts of persons in charge of the management of regulated activities;
- Obligation for persons in charge of the management of the regulated firms to sign a formal declaration declaring that they do not own shares or other participations in undertakings which carry on production or supply activities;
- With respect to commercially sensitive information:
  - o revision of procedures of access to that information,
  - o introduction of confidentiality clauses in contracts with third parties,
  - o designation of persons in charge of the custody of information,
  - o incorporation of disciplinary measures for any breach of the code on separation of activities.

The requirement for vertically integrated distribution system operators to avoid confusion regarding the separate identity of the supply branch of the vertically integrated undertaking, in their communication and branding, was recently transposed by Royal Decree-Law 13/2012.

### 3.1.2 Technical functioning

#### o Balancing services (Article 37(6)(b), Article 37(8), Security and reliability standards, quality of service and supply (Article 37(1)(h))

Setting the methodology for the provision of balancing services has been incorporated as a new competence for CNE by means of the Royal Decree-Law 13/2012. In Spain, balancing is a market-based activity comprising secondary reserve (both regulation capacity and energy), tertiary reserve (energy), load-generation deviations management and constraints management.

The cost recovery for balancing services is designed in a way that provides appropriate incentives for network users to balance their scheduled input and off-takes. Network users that are imbalanced have to cover the costs incurred to balance the system on the basis of a dual imbalance charge.

As for market concentration, tables below show evolution of market shares by company for secondary reserve (regulation capacity) and tertiary reserve and deviations management (both up- and downwards, respectively):

	2010	2011
<b>Endesa</b>	30.1%	34.5%
<b>Iberdrola</b>	29.3%	30.0%
<b>Gas Natural Fenosa</b>	11.4%	13.3%
<b>EDP HidroCantábrico</b>	16.3%	13.8%
<b>E.On Viesgo</b>	6.0%	4.7%
<b>Others</b>	7.0%	3.8%

Table 2. Secondary reserve (regulation capacity) market shares; Years 2010-2011

Source: CNE, OMIE

	2010		2011	
	Downwards	Upwards	Downwards	Upwards
<b>Endesa</b>	25.2%	23.5%	30.6%	27.0%
<b>Iberdrola</b>	26.4%	33.6%	21.5%	33.4%
<b>Gas Natural Fenosa</b>	18.9%	24.8%	14.3%	22.2%
<b>EDPHidroCantábrico</b>	9.6%	5.8%	6.8%	5.6%
<b>E.ON Viesgo</b>	12.8%	7.5%	13.1%	7.2%
<b>Others</b>	7.0%	4.9%	13.8%	4.7%

Table 3. Tertiary reserve plus deviation management market shares; Years 2010-2011

Source: CNE, OMIE



CNE reports on 'Operational Procedures' (O.P.'s) dealing with security and reliability rules; specifically the ones included in 'Series 1' (1.1 to 1,6, thus establishing criteria on admissible loads, voltage / reactive power control, frequency / regulation capacity reserve, black-start capabilities, etc.

The Royal Decree-Law 13/2012 assigns CNE the monitoring of compliance with network security and reliability rules (26<sup>th</sup> function of CNE).

As for transmission service quality indices, their measured values and reference limits are determined by Royal Decree 1955/2000, namely: non-supplied energy (ENS), mean Interruption time (TIM, equal to ENS over average system power) and grid availability index (ID). Last available data (for 2011) are: ENS, 1.570 MWh; TIM 3,17 minutes, and ID= 97.95 %.

	ENS (MWh)			TIM (minutes)		
	REE	Rest of companies	Total	REE	Rest of companies	Total
2006	870	65	936	1,82	0,14	1,95
2007	552	205	757	1,11	0,41	1,52
2008	574	0	574	1,15	0,00	1,15
2009	437	0	437	0,91	0,00	0,91
2010	1.552	18	1.570	3,14	0,04	3,17

Table 4. ENS (energy not supplied) and TIM (average interruption time in minutes) years 2006-2010. Source: REE

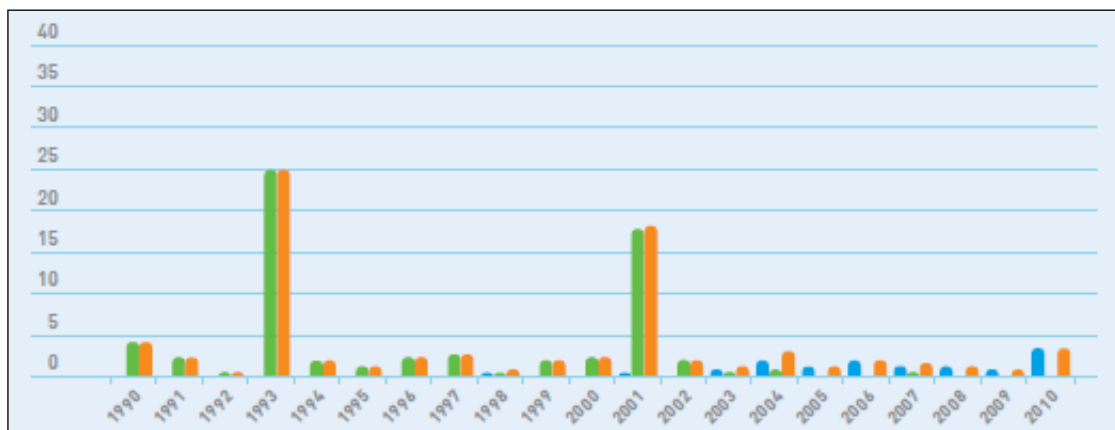


Figure 4. TIM (minutes) due to events in the transmission network until 2010

Source: REE

CNE monitors compliance with quality of service standards in distribution through two main indexes, TIEPI and NIEPI, which measure, respectively, the time and number of supply interruptions (in terms of equivalent power interrupted).

#### **o Monitoring time taken to connect and repair (Article 37(1)(m))**

This monitoring has been incorporated as a new duty for CNE by means of the Royal Decree-Law 13/2012 (20<sup>th</sup> function of CNE). So far, CNE has performed this monitoring on the basis of a previous mandate contained in the Electric Power Act.

For the next distribution regulatory period new information requirements for monitoring and knowing times taken to connect and repair are currently under discussion. New information will be declared for each DSO, each single network equipment, times out of service due to connection, repair or outages.

In relation with the transmission grid, the System Operator is obliged to declare the time that their facilities are out of service on an individual basis. These data are audited.

#### **o Monitoring technical co-operation between Community and third-country TSOs (Article 37(1)(s))**

This monitoring has been incorporated as a new duty for CNE by means of the Royal Decree-Law 13/2012 (28<sup>th</sup> function of CNE). In this regard, CNE monitors power exchanges between the Spanish and Moroccan systems in accordance to the existing provisions included in the Spanish legislation. It is worthy to note that Morocco is synchronized to the continental European transmission grid through the interconnection with the Spanish system.

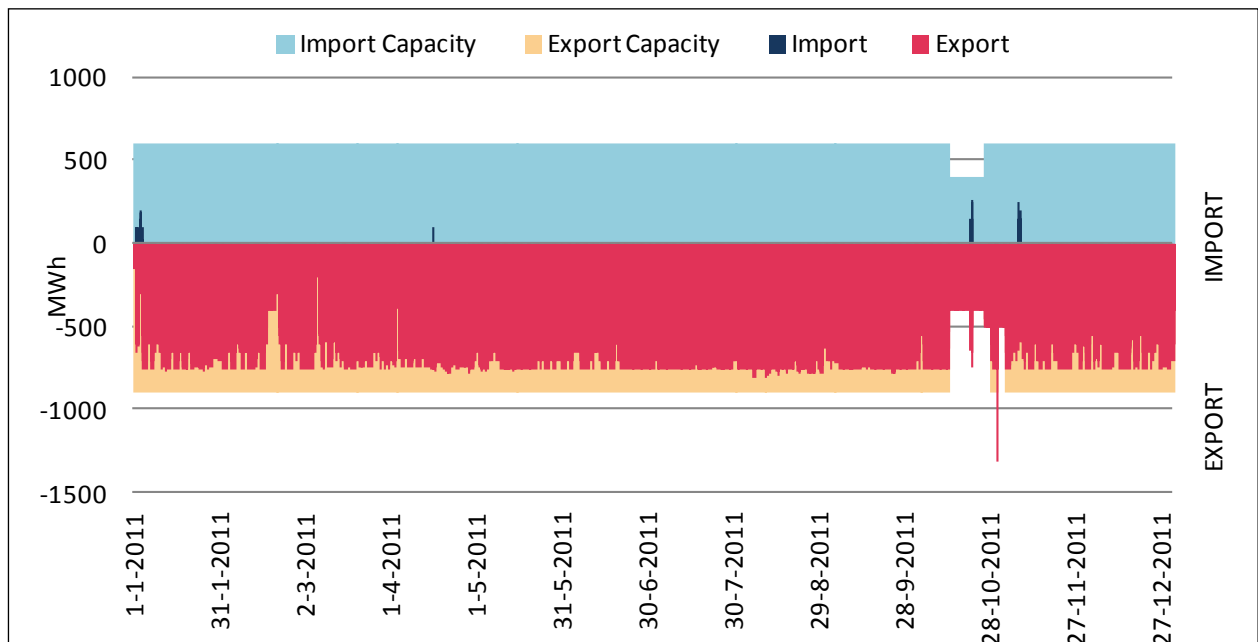


Figure 5. Exchange capacity and market matched energy between Spain and Morocco in 2011

Source: CNE

### **o Monitoring safeguard measures (Article 37(1)(t))**

The legal provisions sets up by Royal Decree-Law 13/2012 reinforces the competences of the Government in this regard and entitled CNE to watch out the compliance of duties by owners and managers of the transmission network.

Throughout the year 2011, no safeguard measures had to be taken.

### **3.1.3 Network tariffs for connection and access**

#### **o Article 37(1)(a), Article 37(6)(a), Article 37(8), Article 37(10), Article 37(12) , Article 37(3)(c) and (d)**

In Spain, the Government sets the access tariffs (previously, to each update or tariff revision CNE has to inform the Government proposal through a non-binding report) and publishes them in the Official Spanish Gazette.

Access tariffs include transmission and distribution revenues and distributors' commercial management costs (service to connected consumers) in addition to other levies included in access tariffs as per Spanish Electric Power Act 54/1997 and Royal Decree 1164/2001, namely, subsidies to renewables and cogeneration. These tariffs are unique throughout the entire Spanish territory.

In 2011, access tariffs were revised three times following Royal Decree 1202/2010, dated September 24<sup>th</sup>, which established that as a general rule, access tariffs are to be reviewed on an annual basis. Exceptions to this rule, meaning a revision of access tariffs every three months, apply in the following cases:

- a) There exist differences between the estimated and the actual deficit of access tariffs.
- b) Substantial changes in the regulation of costs included in access tariffs.
- c) There exist exceptional factors affecting either regulated costs or the parameters needed for the calculation of such costs.

According to this legal provision, Order ITC/3353/2010, dated December 28<sup>th</sup>, established access tariffs for the first quarter of 2011, Order ITC/688/2011, dated March 30<sup>th</sup>, established access tariffs from March to September of 2011, and Order ITC/2585/2011, dated September 29<sup>th</sup>, established access tariffs for the fourth quarter of 2011.

More recently, the Royal Decree-Law 13/2012 sets forth that CNE will approve the methodologies concerning transmission and distribution network tariffs, in accordance with transparent, non-discriminatory and cost-reflective criteria.

CNE is currently developing the methodology concerning transmission and distribution network tariffs, in accordance with the European and Spanish legislation. The first step will be to submit to public consultation a first proposal including different alternatives CNE will submit the final proposal to the stakeholder's consideration before the approval.

On the other hand, CNE will issue a non-binding methodology concerning the rest of the costs included in the access tariff.

Furthermore, as set forth by Royal Decree-Law 13/2012, CNE will monitor the terms and tariffs for connection of new generators.

In order to exercise these functions previously mentioned, CNE is entitled to adopt any reasonable measure to facilitate access to the network for new production capacity, in particular removing barriers that could prevent access for new market entrants in particular for renewable energy sources

### **o Prevention of cross-subsidies (Article 37(1)(f))**

This duty has been incorporated by Royal Decree-Law 13/2012 as 21<sup>st</sup> function of CNE.

Cross-subsidies between transmission, distribution and supply activities are avoided through the accounting unbundling rules and the monitoring carried out by CNE concerning the accounts of companies involved in regulated activities.

CNE has updated this monitoring activity in order to ensure the compliance of all the unbundling requirements.

### **3.1.4 Cross-border issues**

#### **o Access to cross-border infrastructure, including the procedures for the allocation of capacity and congestion management (Article 37(6)(c), Article 37(8), Article 37(9), use of revenues for interconnectors (article 37(3)(f))**

The Royal Decree-Law 13/2012 sets forth that CNE will approve the methodologies establishing the terms and conditions for access to cross-border electricity infrastructures according to the criteria that will be set forth by regulation.

This new competence should facilitate the implementation of the cross-regional roadmaps on long term, day-ahead and intraday cross-border capacity allocation connecting the Iberian market with the rest of Europe.

- **French-Spanish interconnection (IFE)**

While important increase in interconnection capacity is under way across the Pyrenees, the interconnection between Spain and France still suffers significant congestion. Commercial exchange increased with the rest of Europe in 2011. The average commercial capacity in 2011 was 953 MW in the direction France to Spain and 573 MW in the direction Spain to France.

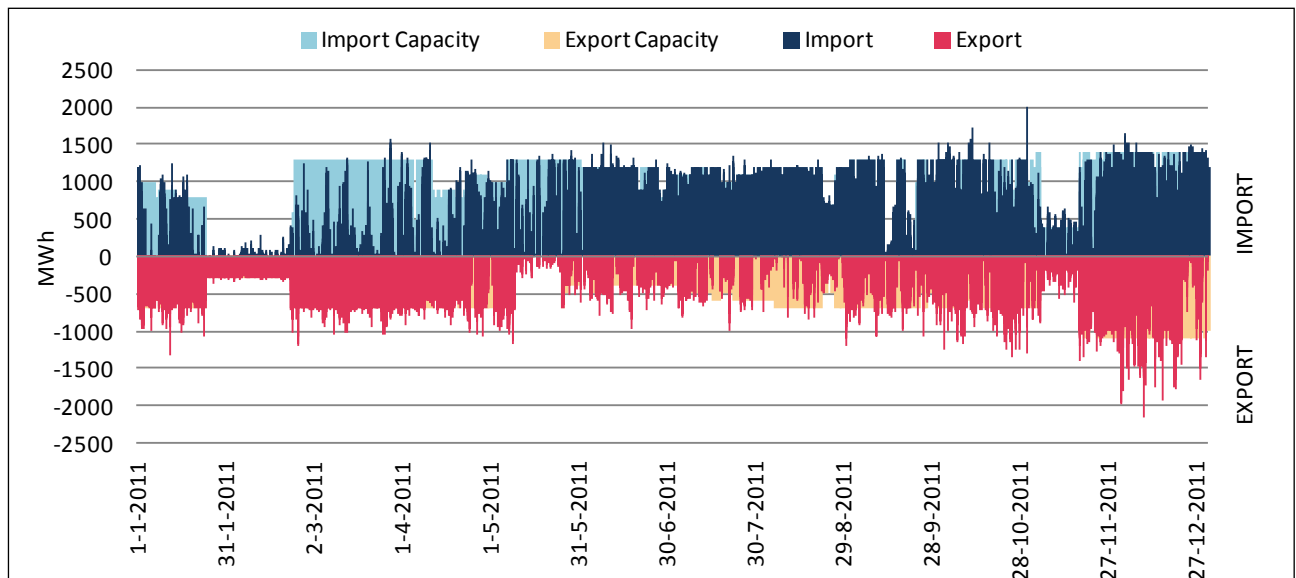


Figure 6. Exchange capacity and market matched energy between Spain and France in 2011  
 Source: CNE

In the context of the South-West Europe region of the ACER Electricity Regional Initiative, the following developments are foreseen for the French-Spanish interconnection:

- Long term capacity allocation: The IFE long term auctions will be transferred to the platform CASC-EU first with physical rights (as it is now, PTR+UIOSI<sup>4</sup>) but foreseeing the evolution towards FTRs<sup>5</sup>.
- Day-ahead capacity allocation: MIBEL (Iberian electricity market) is preparing the operational and regulatory changes needed to implement price coupling with CWE/NWE<sup>6</sup> by the end of 2012. This is taking place in coordination with the NWE (TSOs') project and the Price Coupling of Regions (PXs') project.
- Intraday capacity allocation: In line with the interim target model, implicit continuous allocation in combination with current MIBEL intraday auctions will be implemented in the French-Spanish interconnection. This project is linked to progress in the NWE intraday project.

<sup>4</sup> Physical Transmission Rights with a Use-It-Or-Sell-It mechanism.

<sup>5</sup> Financial Transmission Rights.

<sup>6</sup> CWE: Central-West Europe; NWE: North-West Europe

• **Portuguese-Spanish interconnection (IPE)**

In this interconnection, all cross-border available capacity is implicitly allocated day-ahead and intraday by means of a market splitting mechanism within MIBEL. The degree of congestion in the Portuguese-Spanish interconnection has been getting lower and lower each year. While in 2007 the interconnection was congested around 80% of the time, in 2011 the market splitting was applied only around 9% of the time. It is worth mentioning that the export capacity in 2011 reached 2.400 MW, i.e. more than 25% of the peak demand in Portugal.

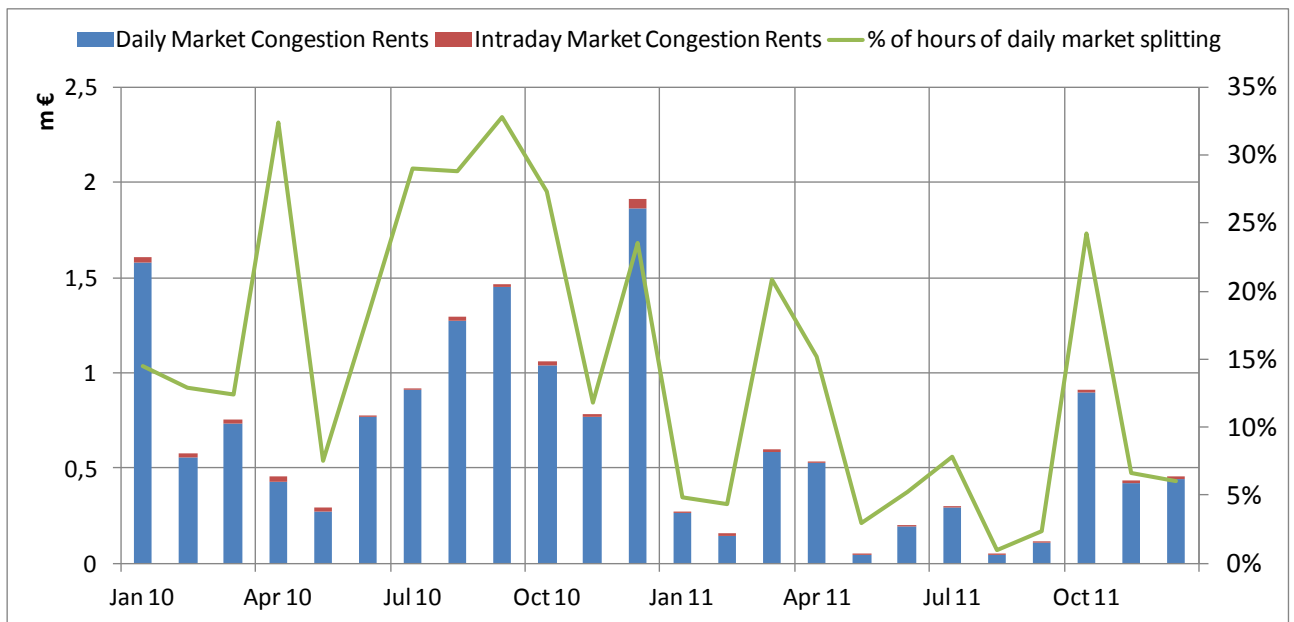


Figure 7. Monthly congestion rents and % of hours of daily market splitting in 2011 between Spain and Portugal Source: CNE

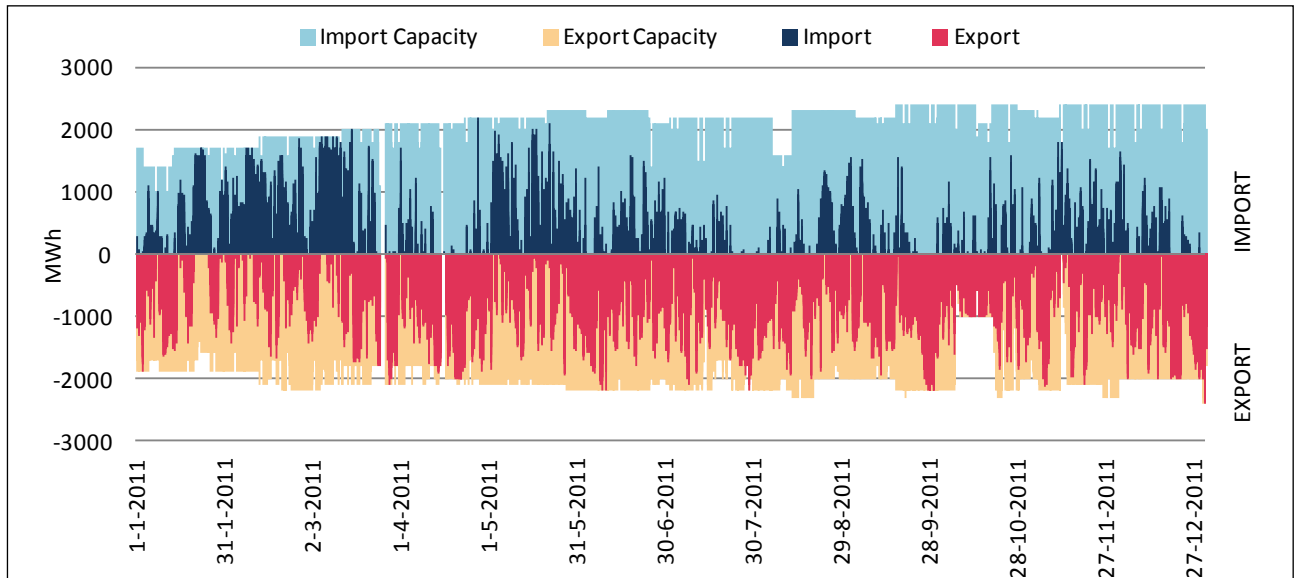


Figure 8. Exchange capacity and market matched energy between Portugal and Spain in 2011

Source: CNE

### Auctions regarding financial contracts based on the price differences of the Spanish and Portuguese market zones

Since June 13<sup>th</sup> 2009, when Order ITC/1549/2009 was published, a long-term financial transmission capacity product is auctioned twice a year. It consists on auctions of financial hedging products with half year or annual time horizon. These products are contracts for differences -“*forward hedge contract to export electrical energy from Spain to Portugal*”-, valued in accordance with observed hourly day-ahead market spread between Portuguese and Spanish zones. The Spanish system acts as the primary issuer of the capacity but market players can bid to sell more capacity on top.



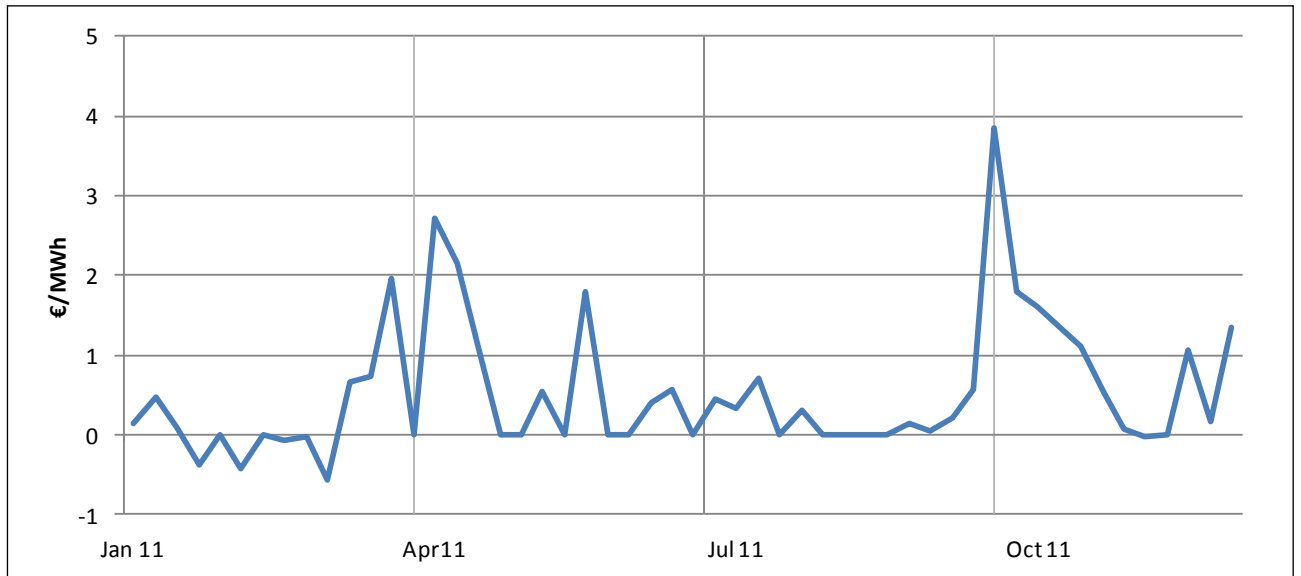


Figure 9. Weekly average hourly price difference on Spanish and Portuguese day-ahead market in 2011

Source: CNE<sup>7</sup>

Auction	Date	Period	Successful bid price (€/MWh)	Contracts tendered by SES <sup>5</sup> (MW)	Contracts awarded to SES (MW)	Total contracts awarded (MW)
4 <sup>th</sup>	16 Dec. 2010	1 <sup>st</sup> Half-year 2011	0.10	200	200	200
		Year 2011	0.34	200	200	201
5 <sup>th</sup>	15 June 2011	2 <sup>nd</sup> Half-year 2011	0.60	200	200	210
6 <sup>th</sup>	13 Dec. 2011	1 <sup>st</sup> Half-year 2012	0.15	200	200	200
		Year 2012	0.25	200	200	200

Table 5. Results of the auctions forward contracts 2011 and 2012 PT-ES

Source: OMIE

The value of these contracts is rather modest as a consequence of the small differential price observed between both zones.

In the context of MIBEL and the SW region of the ACER Electricity Regional Initiative, the following developments are foreseen for the Portuguese-Spanish interconnection:

- Long term capacity allocation: During the first half of 2012, the MIBEL Technical Committee (CT MIBEL) agreed to develop during the second half of 2012 a Circular establishing the methodology regarding the long term management of the

<sup>7</sup> AHP: average hourly price

interconnection in the MIBEL scope. This proposal will take into account the results of the “*Long Term Transmission Rights Task Force*” (LTR TF). In order to grant continuity to the hedge of those agents located at one side of the interconnection point aiming to mitigate the price risk in the other side of the interconnection point, the auctions celebrated in 2011 and in the first half of 2012 have kept the same design as the previous auctions, as long as the joint management of the long term treatment of the interconnection will be implemented in the near future.

- Day-ahead capacity allocation: In line with the target model, implicit allocation (market splitting) already exists. The Day-ahead Gate Closure Time is being shifted to 12.00 CET in order to pave the way to the implementation of the European common algorithm and coupling with CWE/NWE.
- Intraday capacity allocation: The region is analysing how to combine intraday implicit continuous allocation with intraday implicit auctions in the MIBEL.

#### **o Monitor TSO investment plans in view of TYNDP art 37(1)(g)**

This competence has been transposed by Royal Decree-Law 13/2012 as 24<sup>th</sup> function of CNE. However, CNE already monitors the investment plan of the TSO on a regular basis.

It must be taken into account that article 10 of Royal Decree-Law 13/2012 establishes that the System Operator must draft a new nation-wide transmission plan by 30<sup>th</sup> June 2012, to be eventually approved by the Council of Ministers, after due public consultation and CNE’s evaluation. Therefore publication date is not precisely known, but expected by the end of 2012. The latest approved long term planning in Spain covers the period 2008-2016. The assessment of consistency between the EU-wide TYNDP 2012 and the Spanish national investment plan will be carried out when both plans are finalised.

The Royal Decree 1955/2000, 1 December 2000, regulating the activities of transport, distribution, commercialisation, supply and authorisation procedures for electrical power plants, regulates in articles 8 to 16 the requirements for the development of transmission plans.

#### **o Cooperation (Article 37(1)(c))**

The Royal Decree-Law 13/2012 has incorporated this duty as one of CNE’s objectives. CNE has a firmly established cooperation with the NRAs of France and Portugal on cross-border issues, especially in the context of the MIBEL and the ACER ERI SW region.

### 3.1.5 Compliance

#### **o Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 37(1)(d)) and with the Guidelines (Article 39)**

As already mentioned, the Royal Decree-Law 13/2012 obliges CNE to comply with and put into practice those pertinent and binding decisions issued by ACER and the EC. In this regard, CNE may request the opinion of the Agency on the compliance of a decision taken by a regulatory authority with the Guidelines referred to in the Directives 2009/72 and 2009/73 and Regulation 2009/715.

#### **o Power to carry out investigations and impose measures to promote competition etc. (art. 37(4)(b) + 35(5)(a))**

Concerning the NRA's powers to carry out investigations and impose measures to promote competition, the abovementioned Royal Decree-Law 13/2012 entitled CNE to monitor prices and supply conditions applicable to final consumers and verifies the compliance with Electricity Act 54/1997 and Hydrocarbons Act 34/1998 (30<sup>th</sup> function). CNE is entitled as well to monitor the level of transparency and competitiveness, including of wholesale prices, and the level and effectiveness of market opening and competition at wholesale and retail levels (function 31<sup>st</sup>).

Moreover, CNE collaborates with the National Competition Commission in the fulfillment of its duties.

CNE publishes in its website a number of periodic competition monitoring reports on the wholesale and retail markets.

#### **o Power to ask any information from electricity undertakings (art.37(4)(c))**

Regarding CNE's powers to ask any information from electricity undertakings, the Hydrocarbons Act entitles CNE to gather from the agents operating in the energy markets any information it may require in the performance of its functions. To do so, CNE shall issue the so-called "*Circulars*" that must be published in the Official State Gazette, detailing and specifying the content of the information to be requested and justifying the exact function such information is required for and how it is to be used.

In any case, according to Law 30/1992, 26<sup>th</sup> November, on the Legal System of Public Administrations and Common Administrative Procedure, CNE may also request, by a single communication, information from an agent, in order to carry out a specific

investigation procedure. If the agent does not comply with this request, CNE, under Royal Decree-Law 13/2012, shall institute and solve disciplinary proceedings.

**o Compliance of transmission and distribution companies, system owners and electricity undertakings with relevant Community legislation, including crossborder issues (Article 37(1)(b), Article 37(1)(g), Article 37(3)(a),(b),(e) and Article 37(5) all but (a) and (c) + imposing penalties (Article 37(4)(d))**

CNE shall ensure compliance of transmission and distribution system operators and, where relevant, system owners, as well as of any electricity undertakings, with their obligations under Royal Decree-Law 13/2012, Spanish Electric Power Act or any other legal provision, including as regards cross-border issues.

On the other hand, CNE will draft an annual report on its activity and the fulfillment of its duties. The content of this report will be included in the annual sectorial report to be drafted by CNE complying with the Sustainable Economy Act (Art. 20). In this regard, CNE shall propose any regulatory improvement to the Ministry of Industry, Energy and Trade.

### **3.1.6 Dispute settlement**

**o Article 37(11), 37(5)(c), Article 37(4)(e)**

First of all, for the purpose of complaints and dispute settlement, it must be taken into account that the electricity TSO (REE) is ownership unbundled, i.e. it is not a vertically integrated undertaking, this fact simplifies this task.

Secondly, CNE is responsible for dispute settlement of conflicts related to access to the transmission and distribution grids. The deadline for issuing a decision is the same that was required by the Directive (2 months) as set forth by Law 17/2007 of 4<sup>th</sup> July. The decision is binding for the agents involved in the dispute, and should be appealed directly to the Court.

Additionally, CNE shall act as an arbitration body in any disputes that may be referred to it by agents carrying out activities in the electricity and hydrocarbon market.

In 2011, CNE solved by Resolution fourteen conflicts over network access (mainly related to new wind farms) and one more over the technical management of the system.

## 3.2 Promoting Competition

### 3.2.1 Wholesale markets

#### 3.2.1.1 Price monitoring

##### **o Article 37(1)(i) and Article 37(1)(j)**

The duties contained in article 37(1)(i) and (j) have been incorporated as 30<sup>th</sup> and 31<sup>st</sup> functions of CNE by the Royal Decree-Law 13/2012.

The wholesale (spot) market in Spain is made up of an organised part and a non-organised part. The organised market is structured around a day-ahead market followed by six intraday auctions. The non-organised part consists of physical bilateral contracts, the economic terms and conditions of which are agreed between the signing parties and are not known by CNE but whose nomination has to be notified to the Market Operator, meaning that the negotiated quantities are known. During 2011 bilateral contracts represented 40% of energy in the daily programme (PBF: Functioning Base Programme).

In 2011, the weighted<sup>8</sup> average market price was 60.13 €/MWh (about 30% higher than previous year). This increase has been mainly associated to the day-ahead market price rise, since it represents the 84% of the final weighted average market price. The fuel prices have grown during 2011 pushing up market prices. Besides, year 2010 was characterized by a huge hydro and wind output, decreasing the price during that year. The daily market price has represented in Spain 85% of the final price, the capacity payments a further 10%, and the solution to technical restrictions, the secondary regulation and other technical operation processes account for 5%.

##### **The dominant OTC market**

The Spanish OTC market (Over The Counter) is a non organized bilateral market, in which the traders, usually by means of a broker, trade forward contracts with cash settlement. Hence, according to Article 2.3 of the Securities Market Law, they are to be considered as financial instruments. In the Spanish market, the supervision of the financial contracts traded in the OTC market is under the scope of the MiFID<sup>9</sup> (Directive 2004/39/EC) and the

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<sup>8</sup> Including different market sessions plus balancing and reserves costs.

<sup>9</sup> Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments.

Securities Market Law<sup>10</sup>, and thus it relates to the supervisory field of the Spanish Financial Services Authority (*Comisión Nacional del Mercado de Valores, CNMV*). As a consequence, it is necessary to focus the supervision of this market with a coordination perspective between CNMV and CNE. In this sense, the Directive 2009/72/EC<sup>11</sup> indicates in its recital 39 the necessary cooperation between energy market regulators and financial market regulators in order to enable each other to have an overview over the markets concerned<sup>12</sup>.

Currently, CNE has limited information over OTC power transactions (volumes and transaction prices, through the information voluntarily submitted by the main brokers).

However, CNE has access to all the data traded/registered in OMIP-OMIClear, by means of the existing cooperation procedures between the members of the MIBEL Regulatory Council.

On March 5, 2011, the Sustainable Economy Act, of March 4, 2011, was published in the Spanish Official Gazette. The 5<sup>th</sup> final disposition of this Law modifies the Securities Market Law, enabling the information exchange<sup>13</sup> between CNMV and the entities composing the MIBEL Regulatory Council<sup>14</sup>. The members of the MIBEL Regulatory Council have signed on May 17, 2011, a Multilateral Memorandum of Understanding (MoU) for the cooperation and efficient coordination in the MIBEL supervision, permitting their coordinated OTC supervision, facilitating among others the data collection.

In the scope of the cooperation between regulatory agencies, the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency, in force since 28 December 2011, states explicitly as necessary in its Recital 29 that *“national regulatory authorities, competent financial authorities of the Member States and, where appropriate, national competition authorities should cooperate to ensure a coordinated approach to tackling*

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<sup>10</sup> Law 24/1998, according to redaction given by Law 47/2007, of December 19, 2007, and Law 5/2009, of June 29, 2009, of the Securities Market.

<sup>11</sup> Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity.

<sup>12</sup> Such cooperation is in line with the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (commonly known as “REMIT”).

<sup>13</sup> In particular, section 15 of that legal disposition adds a new paragraph (“II”) to Article 90.4 (exemptions to the obligation of professional secrecy) as follows: *“II) The information that CNMV provides to the Spanish supervisory authorities in energy matters and to the supervisory authorities of the Iberian Electricity Market, and that are necessary for their supervisory functions of those markets. In this way, the co-operation agreements that CNMV have signed with other authorities will be taken into account. The information exchanged will only be published if CNMV specifically consents it.”*

<sup>14</sup> MIBEL stands for “*Mercado Ibérico de Electricidad*” (Iberian Electricity Market) and has recently inaugurated its website: <http://www.mibelcr.com/>. The MIBEL Regulatory Council is composed of CNE, CNMV, Entidad Reguladora de los Servicios Energéticos (ERSE, Portuguese National Regulatory Authority) and CMVM (Portuguese Financial Services Authority).

*market abuse on wholesale energy markets which encompasses both commodity markets and derivatives markets”.*

The OTC trading –as well as the trading in the power futures market managed by OMIP–, has followed growing, reckoning in year 2011 ca. 284 TWh, above the Spanish mainland electricity demand at busbar during that year (255.2 TWh). The figure 10 shows the evolution of the OTC traded volume. Such a volume was about 258 TWh (2010), 158 TWh (2009), 74 TWh (2008) and 39 TWh (2007).

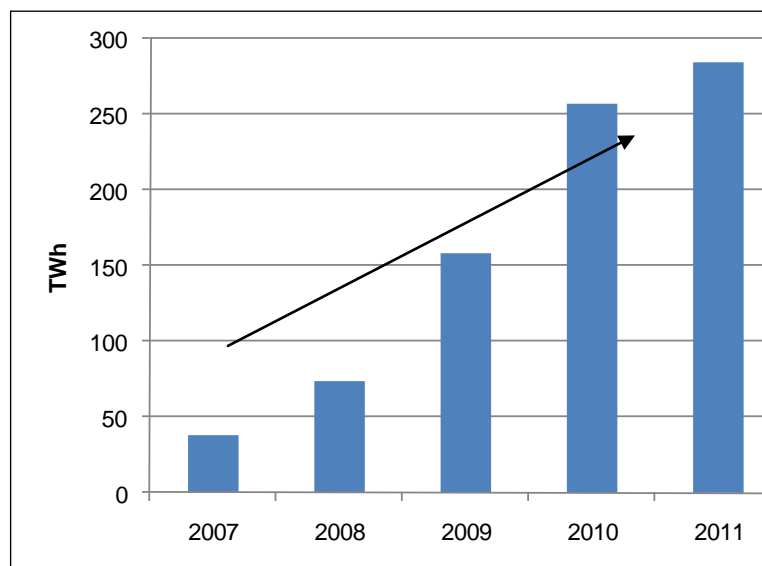


Figure 10. Accumulated OTC volume traded in one year (TWh) (2007 to 2011)  
Source: CNE with data from brokers

### The power futures market managed by OMIP

In the context of the MIBEL Board of Regulators, CNE supervised the futures market managed by OMIP<sup>15</sup>, in co-ordination with the other members of the MIBEL Board of Regulators. Such a market started on 3<sup>rd</sup> July, 2006. The rules of this market are registered on the Portuguese Financial Services Authority (Comissão do Mercado de Valores Mobiliários, CMVM).

The energy traded in the continuous market of the MIBEL Iberian electricity futures market managed by OMIP during year 2011 amounted to 32.87 TWh.<sup>16</sup>

<sup>15</sup> Operador do Mercado Ibérico de Energia SGMR, S.A. (Iberian Energy Market Operator, Portuguese side).

Figure 11 shows the trading evolution (in terms of energy traded) in the MIBEL Iberian electricity futures market (OMIP auctions and OMIP continuous market), the volumes traded in the OTC market, and the part of such volumes registered in OMIP and cleared and settled by OMIClear<sup>17</sup> (OMIP clearing house, central counterparty and managing entity of the settlement system).

Additionally, another clearing house (Meff Power) is active since 21 March 2011 for OTC clearing of Iberian power derivatives. So far, only OTC baseload swaps with underlying price the spot price of the Spanish zone have been cleared and settled. The accumulated volume during year 2011 reckons 3.76 TWh (monthly average of 0.38 TWh).

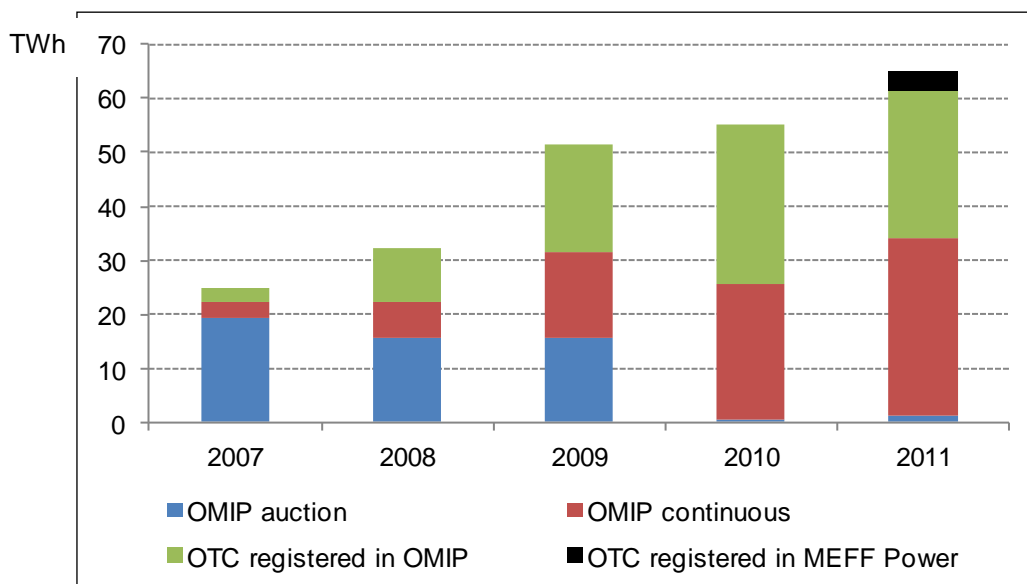


Figure 11. Evolution of accumulated traded volumes per year in OMIP auctions and continuous market, and OTC volumes registered in OMIP and MEFF Power (TWh), years 2007-2011

Source: OMIP-OMIClear and Bolsas y Mercados Españoles (BME)

### Supply of Last Resort Energy Contract Auctions (CESUR Auctions)

As previously commented, from 1 July 2009, the default supply is no longer a part of distribution and becomes entirely provided by last resort suppliers, in accordance with

<sup>16</sup> Additionally, 1.32 TWh were traded through OMIP auction mode for selling special regime production in Portugal. In particular, on 16 December 2011, the first auction in which the Portuguese last resort supplier (EDP Serviço Universal, S.A.) sells special regime production in Portugal (known as PRE auction, “Produção em Regime Especial”) was performed.

<sup>17</sup> Sociedade de Compensação de Mercados de Energia, S.G.C.C.C.C., S.A. (Energy Markets Clearing Company).



Royal Decree 485/2009 of 3 April, which regulates the implementation of the supply of last resort in the electrical energy sector.

The Order ITC/400/2007 of 26 February regulated bilateral trading of electrical energy with physical delivery by the companies responsible for default supply on the Spanish mainland. Since June 2010, the Order ITC/1601/2010 regulates CESUR auctions whose resulting price is used as a reference for setting the last resort tariff.

The following table summarises the results of the CESUR auctions held in 2011:

Auction date	14 <sup>th</sup> CESUR auction 22 March 2011		15 <sup>th</sup> CESUR auction 28 June 2011		16 <sup>th</sup> CESUR auction 27 September 2011		17 <sup>th</sup> CESUR auction 20 December 2011	
	Q2-11 Base load	Q2-11 Peak	Q3-11 Base load	Q3-11 Peak	Q4-11 Base load	Q4-11 Peak	Q1-12 Base load	Q1-12 Peak
Participants	23		26		26		28	
Winners	21		23		25		28	
Rounds	14		17		12		19	
Target volume (MW)	4 000	406	3 600	688	3 800	458	4 000	363
Starting price (€/MWh)	59	68	67	71	68	72	67	71
Auction price (€/MWh)	51.79	55.13	53.20	56.63	57.99	63.00	52.99	57.95

Table 6. CESUR Auctions: results of CESUR auctions in 2011  
Source: auction administrator and CNE

The Royal Decree 302/2011<sup>18</sup>, of 4 March 2011, aims to establish a compulsory purchase mechanism for the last resort suppliers and compulsory sale mechanism for the special regime facilities<sup>19</sup> of products with price differences settlement between CESUR prices and the spot prices. The maximum compulsory volume is obtained through the difference between the sum of the last resorts suppliers' requested quantities –communicated beforehand to the Ministry of Industry, Tourism and Trade– for the period in force of the last resort rate and the quantities matched in the corresponding CESUR auctions. This mechanism reduces the last resorts suppliers' risk, as it lets them purchase all the requested energy at the same cost<sup>20</sup>.

In the supervisory framework of the CESUR auctions, CNE is monitoring the evolution of the forward prices, taking into account the evolution of those variables with potential

<sup>18</sup> “Real Decreto 302/2011, de 4 de marzo, por el que se regula la venta de productos a liquidar por diferencia de precios por determinadas instalaciones de régimen especial y la adquisición por los comercializadores de último recurso del sector eléctrico”, published in the Spanish Official Gazette (BOE) on March 5, 2011.

<sup>19</sup> Facilities choosing option a) in the article 24.1 of Royal Decree 661/2007 (feed-in tariff option).

<sup>20</sup> Every time the matched energy in the spot market by such special regime facilities is bigger than the last resort suppliers' demand not auctioned in CESUR.

influence in the Spanish forward electricity price formation, as well as in the liquidity of the power futures market managed by OMIP and the OTC market. The products purchased by the last resort suppliers in the CESUR auctions are standard quarterly forward contracts (base load and peak products) also traded in the forward markets. In this sense, there is a strong interrelation between the resulting equilibrium price in the CESUR auction and the price formation in the existing forward trading venues, i.e. the power futures market managed by OMIP and especially in the OTC market (as the latter presents a larger trading volume). Due to this, CNE is improving its supervisory role of the OTC market and the influence the OTC market on the CESUR auctions. Such an improvement of the supervisory capacity is being implemented with the collaboration of the financial regulator.

The improvement of the supervision of the OTC market is also under the scope of application of Regulation (EU) No 1227/2011, commonly known as REMIT. This Regulation, aiming to improve the market integrity and transparency of the wholesale energy markets, specifies that the wholesale energy markets “*encompass both commodity markets and derivative markets*”, that “*include, inter alia, regulated markets, multilateral trading facilities and over-the-counter (OTC) transactions and bilateral contracts, direct or through brokers*”, and that the “*price formation in both sectors is interlinked*”.

### **3.2.1.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition**

#### **o Article 37(1)(i), Article 40(3) and Article 37(1)(u)**

The RDL 13/2012 –transposing the Directive 2009/72/EC– modifies the Electricity Act allowing the Ministry of Industry, Energy and Tourism, CNE, the Spanish Competition Authority and the European Commission to access during at least 5 years to the data of all the transactions of the electricity supply contracts as well as the electricity derivatives concluded with the wholesale customers and the Transmission System Operators.

Regarding the scope of Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on Wholesale Energy Market Integrity and Transparency (REMIT), as previously mentioned in Section 3.2.1.1, CNE participates actively in the CEER and ACER Market Integrity and Transparency (MIT) Working Groups and related Task Forces<sup>21</sup>. In particular, the CMIT WG deliverable “*CEER Status Review and Advice on Further Transparency Measures on the Publication of Fundamental and Transactional*

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<sup>21</sup> The CMIT WG has a Task Force called “Wholesale Energy Market” (WEM TF). The AMIT WG has two Task Forces called “Market Monitoring Governance” (MMG TF) and “Wholesale Market Surveillance” (WMS TF).

*Data*” is foreseen, with the aim to summarize good practices by National Regulatory Authorities publishing market and fundamental data, serving as a base for discussion. CNE would then describe accordingly which data publishes currently.

In the Spanish scope, CNE meets the market participants to discuss the compliance of the obligation to publish insider information (REMIT article 4).

Regarding the current monitoring practices of CNE for the wholesale electricity market, a description is provided in *“CEER monitoring report on transaction reporting and detecting market misconduct in wholesale energy markets - Good practice examples from national regulatory authorities”* (Ref. C11-WMF-12-03, 1 December 2011).

In addition to above mentioned monitoring tasks, CNE publishes market oversight reports with aggregated data and no commercially sensitive information (e.g. CNE monthly report regarding the supervision of the Spanish electricity forward markets<sup>22</sup>).

The duty contained in article 37(1)(u) has not been exactly transposed in the Spanish legislation as such, however, it is considered within the framework of regional cooperation. In the electricity market, compatible data exchange with France and Portugal between TSOs and PXs happens on a regular basis. One example of that is the data submitted by REE to be published in entsoe.net.

### Structure of the Generation Market - Capacity

The following graph and table show the shares by technology of installed generation capacity in the Spanish mainland system in 2011; the total values reached 100.576 MW.

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<sup>22</sup> All the CNE market oversight reports are available at: [www.eng.cne.es/cne/contenido.jsp?id\\_nodo=113](http://www.eng.cne.es/cne/contenido.jsp?id_nodo=113)

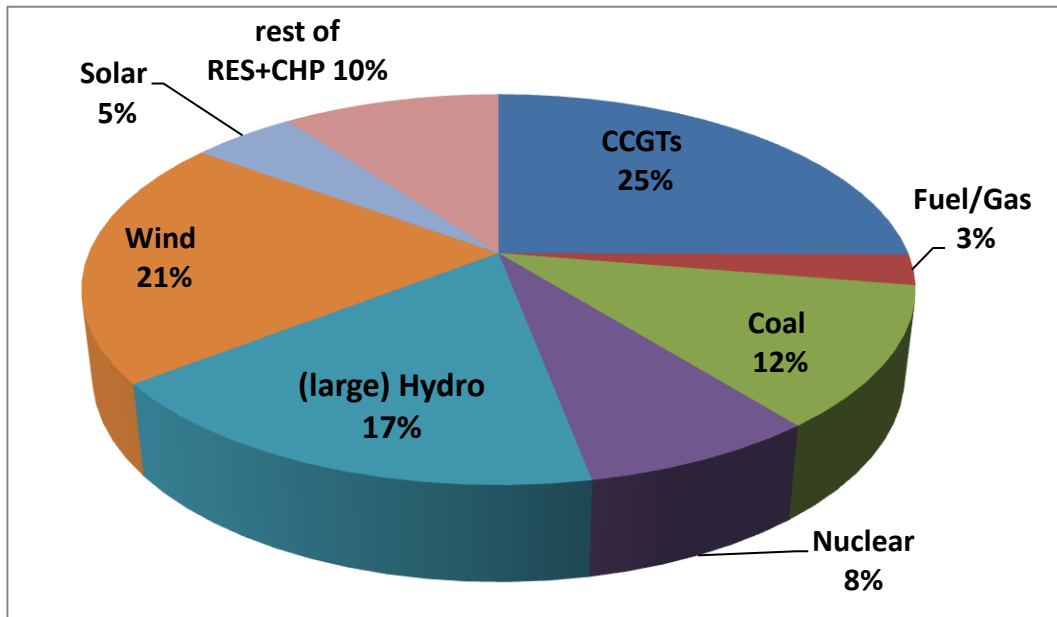


Figure 12. Installed generation capacity in the Spanish mainland system at the end of 2011

Source: REE

Technology\Generation capacity (MW)	2010	2011
CCGT (Combined Cycle)	25.235	<b>25.269</b>
Fuel+Gas (conventional)	2.860	<b>2.540</b>
Coal	11.380	<b>11.700</b>
Nuclear	7.777	<b>7.777</b>
Hydraulic	17.561	<b>17.537</b>
Wind power	20.057	<b>20.733</b>
Solar	4.140	<b>4.852</b>
Other Special Regime	10.033	<b>10.169</b>
TOTAL	99.043	<b>100.577</b>

Table 7. Installed generation capacity structure in the Spanish mainland electricity system

Source: REE

On 31<sup>st</sup> December 2011, the generation capacity shares of the different companies in the “ordinary regime” (conventional generation) of Spanish mainland electricity system were as shown on the following table:

	Available generation capacity	HHI
Iberdrola	29.42%	2098
Endesa	24.99%	
Gas Natural Fenosa	22.36%	
E.ON	7.00%	
EDP-Hidrocarbónico	6.67%	
Others	9.57%	

Table 8. Companies' market shares of available generation capacity in the ordinary regime (year 2011)

Source: CNE

As shown in the above table, the number of companies with more than 5% of the Spanish electricity system's installed power is five. The companies are Endesa, Iberdrola, Gas Natural Fenosa, E.ON and EDP-Hidrocarbónico.

### Structure of the Generation Market - Energy

In 2011, total demand of power generation (including mainland and extra-peninsular demand) decreased 2% down to 270.361 GWh, which was covered as follows:

Balance of Spanish electric energy system	Energy 2010 (GWh)	Energy 2011 (GWh)
Hydraulic	38.653	<b>27.650</b>
Nuclear	61.990	<b>57.670</b>
Coal	25.478	<b>46.427</b>
Fuel+Gas (conventional)	9.553	<b>7.491</b>
Gas (Combined Cycle)	68.595	<b>55.074</b>
Special Regime	91.866	<b>93.443</b>
International Exchanges	-8.333	<b>-6.105</b>
Consumption in generation	-7.572	<b>-8.043</b>
Consumption in pumping	-4.458	<b>-3.245</b>
<b>Total demand</b>	<b>275.772</b>	<b>270.362</b>

Table 9. Balance of Spanish electric system, GWh (year 2011)

Source: REE

During 2011, 24<sup>th</sup> January (from 19.00 to 20.00) was the day on which the highest peninsular hourly demand was recorded, with a value of 44.107 MW. The maximum daily energy value occurred the day after and amounted to 884 GWh.

As for 2011, there were five traditional groups of a significant size competing in the market: Endesa, Iberdrola, Gas Natural Fenosa, Hidrocantábrico (EDP) and Viesgo (E.ON), whose market shares in energy are shown below. Remarkably, new entrants such as EGL and Acciona have important shares composed only by energy generated in the Special Regime:

The share of the first five companies includes Ordinary and Special Regime.

	Energy Share	HHI	
<b>Iberdrola</b>	23.5%	(1432-1446)	
<b>Endesa</b>	22.7%		
<b>Gas Natural Fenosa</b>	15.0%		
<b>EDP - Hidrocantábrico</b>	5.7%		
<b>E.ON</b>	2.9%		
<b>Others in Ordinary Regime only</b>	2.9%		
<b>Others in Special Regime only</b>	24.4%		
Breakdown:			
EGL			7.4%
Acciona			4.5%
Energy VM			2.6%
Nexus			1.9%
Wind to market			1.8%
DETISA			0.8%
Rest of companies		5.3%	
<b>Imports</b>	2.9%		

Table 10. Companies' market shares in electricity generation (year 2011)

Source: CNE

### **o Article 37(1)(k)**

The Royal Decree-Law 13/2012 has incorporated this duty as one of CNE's functions. CNE already performs this function in some way but it will have to be reinforced. In particular, CNE will analyse specific cases following a complaint of the affected party.

### **o Article 37(1)(l)**

The Royal Decree-Law 13/2012 has incorporated this duty as one of CNE's functions. CNE intervenes after the receipt of a complaint as regards breaches of contractual freedom. This activity is performed under the framework of market monitoring activities.

## **3.2.2 Retail markets**

### **3.2.2.1 Price monitoring**

As mentioned in 3.2.1.1, the duties contained in article 37(1)(i) and (j) have been incorporated as 30<sup>th</sup> and 31<sup>st</sup> function of CNE by the Royal Decree-Law 13/2012.

At retail level, CNE monitors retail prices through the commercial offers that are published in CNE's price comparison tool and through the "Circular" 2/2005. By this Circular, suppliers are officially requested to submit a declaration of the average invoice charged to each type of customer (according to the access tariff group). The results of this monitoring are published in CNE's retail electricity market report which is published every six months.

Besides the ex-officio monitoring performed by CNE, these duties can be executed as well following a complaint from a customer on an ad-hoc basis.

### **3.2.2.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition**

The duty contained in article 37(1)(u) has been transposed in the Spanish legislation. CNE has been granted the power to impose all reasonable measures necessary to attain the objective of ensuring a high quality of service and the compatibility of the exchange data processes needed to switch suppliers (amongst other objectives set forth by the law). The Spanish TSO runs the web platform E-SIOS ([www.esios.ree.es](http://www.esios.ree.es)), thus providing a remarkably volume of data streamed close to real time, most of it open to public in general; part of this data is also channelled to pan-European platform hosted by [www.entsoe.net](http://www.entsoe.net).

Also CNE has the legal duty to monitor the “*Supplier Switching Office*” (OCSUM) activities whose main focus is to facilitate the process for switching supplier. CNE is developing a very active role in monitoring OCSUM and ensuring OCSUM properly addresses these issues in their working groups. Existing regulation establishes the following deadlines timeframes to be met by distribution companies (DSOs):

- The DSO must answer the switching request (this is usually presented by the retailer in the name of the customer) within a period of five working days for low voltage customers. For medium and high voltage customers this period is fifteen days.
- In the case of a simple switch, the DSO must activate it in less than a fortnight. (Low and high voltage customers). This period could be increased if the customer asks for a real metering at the settlement bill date.

However, the existing regulation does not fully establish the operational aspects and formats for the communications flows that should take place between retailers and DSOs reached within the context of the working groups facilitated by OCSUM.

The Royal Decree-Law 13/2012, introduced a general time frame of three weeks for the switching process in electricity. According to this new piece of legislation, not only DSOs, but also suppliers, will have to comply with legal deadlines in relation with the switching process, to be established through future specific regulations.

Furthermore, suppliers have to keep during five years the records of their supply contracts available to CNE.

During the year 2011, around 2 million of consumers abandoned the last resort supply (taking into account data collected from the five major Spanish distribution companies) in favour of the free market.

In line with CEER switch definition<sup>23</sup>, during year 2011, 10.61% of customers changed supplier.

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<sup>23</sup> Switching supplier is the action through which a customer acts and changes his/her supplier – the meter point associated with a household must be re-registered with a different supplier. A customer moving residence should only be recorded as a switch if a customer switches to a different supplier. Changes of supplier resulting from a merger are excluded. Also, a change of tariff with the same retailer is not equivalent to a switch.

[http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_PAPERS/Customers/Tab1/E10-RMF-27-03\\_final%20GGP%20IRMM\\_12-Oct-2010.pdf](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Customers/Tab1/E10-RMF-27-03_final%20GGP%20IRMM_12-Oct-2010.pdf)



Total switching rate is diluted by the high number of households in Spain. Almost 97% of total consumption points belong to this segment.

CNE monitors the switching rate, and other related statistics, through two channels: (1) a quarterly report elaborated by the switching office (OCSUM) and (2) the information sent directly from distribution companies, on a quarterly basis, under CNE's Circular 1/2005. OCSUM's reports are not public. The Office only has the legal obligation to communicate switching and other related data to CNE, the Central Government and the Regional Governments.

As shown in the table below, the evolution of the switching rate during the last three years has followed an increasing trend, reaching 10,61% in 2011, and the number of failed switches has decreased significantly (this number mainly tends to reflect errors and lack of standard formats in the communication process between retailers and DSOs).

ELECTRICITY SWITCHING DATA 2009-2011*			
	2009	2010	2011
<b>Domestic switching rate</b>	4,39%	6,61%	10,04%
<b>Nº domestic customers</b>	26.280.450	26.555.315	26.654.921
<b>Total switching rate</b>	5,23%	7,42%	10,61%
<b>Nº all customers</b>	27.113.874	27.406.461	27.505.927
<b>% failed switches</b>	8,79%	8,20%	5,98%

Table 11. Electricity Switching 2009-2011

Source: OCSUM. Data for 2011 should be considered as provisional.

\*The calculated switching rates reflect the number of switches made as a percentage of customer number during the analyzed period. In accordance with CEER 2010 GGP on Retail Market Monitoring Indicators, a switch is defined as "any change of supplier resulting from the customer choice".

### o Article 37(1)(j)

The Laws 12/2007 and 17/2007 gave CNE powers to supervise the degree of competition in the energy markets at wholesale and retail level. Pursuant to the 5th additional disposition CNE has to publish a yearly report to the Ministry monitoring the degree of market opening which has to include regulatory proposals to foster competition.

Accordingly, CNE on the 1st September 2011 published a report supervising the development of competition in the electric and gas markets (years 2007-2009).

During 2011, the degree of concentration of the retail market has not changed significantly. At the end of 2011, Endesa still held the highest aggregate (last resort and free market) share in terms of both number of customers and energy supplied with market shares of 41.2% and 45%, respectively. Focusing the attention on the free market, Endesa still leads in terms of energy supplied with a quote of 36,3%, though Iberdrola has increased its base of customers, surpassing 3.6 million, (47,1% of customers in the free market) by December, 2011.

#### **o Article 37(1)(k)**

The Royal Decree-Law 13/2012 has incorporated this duty as one of CNE's functions. CNE already performs this function in some way but it will have to be reinforced.

#### **o Article 37(1)(l)**

The Royal Decree-Law 13/2012 has incorporated this duty as one of CNE's functions. CNE intervenes after the receipt of a complaint as regards breaches of contractual freedom. This activity is performed under the framework of market monitoring activities.

### **3.2.3 Recommendations on supply prices**

#### **o Article 37(1)(o)**

The power to issue recommendations on supply prices has not been transposed as such in Spain. However, 30<sup>th</sup> function of CNE (as set forth by the Royal Decree-Law 13/2012) is aimed at monitoring the adequacy of prices and the terms and conditions of supply to customers in accordance to the Law.

Furthermore, pursuant to article 3 of the Directive 2009/72, "*Member States may impose on undertakings operating in the electricity sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection*".

For more information on public service obligations related to prices, see section 3.3.

### **3.2.4 Carry out investigations and imposing measures to promote effective competition**

#### **o Article 37(4)(b)**

CNE has the power to carry out investigations and to impose measures to promote effective competition.

The Spanish legislation includes provisions and tools to avoid market abuse. The National Competition Commission is the body responsible for applying the Competition Act 15/2007, of 3rd July, promoting and protecting the maintenance of competition in all the production sectors and throughout the national economy. The National Competition Commission and sector regulators such as CNE cooperate in exercising their functions. The Law 2/2011 establishes new cooperation procedures between CNC and CNE.

CNE adopts information by-laws, which will have to be published in the Spanish Official Gazette, to request from the agents that operate in the electricity markets all the information needed to carry out the monitoring functions.

Suppliers have to comply with a series of rules concerning the supply contract. The main focus in supply activity (for promoting competition) is the procedure for switching supplier. For more information see 3.2.2.2. “switching”.

Other important activity for promoting competition is the price comparison tool mentioned in the previous section.

During 2011 there have been no significant mergers and acquisitions in the electricity sector.

Further measures to avoid abuses of dominance adopted in 2011 include the following:

CNE on the 10th February 2011 approved the Resolutions by which the lists of main and dominant operators in the energy sectors are established and made public. First, CNE declared and published the list of the five companies with major market shares (the so called “main operators”) in the electric sector (ENDESA S.A., IBERDROLA S.A., GAS NATURAL SDG, S.A., HIDROELECTRICA DEL CANTABRICO S.A and E.ON ESPAÑA, S.L.) and in the natural gas sector (GAS NATURAL SDG. S.A., IBERDROLA, UNION FENOSA GAS, S.A., ENDESA, S.A. and HIDROELECTRICA DEL CANTABRICO). There is also a similar list for liquid fuels and liquefied gas<sup>24</sup>.

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<sup>24</sup> More recently, on June 21<sup>st</sup> 2012 the CNE Administration Board has approved the list of main operators in the energy sector which will be published in the Official Gazette in the coming days.

According to Article 34 of Royal Decree-Law 6/2000 there is a limitation on the voting rights corresponding to shares in excess of 3% held by the same person in more than one company that ranks among the biggest five (in terms of market shares) in the sector or market in question.

Secondly, CNE on the 10th February 2011 published a list of operators with a market share of over 10% in various energy sectors (the so called “dominant operators”) including: ENDESA, IBERDROLA, EDP/HIDROCANTABRICO, GAS NATURAL FENOSA for the electricity sector and GAS NATURAL FENOSA, IBERDROLA, UNION FENOSA GAS and ENDESA for the gas sector and REPSOL-YPF and CEPSA for liquid fuels.

According to the 16th additional disposition of the Electric Power Act (Law 54/1997), the Government may, by regulation, establish markets mechanisms to foster forward trading of electricity. These mechanisms shall take the form of a primary issue of a certain amount of electricity equivalent to a set capacity in the conditions and for a period of time specified in the issue.

This primary energy issue shall be released by those electricity producers included in the published list. This energy cannot be purchased by an operator that has a market share of over 10% for generation or supply of electricity. No new energy release programs have taken place since 2009.

Moreover, according to article 13 of Law 54/1997, dominant operators in the electricity sector cannot import energy from outside MIBEL. They are also forbidden from selling energy generated by special regime generators on behalf of third parties that do not belong to their group (Royal Decree 661/2007 25th May).

On 1<sup>st</sup> September 2011, CNE published its third report analysing the development of competition in the electric and gas markets, pursuant to the 5<sup>th</sup> additional disposition of Law 12/2007 and 17/2007.

### **3.3 Consumer protection**

#### **o Compliance with Annex 1 (Article 37(1)(n))**

The Royal Decree-Law 13/2012, of March 30<sup>th</sup> has granted CNE new powers to issue binding decisions in relation to electricity undertakings and to decide on appropriate measures ensuring the full effectiveness of consumer protection measures.

Additionally, the Royal Decree-Law 13/2012 sets up a new time frame of three weeks for the switching process.

Moreover, competent bodies, in cooperation with CNE, will create single points of contact to provide consumers with all necessary information concerning their rights, current legislation and the means of dispute settlement available to them in the event of a dispute.

### Complaints

Until recently, the Autonomous Communities had a general responsibility for customer complaint handling. They were also competent for the resolution of disputes concerning last resort tariffs contracts and access to distribution network tariffs, as well as for billing issues. CNE had the power to supervise the switching processes and to declare the infringement of switching rules. It also supervised the correct application of specific measures for vulnerable customers such as the social bonus (“bono social”). All other issues were dealt with by jurisdictional courts unless alternative consumer arbitration procedures were available.

The Royal Decree-Law 13/2012, of March 30<sup>th</sup> has envisaged the need for a more effective protection of consumer rights. Therefore, it empowers CNE with new duties and functions such as the power to report and to handle consumer complaints in coordination with other competent authorities, and has given CNE the duty to put at consumers disposal all the information related to consumer rights, regulation in force and procedures to settle disputes, as well as reporting annually to the Ministry on complaints received and making proposals for better regulation (Function 32<sup>nd</sup>). The necessary coordination between regional bodies and national regulator in the handling of consumer complaints as mandated in the Royal Decree is still to be articulated.

Additionally, CNE has now the function to supervise the consumer protection measures, and the power to declare who is responsible for deficiencies of energy supply to consumers (Function 29<sup>th</sup>), as well as submitting regulatory proposals in relation to quality of service, supply and consumer protection measures to the Ministry and the Autonomous Communities.

When enforcing the above described functions, CNE has the power to impose all reasonable measures necessary to attain the objective of ensuring a high quality of service, especially for vulnerable clients, and the compatibility of the exchange of data processes needed to switch supplier (amongst other objectives set forth by the law).

The Royal Decree-Law 13/2012 also contemplates the development of a procedure to deal with consumer complaints and of better customer service standards.

### **o Ensuring access to consumption data (Article 37(1)(p))**

The Ministry of Industry, Energy and Tourism sent a request to the National Energy Commission on March 2012 for the creation and coordination of a Working Group aimed at analysing the current situation regarding interoperability of metering systems. This aspect was included in Annex I of Directive 2009/72/CE, concerning common rules for the internal market in electricity. One of the conclusions from this Working Group is the need to develop a set of rules to regulate data access, exchange and data protection, taking into account the information available from smart meters.

### **o Public service obligations**

#### *Maintenance of end user price regulation in electricity*

The Law 17/2007, dated 2<sup>nd</sup> July, established the schedule for the elimination of the end-user regulated prices (the so-called “integral tariffs”) as well as for the introduction of last resort tariffs, which are aimed at consumers with low consumption levels in the electricity sector. The suppression of integral tariffs is the final stage in the move to a fully competitive market.

The Law 17/2007 defined last resort tariffs (LRT) as the price to be applied to consumers with right to be supplied at the LRT, and it also establishes the principles to be used in the calculation of last resort tariffs, which are the following:

- Single tariff for the whole country.
- Cost reflective (incomes enough to cover expenses).
- Additive structure: generation costs, access tariffs and commercialization costs.

The Order ITC/1659/2009, dated June 22<sup>th</sup>, and Order 1601/2010 established the methodology to determine the last resort tariff. The last resort tariff includes the access tariffs, the commercialization costs and the energy cost.

The energy cost of the last resort tariff includes the price resulting in quarterly energy auctions, the ancillary service prices, a risk premium and capacity payments and a factor for network losses.

According to the Law, the following last resort suppliers who cover the whole country are appointed for a period of four years:

- Endesa Energía XXI, S.L.U.

- Iberdrola Comercialización de Último Recurso, S.A.U.
- Gas Natural S.U.R., SDG, S.A.
- HC-Naturgás Comercializadora Último Recurso, S.A.
- EON Comercializadora de Último Recurso, S.L.

Notice that in Spain last resort suppliers can supply all customers, including those who are not eligible to be supplied at LRT.

The following table shows the percentage of customers in each segment, both domestic and other (commercial and industrial)<sup>25</sup> who receive their supply from a last resort supplier in December 2011.

Consumer Segments	2011
	% of customers who receive their supply from the last resort supplier
Domestic	74,6%
Others	7,3%

Table 12. Share of customers in each segment supplied by last resort supplier.

According to Order ITC/1659/2009, dated June 22<sup>nd</sup>, customers without any energy supply contract, who are not eligible to be supplied at LRT, are allowed to be supplied by last report suppliers at a dissuasive regulated price (20% increase over the LRT price) during six months.

#### Implementation of labelling for electricity (guarantees of origin)

The “guarantee of origin and disclosure of electricity system” was launched by CNE as of December 1<sup>st</sup> 2007, following the Order 1522/2007, aiming to inform final electricity consumers in detail about the origin and the environmental impact associated to their energy consumptions.

This initiative is an adaptation of European Regulation: The Directive 2001/77/EC on promotion of electricity generated by means of renewable energy sources (now superseded by Directive 2009/28/EC) established in its 5<sup>th</sup> article the need for such a

<sup>25</sup> Low voltage consumers (less than 1 kV) with contracted load capacity lower than or equal to 15 kW.

guarantee of origin of the electricity purchased. The Directive 2004/8/EC also promotes the highly efficient cogeneration (combined heat & power). The Directive 2009/72/EC establishing common rules for the internal power market requests electricity retailers to inform their consumers via bills and promotional material about the contribution of each primary energy source during the previous year, as well as its environmental impact — at least in terms of CO<sub>2</sub> emissions and nuclear waste.

The guarantee of origin and disclosure of electricity system makes possible to certify the source of power generated from renewable sources or high-efficient cogeneration, thus determining both national annual global mix of primary sources and each supplier's mix for the previous year, and their corresponding environmental impact associated.

Whenever a supplier wants to offer to his clients cleaner electricity (even 100% renewable or high-efficient cogeneration), that supplier has the possibility (regardless how clean "his" mix is) to take part in the guarantee of origin system and purchase additional guarantees to improve his mix versus the national mix. Additionally, supplier's guarantees of origin can be applied to specific consumers, so as he can assure, in annual terms, that his energy comes from clean sources in a certain amount. Producers may then request the transfer of 'guarantees of origin' to end-users' suppliers, so that they can 'redeem' them by applying (i.e. cancelling) those guarantees to their clients' supply..

All this system is controlled by CNE, including inspections covering the accounting of guarantees issued and their use (cancellation). CNE annually publishes by the end of March an electricity labelling for each supplier, similar to the ones used for energy efficiency purposes in home electrical appliances, disclosing previous year retailer's mix, CO<sub>2</sub> emissions and nuclear waste originated as compared to average nation-wide values. These data must be included, in a given format, in electricity bills and any promotional material to inform final customers.

### **o Vulnerable customers definition**

The Royal Decree-Law 6/2009 approved the social bonus from July 1<sup>st</sup> 2009 onwards subject to the fulfilment of several requirements established by law such as being a large family, a pensioner older than 60 years with a minimum pension, families where all members are unemployed, or low voltage consumers (less than 1 kV) with contracted demand lower than or equal to 3 kW.

The abovementioned Royal Decree-Law established that the social bonus covers the difference between the last resort tariff and the integral tariffs that were in force at June 30<sup>th</sup> 2009.



The Royal Decree-Law 6/2009 also established the percentages to pay the cost of the social bonus by the generators. In February 2012, the Supreme Court abolished the financing system of the Social Bonus set up in the Royal Decree-Law 6/2009.

Consequently, the Royal Decree-Law 13/2012 and Order IET/843/2012, established that the cost of the social bonus (subsidy) shall be included as another item to be covered by the access tariffs.

As of December of 2011, 2.711.803 customers enjoy social bonus subsidies.

### **3.4 Security of supply (if and in so far as NRA is competent authority)**

#### **o Implementation of safeguard measures Art. 42**

No safeguard measures had to be taken throughout the year 2011.

#### **3.4.1 Monitoring balance of supply and demand**

##### **o Article 4**

CNE issues every year a “*Framework Report on the coverage of demand in the electricity and gas sectors*”. The conclusion of the last report is that there is enough generation capacity available to cover the peak demand in the four coming years (to 2015).

The electricity consumption on the Spanish peninsular system was 255.179 GWh in 2011, 2.1 % lower than in 2010. Discounting the effects of temperature and labour patterns, the annual decrease was 1.2%, compared to a slight increase of 2.9% registered in 2010.

The evolution of overall annual growth of consumption, from 2007 to 2011, is shown below:

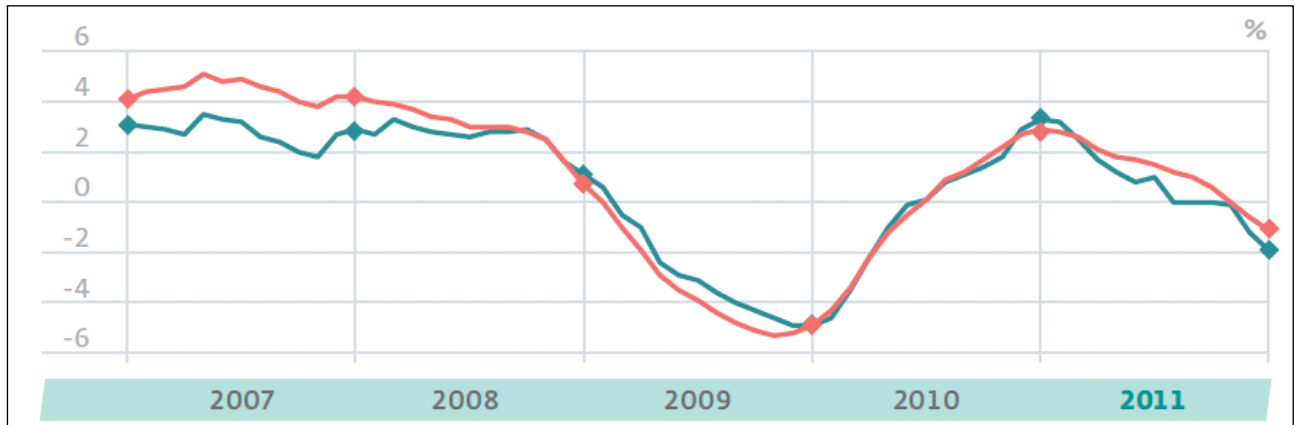


Figure 13. Rolling annual consumption growth in % (blue: non-adjusted; red: labor-and-temperature adjusted) Source: REE

The yearly maximum for hourly average demand and daily energy consumption were reached on 24 January with 44.107 MW and 25 January with 884 GWh respectively. These values were 1.7% and 2.5% lower than historical maximums registered in 2007.

Installed capacity in generating facilities showed a net growth of 1.879 MW during 2011, reaching a total of 100.576 MW, representing an increase of 1.9 % compared to the previous year. The large majority of this increase (93%) comes from the new renewable facilities, mainly wind power (997 MW) and solar (674 MW).

#### *Current generation fuel mix and expected developments*

A further increase in renewables' share is expected, especially wind and solar thermoelectric (concentrated solar power). In the past CCGTs were the only "ordinary regime" (non-renewable nor CHP) technology expected to grow mainly at the expense of coal, their speed and efficiency made them most complementary with steadily increasing RES. However, due to the decreasing demand, the Royal Decree 134/2010 establishing a procedure to solve constraints for guarantee of supply and the low prices of CO<sub>2</sub> and coal, investment expectations for CCGT's have changed and no more CCGT's power plants are expected.

### **3.4.2 Monitoring investment in generation capacities in relation to SoS**

#### **o Article 37(1)(r)**

In the mentioned framework report on the coverage of demand in the electricity and gas sectors the investment on new generation capacities are follow-up (as well as decommissioning).

New generation facilities under ordinary regime (i.e. conventional plants, other than RES-based or CHP):

	Connected		Disconnected	
	Type	MW	Type	MW
Algeciras 3	Combined Cycle	10		
Málaga 1			Combined Cycle	20
Puerto de Barcelona 1	Combined Cycle	35		
Puerto de Barcelona 2	Combined Cycle	10		
<b>TOTAL</b>		<b>55</b>		<b>20</b>

Table 13. Generation facilities under 'ordinary regime' commissioned and decommissioned in 2011.

### **Operational network security: Article 7 2005/89/EC**

This reporting on operational network security is done in the context of the mentioned framework report by CNE.

### **Investment in interconnection capacity for the next 5 years or more: Article 7 2005/89/EC**

#### **Interconnection with France**

During 2010, INELFE, the company jointly and equally owned by Red Eléctrica and its French counterpart, RTE, awarded contracts for the construction of the 400 kV electricity interconnection line between Spain and France. In the section which crosses the border, approximately 70 km in length, the line will be underground and operated in Direct Current, which requires the construction of converter stations, one at each end of the line.

The construction of this new interconnection, classified as high priority interest by the European Union, will allow the present interconnection capacity between both countries to be doubled, increasing from 1.400 to 2.800 megawatts (6% of the maximum Spanish electricity demand), whereby the security of supply will be increased and it will permit the integration of a higher volume of renewable energy production. Similarly, this new line will guarantee the power supply in the province of Gerona and for the future High Speed Train.

Regarding the new interconnection Santa Llogaia-Baixas, the project has now all the administrative authorisations needed for it to begin. Work started at the end of 2011, with power-up by the end of 2013 and entry into service by 2014. Ministers of Energy of Spain and France stated their aim of increasing the French-Spanish interconnection to at least 4.000 MW by 2020. A joint working group is to be set up and will bring forward proposals before the end of the year.

#### *Interconnection with Portugal*

During 2010, we continued progressing with the reinforcement works of the Duero and Andalusia axes, as well as advancing in studies for new interconnections from North-Western Spain, with the objective of having a commercial exchange capacity equivalent to 3.000 MW with the neighbouring country.

The two phases of the transmission line Aldeadavila – Lagoaça (Duero Intern.) 400 kV entered in operation in 2011,

More projects in the pipeline to be completed in the coming years.

#### *Interconnection with the Balearic Islands*

The electricity interconnection between the Spanish peninsula and the Balearic Islands was concluded in the first half of 2011, is the first submarine transmission interconnection in Direct Current in Spain and the second in the world in which the cables run along the sea bed at depths of up to 1.485 metres. The project involves a high voltage submarine interconnection composed of three cables (one return cable) 237 km in length, which must be in Direct Current technology, given the distances and the power necessary for this link, which requires the construction of two converter stations one at either end of the interconnection.

This electricity link is fundamental to assure and improve the reliability of the electricity supply in the Balearic system and, at the same time, allows its integration into the Iberian electricity market, which will facilitate the existence of a competitive electricity generation market on the islands.

### **Expected future demand and envisaged capacity for the next 5 years and 5-15 years: Article 7 2005/89/EC**

Based on the expectations contained in the report “*Framework report on the coverage of demand in the electricity and gas sectors*” that CNE issues annually, 2011 presented a low demand (2.1% less than 2010’s values and similar to the one presented in year 2006) and for the period 2012-2015, there is a high uncertainty about the evolution of the expected demand. However, due to the demand reductions of recent times, no demand coverage problems are expected.

The expected annual demand and the peak demand for the period 2012-2015 are as follows:

Year	Electricity consumption (TWh)	
	Central Scenario	High Scenario
2012	256	258
2013	260	264
2014	266	270
2015	271	277

*Table 14. Expected Demand (TWh) evolution for the Spanish Mainland in the period 2012-2015.  
Source: CNE and REE.*

Peak demand (MW)	Winter		Peak demand (MW)	Summer	
	Central Scenario	High Scenario		Central Scenario	High Scenario
2012/ 2013	44,567	47,259	2012	38,973	42,000
2013/ 2014	45,630	48,421	2013	39,919	43,041
2014/ 2015	46,694	49,680	2014	40,865	44,081
2015/ 2016	47,854	50,939	2015	41,811	45,216

*Table 15. Expected Peak Demand (TWh) for the Spanish Mainland in the period 2012-2015.  
Source: Promoters, CNE and REE.*

Related to the envisaged capacity installed, no significant capacity to be installed is expected.

On the other hand, the generation groups in the “20.000 hours of functioning plan”<sup>26</sup> have the compromise to disconnect in year 2015. In the following table the expected available capacity for the period 2012-2015 is shown. Note that expected available capacity does not match expected installed capacity since, for security reasons, some restrictive assumptions about the availability of installed capacity are taken into account in order to calculate reserve margin rate.

<b>Capacity (MW)</b>				
<b>Winter</b>	<b>2012/ 2013</b>	<b>2013/ 2014</b>	<b>2014/ 2015</b>	<b>2015/ 2016</b>
Large Hydro	8,794	9,610	9,931	9,931
Nuclear	7,008	6,580	6,580	6,580
Coal	9,980	9,980	9,980	9,338
Fuel/Gas	863	673	483	483
CCGT	22,233	22,233	22,233	22,977
Special Regime Renewable	3,051	3,429	3,612	3,798
Special Regime NO Renewable	4,984	5,089	5,196	5,303
<b>TOTAL</b>	<b>56,913</b>	<b>57,594</b>	<b>58,015</b>	<b>58,410</b>
<b>Capacity (MW)</b>				
<b>Summer</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Large Hydro	7,316	8,135	8,138	8,458
Nuclear	6,859	6,440	6,440	6,440
Coal	9,980	9,980	9,980	9,338
Fuel/Gas	863	673	483	483
CCGT	21,287	21,287	21,287	21,998
Balance Exchange	-1,600			
Special Regime Renewable	5,947	6,866	7,374	7,886
Special Regime NO Renewable	4,984	5,089	5,196	5,303
<b>TOTAL</b>	<b>55,636</b>	<b>58,470</b>	<b>58,898</b>	<b>59,906</b>

Table 16. Expected firm available capacity installed in winter and summer. Period 2012-2015.

Source: Promoters, REE and CNE.

As it can be seen in the table below no capacity constraints are expected in the period 2012-2015. All Coverage Demand Index are above 1.2 in the central demand scenario.

<sup>26</sup> According to art 4.4 a) of the Large Combustion Plant Directive, the existing plants may be exempted from their inclusion in the national emission reduction plan if the operator of the plant undertakes, in a written declaration to the competent authority, not to operate the plant for more than 20 000 operational hours starting from 1 January 2008 and ending no later than 31 December 2015.

<b>Reserve margin rate - winter</b>	<b>2012/2013</b>	<b>2013/2014</b>	<b>2014/2015</b>	<b>2015/2016</b>
Central demand scenario	1.28	1.26	1.24	1.22
High demand scenario	1.2	1.19	1.17	1.15
<b>Reserve margin rate - summer</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Central demand scenario	1.43	1.46	1.44	1.43
High demand scenario	1.32	1.36	1.34	1.32

*Table 17. Expected reserve margin rate in winter and summer. Period 2012-2016.  
Source: CNE.*

### **3.4.3 Measures to cover peak demand or shortfalls of suppliers**

#### **o Article 4**

No measures have been planned nor implemented in this regard since peak demand has been below generation capacity available. Please, refer to the previous points.

## 4 THE GAS MARKET

### 4.1 Network regulation

#### 4.1.1 Unbundling

##### **o Articles 10,11 2009/72/EC and Article 3 Regulation (EC) 715/2009**

The Royal Decree-Law 13/2012 establishes the model for gas TSO unbundling in Spain:

- The unbundling model adopted for the main TSO (ENAGAS, with more than 95% of national transport pipelines) is “Ownership unbundling”.
- Small gas TSOs in Spain can opt between the Ownership unbundling model or the ISO model.
- CNE will be in charge of the certification procedure as foreseen by the Directives.

Regarding the main TSO, ENAGAS, requested the certification as a Transmission System Operator on 4<sup>th</sup> November 2011. The Board of National Energy Commission (CNE), in its meeting dated 19<sup>th</sup> April, 2012, issued a preliminary certification decision of ENAGAS according to article 63 bis of Hydrocarbons Act (Law 34/1998, of October 7<sup>th</sup>), amended by Royal Decree-Law 13/2012, of March 30<sup>th</sup>. Pursuant to the mentioned article 63 bis, CNE has proceeded to notify the preliminary decision on the certification of ENAGAS as TSO to the European Commission.

On June 15<sup>th</sup> 2012, the EC sent its opinion on the preliminary decision submitted by CNE concerning the application of ENAGAS. CNE is currently drafting the final decision.

At the date of elaboration of this report, the significant shareholders of ENAGAS, S.A. are those shown in the following table:



ENAGÁS shareholders	% total shareholding
Oman Oil Company S.A.O.C.	5.00
Sagane Inversiones, S.L.	5.00
CIC, S.L. (Cajastur)	5.00
Kartera 1 (BBK)	5.00
SEPI	5.00
Free Float	75.00

*Table 18. Shareholding structure of ENAGAS  
Source: ENAGAS website*

In view of the shareholding structure, article 11 is not applicable since ENAGAS is not controlled by persons from a third country.

#### Transmission system operator unbundling requirements

The Hydrocarbons Act designated one company, ENAGAS, which was already the owner of the majority of transmission infrastructures, to be the independent transmission system operator.

Royal Decree–Law 6/2009, modifying article 67 of the Hydrocarbons Act 34/1998, consolidated ENAGAS, the independent transmission system operator, as the sole owner of the main network of primary transmission of natural gas (for new infrastructures).

On top of the general legal and functional unbundling requirements between regulated and unregulated activities within a group, there are further functional unbundling and accounting separation requirements applicable to ENAGAS. Furthermore, in order to guarantee TSO's independence, the law limits share capital ownership and voting rights in ENAGAS.

Thus a single person or society cannot, directly or indirectly, own more than 5% share capital or use more than 3% of voting rights. For gas companies the limit drops to 1% of voting rights. There is also an aggregate limit of 40% share capital for gas companies. These limits do not apply to State ownership.

As for the functional unbundling requirements, in order to separate operation of the system from transport, the 2007 Act, amending former 20<sup>th</sup> Additional Provision of the Hydrocarbons Acts, requested ENAGAS to create a unit integrated within the same company to be entrusted with the operation of the System. This unit had to implement

accounting and functional unbundling for other activities (transport) and its workforce had to sign a code of conduct to guarantee its independence from all other activities.

However, in 2011, Law 12/2011 has modified the Hydrocarbons Act and has required ENAGAS to transfer the operation of the transmission system and the actual transport (with the ownership of the assets) into two different companies within the group. Existing equity limits will be applicable to the holding company that owns 100% of those companies.

ENAGAS reports in his web page the agreements adopted in the Shareholders' General Meeting celebrated on March 30, 2012, amongst them the agreements in relation to the segregation of the activities of transport and technical management of the system in fulfilment of the legal mandate imposed in the Law 12/2011, of May 27. Concretely ENAGAS has proceeded to approve the project of segregation of the company in two new companies, namely, ENAGAS TRANSPORTS, S.A.U. and ENAGAS GTS, S.A.U., the first one shall be responsible of the function of transmission and the second one of technical management of the gas system (i.e. system operation).

The Royal Decree-Law 13/2012 amends article 63 of the Hydrocarbon Act. The new wording establishes that those persons responsible for the management of the distribution undertakings cannot participate in company structures of the natural gas undertaking responsible, directly or indirectly, for the day-to-day operation of transmission and vice versa. Additionally, as mentioned before, small gas TSOs in Spain can opt between Ownership unbundling model or ISO model.

The Royal Decree-Law 13/2012 establishes that the independent system operator shall keep separate accounts for every managed company, specifying those revenues and expenses attributable to the mentioned management.

## **o Article 26**

The Spanish Hydrocarbons Act 34/1998 establishes the current unbundling regulatory framework for natural gas and the legal, functional and accounting unbundling requirements. Law 12/2007 amended article 63 of the Hydrocarbons Act, so as to adapt it to articles 9 and 13 of Directive 2003/55/EC. This article establishes the legal and functional unbundling requirements applicable to all regulated activities including distribution and transport.

The Royal Decree-Law 13/2012 amends once again article 63 of the Hydrocarbon Act to adapt it to article 26 of Directive 2009/73/EC. The new wording establishes further unbundling requirements such as those persons responsible for the management of the

distribution undertakings cannot participate in company structures of the natural gas undertaking responsible, directly or indirectly, for the day-to-day operation of transmission and vice versa. Moreover, where the distribution undertaking is part of a vertically integrated undertaking, it is required that the distribution undertaking shall not, in their communication and branding, create confusion in respect of the separate identity of the supply branch of the vertically integrated undertaking.

### **Legal and functional unbundling for DSO**

Article 63 of the Hydrocarbons Act (as modified in 2007) states that companies that engage in one or more regulated activity – regasification, strategic storage, transmission and distribution – must have as their sole corporate purpose the performance of such activities. Therefore, they may neither engage in production or commercialization nor be shareholders in companies that carry out such activities. Likewise, it provides that transmission companies that operate any of the basic network facilities of natural gas must have as their sole corporate purpose in the gas industry the transmission activity.

The law establishes that a group of companies may undertake activities that are incompatible, provided they are performed by different corporate entities and meet a number of conditions criteria to guarantee the functional unbundling. These include management separation and measures relating to effective decision-making rights in accordance with the 2003 Directive.

Article 63 of the Hydrocarbons Act (as modified in 2007) states the current unbundling regulatory framework for natural gas and the legal, functional and accounting unbundling requirements for DSO.

Article 63 of the Hydrocarbons Act states that an annual report, setting out the internal code of conduct and the measures taken by each regulated company in order to implement the unbundling requirements, should be sent to CNE and the Ministry for approval and shall be published.

Since 2008, vertically integrated energy companies have implemented their compliance programs and submitted required reports on the unbundling measures they have adopted to CNE and to the Ministry. The process is monitored by CNE.

Among the measures adopted and explained in the aforementioned reports, the following are worthy of note:

- Measures related to the reorganization of the legal companies that form part of the vertically integrated undertaking including the transfer of assets, personnel and share holdings in order to comply with unbundling requirements.
- The modification of the job functions of certain workers, and of the persons in charge of the management of the regulated activities.
- Reference to measures still being carried out as well as planned for the next years;
- Revision of the remuneration and contracts of persons in charge of the management of regulated activities;
- Obligation for persons in charge of the management of the regulated firms to sign a formal declaration declaring that they do not own shares or other participations in undertakings which carry on production or supply activities;
- With respect to commercially sensitive information:
  - o revision of procedures of access to that information,
  - o introduction of confidentiality clauses in contracts with third parties,
  - o designation of persons in charge of the custody of information,
  - o incorporation of disciplinary measures for any breach of the code on separation of activities.

### **Unbundling and transparency of accounts**

The amended article 62 of the Spanish Hydrocarbons Act, which adapts article 17 of the Directive 2003/55/EC, establishes the accounting and reporting requirements for gas companies.

Entities that engage in one or more natural gas activities shall keep their accounts in accordance with Chapter VII of the Law on Limited Liability Companies. Companies involved in regulated activities shall, in their internal accounting, keep separate accounts for each of their regulated activities specifying those revenues and expenses strictly allocated to each activity. This rule also applies to the Technical Manager of the System and the suppliers of last resort.

Undertakings must explain in the annual report the criteria for the allocation of assets and liabilities, expenditures and incomes.

Companies that carry out deregulated gas-related activities shall keep separate accounts for production and sales, and likewise for any other non-gas-related activity they may be involved in within the Spanish territory, and any others they may perform abroad.

The gas undertakings must comply with any information requirements of CNE, especially with regard to any gas provisioning and supply contracts they may have entered into and in relation to on their annual accounts and shall, in particular, make sure that the obligation to avoid discrimination and cross-subsidies is respected.

In case of vertical undertakings, the obligation to inform shall also apply to the parent company, if it carries out operations in any energy sector, and to other group companies that are engaged in operations with the gas subsidiary.

The Ministry of Industry, Energy and Tourism and CNE receive, by virtue of Order ITC/2348/2006, regular accounting and economic-financial information. The Order establishes that the information must be presented separately for the following activities: regasification, storage, transmission, gas trading, Technical Manager of the Gas System, distribution, sales to tariff-based customers, retailing, other gas activities and other activities.

Companies are audited by independent companies according to the current regulation. In addition, the Spanish Hydrocarbons Act assigns specifically to CNE the function of verifying the effective unbundling of accounts.

## 4.1.2 Technical functioning

### **o Balancing services (Article 41(6)(b), Article 41(8), Security and reliability standards, quality of service and supply (Article 41(1)(h))**

The Royal Decree-Law 13/2012, of March 30<sup>th</sup>, attributes CNE new duties and powers, among other, the establishment through efficient, transparency, objectivity and non-discriminatory criteria, the methodology regarding the provision of balancing services providing the appropriate incentives for network users to balance their input and off-takes of the gas system as well as the methodology to calculate rates, tolls and fees for transport and distribution, regasification, storage and tank truck fill-up.

Reliability and operational rules of the Spanish system are set by the System Operation Network Code (NGTS). CNE published a monthly monitoring report on technical and operational aspects of the gas system.

Regarding balancing services, there is a provision in Spanish regulatory regime that aims at assuring security of gas supplies to consumers on a daily basis, which is contained in the rule 9 of the System Operation Network Code (NGTS). This provision establishes the obligation for all users to be balanced after their operations in the network, and introduces economic penalties to those users incurring in imbalance. This guarantees an appropriate behaviour of gas suppliers enhancing a safe operation of the gas system by the Technical Manager of the System.

In relation to transmission and distribution tariffs in 2011, the Government has approved rates, tolls and fees of natural gas (previously, the NRA issues a non-binding report) and publish them in the Official Spanish Gazette. In addition regulated rates for LNG facilities and underground storage are applied.

To undertake the studies necessary to underpin the reports on the Ministerial Order draft on the sale rates, tolls, levies and remuneration in the gas industry, CNE gathers the necessary information from the different actors in the industry.

Firstly, in order to calculate total revenues of the gas system, information is gathered from suppliers on projections for invoicing variables – number of customers, capacity and consumption – broken down by tariff groups. Information is requested for the end of the year in progress and for next year. Forecasts provided by companies are compared to available information by CNE for settlements of regulated activities in natural gas. In the same way, individualised information is requested on the forecasts of major consumers of gas such as combined cycles, electrical plants and supplies under the interruptible sale rate.

In the annual rate exercise, determination is made of the variations to be applied in sale rates, tolls and levies of natural gas, so as to cover the regulated costs of the system.

Secondly, for transport, storage and regasification of natural gas, remuneration for new facilities is set at service cost, calculated at standard levels. Operating costs are remunerated at standard levels. Furthermore, standard levels of investment and operating costs are updated by means of an index that takes into account the variation of the CPI (Consumer Prices Index) and PPI (Producer Prices Index). Nevertheless, remuneration of each distribution company is set according to a revenue cap formula, established in 2002.

In 2008, remuneration system for regasification and storage of natural gas has been updated in Order ITC/3863/2007. The system adopted for these activities is similar to the remuneration system for electricity transport facilities in place since January, 1st 2008.

Another new overseeing function assigned to CNE (26<sup>th</sup> function) by the Royal Decree-Law 13/2012, it is monitoring of compliance with network security and reliability rules.

NGTS 09 of Spanish Network Code establishes the general criteria relating to the systems and procedures of measurement made in order to determine the quantity and quality of gas flows in all those points of gas system that is legally enforceable or is deemed necessary, such as transmission network entries and exits, connection points of distribution networks and supply points. Detailed protocol PD-01, which develops NGTS 09, establishes natural gas quality specifications.

### **o Monitoring time taken to connect and repair (Article 41(1)(m))**

Article 3 of the Hydrocarbons Act, stated that CNE shall oversee the time spent by transporters and distributors in establishing connections and making repairs. This mandate, that already existed, has been incorporated as a duty for CNE by the Royal Decree-Law 13/2012 (20<sup>th</sup> function). For these purposes CNE has to ensure adequate publication of information required by managers on the transmission network and where appropriate, distribution on interconnections, the use of the network and the allocation of capacity to interested parties.

The Technical Manager of the Gas System publishes a daily report of operation which includes forecasts and uses of facilities of regasification, storage, international connections and, in general, the operation of all installations of the basic network and the secondary transport made by different holders. It also publishes an operation note when something disturbs or may disturb the normal operation of the system, such as an incident for break of a pipeline in a transmission or distribution network or a situation of exceptional operation generated by a cold snap. This note includes information on each event: date, scope, influence in the normal operation of the system, consumers affected, measures adopted, time to repair the outage, in case, etc.

The Spanish Network Code includes for operators of the networks of the Basic Network and transmission a yearly obligation for providing information about the maintenance plan of their facilities to the rest of the agents. This plan must contain the program of the activities which require or can cause operative restrictions in their facilities for the following year, including, at least, type of contribution or maintenance, facility, consumers and other affected agents, proposed date and estimated duration, consequences on the operation and the supply.

One of the functions of CNE (13<sup>th</sup> function) is to solve disputes that may be submitted to it with regard to the contracts for third party access to the transmission and distribution networks on any terms that may be set in regulations. In this context, CNE has solved many disputes related to technical and economical conditions of the connection between a distributor of a new distribution network and the transporter who owns the existing transmission network where distribution facilities must connect.

### **o Monitoring access to storage, linepack and other ancillary services (Article 41(1)(n))**

Article 3 of the Hydrocarbons Act, stated that CNE shall oversee the storage aspects requirements. This mandate, that already existed, has been incorporated as a new duty for CNE by the Royal Decree-Law 13/2012 (23<sup>th</sup> function) to monitor the access conditions to storage, including underground storage, LNG storage tanks and linepack, and other ancillary services

In Spain, there is plenty of available capacity in all (six) LNG import terminals, so the free capacity is allocated in a first come - first serve basis. The access to the regasification plants is subject to regulated TPA.

TSOs must publish in its web page monthly information on unloading of ships, gas to be unloaded and free unloading slots. Demand and operational information is also available, together with capacity. Market players must provide their annual, quarterly, monthly and daily forecasts to TSO about the operations they plan to execute.

The Ministerial Order ITC/3862/2007 of 28 December, the Ministerial Order ITC/3128/2011 of 17 November and the Ministerial Order IET/849/2012 of 26 April established a yearly mechanism for the allocation of underground storage capacity for natural gas to their users for each annual period from the 1 April of the current year to the 31 March of the following one.

There are diverse criteria for underground storage capacity allocation:

- Part of the capacity is allocated to the supplying companies in proportion to their final sales in the previous year, and the remaining capacity is allocated by an auction mechanism.
- The remaining capacity not allocated through the auction mechanism is allocated according to the agents' capacity requests communicated to the System Technical Manager<sup>27</sup>.
- In case there is still capacity left, the first agent asking for it will get it ("first-come-first-served").

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<sup>27</sup> Such a function is performed by Enagás, S.A., whose role in Spanish is known as GTS ("Gestor Técnico del Sistema).



The general rules of the auction procedure are established by Resolution of 14 March 2008, by the State Secretariat for Energy, which outlines certain aspects relating to the management of underground storage facilities of the basic network and lays down the rules for auctioning their capacity. The conditions and specific rules of the yearly auction are established every year in a Resolution of the General Directorate of Energy Policy and Mining of the Ministry of Industry, Energy and Tourism. CNE is the supervisory body for these auctions and the Spanish power exchange (Operador del Mercado Ibérico de Energía, Polo Español, S.A. -OMIE)<sup>28</sup> is the institution responsible for organising them.

The following table summarises the results of the auctions held in 2009, 2010 and 2011. The auction corresponding to the period 1 April 2012 – 31 March 2013 was held on 27 March 2012.

Auction for the allocation of underground storage capacity of natural gas			
Type	Multi-round ascending-price, electronic mechanism		
Date	30 March 2009	25 March 2010	29 March 2011
Allocated capacity (GWh)	4.257	7.397	8.874
Supply period	1 April 2009 - 31 March 2010	1 April 2010 - 31 March 2011	1 April 2011 - 31 March 2012
Capacity price (TPA rate added)	6 603 €/GWh per year	3 932 €/GWh per year	832 €/GWh per year

Table 19. Auctions for underground storage of natural gas: results of auctions in 2009, 2010, 2011  
Source: Auction administrator and CNE

**o Monitoring correct application of criteria that determine model of access to storage (Article 41(1)(s))**

Article 3 of the Hydrocarbons Act stated that CNE shall oversee the storage aspects requirements. This mandate, that already existed, has been incorporated as a new duty for CNE by the Royal Decree-Law 13/2012 (23<sup>th</sup> function) to monitor the access conditions to storage, including underground storage, LNG storage tanks and linepack, and other ancillary services.

In Spain there are six LNG regasification plants and two UGS (underground storage). All of them are subject to regulated TPA, allowing the access to new capacity by new entrants. TPA access is regulated in Royal Decree 949/2001. In accordance with the provisions of that Royal Decree, standardized models of formal request for access to the installations of gas system were developed by CNE and approved by the Directorate-General for Energy

<sup>28</sup> Through its subsidiary OMEL Diversificación S.A.U. from 2009.

Policy and Mines. When an application is rejected, the owner of the installation must communicate the decision to the Directorate General for Energy Policy and Mines and CNE.

Standardized models of contracts for access to the system installations were also approved. The owners of facilities have the obligation to submit, prior to 20 January of each year, a summary of all the contracts signed in the previous year to the Directorate-General for energy policy and mines of the Ministry of Economy, CNE and the TSO.

Underground storage capacity allocation has been explained in the previous point.

### **o Monitoring safeguard measures (Article 41(1)(t))**

Article 101 of the Hydrocarbons Act states that the Government shall lay down the conditions for emergency situations in which the strategic reserves of natural gas may be used by those under the obligation to maintain such reserves. For this purposes Royal Decree 1716/2004 states emergency situations shall be those cases where due to circumstances that are outside the control of one or all of the agents intervening in the gas system, an obvious risk occurs or exists that a situation of shortage or scarcity of supply may happen with regard to firm gas supplies as well as whenever the safety of people, equipment or installations may be affected or the integrity of the gas network. In these cases, to deal with situations of emergency or supply scarcity and without prejudice to the use of the stocks pursuant to point 3 of this article, the Government may adopt one or more of the following measures:

- a) Limit or modify temporarily the gas market.
- b) Lay down special obligations concerning minimum security stocks of natural gas.
- c) Suspend or modify temporarily the access rights to installations by third parties.
- d) Modify the general conditions of supply regularity generally or referring to certain categories of consumer.
- e) Make the sales of natural gas for its consumption abroad subject to administrative authorisation.
- f) Any other measures that might be recommended by the international organisations of which Spain is a member or that may be determined to implement those conventions it is party

The Government shall notify the measures adopted to the Commission and to the other Member States.

Besides that, the Government shall encourage cooperation with third countries to develop coordination mechanisms to deal with situations of emergency or supply scarcity, just as in compliance with the obligations derived from the international commitments acquired.

Spanish Network Code (NGTS) was approved by Ministerial Order ITC/3126/2005. The purpose of NGTS is to set out the procedures and mechanisms for the technical management of the system and coordinate the activities of all the agents involved in the system in order to guarantee the proper technical functioning of the gas system and the continuity, quality and security of the supply of natural gas and piped manufactured gases whilst abiding by the principles of objectivity, transparency and non-discrimination. The application of the Code is monitored by CNE.

In 2011, there was no need to take any of these safeguard measures.

#### **4.1.3 Network and LNG tariffs for connection and access**

##### **o Article 41(1)(a), Article 41(6)(a), Article 41(8), Article 41(10) and Article 41(12)**

In 2011, the Government approved rates, tolls and fees of natural gas (previously, the NRA issues a non-binding report) and published them in the Official Spanish Gazette. The tariff model for transmission applied in Spain is the entry-exit model with a single balancing area. In addition regulated rates for LNG facilities and underground storage are applied. Order ITC/3354/2010, dated December 28<sup>th</sup>, established rates, tolls and fees of natural gas for 2011.

CNE is currently developing the methodologies to calculate rates, tolls and fees for transmission and distribution, regasification, storage and tank truck fill-up, in accordance with the European and Spanish legislation. The first step will be the publication of a public consultation document, with a view to receiving comments from the stakeholders on the different alternatives that exist to establish the natural gas tolls and fees. CNE will submit the final proposal to the stakeholder's consideration before the approval.

#### **o Prevention of cross-subsidies (Article 41(1)(f))**

Cross-subsidies between transmission, distribution, storage, LNG and supply activities are avoided by the implementation of the accounting unbundling rules and the monitoring by CNE of the fulfillment of these obligations (article 3 of Hydrocarbon Act).

Additionally, regarding accounting and reporting, the Royal Decree-Law 13/2012 adds to the auditing requirements, the obligation of checking the fulfillment of the obligation to avoid cross-subsidies among regulated activities and among regulated and liberalized activities.

On July 5<sup>th</sup> 2012, the CNE Administration Board has approved the CNE Follow-up Report on the Behavior Code and Measures on Unbundling adopted in 2008, 2009 and 2010.

#### **o Regulated and negotiated access to storage 41(1)(s)**

Natural gas undertakings have a right to access to storage on the basis of regulated access with public TPA tariffs approved by the Ministry of Industry, Energy and Tourism.

Each year, all the capacity of the underground storage, from April – to March next year, is assigned to Natural gas undertakings according with their obligations of maintenance of strategic gas storage (equivalent of 20 days of the gas demand supplied). The remaining capacity is allocated through capacity auctions.

### **4.1.4 Cross-border issues**

#### **o Access to cross-border infrastructure including allocation and congestion management (Article 41(6)(c), Article 41(8), Article 41(9), Article 41(10) and Article 41(12))**

The Royal Decree-Law 13/2012 sets forth that CNE will approve the methodologies to access to cross-border infrastructures, including the procedures for the allocation of capacity and congestion management, according to the general framework defined in the Hydrocarbons Act (Law 34/1998) and its implementing regulation. This methodology will be developed according to the European network codes on capacity allocation and congestion management.

This new competence should facilitate the implementation of the cross-regional roadmaps on which CNE is already working nowadays in the framework of the ACER Regional Initiatives.

There are special allocation mechanisms for the international connection between Spain and France (OS, open seasons, and OSP, open subscription periods).

### **Capacity Allocation rules at the France-Spain interconnection (OSP and OS)**

In order to manage congestion at the international interconnection with France, it is worth mentioning the work carried out in the framework of the South Gas Regional Initiative that has led to the implementation of a system of Open Subscription Periods (OSP) and Open Season procedures (OS) at the FR-SP border.

In particular, capacity in the IPs (interconnection points) with France is still deemed very scarce and has been identified as one of the main obstacles to create a Gas Regional Market in the South Region, as an interim step through the single Internal Energy Market in Europe. The existence of sufficient accessible interconnection capacity between France and Spain is a prerequisite to foster competition between gas companies, increase market liquidity and enhance diversification and security of supply.

#### **a) Open Subscription Period (OSP)**

The OSP procedure is the allocation process, among requesting shippers, of the available existing capacity between France and Spain. The OSP establishes the process to allocate, in a coordinated way, exit capacity from one country and entry capacity into the adjacent network, in both flow directions.

The capacity offered under the OSPs is split, in order to promote competition in the supply business and enhance liquidity of the Spanish and French markets:

- Long-Term Capacity: 80% of the firm capacity offered, reserved for multiannual and multi-seasonal requests until 2013.
- Short-Term Capacity: 20% of the firm capacity, reserved for requests of one year or less.

The first allocation through OSP was in 2008, where all the capacity offered both in the long term (from April 2009 to March 2013) and the short term, and on the short term (from April 2009 to March 2010) was allocated

In 2011, as it happened in 2009 and 2010, a new OSP was launched for allocating yearly capacity, in this last case for capacity from April 2012 to March 2013. The entire capacity offered in both directions was not allocated. The capacity was fully allocated in the France-Spain direction and capacity was not requested in the Spain-France direction.

This process of short term capacity allocation will be reproduced annually until 2013.

### **b) Open Season (OS) procedure**

The OS procedure emerges from the need to increase interconnection capacity between France and Spain. The aim of this procedure is to assess the interconnection capacity needs of the stakeholders between the two countries and inside France and, on a second phase, to organize a request and allocation procedure for these capacities in order to develop the new infrastructure needed.

French and Spanish TSOs and NRAs started working in close cooperation in 2008, with the support of Ministries from both countries, in order to put in place such a coordinated procedure aiming at developing new capacities in two different axis:

- Western axis: new investments in existing interconnections (Larrau, Irún-Biriatou, and TIGF-GRTgaz interface) to be available from 2013.
- Eastern axis: setting up a new interconnection point at Figueras/Perthus, creating a new corridor (Midcat) for transmission of gas from South to North and from North to South, to be available from 2015.

In 2009 was launched the binding phase of the 2013 Open Season and the non-binding phase of the 2015 Open Season. The process ended successfully with the positive French TSOs' decision of investing in the infrastructures associated to 2013 capacities. As a result of this process, capacity will be increased up to 5,5 bcm/year at Larrau interconnection as of March 2013.

In 2010 was launched the binding phase of the 2015 Open Season for the allocation of 2015 capacities. The second and final Open Season 2015 procedure ended in July of 2010.

As a result, the capacity at Irun/Biriatou interconnection will increase in 2 bcm/year in Spain-France direction, reaching 7,5 bcm/year as of 2015. This will represent 15% of the natural gas demand in France and 18% of the demand for gas in Spain in 2009.

The capacity requested was not sufficient to validate the development of the Midcat project. Finally, no capacity has been allocated in the France-Spain direction.

A chart with the gas interconnection capacity between Spain and France today is available in section 4.4.2. The capacity to be reached in 2015 after the OS process and those that would have been reached if the development of Midcat had been validated.

### **c) Spain - Portugal interconnection**

Portugal has a transit contract throughout Spain (from Morocco to Portugal) concluded pursuant to Article 3(1) of Directive 91/296/EEC. This contract represents around 70% of the interconnection capacity from Spain to Portugal.

During 2011, it has been released and formalized cooperation between gas transporters provided in regulation 715/2009 for the harmonization of the regulatory framework in the South Region: Spain, France and Portugal.

One of the objectives for 2012 is the development and implementation of mechanisms of hiring CAM in connection with Portugal and CMP in connection with France as set out in the plan of the South Gas Regional Initiative (SGRI) 2011-2014.

The SGRI group has agreed capacity allocation mechanism in connection between Spain and Portugal will be an auction based on the draft of the European Network Code. It has been designed by interconnected transporters (ENAGAS and REN) in cooperation with National Regulators (CNE and ERSE) and active participation of marketers. First auction is planned to be held in June 2012 to assign monthly capacities in the annual period whose use by traders would start in October 1<sup>st</sup>, 2012.

### **o Cooperation (Article 41(1)(c))**

The Royal Decree-Law 13/2012, of March 30<sup>th</sup>, establishes, as a general objective of CNE, in cooperation with ACER, NRAs and European Commission, the promotion of the creation of a competitive, secure and sustainable internal energy market as well as the effective opening for all customers and suppliers in the Community, and ensuring

appropriate conditions for the effective and reliable operation of gas networks, taking into account long-term objectives.

By the end of 2005, the European regulators group established its road map for the achievement of the European single market in gas, which gave rise to the creation of regional gas initiatives. The South Gas Regional Initiative, which is composed of Portuguese, French and Spanish gas systems and leaded and boosted by the CNE, has made significant progress.

The regulators group of this initiative is formed by the French regulator (CRE), the Portuguese regulator (ERSE) and the Spanish regulator (CNE). In this initiative transporters, suppliers and other agents from the three countries work together to achieve the objective of an internal market in gas natural, through regional integration of markets.

The main issues of the SGRI are: increase interconnection capacity with the rest of Europe, improve interoperability between systems, increase transparency, implementation of the Directive and development of gas hubs.

#### **o Monitoring investment plans and assessment of consistency with Communitywide network development plan Article 41(1)(g)**

The Royal Decree-Law 13/2012, of March 30<sup>th</sup>, attributes CNE new duties and powers, among other, monitoring investment plans of the transmission system operators, particularly regarding the consistency with the Community-wide network development plan investment plans of the transmission system operators as regards their consistency with the Community-wide network development, such assessment may include recommendations to amend those investment plans.

In 2011, in base of the current duties, CNE already participated in the energy planning procedure of network investment by means of the Gas Planning Procedure which is responsibility of the Government and counts with the participation of the Autonomous Communities, the Technical System Operator, transmission and distribution system operators and other actors, as well as CNE.

### **4.1.5 Compliance**

#### **o Compliance of regulatory authorities with binding decisions of the Agency and the Commission (Article 41(1)(d)) and with the Guidelines (Article 43)**

As already mentioned, the Royal Decree-Law 13/2012 obliges CNE to comply with and put into practice those pertinent and binding decisions issued by ACER and the EC. In this



regard, CNE may request the opinion of the Agency on the compliance of a decision taken by a regulatory authority with the Guidelines referred to in the Directives 2009/72 and 2009/73 and Regulation 2009/715.

**o Compliance of transmission and distribution companies, system owners and natural gas undertakings with relevant Community legislation, including cross-border issues (Article 41(1)(b), Article 41(1)(r), Article 41 (3) and Article 41(5)) + imposing penalties (Article 41(4)(d))**

CNE shall ensure compliance of transmission and distribution system operators and, where relevant, system owners, as well as of any gas undertakings, with their obligations under Royal Decree-Law 13/2012, Spanish Hydrocarbons Act or any other legal provision, including as regards cross-border issues.

On the other hand, CNE will draft an annual report on its activity and the fulfillment of its duties. The content of this report will be included in the annual sectorial report to be drafted by CNE complying with the Sustainable Economy Act (Art. 20). In this regard, CNE shall propose any regulatory improvement to the Ministry of Industry, Energy and Trade.

**o Power to carry out investigations and impose measures to promote competition etc. (art. 41s(4)(b) + 41(5)(a))**

Concerning the NRA's powers to carry out investigations and impose measures to promote competition, the abovementioned Royal Decree-Law 13/2012 entitled CNE to monitor prices and supply conditions applicable to final consumers and verifies the compliance with Electric Power Act 54/1997 and Hydrocarbons Act 34/1998 (30<sup>th</sup> function). CNE is entitled as well to monitor the level of transparency and competitiveness, including of wholesale prices, and the level and effectiveness of market opening and competition at wholesale and retail levels (function 31<sup>st</sup>).

Moreover, CNE collaborates with the National Competition Commission in the fulfillment of its duties.

**o Power to ask any information from gas undertakings (art.41(4)(c))**

Regarding CNE's powers to ask any information from gas undertakings, the Hydrocarbons Act entitles CNE to gather from the agents operating in the energy markets any information it may require in the performance of its functions. To do so, CNE shall issue the so-called "Circulars" that must be published in the Official State Gazette, detailing and

specifying the content of the information to be requested and justifying the exact function such information is required for and how it is to be used.

In any case, according to Law 30/1992, 26<sup>th</sup> November, on the Legal System of Public Administrations and Common Administrative Procedure, CNE may also request, by a single communication, information from an agent, in order to carry out a specific investigation procedure. If the agent does not comply with this request, CNE, under Royal Decree-Law 13/2012, shall institute and solve disciplinary proceedings.

#### **4.1.6 Dispute settlement**

##### **o Article 41(11) and Article 41(4)(e)**

The Spanish Hydrocarbons Act 34/1998 establishes in its Additional Provision Eleven the functions of CNE. Function 13<sup>th</sup> of CNE consist of solving any disputes that may be submitted to it with regard to the contracts for third party access to the transmission and distribution networks on any terms that may be set in regulations. Moreover, in relation with the gas industry and in addition to the functions, CNE will solve any disputes that may be taken to it with regard to the technical management of the natural gas system.

The decision is binding for the agents involved in the dispute, and should be appealed directly to the Court.

Additionally, CNE shall act as an arbitration body in any disputes that may referred to it by agents carrying out activities in the electricity and hydrocarbon market.

In 2011, CNE solved by Resolution only one conflict related to the split-up of the expenses of connection to the transport facilities between two transport undertakings.

## **4.2 Promoting Competition**

### **4.2.1 Wholesale Markets**

#### **4.2.1.1 Price monitoring**

##### **o Article 41(1)(i) and Article 41(1)(j)**

According to Article 3 of the Hydrocarbons Act, CNE already had the duty of oversee the levels of transparency and fair competition. This mandate, that already existed, has been

incorporated in a more detail wording as a new duty for CNE by the Royal Decree-Law 13/2012 (31<sup>st</sup> function).

CNE exercises its monitoring functions of market opening and competition in wholesale and retail markets by periodic reports (monthly reports for wholesale markets and quarterly reports for retail markets).

Also, CNE elaborates an annual report to the Ministry of Industry, Energy and Tourism, analysing the degree of development of competition in the electricity market and hydrocarbons market including, where appropriate, proposals for regulatory reforms aimed at strengthening the degree of effective competition in the sector.

Regarding transparency, since there is no organised gas hub at present to provide a price reference for gas in Spain, CNE has developed an index for natural gas border prices, out of gas imports data which are available in the Web of the Office of Economics and Export Control (AEAT). In this sense, it is worth to mention that in April 2010 CNE published a road map to develop a gas hub in Spain.

#### **4.2.1.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition**

##### **o Article 41(1)(i), Article 44(3) and Article 41(1)(u)**

The Royal Decree-Law 13/2012, of March 30<sup>th</sup>, attributes CNE new duties and powers, among other, monitoring the level of transparency and competition as well as the level and effectiveness of market opening and competition at wholesale and retail markets (see 4.2.1.1 section).

In relation to record keeping, among the rights and obligations of traders, the Royal Decree-Law 13/2012 requires to keep at the disposal of national authorities, including the CNE, the National Competition Authorities and the European Commission, for at least five years, the relevant data relating to all transactions in gas supply contracts and gas derivatives with wholesale customers and transmission system operators as well as storage and LNG operators.

Regarding the scope of Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on Wholesale Energy Market Integrity and Transparency (REMIT), as previously mentioned in Section 3.2.1.1, CNE participates actively in the CEER and ACER Market Integrity and Transparency (MIT) Working Groups and related

Task Forces<sup>29</sup>. In particular, the CMIT WG deliverable “*CEER Status Review and Advice on Further Transparency Measures on the Publication of Fundamental and Transactional Data*” is foreseen, with the aim to summarize good practices by National Regulatory Authorities publishing market and fundamental data, serving as a base for discussion. CNE would then describe accordingly which data publishes currently.

The enlarged supervisory competences for CNE stated in the Royal Decree-Law 13/2012 are aligned with the REMIT provisions.

The Royal Decree-Law came into force recently, on April 1<sup>st</sup> and the Government is working on the development of the implementing regulation.

#### **o Article 41(1)(j)**

As it has been described above, CNE had a mandate of overseeing the levels of transparency and fair competition. This mandate, that already existed, has been incorporated as a new duty for CNE by the Royal Decree-Law 13/2012 (31<sup>st</sup> function) to monitor the access conditions to storage, including underground storage, LNG storage tanks and linepack, and other ancillary services.

CNE develops its monitoring functions of market opening and competition in wholesale and retail markets by periodic reports (monthly reports for wholesale markets and quarterly reports for retail markets). Additionally to the mentioned reports, among CNE’s monitoring functions it is important to highlight its legal duty to monitor the supplier switching and OCSUM activities in compliance with existing regulations.

#### **o Article 41(1)(k)**

As it has been described above, CNE had a mandate of overseeing the levels of transparency and fair competition. This mandate, that already existed, has been incorporated in a more detail wording as a new duty for CNE by the Royal Decree-Law 13/2012 (31<sup>st</sup> function) to monitor the occurrence of restrictive contractual practices, including exclusivity clauses which may prevent large non-household customers from contracting simultaneously with more than one supplier or restrict their choice to do so, and, where appropriate, informing the national competition authorities of such practices.

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<sup>29</sup> The CMIT WG has a Task Force called “Wholesale Energy Market” (WEM TF). The AMIT WG has two Task Forces called “Market Monitoring Governance” (MMG TF) and “Wholesale Market Surveillance” (WMS TF).

### **o Article 41(1)(l)**

The Royal Decree-Law 13/2012, of March 30th, attributes CNE new duties and powers, among other, respecting contractual freedom with regard to interruptible supply contracts as well as with regard to long-term contracts provided that they are compatible with Community law and consistent with Community policies (25<sup>th</sup> function).

In Spain the information of the duration of the individual long-term gas supply contracts is not public. However, historically most of the gas supply contracts of all Spanish marketers have been long-term contracts with producing countries. That applies for both, LNG and pipelines supply contracts.

Long term gas supply contracts don't hinder competition, since there is available entry capacity in Spain, with the exception of France and Morocco interconnections; in addition, LNG can be diverted to other markets.

### **Spanish wholesale gas market in 2011**

CNE prepares a monthly report on monitoring of wholesale gas market.

Since there is no organised gas hub at present to provide a price reference for gas in Spain, CNE has developed an index for natural gas border prices, out of gas imports data which are available in the Web of the Office of Economics and Export Control (AEAT).

The following figure shows the evolution of natural gas prices at the border according to this index, from January 2002 to January 2012, including LNG and natural gas introduced to Spain through pipelines from Maghreb and France.

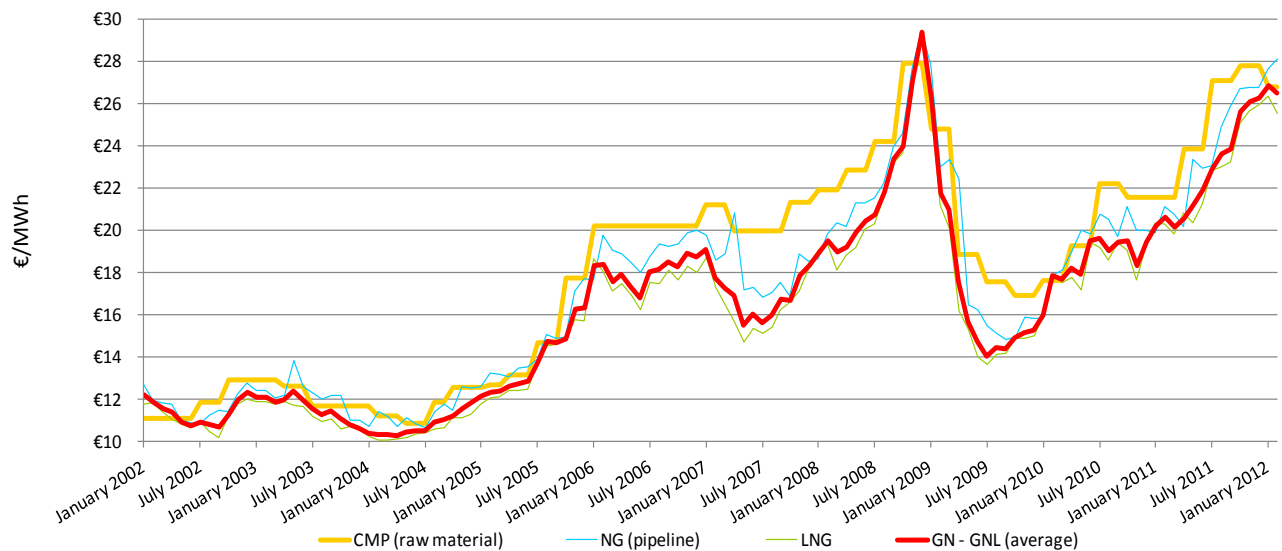


Figure 14. Evolution of natural gas border prices in Spain (€/MWh), 2002-January 2012.

As shown in the figure above, prices reached their peak values in 2008, when prices rose sharply up to 29,37 €/MWh in December 2008. In the year 2011, natural gas border price has increased a 30,14%, from 20,21 up to 26,30 €/MWh.

The table below shows the monthly evolution of these prices in 2011 (in €/MWh):

(€/MWh)	Natural gas (pipeline)	LNG	Average import price
Jan 2011	19,87	20,35	20,21
Feb 2011	21,14	20,27	20,61
Mar 2011	20,75	19,85	20,14
Apr 2011	20,19	20,81	20,57
May 2011	23,38	20,34	21,23
Jun 2011	22,97	21,25	21,89
Jul 2011	23,07	22,86	22,95
Aug 2011	24,88	23,02	23,62
Sep 2011	25,91	23,22	23,87
Oct 2011	26,73	25,08	25,65
Nov 2011	26,78	25,65	26,11
Dec 2011	26,76	25,98	26,30

Table 20. Natural gas border prices in Spain, 2011

**a) Spanish OTC gas market (MS-ATR Platform)**

Most of gas traded in the Spanish market is negotiated in bilateral OTC transactions, over an electronic trading platform developed by ENAGAS, called “MS-ATR”. There are nearly 39 active traders in this platform.

At the moment, gas is actively traded in Spain across eight balancing points: the six LNG terminals; the virtual balancing point (so called AOC) and the virtual storage point comprising the two Spanish underground storage sites in operation (Serrablo and Gaviota).

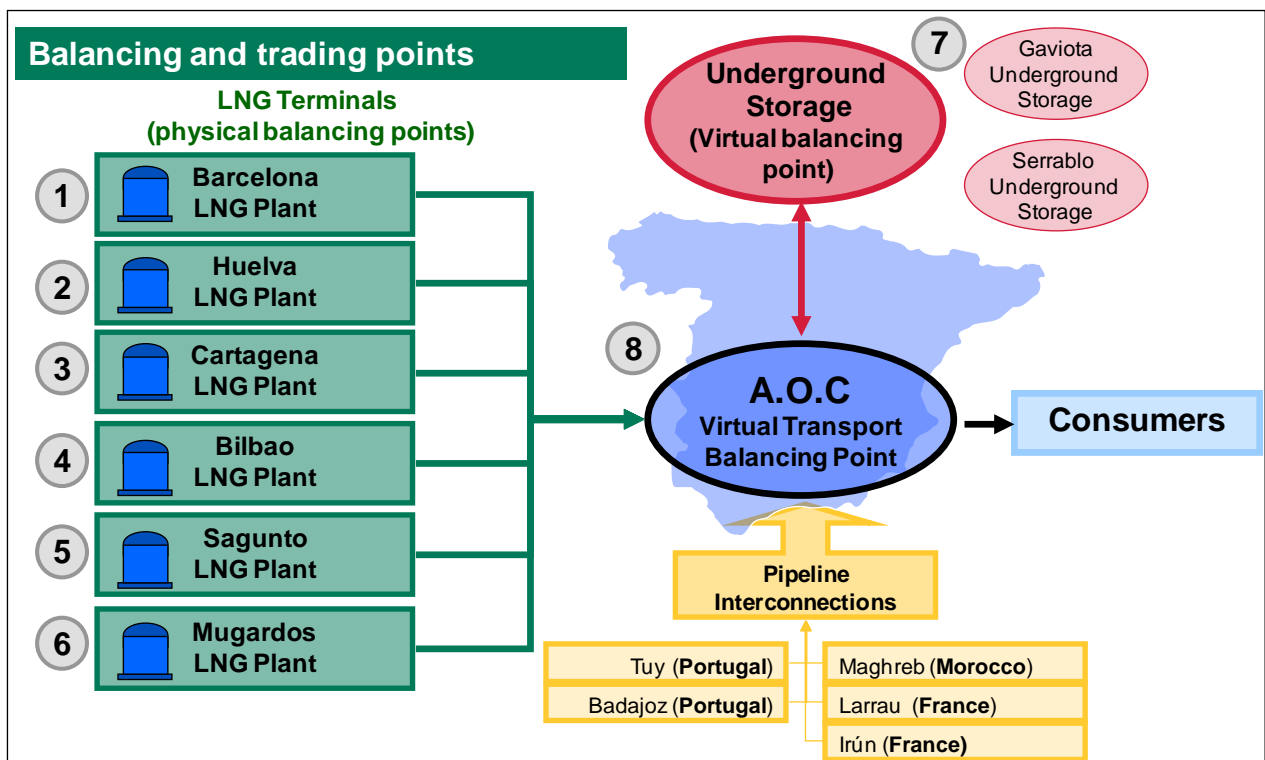


Figure 15. Balancing and trading points.

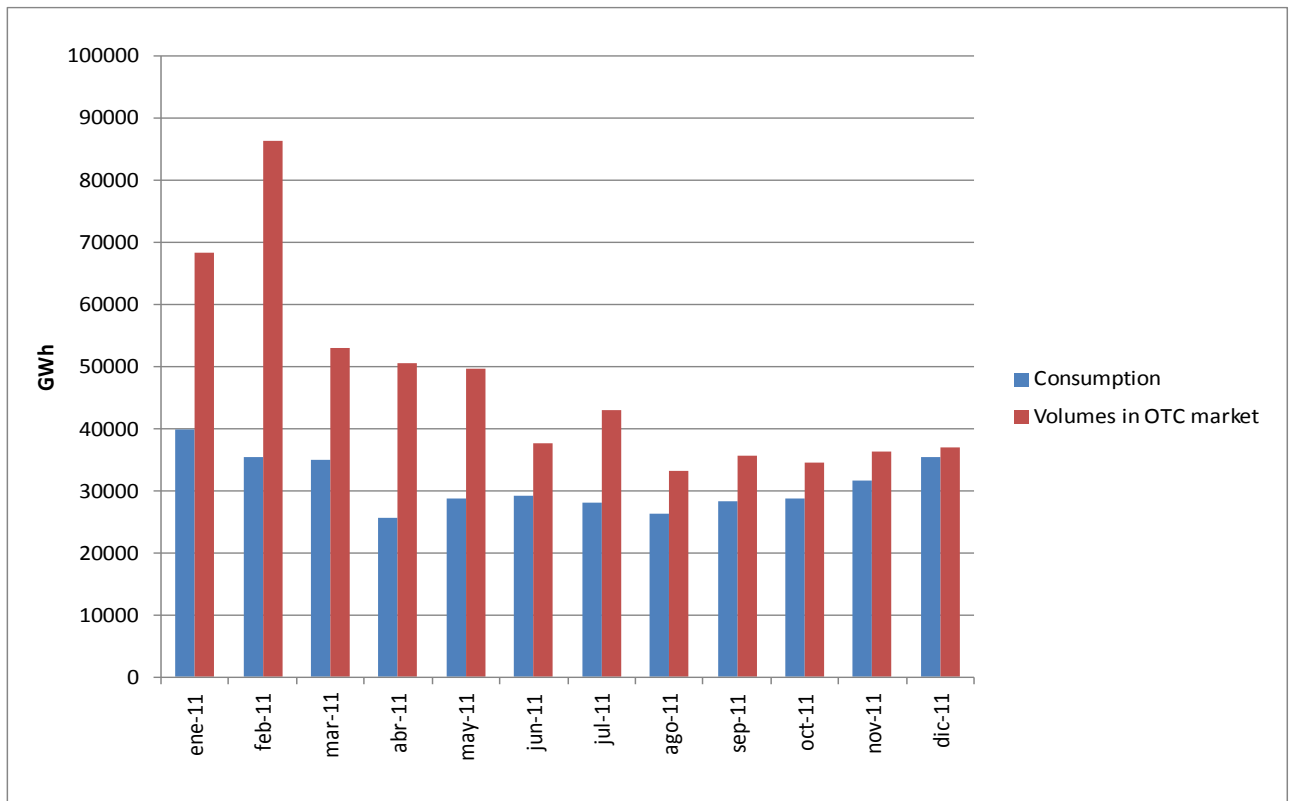


Figure 16. Spanish OTC gas market vs. consumption 2011 (GWh/month)

Liquidity lies almost completely on the LNG terminals, which accounted for 85% of all OTC trade in 2011. Barcelona LNG terminal was the main trading point with 24,8% of gas trade. The AOC, which could look like an attractive virtual trading point, only drew 14,6% of OTC trade.

Balancing point	Traded gas 2011 (TWh)	Production (TWh)	Churn rate	Number of active traders	Market share of 3 main traders
Barcelona LNG Terminal	140.032	65.522	2,1	18	52%
Huelva LNG Terminal	128.421	54.300	2,4	14	49%
Bilbao LNG Terminal	80.136	38.432	2,1	8	71%
Cartagena LNG Terminal	51.474	39.370	1,3	13	73%
Mugardos LNG Terminal	42.392	17.719	2,4	6	80%
Sagunto LNG Terminal	38.160	42.963	0,9	5	94%
<b>Total LNG</b>	<b>480.615</b>	<b>258.306</b>	<b>1,9</b>	<b>25</b>	<b>48%</b>
Underground storage	2.039			15	52%
Transmission balancing point (AOC)	82.805	114.460	0,7	32	39%
<b>Total Spain</b>	<b>565.459</b>	<b>372.766</b>	<b>1,5</b>	<b>39</b>	<b>45%</b>

Figure 17. Main features - OTC



Transactions in the Spanish OTC market in 2011 represented globally 1,37 times natural gas demand.

Next figures show the monthly evolution of gas traded and of the number of transactions – more than 45.000 – registered in the Spanish OTC market in 2011.

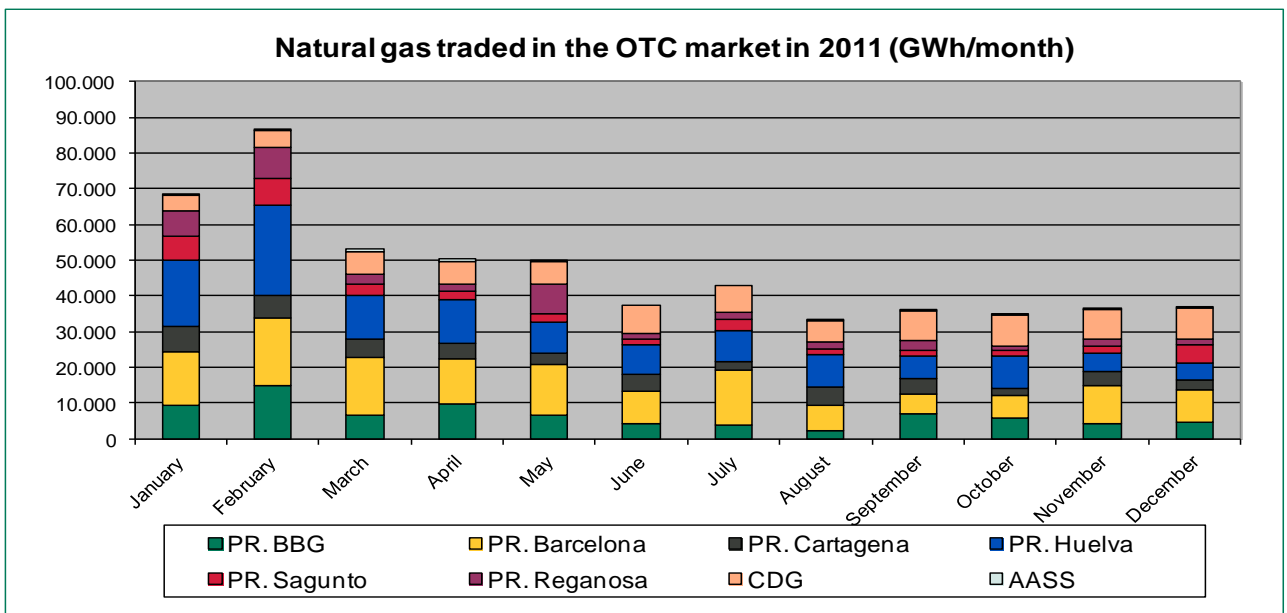


Figure 18. Gas traded 2011 (GWh/month)

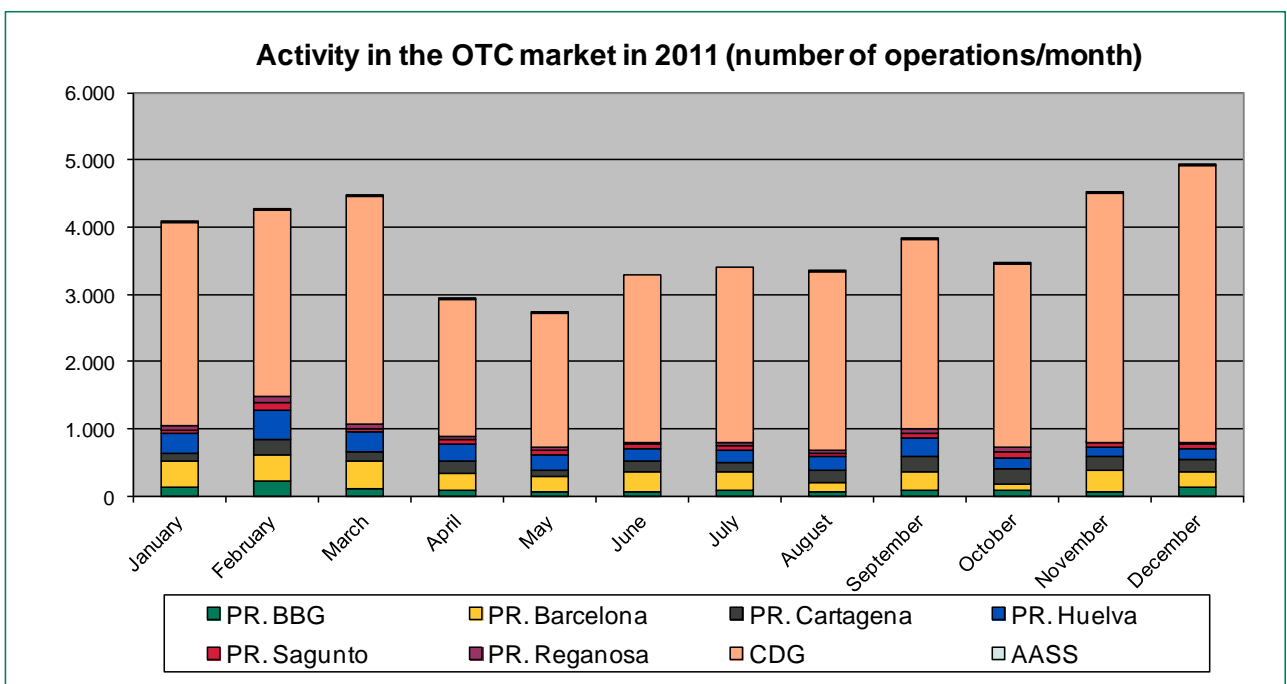


Figure 19. Gas transactions 2011 (nº Transactions/month)

The figure below shows the market sharing-out in the OTC gas market for 2011 in terms of purchased energy. The highest shares belong to Gas Natural Comercializadora with 16,4% and Unión Fenosa with 14,4%.

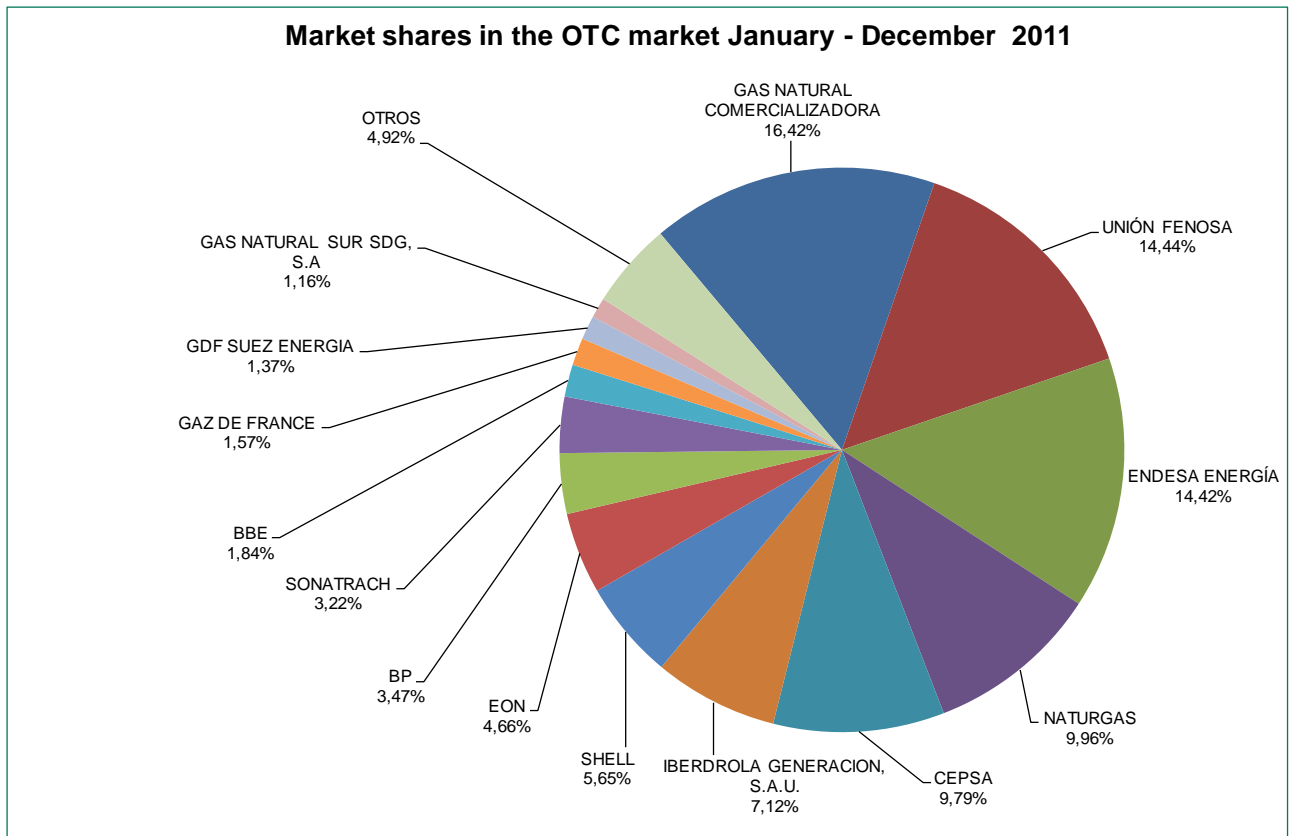


Figure 20. Market share (purchases) in the OTC market in 2011

Given that the OTC platform MS-ATR allows free trading through direct gas exchanges, without a price, there is no public information available on OTC prices.

## b) Roadmap to develop a gas exchange in Spain

In April 2010, CNE published a road map to develop a gas exchange in Spain. The objective is to accelerate the creation of a gas hub in the Spanish Gas System in order to promote competitiveness, transparency, and reducing the lack of transparency of the current OTC market.

The analysis concluded that the current conditions experienced in the Spanish Market are enough for the development of the hub, with similar services to the ones offered in other

gas hubs in Europe. However the wholesale market is facing problems regarding lack of liquidity and transparency in price issues.

The creation of a gas hub in Spain requires the support of the regulatory authorities, by creating, under the current regulation, an exchange gas market, with free access to traders and consumers, and the designation of an independent market operator.

It is also necessary the introduction of some regulatory measures in order to reinforce trust and increase market liquidity.

The development of the organized gas market would help to increase the liquidity and transparency of the OTC market (they both would co-exist).

### **c) Auctions to buy operational gas for TSOs**

The Ministerial Order IET/3587/2011, of 30 December, which lays down the transit charges associated with access by third parties to gas facilities and remuneration of the gas sector's regulated activities, established that Transmission and LNG system operators must purchase every year the gas they need for their own consumption (operating gas) and for the minimum filling level of their assets (minimum filling level gas) by means of an annual auction procedure covering the acquisition of the gas needs from the 1 July of the current year to the 30 June of the following one. The general rules of the auction procedure are established by Resolution of 19 May 2008, by the General Secretariat of Energy, which lays down the auction procedure for the acquisition of natural gas for use in operation and the minimum level of the transmission, regasification and underground storage facilities. The specific rules of the yearly auction are established every year in a Resolution of the General Directorate of Energy Policy and Mining of the Ministry of Industry, Tourism and Trade. CNE is the supervisory body for these auctions and the Spanish power exchange (Operador del Mercado Ibérico de Energía, Polo Español, S.A. - OMEL)<sup>30</sup> is the institution responsible for organising them.

The auction is based on a mechanism of multi-round descending clock price. The following table summarises the results of the auctions held in 2009, 2010 and 2011. The auction corresponding to the period 1 July 2012 – 30 June 2013 was held on 29 May 2012.

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<sup>30</sup> Through its subsidiary OMEL Diversificación S.A.U. from 2009.

Auction for the acquisition of natural gas for own consumption (operating gas) and for the minimum filling level of gas pipelines of the transport network and regasification plants			
Type	Multi-round descending-price, electronic mechanism		
Date	28 May 2009	25 May 2010	24 May 2011
GWh operating gas	1 259.2	1 518.6	1 504.9
GWh min. filling level	356.8	416.6	89.4
GWh total	1 616.0	1 935.2	1.594.2
Supply period	1 July 2009 - 30 June 2010	1 July 2010 - 30 June 2011	1 July 2011 - 30 June 2012
Auction price	14.65 €/MWh	19.37 €/MWh	26.16 €/MWh

Table 21. Auctions for operating and minimum filling level gas: results of the auctions held in 2009, 2010 and 2011

Source: auction administrator and CNE

**d) Auctions for the acquisition of the natural gas whose price will be used as a reference for establishing the last resort tariff (LRT).**

The Ministerial Order ITC/863/2009, approved on 2 April 2009, regulates the auction procedure for the acquisition of the natural gas whose price will be used as a reference for establishing the last resort tariff (LRT).

Two auctions are to be celebrated each year for the “base load gas” product and one for the “winter gas” product<sup>31</sup>.

The products subject to auction during year 2011 were: (i) the base load gas at a pre-established monthly amount for the period 1 July 2011 - 31 December 2011 and for the period 1 January 2012 – 30 June 2012; and (ii) the winter gas for pre-established monthly amounts for the period November 2011 - March 2012.

A multiple-round descending-clock price mechanism was used for the two auctions celebrated during year 2011, and their results were as follows:

<sup>31</sup> According to Article 5.4 of Order ITC/1660/2009, of 22 June 2009, establishing the calculation methodology for the Last Resort Tariff of natural gas, by means of the redaction given by Order ITC/1506/2010, of 8 June 2010.

Auction for the acquisition of natural gas for the last resort tariff		
Type	Multi-round descending price, electronic mechanism	
Date	14 June 2011	25 October 2011
Monthly base load gas (GWh)	2 550 GWh (425 GWh/month) for second half of year 2011	2 550 GWh (425 GWh/month) for first half of year 2012
Winter gas (GWh)	4 045 GWh (November 2011 - March 2012)	not applicable
Supply period	1 July 2011 - 30 June 2012	
Auction price for base load gas	28.80 €/MWh	29.60 €/MWh
Auction price for winter gas	29.96 €/MWh	not applicable

Table 22. Auctions for natural gas devoted to last resort supply: results of the auctions held in 2011

Source: Auction administrator and CNE

In 2012, the first auction was celebrated on 19 June 2012. The products subject to this auction are the base load gas at a pre-established monthly amount (270 GWh/month) for the period 1 July 2012 - 31 December 2012 and the winter gas for pre-established monthly amounts for the period November 2012 - March 2013 (2,570 GWh).

## 4.2.2 Retail Markets

### 4.2.2.1 Price monitoring

#### o Article 41(1)(i) and Article 41(1)(j)

As mentioned regarding price monitoring in wholesale markets, the duties contained in article 41(1)(i) and (j) have been incorporated as 30<sup>th</sup> and 31<sup>st</sup> function of CNE by the Royal Decree-Law 13/2012.

At retail level, CNE monitors retail prices through the commercial offers that are published in CNE's price comparison tool. As explained above, CNE also monitors the switching processes and the OCSUM activities (see section 4.2.1.2).

Also, by the "Circular" 5/2008 of CNE, suppliers are officially requested to submit information about supply contracts (consumption and prices) broken down by geographical areas and levels of pressure and consumption.

CNE publishes a quarterly monitoring report of retail gas market. This report assesses, among other, the evolution of consumption, number of clients and market shares of trading companies.

#### **4.2.2.2 Monitoring the level of transparency, including compliance with transparency obligations, and the level and effectiveness of market opening and competition**

##### **o Article 41(1)(i), Article 44(3) and Article 41(1)(u)**

As it has been described above, CNE had a mandate of overseeing the levels of transparency and fair competition. This mandate, that already existed, has been incorporated in a more detail draft as a new duty for CNE by the Royal Decree-Law 13/2012 (31<sup>st</sup> function) to monitor the level of transparency and competence as well as the level and effectiveness of market opening and competence at wholesale and retail markets.

Regarding record keeping, among the rights and obligations of traders, the Royal Decree-Law 13/2012 requires to keep at the disposal of national authorities, including CNE, the national competition authorities and the Commission, for at least five years, the relevant data relating to all transactions in gas supply contracts and gas derivatives with wholesale customers and transmission system operators as well as storage and LNG operators. Although this obligation has been formally incorporated recently, CNE already had the power to request information when was needed.

##### **o Article 41(1)(j)**

#### **Market opening**

Natural gas consumption in 2011 in Spain reached 375 TWh, 6 % lower than in 2010. The number of gas customers in 2011 surpassed 7 millions, with 97.573 new customers.

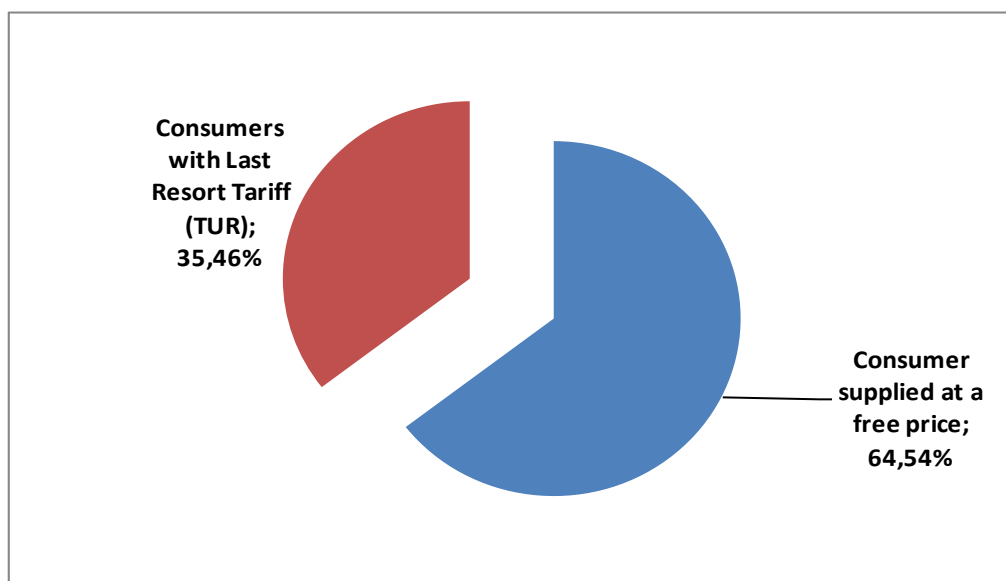
All Spanish customers (including household) have been free to choose supplier since 1 January 2003.

Since July 2008, regulated tariffs for end-users (last resort tariff – LRT) only apply to residential consumers consuming less than 50.000 kWh/year and connected to a network at a pressure under 4 bar.

There are five suppliers designated as suppliers of last resort, which supply all consumers submitted to the LRT.

By 31 December 2011, the number of consumers supplied at a free price was 4.697.474 (64,54% of all consumers), while the number of consumers supplied at the regulated tariffs was 2.580.431 (35,46% of the consumers). Free gas consumers have increased 517.000, representing 7% of total gas costumers.

In volume, consumers supplied at regulated tariffs represent only 4,2% of the Spanish gas market.



*Figure 21. Consumers at the Last Resort Tariff vs consumers at free market price*

### **Retail market structure**

The total number of gas consumers in December 2011 was 7.277.905 (+97.573 consumers with regard to December 2010), and the gas demand was 375 TWh (-6% compared to 2010).

The figure below shows the share of supplies in the Spanish market in 2011 by company, in terms of energy volume:

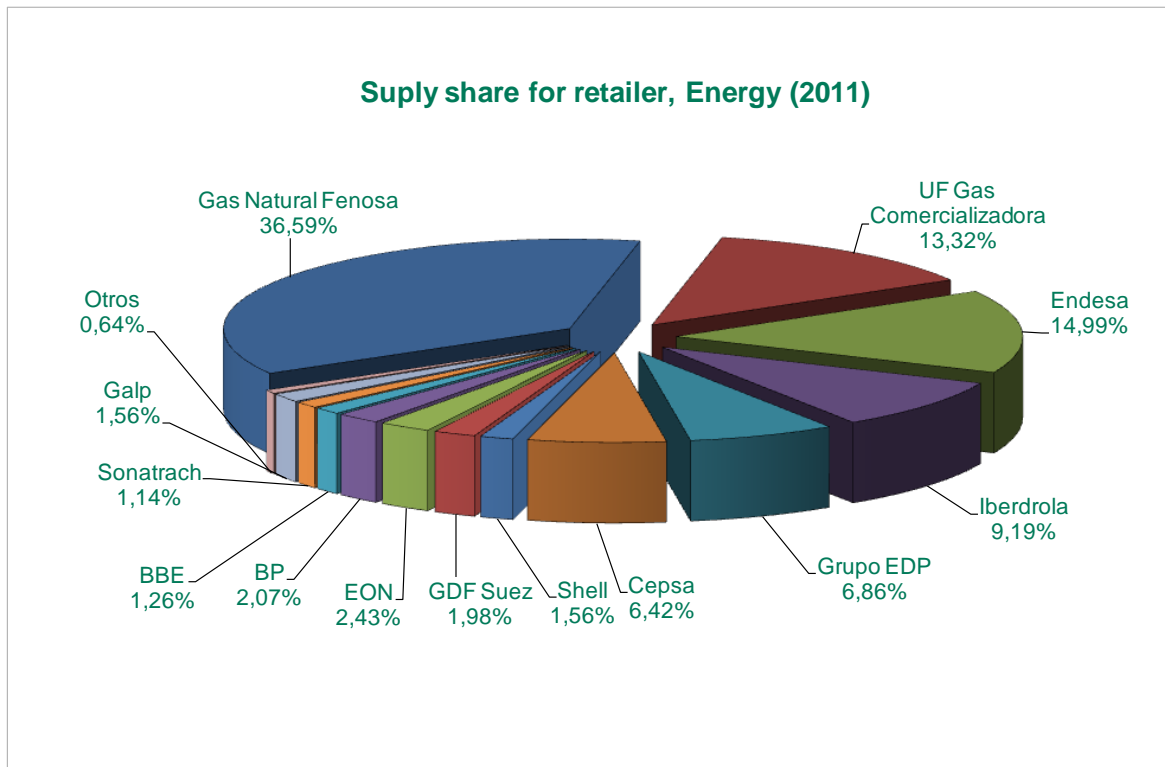


Figure 22. Share of natural gas supplies by company (in energy volume)

In terms of number of customers, the sharing-out of supplies at 31 December 2011 was:

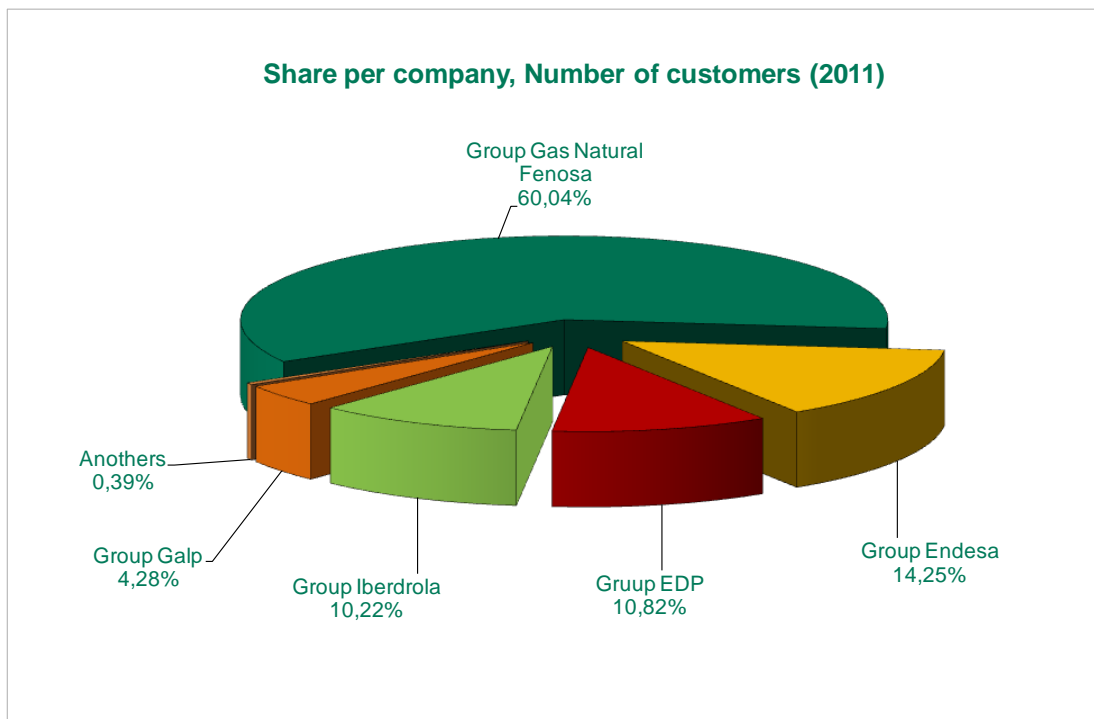


Figure 23. Share of natural gas supplies by company (in energy volume)



The sharing-out of natural gas consumption by end-use sectors in 2011 was as follows:

- Household-commercial: 14,1%
- Industrial: 54,7%
- Electricity generation (CCGTs and gas-fired power plants): 29,5%
- Non-energetic use (natural gas as raw material): 1,7%

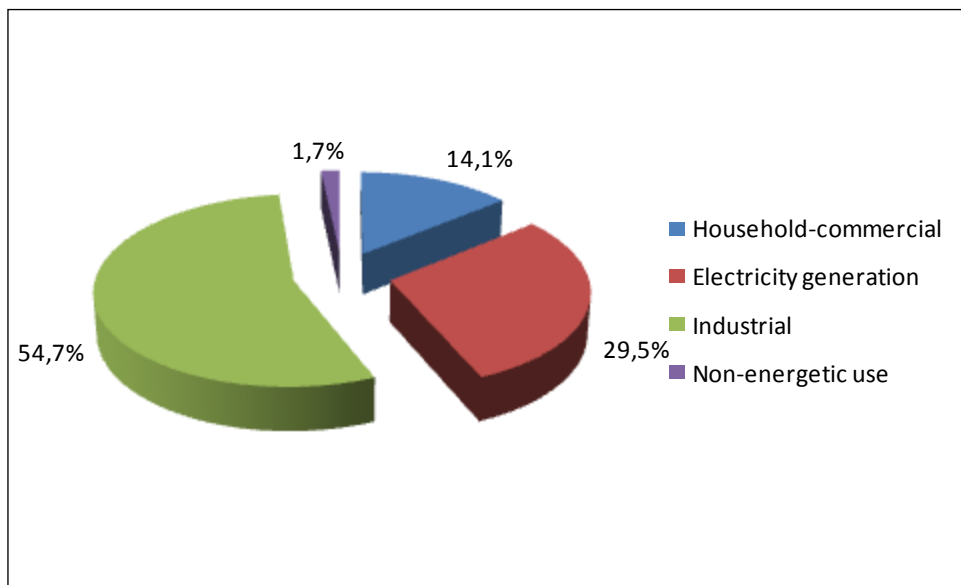


Figure 24. Consumption of natural gas by sectors (2011).

Source: Sedigas

The evolution of this segmentation over time shows a very remarkable increase in the share of gas dedicated to electricity generation, reaching a percentage of 40% in year 2009. But the three last years there have been a decrease in the use of gas in electricity generation due to the reduction in consumption because of the crisis and the increase of production with renewable energies and with coal.

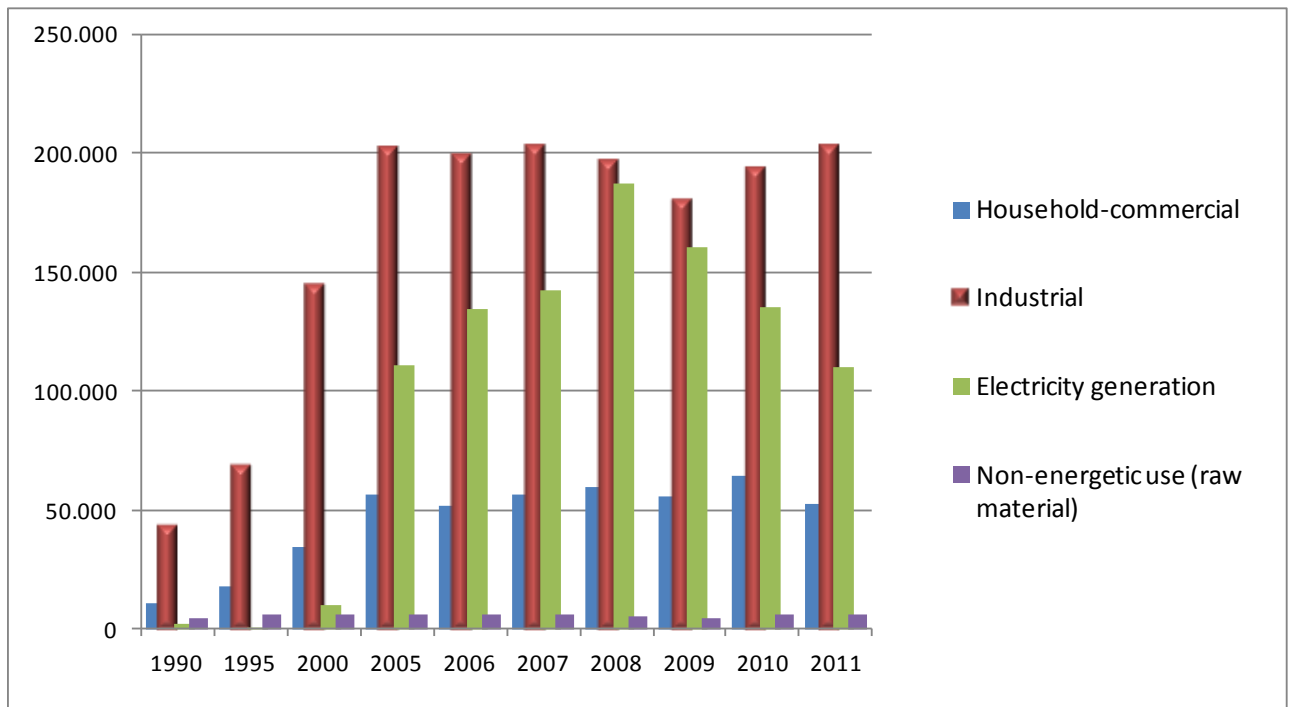


Figure 25. Natural gas sales in Spain (GWh).

Source: Sedigas

The following table shows the sharing-out of gas consumption in the Spanish market, broken down by levels of pressure and consumption, according to the different tariff groups existing in the Spanish gas system for the characterisation of consumers:

Consumption groups (Pressure range and annual consumption)	MWh	Number of Consumers (31 Dec 2011)
<b>Group 1 ( Pressure &gt;60 bar)</b>		
1.1: Consumption <= 200 GWh/year.	1.343.798	18
1.2: Consumption > 200 GWh/year <= 1.000 GWh/year.	17.191.207	32
1.3: Consumption > 1.000 de GWh/year.	120.205.160	58
<b>TOTAL Group 1</b>	<b>138.740.166</b>	<b>108</b>
<b>Group 2 ( Pressure &gt;4 bar and =&lt; 60 bar)</b>		
2.1: Consumption <= 500.000 KWh/year.	204.732	687
2.2: Consumption > 500.000 KWh/year <= 5 GWh/year.	2.674.789	1.399
2.3: Consumption > 5 GWh/year <= 30 GWh/year.	13.037.699	1.068
2.4: Consumption > 30 GWh/year <= 100 GWh/year.	22.354.451	465
2.5: Consumption > 100 GWh/year <= 500 GWh/year.	55.241.030	283
2.6: Consumption > 500 GWh/year.	42.869.602	40
<b>TOTAL Group 2</b>	<b>136.382.303</b>	<b>3.942</b>
<b>Group 2 BIS ( Pressure =&lt; 4 bar)</b>		
2.1 bis: Consumption <= 500.000 KWh/year.	6.397	2
2.2 bis: Consumption > 500.000 KWh/year <= 5 GWh/year.	842.673	431
2.3 bis: Consumption > 5 GWh/year <= 30 GWh/year.	991.075	120
2.4 bis: Consumption > 30 GWh/year <= 100 GWh/year.	8.587	1
2.5 bis: Consumption > 100 GWh/year <= 500 GWh/year.	0	0
2.6 bis: Consumption > 500 GWh/year.	0	0
<b>TOTAL Group 2 BIS</b>	<b>1.848.732</b>	<b>554</b>
<b>Group 3 ( Pressure =&lt;4 bar )</b>		
3.1: Consumption <= 5.000 kWh/year	9.068.157	3.652.270
3.2: Consumption > 5.000 kWh/year <= 50.000 kWh/year.	31.433.668	3.551.639
3.3: Consumption > 50.000 kWh/year <= 100.000 kWh/year.	1.335.085	22.874
3.4: Consumption > 100.000 kWh/year hasta 1 GWh.	13.829.565	44.310
3.5: Consumption > 8 GWh/year.(night consumption)	7.142.771	2.226
<b>TOTAL Group 3</b>	<b>62.809.246</b>	<b>7.273.319</b>
<b>Group 4 ( Interruption )</b>		
<b>(Pressure &gt; 60 bar)</b>		
4.1.Consumption <= 200 GWh/year.	0	0
4.2.Consumption ia 200 GWh/year.<= 1000 GWh/year.	18.222	1
4.3:Consumption > 1000 GWh/year.	12.874.148	5
<b>( Pressure &gt;4 bar and =&lt; 60 bar)</b>		
4.4.Consumption <= 30 GWh/year.	10.807	0
4.5.Consumption > 30 GWh/year <= 100 GWh/year.	11.335	0
4.6:Consumption > 100 GWh/year <= 500 GWh/year.	998.836	3
4.7: Consumption > 500 GWh/year.	1.615.986	2
<b>TOTAL Group 4</b>	<b>15.529.334</b>	<b>11</b>
Non-energetic use (raw material)	6.293.641	2
LNG satellite plant for a single consumer	12.879.573	565
<b>TOTAL GENERAL</b>	<b>374.482.995</b>	<b>7.278.501</b>

Table 23. Natural gas consumption and number of consumers – 2011

## Evolution of gas market share

At the end of 2011 there were 61 companies registered as retailers in the Spanish gas market. At this time, new entrants had already got more than 60% of market share in terms of energy, which reveals a fair level of competition in the Spanish gas market.

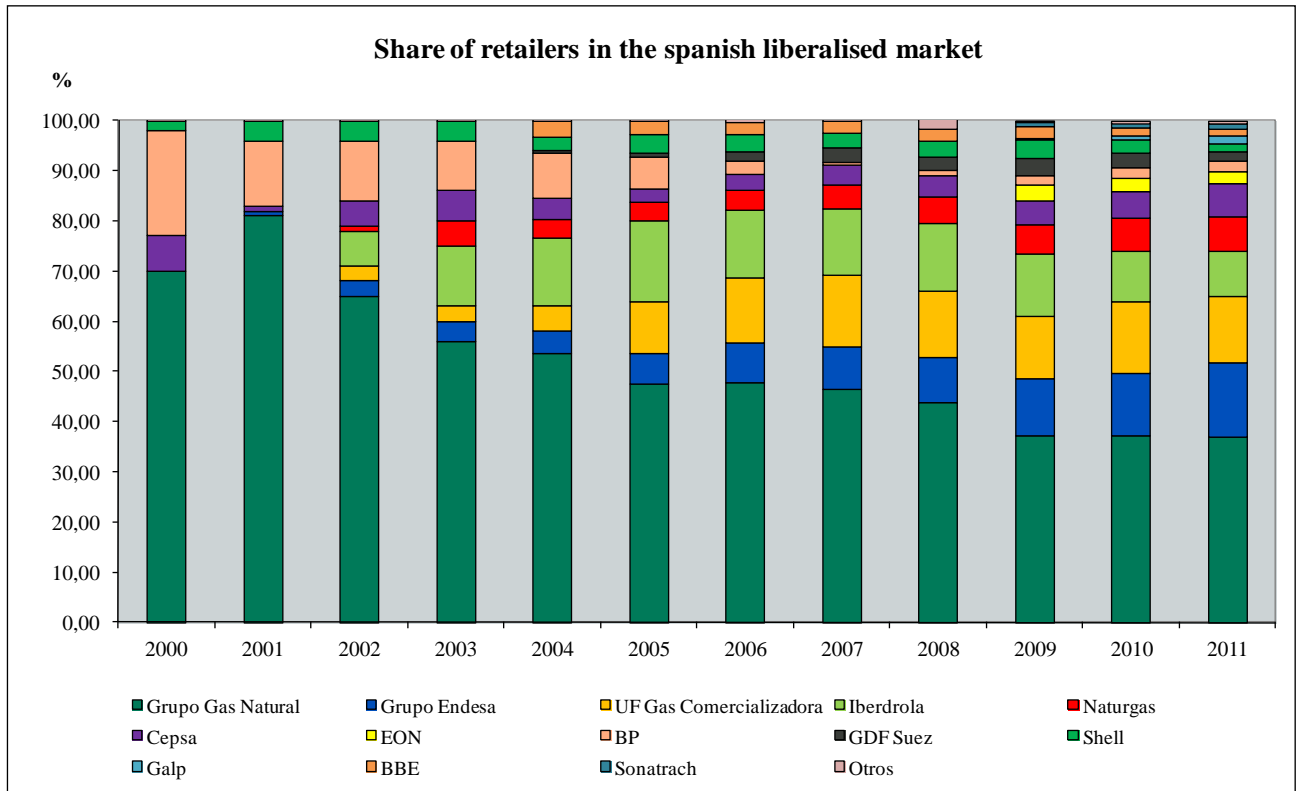


Figure 26. Spanish retail gas market. Sharing-out in terms of energy

## Switching

CNE monitors the switching rate, and other related statistics, through two channels: (1) a quarterly report elaborated by the switching office (OCSUM) and (2) the information sent directly from distribution companies, on a monthly basis, under CNE's Circular 5/2008. OCSUM's reports are not public. The Office only has the legal obligation to communicate switching and other related data to CNE, the Central Government and the Regional Governments.

The "Supplier Switching Office (OCSUM)" was set up with the aim of monitoring and facilitating supplier switching procedures. Existing regulation establishes the following deadlines to be met by distribution companies (DSOs):

- The DSO must answer the switching request (this is usually presented by the retailer in the name of the customer) within a period of 6 working days for customers connected up to 16 bars networks. For other customers maybe longer, depending on the interaction with the System Operator.

- If the annual consumption is lower than 100.000 kWh, the switching process is activated monthly using fixed dates (1-11-21) and therefore, the period of time cannot exceed 10 days. If the annual consumption is equal or higher than 100.000 kWh and no telemetering is available, the DSO must activate the switching during the last 5 working days of the month when the real metering of the bill has already taken place. If telemetering is available, the switch shall take no longer than 6 days after the request has been validated.

However, the existing regulation does not fully establish the operational aspects and formats for the communications flows that should take place between retailers and DSOs (the main switching procedure regulation for Gas is gathered in Hydrocarbons Act (Law 34/1998) and in Royal Decree 1434/2002. Royal Decree 1434/2002 is modified successively by Royal Decree 942/2005, Royal Decree 1011/2009 and also by Royal Decree 104/2010). To date, the communication system mostly results from agreements between retailers and DSOs, reached within the context of the working groups facilitated by OCSUM.

Recently, Royal Decree-Law 13/2012, of March 30<sup>th</sup>, introduced a general time frame of three weeks for the switching process in gas. According to this new piece of legislation, not only DSOs, but also suppliers, will have to comply with legal deadlines in relation with the switching process, to be established through future specific regulations. Additionally, the same Decree establishes that consumers will have to receive a final closure account following any change of gas supplier no later than six weeks after the switching has taken place.

As shown in the table below, the evolution of the switching rate during the last three years has followed an increasing trend, reaching 19,5% in 2011, and the number of failed switches has decreased significantly in 2011 (this number mainly tends to reflect errors and lack of standard formats in the communication process between retailers and DSOs).

<b>GAS SWITCHING DATA 2009-2011*</b>			
	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Domestic switching rate</b>	5,50%	12,48%	19,56%
<b>Nº domestic customers</b>	7.003.887	6.992.771	7. 090.556
<b>Total switching rate</b>	5,61%	12,28%	19,54%
<b>Nº all customers</b>	7.009.032	7.180.332	7. 139.465
<b>% failed switches</b>	7,85%	9,14%	6,72%

*Table 24. Gas switching data 2009-2011*

*Source: OCSUM. Data for 2011 should be considered as provisional.*

\*The calculated switching rates reflect the number of realized switches as a percentage of customer number during the analyzed period. In accordance with CEER 2010 GGP on Retail Market Monitoring Indicators, a switch is defined as “any change of supplier resulting from the customer choice”.

The Switching Procedure, agreed by DSOs and retailers, can be seen in detail in the following web:

<http://ocsum.es/index.php/doc/procedimientos/gas-natural>

#### **o Article 41(1)(k)**

As it has been described above, CNE had a mandate of overseeing the levels of transparency and fair competition. This mandate, that already existed, has been incorporated in a more detail draft as a new duty for CNE by the Royal Decree-Law 13/2012 (31<sup>st</sup> function) to monitor the occurrence of restrictive contractual practices, including exclusivity clauses which may prevent large non-household customers from contracting simultaneously with more than one supplier or restrict their choice to do so, and, where appropriate, informing the national competition authorities of such practices.

#### **o Article 41(1)(l)**

The Royal Decree-Law 13/2012, of March 30th, attributes CNE new duties and powers, among other, respecting contractual freedom with regard to interruptible supply contracts as well as with regard to long-term contracts provided that they are compatible with Community law and consistent with Community policies (25<sup>th</sup> function).

### **4.2.3 Recommendations on supply prices**

#### **o Article 41(1)(p)**

The power to issue recommendations on supply prices has not been exactly transposed as such in Spain. However, 30<sup>th</sup> function of CNE (as set forth by Royal Decree-Law 13/2012) is aimed at monitoring the adequacy of prices and the terms and conditions of supply to customers in accordance to the Law. Likewise, CNE may, also, propose any measures in order to increase consumer protection (29<sup>th</sup> function).

Furthermore, pursuant to article 3 of the Directive 2009/73, “*Member States may impose on undertakings operating in the gas sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection*”. For more information on public service obligations related to prices, see section 4.3.

#### **4.2.4 Carry out investigations and imposing measures to promote effective competition**

##### **o Article 41(4)(b)**

CNE has the power to carry out investigations and to impose measures to promote effective competition.

The Spanish legislation includes provisions and tools to avoid market abuse. The National Competition Commission is the body responsible for applying the Competition Act 15/2007, of 3rd July, promoting and protecting the maintenance of competition in all the production sectors and throughout the national economy. The National Competition Commission and sector regulators such as CNE cooperate in exercising their functions. Law 2/2011 establishes new cooperation procedures between CNC and CNE.

CNE adopts information by-laws, which will have to be published in the Spanish Official Gazette, to request from the agents that operate in the gas markets all the information needed to carry out the monitoring functions. Suppliers have to comply with a series of rules concerning the supply contract. The main focus in supply activity (for promoting competition) is the procedure for switching supplier.

For more information see 4.2.2.2.”switching”.

Further measures to avoid abuses of dominance adopted in 2011 include the following:

On 10th February 2011, CNE approved the Resolutions by which the lists of main and dominant operators in the energy sectors are established and made public. First, CNE declared and published the list of the five companies with major market shares (the so called “*main operators*”) in the electric sector (ENDESA, S.A., IBERDROLA, S.A., GAS NATURAL SDG, S.A., HIDROELECTRICA DEL CANTABRICO, S.A and E.ON ESPAÑA, S.L.) and in the natural gas sector (GAS NATURAL SDG. S.A., IBERDROLA, UNION

FENOSA GAS, S.A., ENDESA, S.A. and HIDROELECTRICA DELCANTABRICO). There is also a list for fuels and liquefied gas<sup>32</sup>.

According to Article 34 of Royal Decree-Law 6/2000 there is a limitation on the voting rights corresponding to shares in excess of 3% held by the same person in more than one company that ranks among the biggest five (in terms of market shares) in the sector or market in question.

Secondly, on 10<sup>th</sup> February 2011 CNE published a list of operators with a market share of over 10% in various energy sectors (the so called “dominant operators”) including: ENDESA, IBERDROLA, EDP/HIDROCANTABRICO, GAS NATURAL FENOSA for the electricity sector and GAS NATURAL FENOSA, IBERDROLA, UNION FENOSA GAS y ENDESA for the gas sector and REPSOL-YPF and CEPSA for liquid fuels.

It should be mentioned that in the natural gas sector dominant operators are so far not affected by the restrictions and limitations applicable within the electric sector and described in paragraph-3.2.4.

Finally, on 1<sup>st</sup> September 2011, CNE published its third report analyzing the development of competition in the electric and gas markets, pursuant to the 5<sup>th</sup> additional disposition of Law 12/2007 and 17/2007.

## 4.3 Consumer protection

### **o Compliance with Annex 1 (Article 41(1)(o))**

#### Compliance with Annex 1

The Royal Decree-Law 13/2012 establishes new measures concerning gas consumer’s protection in line with annex I of Directive. In this regard, consumers have a right to:

- have a contract with their gas service provider that specifies certain detailed information and conditions that must be fair and well-known in advance;
- receive adequate notice of any intention to modify contractual conditions and be informed about their right of withdrawal when the notice is given;

---

<sup>32</sup> More recently, on June 21<sup>st</sup> 2012 the CNE Administration Board has approved the list of main operators in the energy sector which will be published in the Official Gazette in the coming days.



- receive transparent information on applicable prices and tariffs and on standard terms and conditions, in respect of access to and use of gas services;
- be offered a wide choice of payment methods, which do not unduly discriminate between customers;
- be not charged for changing supplier; benefit from transparent, simple and inexpensive procedures for dealing with their complaints;
- have at their disposal their consumption data properly informed of actual gas consumption and costs frequently enough to enable them to regulate their own gas consumption;
- and receive a final closure account following any change of natural gas supplier no later than six weeks after the change of supplier has taken place.

#### The Royal Decree-Law 13/2012. Reinforcement of CNE powers concerning consumer protection

Royal Decree-Law 13/2012, of March 30<sup>th</sup>, has also granted CNE new powers to issue binding decisions in relation to natural gas undertakings and to decide on appropriate measures ensuring the full effectiveness of consumer protection measures including the supervision of the adequacy of prices and supply conditions to the Hydrocarbon Act (function 30<sup>th</sup>)

Accordingly, CNE has the function to ensure the compliance with any prescribed regulation and procedures in relation to the switching of gas supplier (Function 22<sup>th</sup>) (see section 4.2.2.2).

Additionally, CNE has the function to monitor the consumer protection measures, and the power to declare who is responsible for deficiencies of energy supply to consumers (Function 29<sup>th</sup>), as well as submitting regulatory proposals in relation to quality of service, supply and consumer protection measures to the Ministry and the Autonomous Communities.

As the retail market has become more active, there has been an increase in the number of consumer complaints and arises the need for a more effective protection system.

Until recently, the Autonomous Communities had a general responsibility for customer complaint handling. They were also competent for the resolution of disputes concerning last resort tariffs contracts and access to distribution networks, as well as for billing issues. CNE had the power to supervise the switching processes and to declare the infringement of switching rules. All other issues were dealt with by jurisdictional courts unless alternative consumer arbitration procedures were available.

CNE has been granted the power to report and to handle, in coordination with other competent authorities, consumer complaints and has the duty to have at consumers disposal all the information related to functioning of the markets, the options available, consumer rights, regulation in force and procedures to settle disputes, as well as reporting annually to the Ministry on complaints received and making proposals for better regulation (Function 32<sup>nd</sup>). The necessary coordination between regional bodies and national regulator in the handling of consumer complaints as mandated in the Royal Decree is still to be articulated.

In addition to measures mentioned, competent bodies, in cooperation with CNE, will create single points of contact to provide consumers with all necessary information concerning their rights, current legislation and the means of dispute settlement available to them in the event of a dispute.

When enforcing the above described functions, CNE has the power to impose all reasonable measures necessary to attain the objective of ensuring a high quality of service, especially for vulnerable clients, and the compatibility of the exchange of data processes needed to switch supplier (amongst other objectives set forth by the law).

Royal Decree-Law 13/2012 also establishes the following new measures concerning consumer's protection:

- The Royal Decree-Law 13/2012 of March 30<sup>th</sup> modifies article 57 of the Hydrocarbons Act empowering the Ministry to establish specific supply conditions for certain customers that should be considered "vulnerable customers" due to their economic, social or supply characteristics.
- It also requests suppliers and distributors to offer customers a customer service (including a call center service) in charge of handling consumer's questions and complaints.
- CNE has also the power to impose penalties to DSOs and suppliers for breach of consumer protection rules as well as for other breaches of regulation including the breach of CNE binding Resolutions.

### Transparency and market opening

As a measure to promote market transparency, CNE has launched a new web price comparison tool for gas and electricity offers. The tool was opened to the public at a press conference on 26 of April 2011. The tool is available at the following website

[www.comparador.cne.es](http://www.comparador.cne.es). The comparison tool includes more than 400 active offers of gas, electricity or dual supply from about 20 different companies.

### **o Ensuring access to consumption data (Article 41(1)(g))**

Royal Decree 1011/2009 is coherent with the content of Gas Directive 2009/72/EC and Electricity Directive 2009/73/EC, as regards the development of secure, reliable and efficient non-discriminatory systems that are consumer oriented and also helping to ensure consumer protection.

The Directive 2009/72/EC establishes the consumers' right to receive all the data regarding their consumption in an intelligible way and free of charge. These data can also be given/provided to any registered supplier free of charge. Along this line, RD 1011/2009 establishes that the database of gas and electricity distributors supply points can be accessed free of charge and unconditionally not only by any supplier but also by any customer.

### **o Public service obligations**

#### *Maintenance of end user price regulation in gas*

The Law 12/2007, dated 2<sup>nd</sup> July, establishes the calendar for both the elimination of end-user regulated prices and the introduction of last resort tariffs (LRT), aimed at consumers connected to a gas pipeline pressure lower than 4 bars in the gas sector, since January 1<sup>st</sup> 2008. As a consequence, distributors companies cannot retail gas to their clients anymore.

The Law 12/2007 defines last resort tariffs as the price to be applied to with right to be supplied at the LRT and it also establishes the principles to be used in the calculation of last resort tariffs, which are the following:

- Single tariff for the whole country.
- Cost reflective (incomes enough to cover expenses).
- Additive structure: generation costs, access tariffs and commercialization costs.

The above mentioned Law also eliminated end-user regulated prices for consumers connected to a gas pipeline with design pressure above 4 bars and equal to or below 60 from July 2007 onwards. It also included the definition of last-resort suppliers and tariffs, the creation of the Supplier Switching Office, and the establishment of the Energy System Technical Management Monitoring Committee.

Since July 1<sup>st</sup> 2009 only consumers connected to gas pipelines with a pressure equal to or smaller than 4 bar and annual consumption of less than 50.000 kWh may be supplied at last resort tariffs in the gas natural sector.

According to the Law, the following last resort suppliers are appointed for a period of four years:

- Endesa Energía XXI, S.A.U
- Gas Natural SUR SDG, S.A.
- Iberdrola Comercialización de Último Recurso, S.A.U.
- HC-Naturgas Comercializadora Último Recurso, S.A.U.
- Madrileña Suministro de Gas S.U.R, S.L.

Order ITC/1660/2009, dated 22<sup>th</sup> June and Order ITC/1506/2010, dated 8<sup>th</sup> June, establish the mechanism for setting the maximum prices to be applied by last resort suppliers. The last resort tariff includes the rates, tolls and fees, the commercialization costs and the energy cost. The energy component of the last resort tariff includes the result of the gas auctions, and also the crude oil quotation and the settlement prices of the futures of natural gas in international markets.

In 31 December 2011, 99.0% of consumers had the right to be supplied at the last resort tariff. However, only 38.1% of consumers were supplied at the last resort tariff in 31 December 2011. In other words, 38.5% of consumers with the right to be supplied at the last resort tariff were supplied by last resort suppliers.

According to Royal Decree 104/2010, dated February 5<sup>th</sup>, customers without any energy supply contract and not eligible to be supplied at TUR, are allowed to be supplied by last resort suppliers at a regulated tariff (TUR) during one month.

#### **4.4 Security of supply**

##### **(Article 5) (if and to the extent that the NRA is the competent authority)**

CNE is not the competent authority to monitor security of supply. Nevertheless, CNE participates in planning procedure of network investment by means Gas Planning Procedure, which is responsibility of the Government and counts with the participation of the Autonomous Communities, the Technical System Operator, transmission and distribution system operators and other actors, as well as CNE.

Additionally, CNE releases each year a “framework report on coverage of demand in the

electricity and gas sectors” which aims at assessing the coverage of the demand at short-medium term taking into account not only the existing infrastructures but also the infrastructures under development ones.

#### 4.4.1 Monitoring balance of supply and demand

##### Evolution of gas demand

Total demand for natural gas was 374.942 GWh, 7% lower than 2010 mainly due to the decrease of demand for electricity generation.

The conventional demand for natural gas fell by 0.8% in 2011, remaining at similar level to the previous year.

There has been a reduction of 19% in the use of gas in electricity generation mainly due to the enter into force of the Royal Decree 134/2010 which promotes the consumption of indigenous coal in the electricity production, the increase in gas prices in the European markets and the decrease of the electricity demand.

The table below shows the evolution of gas demand in the Spanish market in 2011.

	2010 (GWh)	2011 (GWh)	Annual variation (%)
Demand of gas (except power generation)	265.083	264.414	-0,2%
Demand of gas for power generation	135.617	110.528	-18,5%
<b>Total demand in Spain</b>	<b>400.700</b>	<b>374.942</b>	<b>-6,4%</b>

Table 25. Gas demand in Spain. 2011 vs 2010.

Source: CNE

##### Procurement of gas supplies. Origin and mix of gas imports

The domestic production of Spanish fields is marginal and reaches only 1.742 GWh, 0,5% of Spanish gas demand in 2011. This production comes from three gas fields that are close to depletion and are thought to be used as underground storages in the future. The rest of the gas consumed in Spain is imported.

In 2011 Spain received natural gas from a total of 13 different countries. Also, the Spanish gas system added new supply sources, most notably shipments from the new liquefaction plant in Peru.

The figure below shows the mix of gas supplies to the Spanish system in 2011:

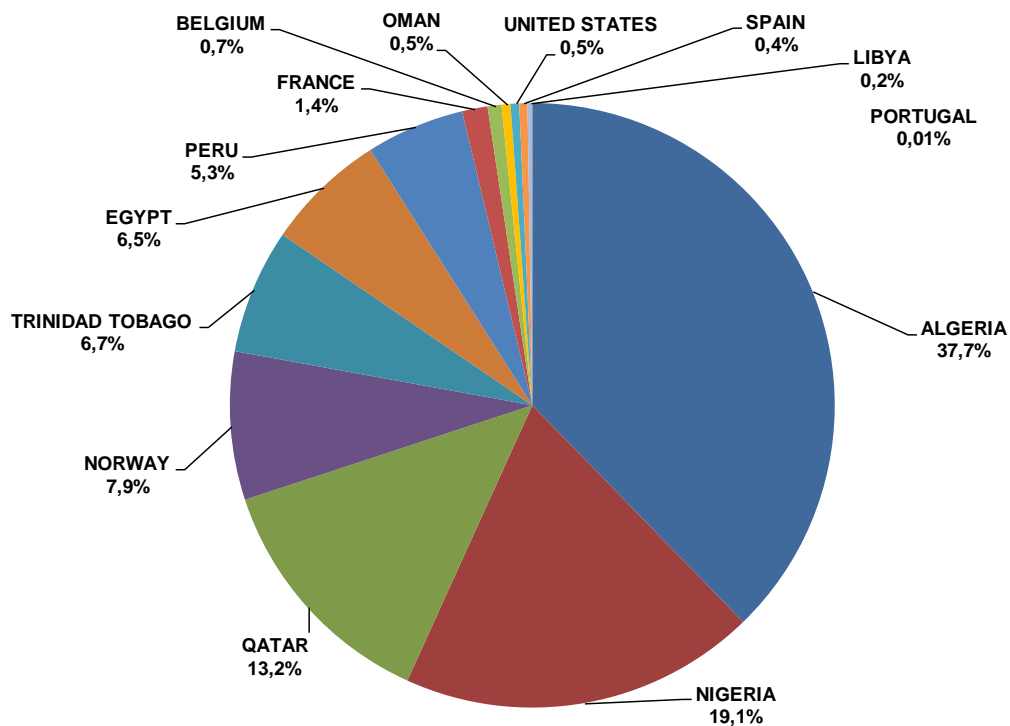


Figure 27. Sources of gas imported to Spain in 2011.

Source: CNE

This diversification in gas supplies contributes very significantly to security of supply in the Spanish system, representing a natural risk-hedging against a possible disruption of gas from a source, due to problems in infrastructure, geopolitical issues or any other reason.

Another relevant factor that influences positively security of gas supply in Spain is the importance of LNG in gas procurement:

	2010 (GWh)	2011 (GWh)	Annual variation (%)
Pipeline	101.052	135.861	34%
LNG	312.912	265.354	-15%
<b>Total</b>	<b>413.964</b>	<b>401.215</b>	<b>-3%</b>

Table 26. Gas imports in Spain 2011 vs 2010.  
Source: Enagas

The important increase in the imports through pipeline is due to the entry into operation of the new international interconnection which joins Spain with Algeria, MEDGAZ.

Another relevant factor that influences positively security of gas supply in Spain is the importance of LNG in gas procurement:

	2011 (GWh)	% of imported gas
Pipeline	135.861	34%
LNG	265.354	66%
<b>Total</b>	<b>401.215</b>	<b>100%</b>

Table 27. Gas imports in Spain 2011.  
Source: Enagas

LNG high presence provides the Spanish system with a high level of flexibility, favouring the access to new upstream gas sources and enabling gas suppliers to benefit from low-price situations by arbitrating and interacting with other markets. Moreover, the geographic situation of Spain, with access to both Atlantic and Mediterranean basins, enlarges the scope of available LNG sources, allowing gas suppliers to import gas from virtually any LNG producing country. Finally, LNG also serves as a competition driver, enabling newcomers to access the wholesale market and introduce gas in the Spanish network via spot contracts. The high share of LNG in gas imports is a consequence of the remarkable development of LNG import capacity in Spain, as explained below.

#### 4.4.2 Expected future demand and available supplies as well as envisaged additional capacity

We expect a stabilization of the gas demand with regard to the actual value, with a slight increase of conventional demand. The annual demand of gas for power generation is difficult to forecast, as it can be affected by several annual circumstances: coal *versus* gas prices, generation with hydro power (depending on the level of reserves of water for hydroelectric power) and the amount of electricity produced by the rest of the renewable sources.

CNE's demand forecast for the period 2011-2015 in Spain is detailed in the following table:

Gas Demand (TWh)	2011 (real)	2012	2013	2014	2015
Gas demand (except power generation)	264	271	277	282	287
Gas demand for power generation	110	115	120	120	120
<b>Total gas demand in Spain</b>	<b>375</b>	<b>386</b>	<b>397</b>	<b>402</b>	<b>407</b>

Table 28. Forecast of annual gas demand 2011-2015.

Source: Enagas. Efficiency Scenario

We expect a stabilization of the gas demand with regard to the actual value, with a slight increase of conventional demand, but with declining demand for electricity generation, largely because of increased renewable sources, mainly wind power.

##### Import capacity

Six LNG import terminals are operational in the Spanish gas system. A new LNG terminal in Gijón (Asturias) is under construction and it is expected to be finished in 2013 but, as it is established by Royal Decree-Law 13/2012, it will not come into operation due to the stagnation of demand and until an increase of demand justifies it.

Spain has international gas pipeline connections with Morocco, Portugal and France. A direct connection with Algeria (Medgaz).

While LNG terminals represent around 61 bcm/year of entry capacity to the transmission network, the connection from Algeria through Morocco represents 12 bcm/year (8 to Spain and 4 to Portugal) and the connection with France at Larrau, 3 bcm/year.



The new direct connection with Algeria (Medgaz pipeline) added 8 bcm/year of import capacity.

**a) Capacity of LNG import terminals**

In Spain there are six LNG regasification plants. All of them are subject to regulated TPA, allowing the access to new capacity by new entrants, which has favoured the development of gas competition in Spain. Capacity use rate is around 38% in average for these plants, varying from 28% (the minimum, at Cartagena), to 47% (maximum, at Bilbao).

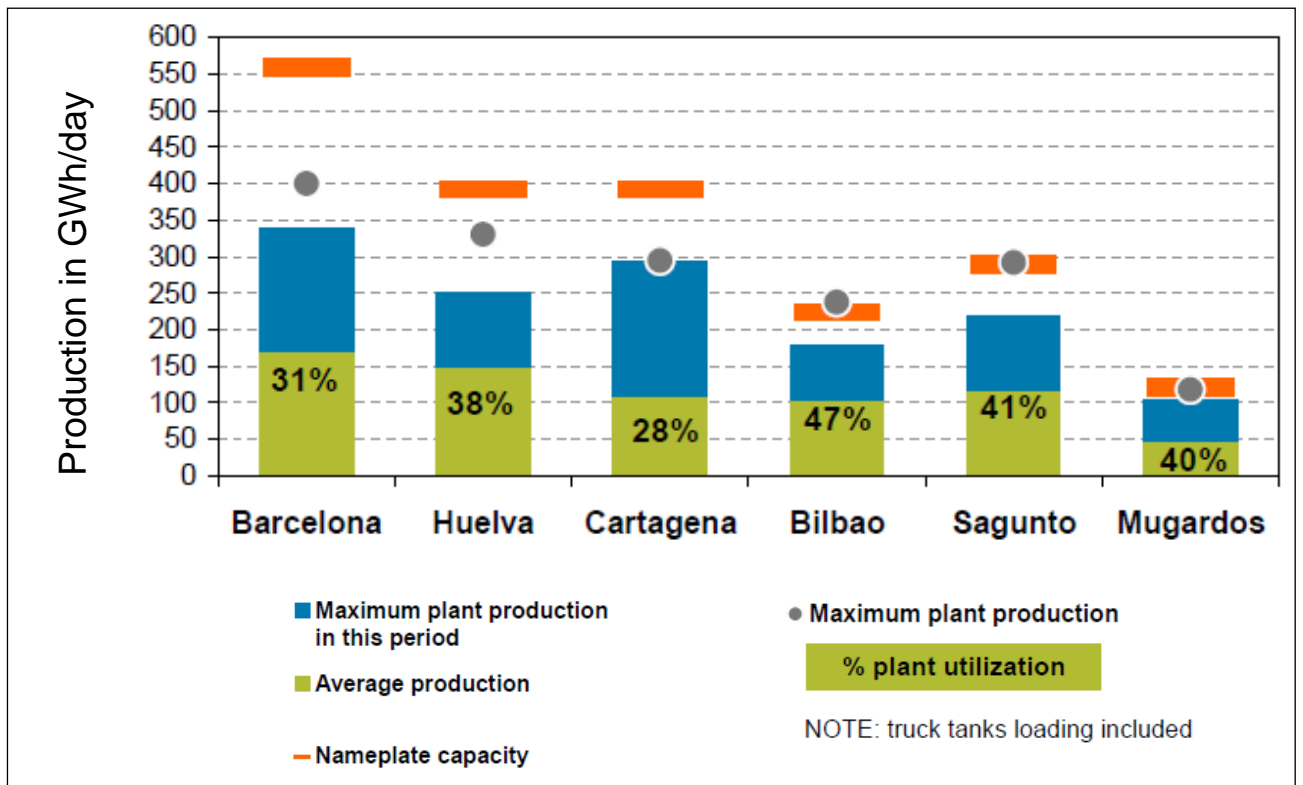


Figure 28. Use rate of LNG terminals in 2011.  
Source: Enagas

The following table shows the LNG storage and send-out capacity of each one of the six terminals:

LNG Terminal	LNG storage capacity (m <sup>3</sup> )	Send-out capacity (m <sup>3</sup> (n)/h)
Barcelona	840.000	1.950.000
Huelva	619.000	1.350.000
Cartagena	587.000	1.350.000
Bilbao	300.000	800.000
Sagunto	600.000	1.000.000
Mugardos	300.000	413.000
<b>TOTAL</b>	<b>3.246.000</b>	<b>6.863.000</b>

Table 29. Capacity of LNG terminals at Dec, 31 2011.

Source: ENAGAS

## b) Capacity of international pipeline interconnections

Spain has several international gas pipeline connections to other countries: to Algeria through Morocco (Tarifa), to Portugal through Tuy and Campo Maior (Badajoz), and to France through Larrau and Irún.

A new interconnection with Algeria, MEDGAZ, is operational since April of 2011. MEDGAZ is a strategic project for Algeria and Spain. It will allow natural gas to be supplied directly from Algeria, without requiring transit through third countries, and in addition it considerably enhance security of supply and diversification in the balance NG/LNG in the imports to the Iberian Peninsula. Its initial capacity is 8 bcm/year, and the pipeline will possibly be enlarged in the future in order to reach other European countries, becoming this way an entrance corridor of gas into Europe.

The current capacities of international interconnections are the following:

Pipeline connection	Capacity (GWh/day)
Larrau (FR->ES)	100
Irún (ES->FR)	5 (Winter) / 9 (Summer) <sup>33</sup>
Irún (FR->ES)	0 (Winter) / 10 (Summer)
Tarifa (MO->ES)	444
Almería (AL->ES)	266
Badajoz (ES->PT)	134
Badajoz (PT->ES)	35-70
Tuy (ES->PT)	30 (Winter) / 40 (Summer)
Tuy (PT->ES)	25

Table 30. Interconnection physical capacities at Dec, 31 2011.

Source: ENAGAS

### c) Booked and available capacity

At the end of 2011 there was available capacity in all LNG terminals. Mean booked TPA capacity at LNG terminals was 53% throughout the year. Available capacity ranges from a minimum mean value of 29% in Mugardos up to 64% in Cartagena.

In the pipeline interconnections, there was available capacity in both IPs with Portugal, except exports through Badajoz. In the interconnection through Tuy all capacity was available in the direction from Portugal to Spain throughout the year, and more than 50% remained free in the direction from Spain to Portugal. In the interconnection through Badajoz, some 72% average of technical capacity was free for booking during 2011 from Portugal to Spain, while no available capacity in the opposite direction, Spain to Portugal.

The situation was different in the connections with Morocco and France. In the Maghreb pipeline, importing gas from Algeria through Morocco, the capacity was booked in 71% throughout the year. In Medgaz pipeline, capacity book was 42%. There was low free capacity either at the connection with France through Larrau, with 94% of mean import capacity booked during 2011 and only 6% left. However the Irún-Biriatou connection was free for booking, though its capacity is much smaller.

The following table shows the situation at all these pipelines interconnections, in terms of average rates of booked and available capacity during the year:

<sup>33</sup> Minimum capacity value determined by the entry capacity on the French side.

Entry (or exit) point		Contracted capacity in 2011	Available capacity in 2011 (%)
Barcelona LNG terminal		46,0%	54,0%
Sagunto LNG terminal		55,0%	45,0%
Cartagena LNG terminal		36,0%	64,0%
Huelva LNG terminal		65,0%	35,0%
Mugardos LNG terminal		61,0%	39,0%
Bilbao LNG terminal		65,0%	35,0%
<i>TOTAL LNG TERMINALS</i>		57,4%	42,6%
Maghreb pipeline (import)		71,0%	29,0%
Medgaz (import)*		42,0%	58,0%
Larrau (import F=>E)		94,0%	6,0%
Irún-Biriatou	Import (F=>E)	53,0%	47,0%
	Export (E=>F)	54,0%	46,0%
Tuy	Import (P=>E)	0,0%	100,0%
	Export (E=>P)	42,0%	58,0%
Badajoz	Import (P=>E)	28,0%	72,0%
	Export (E=>P)	100,0%	0,0%
* Started imports in April 2011			

Table 31. Available physical average capacities in 2011. (LNG terminal and Interconnections).

Source: ENAGAS

### Gas infrastructure investments starting in operation in 2011

Regarding regasification plants, two new tanks entered into operation in 2011 in Barcelona and Sagunto with a capacity of 150.000 m<sup>3</sup> each one, which supposes an increase in the total capacity of LNG storage of 10%.

As it was mentioned above, the 5th of March 2011 started the imports from Algeria through the Medgaz pipeline. This new pipeline has a capacity of 8 bcm/year.

Other pipelines which have entered into operation in 2011:

- Algete-Yela pipeline which will enable the fill-up of the underground storage Yela.
- The compression station of Villar de Arnedo which makes wider the capacity of transport in the Ebro valley and connects the Haro-Zaragoza pipeline with the International Connection of Larrau and with underground storage Yela, through Yela-Villar de Arnedo pipeline

- The North path and South path of the duplication of Tivissa-Paterna pipeline which increases the capacity of transport in Levante axis.
- The compression station of Chinchilla which will contribute to transport gas from Medgaz pipeline.
- The compression station of Denia, design to reinforce the transport in the offshore pipeline of Baleares.

### Forthcoming investments for the next three years

In Spain, gas network investments are planned by means of a Gas Planning Procedure, which is responsibility of the Government and counts with the participation of the Autonomous Communities, the Technical System Operator, transmission and distribution system operators and other actors, as well as CNE.

The document deals, inter alia, with the following areas:

- Demand forecast for natural gas over the stipulated period (ten years).
- Forecast of the high pressure natural gas transportation network development and total LNG regasification capacity required to supply gas to the gas system, under a set of optimization criteria on a nation-wide basis.
- Definition of priority gasification areas, network expansion and execution stages, with the aim of assuring uniform development in the gas system.
- Forecasts relating to gas storage facilities and LNG terminals. It assures gas system stability and regular and continuous gas supplies.
- Environmental protection criteria are also established.

The Order ITC 2906/2010 and the Royal Decree-Law 13/2012 revised some infrastructure projects to adjust them to the changes in the gas demand projections, which are lower than expected. In particular, projects for new regasification plants and pipelines not deemed economically profitable for the system have been canceled, excluding international commitments and those primarily pipelines used for the local supply of natural gas.

**a) Investment in LNG import terminals (2012-2014)**

• **New LNG import terminal of Gijón (Asturias).**

A seven LNG terminal is actually in construction in Gijón, located in the north coast of Spain. The capacity of the installation will be 300.000 cubic metres between two storage tanks and a docking terminal will handle LNG tankers with capacities of 250.000 cubic metres. The regasification send-out capacity of the first-phase terminal will be 800.000 cubic metres an hour. It is expected to be finished in 2013 but, as said before it will not come into operation due to the stagnation of demand and until an increase of demand justifies it.

Other expansions of capacity for the Spanish LNG terminals are shown in the table. The table includes only those infrastructures whose construction is foreseen to be finished in the period 2012-2014.

Investments in LNG import terminals 2012-2014			
Transmission System Operator	New infrastructures	Current state	Foreseen date
<b>ENAGAS</b>	<b>Gijón (Asturias) New LNG terminal</b> Two storage tanks; send out capacity 800.000 m <sup>3</sup> /h	Under construction	2013
<b>SAGGAS</b>	<b>Sagunto LNG terminal</b>		
	Increase in emission capacity up to 1.200.000 Nm <sup>3</sup> /h	Planned*	2014
<b>BBG</b>	<b>Bilbao LNG terminal</b>		
	Increase in emission capacity up to 1.200.000 Nm <sup>3</sup> /h	Planned	2015
	3 <sup>rd</sup> storage LNG tank	Planned	2014

\* Subject to an increment of demand above expected

Table 32. Planned LNG infrastructures for 2011-2015.

**b) Investment in Pipeline international interconnections**

**• Spain – France interconnections**

As a result of the Open Season procedures explained before:

- The capacity at Larrau interconnection will be increased up to 5,5 bcm/year as of March 2013 in both sides.
- The capacity at Irun/Biriou interconnection will increase in 2 bcm/year in Spain-France direction, reaching 7,5 bcm/year as of 2015.

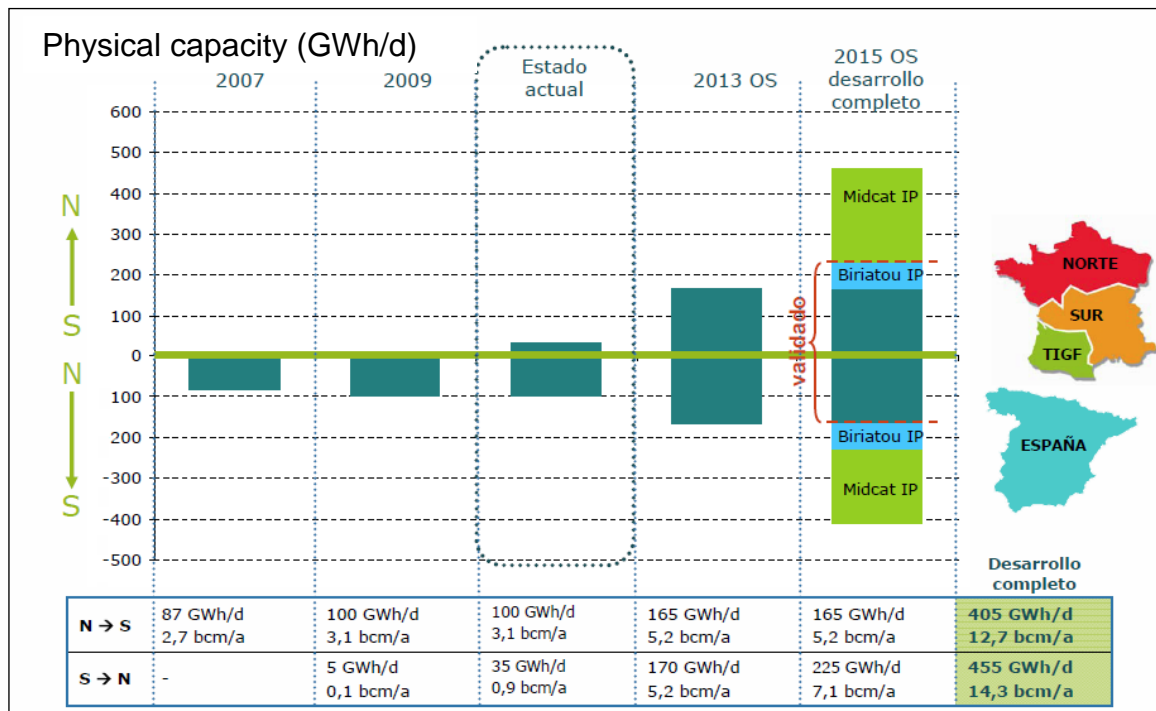


Figure 29. Interconnection capacity between Spain and France.

Source: Enagas

**c) Investment in Transmission network**

As it has been said above, the Order ITC 2906/2010 and the Royal Decree-Law 13/2012 revised some infrastructure projects to adjust them to the changes in the gas demand projections, which are lower than expected. In particular, pipelines not deemed

economically profitable for the system, excluding international commitments and those primarily pipelines used for the local supply of natural gas, have been canceled until an increase of demand.

This does not affect to interconnections capacity projects between Spain and France, detailed before.

#### d) Underground storage

In Spain, underground storage capacity is small – only 6% of demand in 2011 – and has historically been a scarce resource with limited withdrawal capacity. That is why the available capacity is subject to a specific allocation mechanism: a first amount of underground storage capacity is allocated to those users obliged to keep strategic and operational gas reserves proportionally to the gas sales in the previous year; the remaining capacity is allocated through an auction.

ENAGAS manages the two existing underground storage facilities in Spain: Serrablo and Gaviota, both old natural gas fields which are now depleted.

The Serrablo gas field is located between in the province of Huesca, near the Pyrenees. Gaviota is an off-shore facility located near Bermeo (Vizcaya).

The new underground storage of Marismas entered in operation in 2012, and two more (Castor and Yela) are under construction.

Underground Storage	Gas storage capacity Mm <sup>3</sup> (n)		Maximum Intake/Offtake Mm <sup>3</sup> (n)/day	
	Available capacity	Cushion gas	Intake	Offtake
Serrablo	820	280	3,8	6,8
Gaviota	1.346	1.135	4,5	5,7
<b>TOTAL</b>	<b>2.120</b>	<b>1.659</b>	<b>8,4</b>	<b>12,5</b>

Table 33. Capacity of underground storages Serrablo and Gaviota.

Source: Enagas

It is interesting to compare this capacity with the storage potential of the other facilities that allow for the storage of natural gas: LNG tanks and the marginal storage capacity of the transmission network (linepack):



	Maximum storage capacity (GWh)
Underground storage	24.656
Tanks in LNG terminals	46.693
Linepack	1.000
<b>TOTAL</b>	<b>72.348</b>

Table 34. Storage capacity in Spain: underground storages, LNG tanks and pipelines

Source: Enagas

### Investment in Underground Storage projects

Nowadays there are three new underground storage projects under construction: Yela, Castor and Marismas, which are expected to come into operation in the next three years.

The sites of Yela and Castor are expected to come into operation in 2012-2013. The entry of both projects will increase underground storage capacity around 14% of demand in 2013.

Underground storage projects 2011-2014			
Company	Underground Storage Project	Available capacity	Foreseen date
<b>ENAGAS</b>	Yela	1.050 million m <sup>3</sup>	2013
<b>ESCAL</b>	Castor	1.550 million m <sup>3</sup>	2013
<b>PETROLEUM</b>	Marismas	600 million m <sup>3</sup>	2012
<b>Total</b>		<b>3.200 million m<sup>3</sup></b>	

Table 35. Underground Projects 2011-2014.

- **Yela underground storage project**

The Yela Underground Storage Facility, will have an operating capacity of 1.050 million m<sup>3</sup> and a maximum flow rate of 15 million m<sup>3</sup>/day.

Yela Underground Storage Facility is located at Guadalajara, in the central area of Spain. The installation will be connected to Enagás' basic network via three gas pipelines.

Work is currently under way to drill the 11 wells needed to develop the storage facility.

- **Castor underground storage project**

The Castor project consists of the conversion of a depleted oil field (the Amposta field) into an underground gas storage. The Amposta field lies at a depth of 1 800 m approximately 22 km off the East coast of Spain in the Mediterranean Sea.

The project involves two offshore platforms for 13 wells and processing facilities, the drilling and completion of 13 new wells, an onshore compression and processing plant located in the municipality of Vinaroz (Castellón), and an adjoining 30" pipeline 30 km long.

Total Storage Capacity Castor is 1.550 million m<sup>3</sup> of natural gas (1.9 bcm).

Escal UGS is the company responsible for developing the Castor Project.

- **Marismas underground storage project**

It will be located in the province of Huelva, namely under the Doñana region and draw natural gas deposits located between Almonte and Hinojos.

The earth's field of marshes in Huelva, including concessions marismas A, B1, C1, C2 and Rebufena, all belonging to 100% Petroleum Oil & Gas Spain (Gas Natural subsidiary).

This storage will be medium in terms of capacity (600 million m<sup>3</sup>).

#### **4.4.3 Measures to cover peak demand or shortfalls of suppliers**

In Spain, all natural gas undertakings should maintain a minimum level of strategic gas storage equivalent to 20 days of their final sales in the Spanish market. This is the main measure for security of supply, in order to cover hypothetical events of big shortfalls at international production or interconnections facilities.

Peak demand can be easily supplied through an increase in the production of the 6 regasification plants, as they have an excess of regasification capacity.