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1. Foreword

The past year has been both busy and challenging for CNMC. The new integrated institution celebrated its first anniversary and gradually improves its functioning to better perform its duties and deliver more benefits to consumers. Important regulatory developments have also taken place in both electricity and gas markets.

After the approval of the Electricity Act 24/2013 at the end of 2013, the Spanish electricity market had to move forward in a new regulatory context.

A new regulatory scheme for electricity generation based on RES was put in place to ensure the system sustainability. From now on, renewables, cogeneration and waste participate in the market like any other technology, and complementary revenue has to be granted to compensate for their higher costs and ensure an appropriate rate of return. Renewables keep priority access and priority dispatch and they remain responsible for their imbalances.

CNMC has also sought to increase and ease consumer engagement with the energy market through a deep reform of retail markets. The so-called “voluntary price for small consumers”, which is available for electricity customers below 10 kW, will allow consumers with smart meters to adapt their behavior and to be billed according to hourly spot market prices. The first bills of this kind will be issued in October 2015.

Additionally, this institution has maintained a firm commitment with Europe. Day-ahead market coupling, which began in North-West Europe in February 2014, is an important step towards an integrated European energy market. The launch of coordinated FTRs in the Portuguese-Spanish interconnection and the successful launch of market coupling in May 2014 (between MIBEL and North-West Europe through the Spanish-French interconnection) is bringing together prices in different markets and facilitating a more efficient use of cross-border capacity.

However, a prerequisite to have a real energy price convergence in Europe is the development of cross-border infrastructures, to make the internal energy market work properly and to link the remaining energy islands to the main electricity and gas network.

At a meeting in Madrid on 4 March 2015, the Commission President, the Commissioner for Climate Action and Energy, the President of France, the Prime Ministers of Spain and Portugal and the President of the European Investment Bank met to discuss how to better connect the Iberian Peninsula to the rest of the EU energy market. Following this important meeting and the Madrid Declaration, a “High Level Group for South-West Europe” has been recently set up to identify and carry out key energy infrastructure projects in the region.

In parallel, on 20 February 2015, the Santa Llogaia – Baixàs power line, which doubles the interconnection capacity between France and Spain, was commissioned. The
project has received the EU support under the European Energy Programme for Recovery. Furthermore, in the context of the first call for proposals under the Connecting Europe Facility, the Commission has also financially supported some studies for the Biscay Bay project of common interest, a planned sub-sea cable connecting France and Spain.

All these important milestones in the right direction confirm the statement that a truly integrated and competitive internal energy market not only needs a common regulatory framework but also significant development of energy transmission infrastructure, in particular cross-border interconnections between Member States. In this regard, I really welcome the EC Interconnection Communication, setting out the measures needed to effectively achieve the target of 10% electricity interconnection by 2020.

Transparency is a growing area too. The new regulation on wholesale energy market integrity and transparency, REMIT, helps to create transparency across Europe while stamping out market manipulation. The Act 3/2013 of creation of CNMC gave us new powers to monitor, investigate and act against anyone who abuses – or attempts to abuse – in the energy market.

Concerning the gas market, important regulatory developments have also taken place during this period. In 2014, the Royal Decree-Law 8/2014 and the Law 18/2014 carried out an important reform of the economic system for regulated activities in the gas sector (LNG, storage, transport and distribution) aiming to ensure the economic sustainability of the gas market. Later on, the Hydrocarbons Act was amended by the Act 8/2015. It sets up an organized natural gas market that facilitates the entry of new marketers and fosters competition. It also appoints a new single operator of the organized gas market which will manage the gas hub.

Therefore, international cooperation and the regional integration of electricity and natural gas markets, namely in the Iberian Peninsula, are priorities in the governance of both sectors and in the actions undertaken during the year, aimed at ensuring better conditions for producers/operators and consumers. The coming year will be just as challenging as the previous one, but I am confident that our regulatory actions, in cooperation with our European counterparts, will let us deliver significant benefits to energy consumers throughout Spain and Europe.

Jose Maria Marin-Quemada
President
2. Main developments in the gas and electricity markets

2.1. Main developments in the electricity markets

After the major changes implemented in 2013, including the publication of Act 24/2013 of the Power Sector, the year 2014 has witnessed less developments in the electricity sector.

As regards network tariffs, CNMC published the methodology for transmission and distribution tariffs in July 2014¹ pursuant to Act 24/2013 of the Power Sector. However, Act 32/2014, of 22 December, on Metrology, modifies Act 24/2013 setting forth that the legal authority to establish the structure and conditions applicable to the access tariffs for transmission and distribution networks corresponds to the Government. In practice, this means that the CNMC methodology passed in July 2014 is not in force currently.

Significant progress was achieved in 2014 with regard to cross border trade: namely, the launch of coordinated FTRs in the Portuguese-Spanish interconnection and the successful launch of market coupling in May 2014, between MIBEL and North-West Europe, through the French-Spanish interconnection. Furthermore, cross border balancing exchanges between Portugal and Spain, and between Spain and France under the BALIT platform were launched in June 2014.

As regards renewables, the Royal Decree 413/2014 of 6 June regulates the new remunerative scheme for electricity generation based on RES, cogeneration and waste: the complementary revenue’s main driver is capacity installed.

In the wholesale market venues, there are not significant changes as regards prices, volumes and competition indicators. The aggregated volumes negotiated in long term markets (OMIP, OTC non-registered and BME Clearing) have decreased. The CESUR auctions that were used to establish former last resort tariffs (based on ex ante quarterly auctions) are no longer used. Besides the regular wholesale market supervision, CNMC is also making the necessary preparations for the implementation of REMIT.

As regards the retail market, in 2014 the new “voluntary price for small consumers” system was launched. This supply model is available for electricity customers below 10 kW. The price to be applied includes the energy cost (price resulting in the spot market and ancillary services during the period), the applicable access tariffs and other charges such as the margin of the reference supplier. Customers equipped with smart meters can be billed based on their hourly consumption and hourly spot market prices. The first bills of this kind will be issued on October 2015. Switching rate in the electricity retail market has decreased slightly compared to 2013 levels (but stays above 12%).

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¹ Circular 3/2014, of 2nd July, of CNMC establishing the methodology for electricity transmission and distribution tariffs.
As mentioned in the previous year National Report, a number of measures have been taken by the Government to reduce the tariff deficit. There are no longer tariff deficit credit rights in the utilities' balance sheets.

Finally, as regards security of supply, the levels of generation available and demand remained stable in 2014. In the short and medium term, the expectation is that enough generation will be available to cover demand.

### 2.2. Main developments in the gas markets

In 2014, the Spanish gas demand fell an 8.28 %, to 301.709 GWh. Since 2008, the gas demand has felt a 33%, mainly for the decrease in gas consumption for electricity generation. In 2014, the decrease in gas demand is similar in all sectors: the decrease in electricity generation (-9%) was driven by the increase in coal and renewable energies, in particular an increase of hydroelectric production; the industrial consumption of gas decreased an 8%, mainly as a result of a reduction of the incentives for the cogeneration plants. Finally, the household consumption also felt a 7% in 2014, as a result of the warm weather, regardless of the increase of 100,000 new gas consumers in 2014.

Gas import prices remain stable in most part of 2014. A majority of long term contract are oil-indexed, but the lowering oil prices took place from the second half of 2014 and gas prices track oil with a lag of several months, so their effects are further observable in 2015. It is worth mentioning the significant increase in LNG re-exports, with 70 operations performed accumulated a total of 60,200 GWh, which was a new record. The Asian Spot LNG price also declined at the end of 2014, thus making Spanish LNG re-exports less attractive. At retail market, household prices also remain stable in 2014, and the switching rate decreased slightly, but stays above 10%.

Regarding the regulatory aspects, the main developments in the Spanish gas markets in 2014 was the periodic revision of the economic system for the regulated activities, and the implementation of European network codes. In addition, Spain has finished the process of TSO certification. As a highlight of regulatory aspects in 2015, it should be mentioning the Law 8/2015 that establish the creation of a gas exchange.

- **Revision of the economic system for the regulated activities (LNG, storage, transport and distribution)**

The Ministerial Order IET/2446/2013 established the rates, tolls and fees for third-party access to gas installations applicable in 2014, introducing a general increase of around 2%.

In July 2014, the Government approved the Royal Decree-Law 8/2014, and in October 2014, the Parliament approved the Law 18/2014, both including a reform of the economic system for the regulated activities in the gas sector: LNG, storage, transport and distribution.
The reform introduces principles of economic sustainability in the actions of the government, TSOs and DSOs, establishing mechanisms for removal of accumulated deficit (estimated at 1,000 million€ in December 2014) through a 15 years’ payment, and establishing transparent conditions to determine the necessary increases in TPA tariffs in case of occurrence of future deficit. It also modifies the remuneration system, establishing regulatory periods of six years, with conditions of stability in the methodology and the parameters applicable.

The estimated savings of the new model are 238 M€ per year (110€ in distribution activity, 97 M€ in transport, 23 in LNG terminals and 8 M€ in UGS), thus solving the majority of the current deficit of the TPA gas tariffs.

The Law also creates the Energy Efficiency National Found, according to the article 20 of Directive 2012/27/UE of Energy Efficiency. Energy companies (oil, gas and electricity) have to contribute to this Found to fulfil the energy efficiency obligation schemes set out in Article 7 of the Directive.

In October 2014, the Government approved the Royal Decree-Law 13/2014, adopting measures to guarantee the safety in relation to the Castor underground gas storage facility. The Castor underground facility, located 21km off the Castellón coast, was affected, in September 2013 by a series of more than 100 small earthquakes, following the injection of the cushion gas. The Royal Decree-Law ruled approved the hibernation of the facilities. Further, Enagás Transporte SAU has been appointed to manage the maintenance of the facility during the hibernation period. ESCAL UGS received from ENAGAS TRANSPORTE a compensation for the net recognized value of the facility. To finance the compensation, the gas system issued credit rights (30 year’s maturity) to ENAGAS TRANSPORTE, that were securitised to several banks, and that can be further assigned to third parties. The credit right’s holders will receive an annuity from the gas system’s settlements, starting in 2016, to recover principal and interests (fixed interest rate set at 4,267%). The annuity will be received in 12 monthly payments on the 25th each month, with priority of payment from the rest of the gas system’s cost.

- **Implementation of European Gas Network codes**

CNMC approved the Circular 1/2014, dated 12th February, establishing capacity allocation mechanisms (CAM) to be applied at international connections by pipeline with Europe.

In 2014, in the context of the early implementation of the CAM NC, auctions in the South Gas Regional Initiative (including France, Spain and Portugal) have allocated capacity for the first time at all interconnections between entry-exit systems in the whole region, via VIPs between Portugal, Spain and France. Capacity at these VIPs was allocated via PRISMA in 2014.

According to the roadmap, different auctions for the different time horizons products were gradually introduced since March 2014, in decreasing order until getting day-ahead and daily products in 2015.
During 2014, the South Gas Regional Initiative worked on a coordinate implementation of CMP procedures among regional TSOs (Enagas, REN, TIGF and GRTgas) and NRAs (CNMC, ERSE and CRE), including the discussion of the over-subscription and buy-back procedures, to be approved by the regulators in 2015.

- **TSO certification**

Spain has already finished the certification process of TSO unbundling. The certifications have been issued and duly notified to the European Commission by CNMC.

- Enagas Transporte S.A.U., the main TSO in Spain, with more than 90% of the Spanish transport pipelines, has been certified under the ownership unbundling model (OU).

- Enagas Transporte S.A.U. has also been certified under Independent System Operator (ISO) model for primary gas transport trunk networks owned by SAGGAS and by Enagas Transporte del Norte.

- Finally, Reganosa was certified by CNMC in February 2014 under ownership unbundling model (OU). The CNMC resolution limits the voting rights and the appointment of members to the supervisory board of Reganosa by two shareholders from vertically integrated undertakings (Gasifica and Sonatrach).

- **Road map to the creation of a gas exchange**

The Law 8/2015, amending Law 34/1998 on the hydrocarbons sector, establishes the implementation of an organized gas market, and nominates MIBGAS as the independent market operator. The gas exchange will consist of transactions purchase and sale of natural gas in the virtual point of balance of the gas system, with physical products with a horizon of delivery to the last day of the following month. According to the road map established on the Law, the gas exchange has to be operational on September 23, 2015:

- Constitution of the market operator: Within 2 months (before July 23, 2015), OMEL will promote the adaptation of the corporation MIBGAS shareholding requirements set out in Law 8/2015.
- Date of start: The market shall be operating within a period of four months from the entry into force of the Act (expires on September 23, 2015). This requires that before that date, the Government approved the market rules.
- The gas exchange will function as trading platform, as defined in the European network code on the balance of gas transport networks.
- Market surveillance. CNMC shall publish annually a report in which the level of market liquidity is analysed. The report will recommend steps to foster the liquidity, including the possibility to introduce market makers.
3. The electricity market

3.1. Network regulation

3.1.1. Unbundling

TSO certification

Law 3/2013 sets forth that CNMC will be in charge of the certification procedure as foreseen by the Directives. In Spain, there is a single TSO for electricity: Red Electrica de España (REE).

On 4th November 2011, REE submitted a notification requesting to be certified. The Spanish NRA dealt with the certification procedure and submitted a preliminary decision to the EC on 28th March 2012 proposing the certification of REE as an Ownership Unbundled TSO. REE was certified on 19th July 2012. Following the certification of the Spanish TSO, CNMC monitors the compliance with the certification requirements.

Article 11 of Directive 2009/72/EC (certification with regard to third countries and the corresponding implications on security of supply) is not applicable since REE is not controlled by persons from a third country.

The current legislative framework set forth in the Act 24/2013 of the Power Sector represents the consolidation of the single TSO model in the Spanish System.

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.

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 CNMV:
<table>
<thead>
<tr>
<th>Significant shareholders</th>
<th>% Direct shareholding</th>
<th>% Indirect Shareholding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociedad Estatal de Participaciones Industriales (SEPI)</td>
<td>20,00</td>
<td></td>
</tr>
<tr>
<td>BANK OF AMERICA CORPORATION</td>
<td>3,143</td>
<td></td>
</tr>
<tr>
<td>HSBC HOLDINGS, PLC</td>
<td>3,239</td>
<td></td>
</tr>
</tbody>
</table>

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

In 2014, CNMC issued a monitoring report in order to assess the compliance with the conditions of the certification of REE as OU TSO.

**DSO unbundling**


Most of the unbundling requirements were introduced in the Spanish legislation in 2010. DSOs are permitted to belong to a group that undertakes other activities including: power generation, electricity recharging services (for electric vehicles) and selling electricity provided that a separate company performs the regulated activities (the so-called 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.

Between 2010 and 2014, vertically-integrated companies have implemented their compliance programs (code of conduct for unbundling activities) and submitted required reports on the unbundling measures to the Spanish NRA and to the Ministry. The Spanish NRA has been monitoring these unbundling measures since 2008. Among the measures adopted and explained in the aforementioned reports, the following are worthy to note:

- Measures related to the reorganization of the legal companies that take 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 staff, and of those persons in charge of the management of the regulated activities;

- Revision of the remuneration and contracts of staff in charge of the management of regulated activities;
- Obligation for staff 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, it has been set up:
  
  o The revision of procedures of access to that information,
  o The introduction of confidentiality clauses in contracts signed with third parties,
  o The designation of persons in charge of the custody of information,
  o The establishment of disciplinary measures for any breach of the code on separation of activities.

The requirements to separate identity of the supply branch of the vertically integrated undertaking, with a view to avoid confusion in their communication and branding, was transposed by Royal Decree-Law 13/2012. No DSO has rebranded in Spain and they all have had separate names to the suppliers of the corresponding group already since legal unbundling came into force. DSOs generally use the same name of the group but adding “distribution” as a reference to the activity of the unbundled company. CNMC is now monitoring due compliance by companies of their rebranding obligations, analysing relevant information regarding this issue sent by them. As a result of this analysis, CNMC may request companies to rebrand, in case it concludes those obligations are not being fully fulfilled.

Law 3/2013 has introduced an explicit and clear function for CNMC consisting of monitoring the functional unbundling among the activities of generation, transmission, distribution and supply in the electricity sector.

CNMC is preparing a report on the supervision of DSOs unbundling, in execution of the aforementioned function. Hence, CNMC is monitoring the implementation of unbundling measures, including those foreseen in the Royal Decree-Law 13/2012:

- The appointment of the compliance officer of the Distribution System Operator;
- Those measures taken to ensure vertically integrated distribution system operators shall not, in their communication and branding, create confusion in respect of the separate identity of the supply branch of the vertically integrated undertaking and;
- Those measures taken to ensure that staff responsible for the management of distribution system operator does not participate in the company structures of the integrated electricity undertaking which is responsible for the day-to-day operation of transmission of electricity.

3.1.2 Technical functioning

Balancing services

Setting the methodology for the provision of balancing services has been entitled to CNMC by Law 3/2013. 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 (including renewable generators) that are imbalanced have to cover the costs incurred to balance the system on the basis of a dual imbalance charge.

**SYSTEM ADJUSTMENT SERVICES IN THE SPANISH PENINSULAR ELECTRICAL SYSTEM (GWh)**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>∆ % 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply guarantee constraints ²</td>
<td>4.085</td>
<td>3.260</td>
<td>-20,2</td>
</tr>
<tr>
<td>Technical constraints ³</td>
<td>7.240</td>
<td>9.571</td>
<td>32,2</td>
</tr>
<tr>
<td>Additional Upward Power Reserve ⁴ (GW)</td>
<td>3.010</td>
<td>4.279</td>
<td>42,2</td>
</tr>
<tr>
<td>Secondary reserve availability ⁵ (MW)</td>
<td>691</td>
<td>677</td>
<td>-2,1</td>
</tr>
<tr>
<td>Secondary reserve usage</td>
<td>1.806</td>
<td>1.746</td>
<td>-3,3</td>
</tr>
<tr>
<td>Tertiary reserve</td>
<td>3.330</td>
<td>3.066</td>
<td>-7,9</td>
</tr>
<tr>
<td>Deviation management service</td>
<td>2.347</td>
<td>1.865</td>
<td>-20,5</td>
</tr>
<tr>
<td>Real time constraints ⁶</td>
<td>558</td>
<td>556</td>
<td>-0,5</td>
</tr>
</tbody>
</table>

Table 2. System Adjustment Services in the Spanish Peninsular Electrical System (years 2013-2014)

Source: REE

² RD 134/2010 modified by RD 1221/2010
³ Technical constraints PBF (P.O.3.2.)
⁴ Total annual reserve (GW)
⁵ Average hourly capacity availability (MW)
⁶ Includes bond energy redispatches Peninsular Electrical System-Balearic Electrical System
Network security and reliability rules

CNMC 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.)

Law 3/2013 entitled CNMC to monitor the compliance with network security and reliability rules. As for transmission service quality index, 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 load in the system) and grid availability index (ID). The following table shows last available data regarding TIM and ENS, both for the Spanish Peninsula and for Canary and Balearic Islands.

<table>
<thead>
<tr>
<th>Year</th>
<th>Peninsula ENS (MWh)</th>
<th>Peninsula TIM (minutes)</th>
<th>Balearic Islands ENS (MWh)</th>
<th>Balearic Islands TIM (minutes)</th>
<th>Canary Islands ENS (MWh)</th>
<th>Canary Islands TIM (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>574</td>
<td>1.043</td>
<td>7</td>
<td>0.64</td>
<td>58.94</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>437</td>
<td>1.679</td>
<td>39</td>
<td>0.91</td>
<td>96.89</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>1.571</td>
<td>4.090</td>
<td>9</td>
<td>3.17</td>
<td>241.68</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>280</td>
<td>17</td>
<td>39</td>
<td>0.58</td>
<td>3.54</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>133</td>
<td>10</td>
<td>7</td>
<td>0.28</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>1.156</td>
<td>3</td>
<td>81</td>
<td>2.47</td>
<td>0.18</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. ENS (energy not supplied) and TIM (average interruption time in minutes).

Source: REE

The following figures show the evolution of TIM and ENS since 1993 in the Spanish Peninsula.

Figure 1. ENS (energy not supplied) due to events in the transmission network until 2013 (MWh).

Source: REE
Regarding grid availability index (ID), the value for the Spanish Peninsula was 98.13% in 2013. In the Canary and Balearic Islands ID was 98.32% and 97.97%, respectively.

Act 24/2013 of the Power Sector (article 14) lays down the foundations for the remuneration system for various activities aimed at the supply of electricity. It establishes that the remuneration for the activities will be set by regulations based on objective, transparent and non-discriminatory criteria that provide incentives to increase the efficiency of the management, the economic and technical efficiency of the activities and the quality of the electricity supply.

In this sense, one of the objectives of Royal Decree 1048/2013 is to establish: the methodology for determining the amount of remuneration to be paid to companies engaged in electricity distribution activities in order to guarantee the suitable provision of the service, while providing incentives to improve the quality of supply and to reduce losses on the distribution grids with uniform standards throughout the country and at a minimum cost for the system. Article 6 of RD 1048/2013 establishes that CNMC shall elaborate an annual report including quality indexes of all distribution companies.

CNMC 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).
Monitoring time taken to connect and repair

This monitoring duty has been assigned to CNMC by Law 3/2013. In the past, the Spanish NRA performed this monitoring on the basis of a previous mandate contained in the former Power Act.

As regards the “time to connect”, this is regulated by Royal Decree 1955/2000 (article 103). This time varies depending on voltage level (low or high) and on possible network extension needs in order to accomplish the connection. The shortest deadline is five days for low voltage supplies that do not need network extension. Furthermore, in the case of consumers that have been previously disconnected due to fraud or non-payment, reconnection should be effective the day after the payment of the amount due.

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

In relation to 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 by independent firms which certify the adequacy of the information reported with respect to the collection in the databases of the TSO or sent by companies with transmission assets.

Monitoring safeguard measures

The legal provisions set up by Law 3/2013 reinforced the competences of the Government in this regard and entitled CNMC to ensure the compliance of duties by owners and managers of the transmission network.

Throughout 2014, no safeguard measures were taken.

Renewable energies regulatory framework

The Electricity Law (24/2013) abolished the distinction between Special and Ordinary Regimes. Therefore these concepts disappear from the Spanish regulation. Renewables, cogeneration and waste participate in the market like any other technology, and complementary revenue will be granted in order to compensate for their higher costs. This complementary revenue is computed in a way that would allow for an appropriate rate of return in a so-called ‘reference facility’, taken as an epitome for each type of plant, taking into account technology and commissioning date and, in some cases, location, fuel, storage capability, etc. According to the Electricity Law, renewables keep priority access and priority dispatch (all market conditions being equal and subject to technical requirements for the safe operation of the system). Furthermore, renewables remain responsible for their imbalances.
The Royal Decree 413/2014 of 6 June regulates the new remunerative scheme for electricity generation based on RES, cogeneration and waste: the complementary revenue’s main driver is capacity installed. The ‘investment remuneration term’ (Rinv) is therefore defined in (€/MW) and is aimed at providing for the part of capital expenditure (CapEx) deemed not recoverable via income from energy sale at market prices. For those technologies where market price is deemed also insufficient so as to cover regular operational expenditure (OpEx), an ‘operation remuneration term’ (Ro) defined in (€/MWh) is also provided. Plants located in non-peninsular territories, where conventional production costs are substantially higher than in mainland Spain, are eligible for an additional ‘investment incentive term’ (Iinv), again in (€/MW), proportional to expected savings with regard to present average production costs in that particular territory.

‘Full (and half) regulatory periods’ are defined to last six and three years, respectively. Only regulatory lifetime (in years) and standard investment rate (in €/MW) are established once and for all for each ‘reference facility’. Adjustments linked to the evolution of power market prices departing from their expected average values are fine-tuned every three years (in the case of cogeneration and waste, assumed fuel prices reviewed at least once a year). The rest of parameters — included the above mentioned remunerative terms and the estimated rate-of-return, which is linked to the 10-year sovereign bond plus 300 basis points — are subject to revision every full regulatory period (i.e. every six years).

The Ministerial Order IET/1045/2014 of 16 June establishes the remunerative parameters for the more than 1.300 ‘reference facilities’ the order itself defines. This disposition, combined with the Royal Decree 413/2014 and the Royal Decree-law 9/2013, has economic effects since July 2013.

### 3.1.3 Network tariffs for connection and access

The Spanish Electric Power Act, the Law 24/2013, dated December 26th, modifies the access tariff system, previously determined by the former Power Act 54/1997. In line with the provisions of Directive 2009/72/EC, the new framework establishes a differentiation between network tariffs, aimed at recovering transmission and distribution costs, and those charges recovering the rest of regulated costs, such as subsidies to renewables and cogeneration.

According to Law 24/2013, article 16 defines that the CNMC is responsible for elaborating the methodology for the calculation of transmission and distribution network tariffs, in accordance with transparent, non-discriminatory and cost-reflective criteria and the Government will elaborate a methodology relating to the charges.

However, the above, fourth additional transitory provision of Law 24/2013 establishes that until the Spanish Government develops the methodology of charges, these will be paid by consumers through the access tariffs.

In July 2014, CNMC approved the methodology for electricity transmission and distribution network tariffs. This methodology is based on the efficient allocation of transmission and
distribution costs to electricity consumers and producers. The network tariff structure is the result of the allocation methodology.

Law 32/2014, of 22 December, on Metrology, modifies Law 24/2013 on the Electricity Sector, setting that the legal authority to establish the structure and conditions applicable to the access tariffs for transmission and distribution networks corresponds to the Government.

In this way, Royal Decree 1054/2014 introduced a new voltage division for access tariffs for six periods determined in Royal Decree 1164/2001, of 26 October, establishing tariffs for accessing the electricity transmission and distribution networks, such that the 6.1 tariff, which covered voltages from 1 kV to those less than 36 kV, was divided into a first level for voltages greater than or equal to 1 kV and less than 30 kV and another level for voltages from 30 kV to less than 36 kV.

The regulatory changes introduced by Law 32/2014 mean that the CNMC methodology passed in July 2014 is not in force currently.

3.1.4 Cross-border issues

Access to cross-border infrastructure, including the procedures for the allocation of capacity and congestion management

Law 3/2013 set forth that CNMC will approve the methodologies establishing the terms and conditions for access to cross-border electricity infrastructures according to the criteria set forth by regulation. The Order IET/107/2014, which reviews the electricity access tariffs for 2014, abolished Order ITC/4112/2005, which regulated cross border exchanges (except its article 5). Accordingly, CNMC approved on 12th March 2014 the methodology establishing the terms and conditions for access to cross-border electricity infrastructures and the methodology for cross border balancing exchanges (Circular 2/2014 of CNMC).

This new framework facilitates the implementation of the cross-regional roadmaps on long term, day-ahead and intraday cross-border capacity allocation connecting the Iberian market (Spain and Portugal) with the rest of Europe. The methodology considers long term capacity allocation through a European platform, day-ahead market coupling and balancing exchanges (performed through the BALIT platform). Pursuant to this new framework, CNMC approves the rules for capacity allocation (in the previous framework, these rules were approved by the Ministry).

- French-Spanish interconnection (IFE)

An important increase in interconnection capacity across the Pyrenees became operational mid 2015. However, the commercial exchange capacity between Spain and France in 2014 was still rather limited. The average commercial capacity in 2014 was 1.045 MW in the direction France to Spain and 862 MW in the direction Spain to France.
In the context of the South-West Europe (SWE) region of the ACER Electricity Regional Initiative, the following developments took place in the French-Spanish interconnection:

- **Long term capacity allocation**: CRE and CNMC both approved the specific France-Spain auction rules (IFE rules version 3.1) in March 2014 in order to allocate monthly and annual capacity on the FR-ES interconnection (IFE) under the CASC platform. The first monthly auction of IFE in CASC was carried out successfully on 24th March 2014. Later in the same year, a new version of the Harmonised Auction Rules of CASC with some enhancements, including the interconnection France-Spain, were approved and published. These rules of CASC were applied to the annual and monthly capacity auctions of IFE with delivery in 2015.

- **Day-ahead capacity allocation**: The start-up solution of the SWE market coupling project was successfully launched on 4th February 2014, i.e. at the same time that the launch of the NWE coupling. This implied synchronised operations with NWE. On 13th May 2014, the SWE region launched the full coupling with NWE. The combined day-ahead markets of the NWE and SWE areas (so called Multi Regional Coupling) cover 17 European countries. This achievement was a stepping stone towards a common day-ahead electricity market in the EU.

- **Intraday capacity allocation**: In line with the interim target model, implicit continuous allocation will be implemented in the French-Spanish interconnection in the context of the so-called XBID project, where the Iberian PX (OMIE) participates. However, the timing initially foreseen has suffered significant delays. The organisation of this project
will have to adapt to the new framework set forth by the CACM Regulation which is expected to enter into force in the summer of 2015.

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

In this interconnection, all the physical 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 followed a downward trend. While in 2007 the interconnection was congested around 80% of the time, in 2014 market splitting was applied almost 6% of the time (i.e. 486 hours over 8,760 hours). It is worth mentioning that the import capacity in 2014 reached 3,000 MW.

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

- **Day-ahead capacity allocation**: In line with the target model, day-ahead implicit allocation (market splitting) has been applied in the IPE since 2007. The Day-ahead Gate Closure Time was shifted to 12.00 CET in order to pave the way to the implementation of the European common algorithm (EUPHEMIA) and coupling with NWE. As mentioned in the previous section (about IFE), the start-up solution of SWE coupling was successfully launched on 4th February 2014 and on 13th May 2014 the SWE region launched the full coupling with NWE.

- **Intraday capacity allocation**: Currently, there is market splitting mechanism on the basis of six intraday implicit auctions a day. There is a proposal by OMIE to combine intraday implicit continuous allocation with intraday implicit auctions in the MIBEL respecting the provisions of the NC CACM. As an interim step, the number of intraday auctions a day may increase thus reducing the time lapse between the gate closure time of each intraday auction and real time (i.e. moment of delivery of the energy).

- **Long term capacity allocation**: Under the MIBEL Council of Regulators context, the Spanish and Portuguese NRAs (CNMC and ERSE respectively) agreed on the general regulatory framework of the coordinated mechanism for issuing FTR-options. The first joint auction of electricity interconnection capacity between Spain and Portugal took place on 25th March 2014. On the Portuguese side, regulation was approved in December 2013 and an auction was held in that month under the coordinated rules. However, the products allocated in this first auction were only issued by the Portuguese system. The products auctioned in December were FTR options covering the 1st quarter of 2014. The amount of capacities auctioned were 200 MW in the PT->ES direction and 200 MW in the ES->PT direction. On the Spanish side, on 17 March 2014 the already mentioned Circular 2/2014 of CNMC, of 12 March, was published in the Spanish Official Gazette, establishing the methodology for cross border infrastructure access, including the procedures for capacity allocation and congestion management, as well as the methodology for the provision of equilibrium services between systems managed by different System Operators. This Circular contains a specific Chapter II dedicated to the
The interconnection between Spain and Portugal which includes the principles of the coordinated mechanism for the long term management of this interconnection. The primary issuers in these auctions are the TSOs from Spain (REE) and Portugal (REN). The net revenues—discounting the amounts derived from the settlement of the auctioned products—resulting from the allocation of interconnection shall be used for only the two following purposes: (a) guaranteeing the actual availability of the allocated capacity; and/or (b) maintaining or increasing interconnection capacities through network investments, in particular in new interconnectors.

![Figure 4. Exchange capacity and market matched energy between Portugal and Spain in 2014. Source: CNMC](image)

**Cross-border balancing exchanges**

The exchanges under the BALIT platform have been successfully extended to Portugal and Spain as from June 2014. Under this platform, bilateral TSO-TSO exchanges of balancing energy between neighboring systems (i.e. Portugal – Spain or Spain – France) are carried out.

<table>
<thead>
<tr>
<th></th>
<th>Portugal</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import</td>
<td>4,850</td>
<td>2,900</td>
</tr>
<tr>
<td>Export</td>
<td>48,200</td>
<td>17,000</td>
</tr>
<tr>
<td>Total</td>
<td>53,050</td>
<td>19,900</td>
</tr>
</tbody>
</table>

*Table 4. Balancing energy exchanged with neighbouring systems in 2014 (MWh). Source: REE*
Monitoring technical co-operation between Community and third-country TSOs

This monitoring has been incorporated as a new duty for CNMC by means of Law 3/2013. In this regard, CNMC monitors 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 system through the interconnection with the Spanish system.

![Figure 5. Exchange capacity and market matched energy between Spain and Morocco in 2014. Source: CNMC](image)

Monitor TSO investment plans in view of TYNDP

This competence has been transposed by Law 3/2013. However, the Spanish NRA already monitored the investment plan of the TSO on a regular basis.

The Act 24/2013, of the Power Sector, establishes the basics of electricity planning incorporating tools to link the level of investment to the situation of the economic cycle, and the principles of economic sustainability. Annual investment limits are established in addition to the possibility of a special review of it from unexpected events affecting the efficiency, security and safety; as well as the necessary coordination of network planning with urban planning.

In addition, the Royal Decree 1047/2013, in its Articles 11 to 14, provides quantification and monitoring of these annual investment plans and their consistency with the National long term Plan.
As regards the connection between the EU and national long term network development plans, an assessment of consistency between the EU-wide TYNDP 2012 and the Spanish national plan was carried out in the framework of ACER. In addition, CNMC participated in the ACER Opinion on the TYNDP 2014 which includes considerations concerning Spain.

The latest national long term network development plan informed by CNMC covers the period 2015-2020, as well as some investment with a longer lead time, 2022, in order to encompass the infrastructures included in the TYNDP 2012 and 2014.

By the date of finalisation of this report, it is expected that this national network development plan will be approved soon.

**Cooperation**

Law 3/2013 has incorporated this duty as one of CNMC’s objectives. CNMC 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 SWE region. Besides, CNMC cooperates with all NRAs of the EU in the context of the ACER Regulation as well as other relevant Regulations such as REMIT and the Network Codes.

### 3.1.5 Compliance

**Compliance of regulatory authorities with binding decisions of the Agency and the Commission**

As already mentioned, the Royal Decree-Law 13/2012 obliges the Spanish NRA to comply with and put into practice those pertinent and binding decisions issued by ACER and the EC. Throughout 2014, there weren’t any binding decisions issued by the EC or ACER towards the Spanish NRA.

**Compliance of transmission and distribution companies, system owners and electricity undertakings with relevant Community legislation, including cross-border issues**

CNMC ensures 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, the Act 24/2013 of the Power Sector or any other legal provision, including cross-border issues.

Following the certification of the Spanish TSO (the final decision was issued on 19 July 2012) CNMC monitors the compliance with the certification requirements. As far as NC compliance is concerned, no electricity NCs have been formally adopted and published yet.
3.2 Market Functioning

3.2.1 Wholesale markets

3.2.1.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

The duties contained in article 37(1)(i) and (j) of Electricity Directive have been transposed by the Law 3/2013.

Spot market

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 day-ahead spot market is coupled with Portugal since July 2007 and with the NWE region since 13th May 2014. 173.9 TWh were sold in the Spanish zone of the organised day-ahead spot market in 2014 while in the intraday market, 31.1 TWh were sold in the Spanish zone. The non-organised part consists of physical bilateral contracts, whose economic terms and conditions are agreed between the signing parties (which are not known by CNMC but whose nomination has to be notified to the Market Operator). During 2014 bilateral contracts represented 29% of the sold energy in the daily programme (PBF: Functioning Base Programme).

- Prices

In 2014, the weighted average spot market price was 54.97 €/MWh (a little bit lower than previous year). The daily market price has represented in Spain 79% of the final price, the capacity payments a further 10%, and the solution to technical restrictions, the secondary regulation and other technical operation processes accounted for 10%.

Figure 6. Spanish electricity day-ahead spot market prices in 2014 (monthly average).
Source: OMIE

7 Including different market sessions, plus balancing and reserves costs.
Transparency

Spot market prices (day-ahead and intraday) are published at OMIE website (www.omie.es) a few hours after the auctions are finished. Three months later, the names of the suppliers are published.

Effectiveness of competition

The Iberian spot market is very liquid; it gathers 214 buyers and 110 sellers. Competition can be analysed through benchmarking prices with those of other European spot markets. In the case of Spanish day-ahead market, prices fall in the range of other European market prices.

Balancing market

As for concentration in the balancing market, the tables below show the evolution of market shares by company for secondary reserve (regulation capacity), tertiary reserve and deviations management (both up- and downwards, respectively):
<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endesa</td>
<td>32,9%</td>
<td>34,2%</td>
<td>32,2%</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>22,0%</td>
<td>25,0%</td>
<td>24,9%</td>
</tr>
<tr>
<td>Gas Natural Fenosa</td>
<td>17,7%</td>
<td>21,2%</td>
<td>21,9%</td>
</tr>
<tr>
<td>EDP HidroCantábrico</td>
<td>13,8%</td>
<td>8,3%</td>
<td>8,0%</td>
</tr>
<tr>
<td>E.On Viesgo</td>
<td>7,2%</td>
<td>6,0%</td>
<td>7,9%</td>
</tr>
<tr>
<td>Others</td>
<td>6,5%</td>
<td>5,3%</td>
<td>4,9%</td>
</tr>
</tbody>
</table>

Table 5. Secondary reserve (regulation capacity) market shares (years 2012-2013-2014)
Source: CNMC, REE

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endesa</td>
<td>21,2%</td>
<td>32,6%</td>
<td>28,5%</td>
</tr>
<tr>
<td>Iberdrola</td>
<td>24,7%</td>
<td>25,3%</td>
<td>38,5%</td>
</tr>
<tr>
<td>Gas Natural Fenosa</td>
<td>12,2%</td>
<td>21,5%</td>
<td>12,5%</td>
</tr>
<tr>
<td>EDP HidroCantábrico</td>
<td>6,6%</td>
<td>6,7%</td>
<td>4,9%</td>
</tr>
<tr>
<td>E.On Viesgo</td>
<td>11,5%</td>
<td>7,7%</td>
<td>11,0%</td>
</tr>
<tr>
<td>Others</td>
<td>23,7%</td>
<td>6,2%</td>
<td>4,5%</td>
</tr>
</tbody>
</table>

Table 6. Tertiary reserve plus deviation management market shares (years 2012-2013-2014)
Source: CNMC, REE

The dominant OTC market

The OTC traded volumes in 2014 (283.2 TWh) decreased 13,8% compared to 2013 (328.5 TWh). Figure 8 shows the evolution of the OTC traded volumes since year 2007.
Figure 8. Accumulated OTC volume traded in one year (TWh) (2007 to 2014)
Source: CNMC with data from brokers

- Prices

The Spanish OTC market (“Over The Counter”) is a non-organized bilateral market, in which 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 have 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 II and MiFIR\(^8\) and the Securities Market Law\(^9\), and thus of the Spanish Securities Markets Commission (Comisión Nacional del Mercado de Valores, CNMV).

Therefore, it is necessary to focus the supervision of this market with a coordination perspective between CNMV and CNMC. In this sense, the Directive 2009/72/EC 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.

In the scope of the cooperation between regulatory agencies, the so-called REMIT EU Regulation states explicitly as necessary in its Recital 29 that “national regulatory authorities, competent financial authorities of the Member States and, where appropriate, national

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\(^{9}\) Law 24/1988.
competition authorities should cooperate to ensure a coordinated approach to tackling market abuse on wholesale energy markets which encompasses both commodity markets and derivatives markets”.

The improvement of the supervision of the OTC market is also under the scope of application of 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”.

Although CNMC has limited information over OTC power transactions (volumes and transaction prices, through the information voluntarily submitted by the main brokers), by means of the Collaboration Agreement between the Spanish NRA and the Spanish Securities Market Commission (CNMV), signed on 3 July 2012, CNMC can ask CNMV data about OTC transactions regarding the supervision of wholesale energy markets in the context of investigations into potential market abuses.10

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

- Transparency

CNMC publishes monthly supervisory reports of the electricity forward markets in Spain with aggregated data from all the existing forward market mechanisms and trading venues (i.e. OTC market, the futures market managed by OMIP, and the cleared volumes in the clearing houses (OMIClear, BME Clearing and EEX-European Commodity Clearing (ECC)).11

- Effectiveness of competition

So far there has been limited information available regarding the considerable volume of transactions conducted in OTC markets, as well as for the physical bilateral contracts (particularly contracts between companies of the same group).

According to Commission Implementing Regulation (EU) Nº 1348/2014, the NRAs will have access to transactions, including orders to trade, to be submitted by the market participants (as previously commented, data reporting of traded data on organised market places will

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10 This was possible by the Sustainable Economy Act, whose 5th final disposition modified the Securities Market Law, enabling the information exchange between CNMV and the entities composing the MIBEL Regulatory Council.

11 Since the beginning of 2014, the base load futures whose underlying price is the Spanish spot price (“FTB” contracts), with financial settlement, can be registered, cleared and settled in EEX-European Commodity Clearing (ECC).
commence on 7 October 2015), as well as financial data, the latter by means of the MoU ACER-ESMA. This will allow CNMC to perform an integrated supervision.

The power futures market managed by OMIP

In the context of the MIBEL Regulatory Council, Spanish NRA supervised the futures market managed by OMIP, in co-ordination with the other members of the MIBEL Regulatory Council. Such a market started on 3rd July 2006. The rules of this market are registered on the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários, CMVM).

The energy traded in the continuous market of the MIBEL futures market managed by OMIP during year 2014 amounted to 37.5 TWh, lower than in the previous year (40.9 TWh in 2013). The OTC volumes cleared and settled by OMIP clearing house (OMIClear) increased in 2014 (49.6 TWh) compared to 2013 (38.4 TWh).

Figure 9 shows the trading evolution (in terms of energy traded) in the MIBEL 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 (OMIP clearing house, central counterparty and managing entity of the settlement system).

Additionally, another clearing houses, BME Clearing and European Commodity Clearing (ECC) are active. BME Clearing is active since 21 March 2011 for OTC clearing of Iberian power derivatives and EEX-ECC is active since the beginning of 2014. On the one hand, the accumulated cleared volume during year 2014 in BME Clearing reckons 32.1 TWh, lower than in the previous year (33.5 TWh TWh in 2013) and on the other hand, the OTC volumes cleared and settled by ECC amounted to 1.6 TWh in 2014. All these figures are also shown in Figure 9.

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12 MoU ACER-ESMA concerning the consultation and cooperation regarding their regulatory responsibilities in relation to EU wholesale energy markets, signed on 18 July 2013.
14 Additionally, 5.6915.37 TWh were traded through OMIP auction mode for selling special regime production in Portugal (5.7 TWh) and for selling FTR-options (auction of electricity interconnection capacity between Spain and Portugal) (9.64 TWh). In particular On the one hand, on 21 13 March, 19 24 June, 18 24 September and 12 18 December 20132014, the 6th10th, 7th11th, 8th12th, and 9th 13th auctions 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”) were performed. On the other hand, on 25 March, 18 June, 18 September and 11 December 2014, the four first four coordinated auctions in which the TSOs from Spain (REE) and Portugal (REN) sell FTR-options were performed.
15 Sociedade de Compensação de Mercados de Energia, S.G.C.C.C.C., S.A.
Figure 9. Evolution of accumulated traded volumes per year in OMIP auctions and continuous market, and OTC volumes registered in OMIClear, BME Clearing and EEX-European Commodity Clearing (ECC) (TWh)

Source: Brokers, OMIP-OMIClear, Bolsas y Mercados Españoles (BME) and EEX-ECC

• Prices

Figure 10 shows the daily evolution of the Spanish electricity spot (day ahead) and futures prices during 2014. For the spot price, the daily average published by OMIE is considered. For the futures prices, settlement prices published by OMIP are used. The prompt month, quarter and year contracts (“M+1”, “Q+1” and “Yr+1” respectively) for the base load futures whose underlying price is the Spanish spot price (“FTB” contracts) are shown. The volatility of the spot prices is much larger than the volatility of the futures prices, due to the strong renewable penetration. The annual average price for the spot price in 2014 (42.13 €/MWh) is lower than the annual average prices for the futures contracts (45.12 €/MWh for the prompt month contract, 46.83 €/MWh for the prompt quarter contract and 48.07 €/MWh for the prompt year contract). The futures contracts showing larger volatility in the next figure are the monthly contracts, fluctuating between 24.25 €/MWh and 58.00 €/MWh.
Figure 10. Evolution of daily spot prices and prompt month, quarter and year ("M+1", "Q+1" and "Yr+1" respectively) futures prices (€/MWh) during year 2014.
Source: OMIE and OMIP-OMIClear

- **Transparency**

The following sources provide information regarding post-trade transparency. They are available by the existing clearing houses and the power futures market operator:

- Historical aggregated data per contract regarding settlement prices, best bid and offer, traded and cleared volumes, and open interest by OMIP-OMIClear, as well as daily market bulletins with the key statistics of the trading sessions and information of any special event (e.g. market maker agreements, new trading member, special regime auctions in Portugal, FTR auction related to the Portugal-Spain electricity interconnection, etc.).

- Historical aggregated data per contract regarding settlement prices, cleared volumes and open interest by BME Clearing.

- Historical aggregated data per contract regarding settlement prices, cleared volumes and open interest by EEX-ECC.
• Effectiveness of competition

The amount of registered members in OMIP and in BME Clearing grows steadily, in the second case at a faster pace.

At the end of 2014, there were 55 trading members registered in OMIP (of which 31 were actively trading in the continuous mode during year 2014) and 81 in BME Clearing.

Regarding OMIP general highlights in year 2014: (i) new yearly record in total cleared volume, in OTC registration and number of trades and in call auction volume; (ii) launch of Option contracts for the month, quarter and year maturities; (iii) record in average monthly Open Interest with 20.9 TWh in December; (iv) 17 new members joined the market; and (v) OMIClear gets EMIR approval.

Regarding OMIP Trading highlights in year 2014: (i) OMIP reached a total screen trading (i.e. auction and continuous) volume of 52.9 TWh, representing an increase of 11.4% facing 2013; (ii) monthly record in continuous trading last November with 5.6 TWh; and (iii) monthly record in Call Auction in September 2014 with 4.8 TWh.

Regarding OMIClear highlights in year 2014: (i) OMIClear reached a total cleared volume of 102.4 TWh (19.4% compared to 2013: 84.9 TWh); (ii) records in terms of OTC registration (monthly records in September –around 7.0 TWh– and in May –more than 400 trades registered).


Regarding New Members in OMIP: 17 new members in year 2014 (12 Trading Members, 4 Clearing Members and 1 OTC Broker). The classification of those new trading members is as follows: 8 energy companies and 4 financial companies (8 from Iberia and 4 from outside Iberia). The classification of those new clearing members is as follows: 3 electricity companies and 1 financial (2 Iberia and 2 outside).

Regarding BME Clearing highlights in year 2014: (i) increase in number of participants (+34%) and registered operations (+30%) versus year 2013; (ii) third complete year for MEFF Power, registering 32.1 TWh in 5,082 operations (33 TWh in 3,914 operations in 2013); (iii) new 20 participants in year 2014, operating 69; and (iv) open interest at the end of 2014: 2,6 TWh, 13% above 2013.

16 Auction, continuous and OTC cleared.
Supply of Last Resort Auctions (CESUR Auctions)

As explained in last year’s National Report, these auctions are not used anymore. These auctions were used in the past in order to establish the energy cost in the so-called last resort tariff. However, this mechanism no longer exists.

During year 2014, CNMC published the following two reports (in Spanish) related to the supervision of the Supply of Last Resort Auctions (CESUR Auctions), namely:


- Analysis of the transactions in the derivatives market of the equivalent contract to the auctioned contract in the 25th CESUR auction, within the trading period 1 November 2013 – 19 December 2013. Published on 10 July 2014. www.cnmc.es/Portales/0/Ficheros/Energia/Informes/140710_Q1_14_OTC_y_OMIP_suba staCESUR.pdf

Monitoring the occurrence of restrictive contractual practices

The Royal Decree-Law 13/2012 reinforced this duty. As a consequence, CNMC is entitled to analyse specific cases following a complaint of the affected party. Furthermore, CNMC can address this issue on its own initiative as competition authority.

Respecting contractual freedom with regard to interruptible supply contracts and with regard to long-term contracts

Law 3/2013 have incorporated this duty as one of CNMC’s functions. CNMC intervenes after the receipt of a complaint as regards breaches of contractual freedom. This activity is performed under the framework of market monitoring activities.

In case some demand has to be curtailed, there is a regulated service provided on a voluntary basis by some consumers called “interruptible demand”. The revenue regime for this service was revised in 2013 by Order IET/2013/2013, of 31st October. This revision took place considering the low demand and high penetration of renewable generation.

In the new regime, the service providers’ selection and the revenue level are fixed through an auctioning mechanism. The first auction, for 2015, took place in November-December 2014. 3,020 MW of interruptible demand were assigned, with a total cost of 508 million €.

REMIT

Article 46.1 of the Act of the Power Sector (Law 24/2013, of 26 December) allows the Ministry of Industry, Energy and Tourism, CNMC, 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 on Wholesale Energy Market Integrity and Transparency (“REMIT”\(^\text{17}\)), CNMC participates actively in the CEER and ACER Market Integrity and Transparency (MIT) Working Groups and related Task Forces\(^\text{18}\) to coordinate the implementation process.

In particular, Article 7 of the Law 3/2013 establishes the functions that the Spanish NRA shall carry out for supervising and controlling the proper functioning of the electricity and natural gas sectors. In this regard, CNMC will ensure compliance by the electricity and natural gas market participants of the provisions stated on in the European Union regulation, monitor the adequate price formation and supply conditions to end users, and guarantee the transparency and competition in the electricity sector and the gas sector. Article 27 (Inspection faculties) states that CNMC civil servant staff, duly authorized by the corresponding Director, will have the “authority agent” status and is empowered to perform inspections to enterprises for the right application of Law 3/2013. Article 29 (Sanctioning power) states that CNMC will exert its power regarding inspection and sanctioning according to the Electricity and Gas Laws. For the exercise of the sanctioning power, the due functional split between the instruction phase and the resolution phase will be guaranteed. The instruction phase will correspond to the Energy staff, and the resolution phase will correspond to the Board.

On the other hand, the provisions related to inspection, infringements, and sanctioning regime in the electricity sector are developed in Title X of the Act 24/2013, of 26 December, of the Power Sector. In particular, Article 65.31 establishes an infringement consisting in market manipulation (also in attempted phase), insider trading or not publishing inside information, according to REMIT. The sanctioning faculty corresponds to CNMC.

In addition to the market monitoring tasks performed by CNMC, market oversight reports with aggregated data and no commercially sensitive information covering both spot and derivatives markets are published.

The duty contained in article 37(1)(u) of the Directive 2009/72/EC is considered within the framework of regional cooperation. In the electricity market, compatible data exchange with France and Portugal (and beyond) between TSOs and PXs happens on a regular basis. One example of that are the data submitted by REE to be published at ENTSO-E Transparency Platform website (https://transparency.entsoe.eu/).

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\(^{17}\) REMIT entered into force on 28 December 2011 and the prohibitions to market participants regarding insider trading and market manipulation, as well as the obligation to publish inside information, apply to both electricity and natural gas wholesale markets.

\(^{18}\) The CMIT WG has a Task Force called “Wholesale Energy Market” (WEM TF). The AMIT WG has three Task Forces called “Market Monitoring Governance” (MMG TF), “Wholesale Market Surveillance” (WMS TF), and “REMIT IT Management and Governance” (RITMG TF).
According to article 9.2 of REMIT “Not later than 3 months after the date on which the Commission adopts the implementing acts set out in Article 8(2), national regulatory authorities shall establish national registers of market participants which they shall keep up to date. (…).”


On 8 January 2015, CNMC approved the Resolution creating the Spanish Register of market participants in the wholesale Energy market, complying with article 9 REMIT. The Spanish Register started operations on 15 January 2015.

In the first four months of the Spanish Register, the number of market participants registered with CNMC was reduced (around 25). Therefore, on 7 May 2015, CNMC approved the Agreement encouraging market participants active in organised wholesale energy market places to apply in advance for their registration in the Spanish Register. According to article 12 of Commission Implementing Regulation (EU) Nº 1348/2014, the registration obligation with the national regulatory authority must be done prior to 7 October 2015, if the market participants trade on organised market places (or prior to 7 April 2016 if they operate exclusively out of organised market places and such operations are subject to data reporting obligation to ACER).

3.2.2 Retail market

In 2008, the Government approved the Substitution plan for all Spanish residential meter (up to 15 kW contracted power) for new smart metering devices before the end of 2018.

The Act 24/2013 of the Power Sector and the Royal Decree 216/2014 modified the regime of the last resort supply and introduced the so called “voluntary price for small consumers” (known by the acronym in Spanish: PVPC) for consumers below 10 KW. As from 1st January 2014, the last resort regulated tariff for small consumers disappears. Instead, small consumers can opt to be supplied at the voluntary price for small consumers. According to this new regulation, as from 1st April 2014, last resort tariffs are only available to: i) vulnerable consumers and ii) consumers that not having the right to be supplied under the regime of voluntary price for small consumers, do not have a free market supply contract in force.

The mentioned Royal Decree establishes the methodology for calculating the voluntary price for small consumers. These prices include the energy cost (price resulting in the spot market and ancillary services during the period), the applicable access tariffs and other charges such as the margin of the reference supplier19. The “reference suppliers” have the obligation to apply these prices to the small consumers that wish to be supplied with a variable price. Additionally, the reference suppliers must offer a (not regulated) fix price for one year. The idea is that some consumers may wish to have an ex-ante fix price instead of an ex post variable price.

19 The margin of the “reference suppliers” (those providing PVPC) is regulated. CNMC has the mandate to perform a study to establish this regulated margin.
Recently, the Resolution of 2\textsuperscript{nd} June 2015 of the Secretary of State for Energy approved the Operational Procedures necessary to start issuing bills to customers equipped with smart meters based on hourly consumption and hourly prices. The first bills of this kind will be issued on October 2015. This measure will provide a dynamic price signal to small customers and consequently, a way to implicitly participate in the market by shifting consumption to the hours of the day where energy is cheaper.

The number of customers supplied under the PVPC regime by reference suppliers (below the threshold of 10 kW) at the end of 2014 was 13,956,907 (nearly 50\% of the consumers entitled).

### 3.2.2.1 Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

As mentioned in 3.2.1.1, the duties contained in article 37(1)(i) and (j) of Electricity Directive have been incorporated as functions of CNMC by Law 3/2013.

- **Prices**

  At retail level, CNMC monitors retail prices through the commercial offers that are published in CNMC’s price comparison tool and through the “Circular” CNE 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 CNMC’s retail electricity market report which is published regularly.

  CNMC price comparison tool aims to improve the transparency of retail markets. In this web-based price comparison tool, suppliers’ public commercial offers for low voltage consumers are disclosed. CNMC monitors the conditions of the offers included in the comparison tool and the results are published in an annual report.

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

- **Transparency**

  The duty contained in article 37(1)(u) of Electricity Directive has been transposed in the Spanish legislation. CNMC 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).

  Pursuant to the third transitional provision of the Act 24/2013 of the Power Sector, since the 1\textsuperscript{st} of July, 2014, the CNMC functions on switching include, among others, promotion and monitoring of switching data flows among distribution and supplier companies, proposal of improvements on switching procedures, data analysis of switching data, access to Data Bases of supply points from Distribution Companies and deliver copy of these Data Bases to the
suppliers companies. Previously, these functions were carried out by an independent Office (OCSUM) which was supervised by the CNMC.

The Law 24/2013, in line with the Directive 2009/72, introduced a general timeframe of 21 days for the switching process in electricity. According to this new piece of legislation, future specific regulations will establish the switching mechanisms and conditions to bill the supplies. This law establishes as well the final closure account following any change of electricity no later than 42 days after the change has taken place. Furthermore, the Royal Decree 216/2014 establishes that when interventions in the user’s facilities are not needed, the consumer may request the switching process to be completed within 15 days, when the meter is read or by a specific date chosen by the consumer.

During 2013, around 2.1 million 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 2013, the switching rate increased with respect 2012, reaching almost 13% mainly due to the increase in free market switches, as previous years.

During 2014, 1.7 million consumers abandoned the regulated price (PVPC) in favour of the free market. In 2014, the switching rate decreased with respect to 2013 to a value of 12.12%. Although switching values in free market increases, reduction on the total number of consumers abandoning the regulated price reduces the total switching rate.

As shown in the table below, the evolution of the switching rate during 2009-2013 has followed an increasing trend, topping 13.0% in 2013, and as seen before decreasing slightly in 2014. The number of failed switches rises in 2014, after a five year decreasing trend.

<table>
<thead>
<tr>
<th>ELECTRICITY SWITCHING DATA 2009 – 2014*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
</tr>
<tr>
<td>Domestic switching rate</td>
</tr>
<tr>
<td>Nº domestic customers</td>
</tr>
<tr>
<td>4.39%</td>
</tr>
<tr>
<td>26,280,450</td>
</tr>
<tr>
<td>Total switching rate</td>
</tr>
<tr>
<td>5.23%</td>
</tr>
<tr>
<td>No. all customers</td>
</tr>
<tr>
<td>% failed switches</td>
</tr>
<tr>
<td>8.79%</td>
</tr>
</tbody>
</table>

Table 7. Electricity Switching 2009-2014
Source: CNMC, OCSUM.

* The calculated switching rates reflect the number of realized switches as a percentage of customer number during the analysed 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”. 2009-2013 data includes data collected from the five major Spanish distribution companies. 2014 data includes also data from distribution companies under 100,000 customers.
• Effectiveness of competition

The Act 3/2013 granted CNMC the power to supervise the degree of competition in the energy markets at wholesale and retail level. CNMC publishes a yearly report to be submitted to the Ministry of Industry, Energy and Tourism monitoring the degree of market opening which has to include regulatory proposals to foster competition.

During 2014, following the path initiated in previous in previous years, the degree of concentration of the retail market continued its slightly decreasing tendency shown in the past.

At the end of 2014, and based on the information provided by the five biggest Spanish distribution companies, the markets shares of the largest companies were as follows:

- Market share of the three largest companies in the whole retail market by volume: 70.26%
- Market share of the three largest companies in the non-household sector by volume: 60.71%
- Market share of the three largest companies in the market for households by metering points: 90.34%

**Monitoring the occurrence of restrictive contractual practices**

The Royal Decree-Law 13/2012 reinforced this duty. As a consequence, CNMC is entitled to analyse specific cases following a complaint of the affected party. Furthermore, CNMC can address this issue on its own initiative as competition authority. CNMC also provides guidance to suppliers and consumers through a set of recommendations regarding contractual practices.

**Respecting contractual freedom with regard to interruptible supply contracts and with regard to long-term contracts**

Law 3/2013 has incorporated this duty as one of CNMC’s functions. CNMC intervenes after the receipt of a complaint as regards breaches of contractual freedom. This activity is performed under the framework of market monitoring activities.

**3.2.2.2. Recommendations on supply prices, investigations and measures to promote effective competition**

**Recommendations on supply prices**

CNMC has the power to issue recommendations on supply prices according to Law 3/2013. In 2013, the only recommendation on this topic was the proposal to the Government for calculating the energy price to be considered in the last resort tariff corresponding to the 1st quarter 2014,
following the invalidation of the 25th CESUR auction in December 2013 as explained in the 2014 National Report.

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”.

As explained at the beginning of section 3.2.2, as from 1st April 2014, the system of end-user price regulation has changed. The Royal Decree 216/2014 establishes the methodology for calculating the so-called “voluntary price for small consumers”, which reflects spot market prices during the consumption period and includes the applicable access tariffs and other charges. The “reference suppliers” have the obligation to apply these end-user prices. For more information on public service obligations, see chapter 5.

Report on investigations carried out, main results and possible measures adopted

 CNMC launched in May 2014 an investigation on electricity suppliers for potential anticompetitive behaviour, in particular on communication campaigns to consumers and advertisements that may be confusing or biased with the aim to influence consumer decisions with regard to the different modalities of electricity supply.

 CNMC is also investigating certain suppliers for different reasons, such as non-compliance with market and system operation rules or non-compliance with customer protection provisions established by the Law.

Report on tariff deficit

 Since 2000, the revenues in the Spanish Electricity System have not been sufficient to cover system’s costs. Accordingly, a subsequent deficit has arisen (the “Tariff Deficit”).

 The origin of the electricity tariff deficit, the evolution of access cost and tariffs and the financial mechanisms are detailed in the National Report 2012. In 2013 the Government carried out an integral reform of the Electricity System in Spain, with the aim of correcting the electricity tariff deficit and guaranteeing electricity supply at the lowest possible price for the consumer.

 The electricity system’s total debt up to the 31st December 2014 is EUR 26.9 billion. This includes 2013 tariff deficit securitization that was performed in December 2014. 78% of the total debt (EUR 21.1 billion) has been securitized through FADE, having the bonds issued by FADE being guaranteed by the Kingdom of Spain. The remaining 22% has been assigned to banks and securitization vehicles (SPV). There are no longer tariff deficit credit rights in the utilities balance sheets.
3.3 Security of supply

Implementation of safeguard measures

No safeguard measures had to be taken throughout 2014.

3.3.1 Monitoring balance of supply and demand

Monitoring of security of supply

CNMC follows up of the available generation capacity in order to know if demand coverage problems are possible in the electricity and gas sectors. In this context, we can conclude that there is enough generation capacity available to cover the peak demand in the coming years. The electricity consumption on the Spanish peninsular system was 243,486 GWh in 2014, 1.2% lower than in 2013. Discounting the effects of temperature and labour patterns, the annual decrease was 0.2%, compared to a decrease of 2.2% registered in 2013.

The evolution of overall annual growth of consumption, from 2010 to 2014, is shown below:

![Figure 11. Rolling annual consumption growth in %](image)

*Figure 11. Rolling annual consumption growth in % (green: non-adjusted; blue: labour-and-temperature adjusted)*

*Source: REE*

The yearly maximum for hourly average demand was reached on 4th February with 38,666 MWh. This value was 13.8% lower than the historical maximum registered in 2007.

Installed capacity in generating facilities on the peninsular system showed a slight decrease of 0.1% during 2014 compared to the previous year, reaching a total of 102.26 GW. The largest variation recorded was that of coal, which reduced its contribution by 159 MW. The remaining technologies had no variations in installed capacity or the variations were little significant.
Current generation fuel mix and expected developments

The following chart and table show the shares by technology of installed generation capacity in the Spanish national system (mainland and extra-peninsular) in 2014.

Figure 12. Installed generation capacity in the Spanish national system at the end of 2014
Source: REE

<table>
<thead>
<tr>
<th>Tecnology/Generation capacity (MW)</th>
<th>2013</th>
<th>2014</th>
<th>Δ % 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic (large)</td>
<td>17.786</td>
<td>17.787</td>
<td>0,0%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>7.866</td>
<td>7.866</td>
<td>0,0%</td>
</tr>
<tr>
<td>Coal</td>
<td>11.641</td>
<td>11.482</td>
<td>-1,4%</td>
</tr>
<tr>
<td>Fuel+gas (conventional)</td>
<td>3.498</td>
<td>3.498</td>
<td>0,0%</td>
</tr>
<tr>
<td>Combined Cycle (CCGT) (1)</td>
<td>27.206</td>
<td>27.206</td>
<td>0,0%</td>
</tr>
<tr>
<td>Hydraulic (small) (2)</td>
<td>2.102</td>
<td>2.106</td>
<td>0,2%</td>
</tr>
<tr>
<td>Hydro-wind</td>
<td>0</td>
<td>12</td>
<td>--</td>
</tr>
<tr>
<td>Wind power</td>
<td>23.010</td>
<td>23.002</td>
<td>0,0%</td>
</tr>
<tr>
<td>Solar Photovoltaic</td>
<td>4.665</td>
<td>4.672</td>
<td>0,2%</td>
</tr>
<tr>
<td>Solar Thermoelectric</td>
<td>2.300</td>
<td>2.300</td>
<td>0,0%</td>
</tr>
<tr>
<td>Renewable thermal</td>
<td>980</td>
<td>1.016</td>
<td>3,7%</td>
</tr>
<tr>
<td>Cogeneracion and other</td>
<td>7.210</td>
<td>7.196</td>
<td>-0,2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>108.264</td>
<td>108.143</td>
<td>-0,1%</td>
</tr>
</tbody>
</table>
In 2014, total demand of power generation (including mainland and extra-peninsular demand) decreased around 1% down to 258,067 GWh, which was covered as follows:

<table>
<thead>
<tr>
<th>Balance of Spanish electric energy system (GWh)</th>
<th>2013</th>
<th>2014</th>
<th>Δ % 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic (large)</td>
<td>33.970</td>
<td>35.685</td>
<td>5,0%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>56.827</td>
<td>57.179</td>
<td>0,6%</td>
</tr>
<tr>
<td>Coal</td>
<td>42.398</td>
<td>46.264</td>
<td>9,1%</td>
</tr>
<tr>
<td>Fuel+gas (conventional)</td>
<td>7.002</td>
<td>6.620</td>
<td>-5,5%</td>
</tr>
<tr>
<td>Combined Cycle (CCGT)</td>
<td>28.672</td>
<td>25.869</td>
<td>-9,8%</td>
</tr>
<tr>
<td>Consumption in generation</td>
<td>-7.054</td>
<td>-7.260</td>
<td>2,9%</td>
</tr>
<tr>
<td>Hydraulic (small)</td>
<td>7.102</td>
<td>7.056</td>
<td>-0,6%</td>
</tr>
<tr>
<td>Hydro-wind</td>
<td>--</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Wind power</td>
<td>54.708</td>
<td>51.439</td>
<td>-6,0%</td>
</tr>
<tr>
<td>Solar Photovoltaic</td>
<td>8.324</td>
<td>8.211</td>
<td>-1,4%</td>
</tr>
<tr>
<td>Solar Thermoelectric</td>
<td>4.442</td>
<td>5.013</td>
<td>12,9%</td>
</tr>
<tr>
<td>Renewable Thermal</td>
<td>5.073</td>
<td>4.749</td>
<td>-6,4%</td>
</tr>
<tr>
<td>Cogeneracion and other</td>
<td>32.249</td>
<td>26.186</td>
<td>-18,8%</td>
</tr>
</tbody>
</table>

**Net production**

<table>
<thead>
<tr>
<th>Balance of Spanish electric energy system (GWh)</th>
<th>2013</th>
<th>2014</th>
<th>Δ % 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumped storage consumption</td>
<td>-5.958</td>
<td>-5.403</td>
<td>-9,3%</td>
</tr>
<tr>
<td>Peninsular-Balearic Islands' link</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>International Exchanges</td>
<td>-6.732</td>
<td>-3.543</td>
<td>-47,4%</td>
</tr>
</tbody>
</table>

**Total demand**

<table>
<thead>
<tr>
<th>Balance of Spanish electric energy system (GWh)</th>
<th>2013</th>
<th>2014</th>
<th>Δ % 2014/2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total demand</td>
<td>261.023</td>
<td>258.066</td>
<td>-1,1%</td>
</tr>
</tbody>
</table>

(1) Generation from auxiliary generation units is included in the Balearic Islands' electricity system.
(2) Includes operation in open cycle mode.
(3) Consumption in generation corresponding to hydro, nuclear, coal, fuel/gas and combined cycle production.
(4) Includes all those units less than 50 MW that do not belong to a hydro unit (UGH).
(5) Positive value: incoming energy; negative value: outgoing energy.
(6) Positive value: importer balance; negative value: exporter balance.
3.3.2 Monitoring investment in generation capacities in relation to SoS

Duties and powers of the regulatory authority

The Spanish regulator follow-up the coverage of demand in the electricity and gas sectors, including the investment on new generation capacities (as well as decommissioning).

In this context, the installed power capacity on the Spanish Peninsula remained virtually unchanged from the previous year and closed 2014 at 102,259 MW, 122 MW (0.1 %) less than in December 2013. The largest variation recorded was that of coal, which reduced its contribution by 159 MW, as a result of the closure of the Escucha power station. The remaining technologies had no power variations or the variations were little significant in 2014.

Operational network security

This reporting on operational network security is done in the context of the mentioned Framework Report by CNMC.

The Operational Procedures for the power system 1.1. to 1.6 and 2.1. to 2.5 are dedicated to operational network security uses.

Investment in interconnection capacity for the next 5 years or more

- Interconnection with France

On 20 February 2015, the Santa Lloigaia – Baixàs power line, which doubles the interconnection capacity between France and Spain, was commissioned. INELFE, the company jointly and equally owned by Red Eléctrica and its French counterpart, RTE, finalised the construction of the 400 kV electricity interconnection between Spain and France (Santa Lloagaia - Baixas) across the Eastern Pyrenees. In the section which crosses the border, approximately 70 km in length, the line is underground and operated in Direct Current, which required the construction of converter stations, one at each end of the line.

The construction of this new interconnection, classified as a top priority by the European Union, allows the interconnection capacity between both countries to be increased from 1.400 to 2.800 megawatts (around 6% of the maximum Spanish electricity demand), 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.

A complementary line in Spanish territory between Santa Lloagaia and Bescanó was selected as a PCI (Project of Common Interest) in the context of the TEN-E Regulation (Regulation 347/2013). Furthermore, a new subsea interconnection through the Gulf of Biscay has been selected as a PCI too. Furthermore, this project is mentioned as a key project for security of supply in the EC communication “European Energy Security Strategy” published on 28th May 2014.

The Presidents of Spain and France through a joint declaration (Madrid, 4th March 2015) affirmed their commitment to increase the French-Spanish interconnection in order to reach the
10% interconnectivity target (as far as Spain is concerned) by 2020. For that purpose, the French and Spanish TSOs made proposals for a new line through the Pyrenees which is being analysed.

- Interconnection with Portugal

The cross border capacity between Portugal and Spain reached 2.400 MW in 2012 and 2.700 MW in May 2014. The objective of reaching a commercial exchange capacity equivalent to 3.000 MW with Portugal is getting closer. The interconnection project between Northern Portugal and Spain has been selected as a PCI.

More complementary projects will be completed in the coming years.

- Interconnection with the Balearic Islands

The power interconnection HVDC-250 kV between mainland Spain and the Balearic Islands started to operate on the 14 of August 2012. It involves a high voltage submarine interconnection composed of three cables (one of them being a return cable) 237 km in length. In 2013 this cable has transmitted 22% of total demand of the Balearic islands (1.3 TWh).

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

Based on the expectations contained in the first proposal of “Energy Planning. Development Plan of the Transmission Network Electric Power” that presently is under consideration of the Spanish authorities, for the period 2015-2020 there is a high uncertainty about the evolution of the expected demand. However, due to the demand reductions in the last years, no demand coverage problems are expected.

The expected annual consumption and the peak demand for the period 2015-2020 are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity consumption (TWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Scenario</td>
</tr>
<tr>
<td>2015</td>
<td>249,3</td>
</tr>
<tr>
<td>2020</td>
<td>273,1</td>
</tr>
</tbody>
</table>

*Table 10. Expected evolution of consumption (TWh) for the Spanish Mainland in the period 2015-2020.*

*Source: Ministry of Industry, Energy and Tourism and REE.*
As regards the envisaged capacity to be installed, no significant new capacity is expected. On the other hand, the generation groups in the “20,000 hours of functioning plan”\(^\text{20}\) have the compromise to disconnect in year 2015. By now, all of them have at least asked for the disconnection authorization. Besides, in 2016 it will be necessary for big combustions units (coal) to make the necessary investments to comply with Directive 2010/75/UE of the European Parliament and of the Council on industrial emissions. Consequences are unpredictable but some of them could disconnect.

In the following table the expected installed and available generation capacity for the period 2015-2020 is shown.

<table>
<thead>
<tr>
<th>Generation capacity (MW)</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic (large)</td>
<td>15.265</td>
<td>15.288</td>
</tr>
<tr>
<td>Pumped hydro</td>
<td>3.370</td>
<td>3.770</td>
</tr>
<tr>
<td>Nuclear</td>
<td>7.865</td>
<td>7.865</td>
</tr>
<tr>
<td>Fuel+gas (conventional)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal (^1)</td>
<td>10.970</td>
<td>10.270</td>
</tr>
<tr>
<td>Combined Cycle (CCGT)</td>
<td>19.272</td>
<td>19.272</td>
</tr>
<tr>
<td>Hydraulic (small)</td>
<td>2.135</td>
<td>2.300</td>
</tr>
<tr>
<td>Wind power</td>
<td>23.630</td>
<td>27.650</td>
</tr>
<tr>
<td>Solar Photovoltaic</td>
<td>4.786</td>
<td>5.790</td>
</tr>
<tr>
<td>Solar Thermoelectric</td>
<td>2.300</td>
<td>2.300</td>
</tr>
<tr>
<td>Renewable thermal</td>
<td>990</td>
<td>1.254</td>
</tr>
<tr>
<td>Cogeneracion and other</td>
<td>7.130</td>
<td>7.390</td>
</tr>
<tr>
<td><strong>TOTAL INSTALLED CAPACITY</strong></td>
<td><strong>97.713</strong></td>
<td><strong>103.149</strong></td>
</tr>
<tr>
<td>Winter available capacity</td>
<td>51.230</td>
<td>51.860</td>
</tr>
<tr>
<td>Summer available capacity</td>
<td>54.340</td>
<td>52.540</td>
</tr>
</tbody>
</table>

\(^1\) 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.
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.

As it can be seen in the table below, no capacity constraints are expected in the period 2015-2020. All Demand Coverage Index are above 1.2 in different demand scenario.

<table>
<thead>
<tr>
<th>Reserve margin rate</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter lower demand scenario</td>
<td>51.230</td>
<td>51.860</td>
</tr>
<tr>
<td>Winter high demand scenario</td>
<td>51.230</td>
<td>51.860</td>
</tr>
<tr>
<td>Peak demand (MW)</td>
<td>43.500</td>
<td>47.300</td>
</tr>
<tr>
<td>Demand Coverage Index (IC)</td>
<td>1,18</td>
<td>1,10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reserve margin rate</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer lower demand scenario</td>
<td>54.340</td>
<td>52.540</td>
</tr>
<tr>
<td>Summer high demand scenario</td>
<td>54.340</td>
<td>52.540</td>
</tr>
<tr>
<td>Peak demand (MW)</td>
<td>39.800</td>
<td>43.600</td>
</tr>
<tr>
<td>Demand Coverage Index (IC)</td>
<td>1,37</td>
<td>1,21</td>
</tr>
</tbody>
</table>

Source: Ministry of Industry, Energy and Tourism and REE.

The above Demand Coverage Indices are calculated without taking into account the effect of the interruptibility of demand, but today this service seems guaranteed at least the first two years; if it were considered, this Index would increase.

3.3.3 Measures to cover peak demand or shortfalls of suppliers

Monitoring of security of supply

In case some demand has to be curtailed, there is a service provided by some consumers called “interruptible demand”. In 2014, demand coverage in Spain did not experience any relevant problem, therefore no interruptible demand had to be curtailed.

The revenue regime for this service was revised in 2013 by Order IET/2013/2013, of 31st October. This regime was reviewed in the context of other measures included in the electricity sector reform, which addressed the various activities and cost items of the electricity system, with the aim to ensure the correspondence between revenues and costs.
In the new regime, the service providers’ selection and the revenue level are fixed through an auctioning mechanism. The first auction, for 2015, took place in November-December 2014. 3.020 MW of interruptible demand were assigned, with a total cost of 508 million €.
4 The gas market

4.1 Network regulation

4.1.1 Unbundling

Designation and certification of transmission system operators

Law 3/2013 sets forth that CNMC will be in charge of the certification procedure as foreseen by the Directives. The Hydrocarbons Law establishes two possible models for gas TSO unbundling:

- The unbundling model, adopted for the main TSO (Enagas Transporte S.A.U.), with more than 95% of national transport pipelines) is “Ownership unbundling”.
- Small gas TSOs in Spain can opt between the Ownership unbundling model and the ISO model.

Spain has already finished the certification process of TSOs. The certifications have been issued and duly notified to the European Commission by CNMC.

- Enagas Transporte S.A.U., the main TSO in Spain, was certified under the ownership unbundling model (OU).

- Enagas Transporte S.A.U. has also been certified under Independent System Operator (ISO) model for the primary gas transmission networks owned by SAGGAS and by Enagas Transporte del Norte.

- Finally, Reganosa was certified by CNMC, in February 2014, under ownership unbundling model (OU). The CNMC resolution limits the voting rights and the appointment of members in the supervisory board of Reganosa to the two shareholders from vertically integrated undertakings (Gasifica and Sonatrach).

Following the certification of the Spanish TSO, CNMC is monitoring the compliance with the certification requirements.

TSO certification process

Regarding the main TSO, ENAGAS, requested the certification as a Transmission System Operator on 4th November 2011. The Board of the Spanish NRA, by 19th April 2012, issued a preliminary certification decision of ENAGAS according to article 63 bis of Hydrocarbons Act (Act 34/1998, of October 7th), amended by Royal Decree-Law 13/2012. Pursuant to the mentioned article 63 bis, the NRA notified the preliminary decision on the certification of ENAGAS as TSO, to the European Commission; On June 15th 2012, the EC sent its opinion on this preliminary decision. The NRA drafted its final decision and on the 26th July 2012, issued the definitive certification for ENAGAS subject to the fulfilment of certain conditions. The definitive certification was also notified to the EC.
In its meeting dated 18th April 2013, the Board of the NRA monitored the compliance of the conditions set in the definitive certification decision, resolving that ENAGAS had adopted the measures needed to fulfil the unbundling requirements. This decision adopted by 18th April 2013 was also notified to the EC.

In order to guarantee ENAGAS’s independence, the Spanish law limits the share capital and the 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. This limit does not apply to State ownership.

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

<table>
<thead>
<tr>
<th>ENAGAS shareholders</th>
<th>% total shareholding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociedad Estatal de Participaciones Industriales (SEPI)</td>
<td>5.00%</td>
</tr>
<tr>
<td>JPMorgan Chase &amp; CO Bank of America Corporation</td>
<td>3.614%</td>
</tr>
<tr>
<td>Retail Oeics Aggregate</td>
<td>1.010%</td>
</tr>
<tr>
<td>Free float</td>
<td>Rest</td>
</tr>
</tbody>
</table>

*Table 14. Shareholding structure of ENAGAS.*

*Source: CNMV.*

Reganosa requested the certification under the Ownership unbundling model on 31st July 2012. In its preliminary decision, the Spanish NRA, in its meeting held on 13th December 2012, rejected the certification identifying certain measures to be adopted by Reganosa to comply with ownership unbundling requirements. On February 2013, the European Commission sent its favourable opinion on this preliminary decision. Eventually, the Board of the NRA in its meeting dated 4th April 2013, issued its final decision rejecting the certification under the ownership unbundling model. Once adopted the proposed measures to comply with unbundling requirements, Reganosa requested again the certification under the Ownership unbundling model on 27th June 2013. After having issued the CNMC preliminary decision and the CE favourable opinion, the Board of CNMC issued its final decision on 4th February 2014. The definitive certification was notified to the EC.

Enagás Transporte, S.A.U submitted an application to be certified as Independent System Operator (ISO) of the primary gas transmission networks owned by Saggas and by ETN on 21st May 2013. The Board of the Spanish NRA in its meetings dated 18th July and 31st July 2013 respectively, issued the preliminary certification decisions of ENAGAS Transporte S.A.U and proceeded to notify them to the European Commission. After CE favourable opinions, the Board of CNMC issued its final decision on 14th and 26th November 2013, respectively, for Enagás Transporte S.A.U as ISO of the primary gas transmission networks owned by Saggas and by ETN respectively. The definitive certifications were notified to the EC.
DSO Unbundling

Article 63 of the Hydrocarbons Act states the current legal unbundling regulatory framework for DSOs, in line with the Gas Directive 2009/73. Most of the DSO unbundling requirements were introduced in the Spanish legislation in 2007, by the act 12/2007.

DSOs are allowed to belong to a group that undertakes supply activities, provided that a separate company performs the regulated activities (the so-called 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.

Article 63 of the Hydrocarbons Act sets forth 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 the NRA and the Ministry for approval, and shall be published.

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

Among the measures adopted and explained in the aforementioned reports, the following are worthy to underline:

- Measures related to the reorganization of the legal companies that belong to the vertically integrated undertaking including the transfer of assets, staff and shareholdings, in order to comply with unbundling requirements.
- The modification of the functions of some staff, and those 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 regulated activities the management;
- Obligation for persons in charge of the regulated activities management to sign a formal declaration setting that they do not own shares or other participations in undertakings which carry out production or supply activities;
- With respect to commercially sensitive information:
  o revision of procedures for accessing that information,
  o introduction of confidentiality clauses in contracts with third parties,
  o designation of persons in charge of information custody,
  o introduction of disciplinary measures for breaching the code on activities separation.
The requirements to separate the identity of the supply branch from the vertically integrated undertaking, with a view to avoid confusion in their communication and branding, was transposed by Royal Decree-Law 13/2012.

The main DSOs are Gas Natural Distribución Group (69% supply points) and EDP group (14%), both vertically integrated with supplying activities. It should be mention the creation of 2 new ownership unbundled DSOs since 2010: Madrileña Red de Gas, with 842,000 supply points (11%), and Redexit Group, with 390,000 supply points (5%), in both cases as the result of a disinvestment in DSO grids from Gas Natural and Endesa.

Vertically integrated DSO have not been rebranded in Spain: DSOs generally use the group name but adding “distribution” as a reference to the activity of the unbundled company. CNMC is now monitoring the compliance of the rebranding obligations, analysing the relevant information regarding this issue sent by them. As a result of this analysis, CNMC may request companies to rebrand, in case it concludes those obligations are not being fulfilled.

Law 3/2013 has introduced an explicit and clear function for CNMC consisting of monitoring the functional unbundling among the activities of the gas sector.

CNMC is preparing a report on the supervision of DSOs unbundling, in execution of the aforementioned function. Hence, CNMC is monitoring the implementation of unbundling measures, including those foreseen in the Royal Decree-Law 13/2012:

- The appointment of the compliance officer of the Distribution System Operator;
- Those measures taken to ensure vertically integrated distribution system operators shall not, in their communication and branding, create confusion in respect of the separate identity of the supply branch of the vertically integrated undertaking and;
- Those measures taken to ensure that staff responsible for the management of the distribution system operator does not participate in the structures of the integrated undertaking.

4.1.2 Technical functioning

Network code and Spanish Gas System Operator (ENAGAS GTS S.A.U.)

The network codes and technical functioning of the system is set by the System Operation Network Code (Normas de Gestión Técnica del Sistema - NGTS), approved by the Government.

The Hydrocarbons Act designated ENAGAS as the Spanish Gas System Operator, in order to be responsible for the operation and technical management of the network, and to ensure the continuity and security of natural gas supply and the correct coordination between access points, storage, LNG terminals, and transmission and distribution companies, with the supplying companies.
Act 12/2011 modified the Hydrocarbons Act and required ENAGAS to split the transport activity and the role of Spanish Gas System Operator into two different companies within the group. In 2012, ENAGAS approved the segregation of the company in two new companies, namely, ENAGAS TRANSPORT, S.A.U., as TSO, and ENAGAS GTS, S.A.U., as Spanish Gas System Operator. ENAGAS GTS, S.A.U. had to implement separate accounts and functional unbundling for other activities (regasification, transmission and storage) and its staff had to sign a code of conduct to guarantee its independence from all other activities.

Balancing services

According to Law 3/2013, the CNMC is in charge of approving the methodology regarding the provision of balancing services

Currently, the balancing regime is set by the rule 9 of the System Operation Network Code (NGTS). This provision establishes the obligation for all users to be balanced in the network, and introduces economic penalties to those users incurring in imbalance.

The CNMC is working on the draft balancing code, to be approved in 2015. The new balancing regime, according to the European Network Code on Gas Balancing of Transmission Networks (Commission Regulation 312/2014) is expected to be fully implemented in Spain by October 2016.

Since 1st March 2015, balancing penalties at the balancing point (AOC) has been increased, encouraging traders to be in balance at the end of the day.

The CNMC and the Government are also working on the development of a gas exchange that is going to be functioning by the last quarter of 2015, in order to enable network users to balance their portfolios.

Security and reliability standards, quality of service and supply

General security of supply provisions and safeguard measures, applicable to the Spanish gas system, are explained in point 4.3 of this report.

Security of supply and quality of service standards for customers are set by the Royal Decree 1434/2002.

The customer has the right to accessible information (guide) on correct installation handling, including safety measures, for the gas installation. As a part of maintaining safety, DSOs have the obligation to perform every 5 years a safety inspection of the gas installation at the customer premises. The process of a natural gas inspection by DSOs consists in checking three main safety aspects:

- Check that the installation has no gas leaks.
- Check that the gas installation has correct ventilation and correct evacuating exhaust of combustion product.
- Check that the gas installation has a correct combustion (without production of carbon monoxide) in the boiler.

To ensure that customers can use natural gas in a secure way, the DSO have also the obligation to have a telephone number and a comprehensive 24-hour attention system to cover any gas emergency, not only in the gas distribution grid, but also covering gas emergencies at the customer’ premises.

Regarding service standards, the compensation payments to customers in case of interruptions of gas supply are established in article 66 of Royal Decree 1434/2002, and range from 10% to 50% of the monthly access tariffs gas bill, depending on the duration of the interruption.

Connections to the grid

The Royal Decree 1434/2002 established the deadline to respond to a customer request of connection when major works are needed. The distribution company has 6 days when no specific project is needed and 15 days when such a kind of project is required.

The detailed estimated price offer for a new gas connection is provided between 6 and 15 days. In the case of connection below 4 bar, the payment is established by regulation depending on the meter needed, the connections and the consumption of the new customer. If the connection is above 4 bars, a budget is provided.

As far as no major work is required, the Royal Decree 1434/2002 sets that once the supply request is received (from the supplier of the customer), the DSOs has a maximum deadline of six working days to start the delivery of gas (connections with minor works).

Connections with minor works include only checking the documentation (if needed), installing the gas meter, checking the security of the gas installation by the DSO and start the delivery of gas. The DSO connection tariff is set by the regulation and it is billed by the supplier.

Monitoring access to storage

According to article 7 of Act 3/2013, the CNMC monitors the access to storage. The access model to underground storage is a fully regulated-TPA.

The Order ITC/3862/2007, the Order ITC/3128/2011 and the Order IET/849/2012 established a yearly mechanism for the allocation of underground storage capacity for each annual period, from the 1st April of the current year, to the 31st March of the following one.

These are the criteria for underground storage capacity allocation:

- Firstly, the capacity is allocated to the supplying companies in proportion to their final sales in the previous year (up to 20 days of average gas demand) in order to comply with the strategic reserves imposed by law.
- The remaining capacity is allocated through an auction mechanism.
- In case there is still capacity left, it is allocated according to the agents’ capacity requests communicated to the System Technical Manager under “first-come-first-served” criteria.

The general rules of the auction procedure are established by Resolution of 14 March 2008, 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. CNMC is the supervisory body for these auctions and the Spanish power exchange (Operador del Mercado Ibérico de Energía, Polo Español, S.A. -OMEL) 21 is the institution responsible for organising them.

The following table summarises the results of the auctions held in 2009, 2010, 2011, 2012 and 2013. During year 2014, no remaining capacity was available after the primary allocation process and therefore no auction was held.

<table>
<thead>
<tr>
<th>Date</th>
<th>Allocated capacity (GWh)</th>
<th>Supply period</th>
<th>Capacity price (TPA rate added)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 March 2009</td>
<td>4,257</td>
<td>1 April 2009 - 31 March 2010</td>
<td>6,603 €/GWh per year</td>
</tr>
<tr>
<td>25 March 2010</td>
<td>7,397</td>
<td>1 April 2010 - 31 March 2011</td>
<td>3,932 €/GWh per year</td>
</tr>
<tr>
<td>29 March 2011</td>
<td>8,874</td>
<td>1 April 2011 - 31 March 2012</td>
<td>832 €/GWh per year</td>
</tr>
<tr>
<td>27 March 2012</td>
<td>3,822</td>
<td>1 April 2012 - 31 March 2013</td>
<td>4,932 €/GWh per year</td>
</tr>
<tr>
<td>26 March 2013</td>
<td>960</td>
<td>1 April 2013 - 31 March 2014</td>
<td>4,932 €/GWh per year</td>
</tr>
</tbody>
</table>

Table 15. Auctions for underground storage of natural gas: results of auctions between 2009 and 2013

Source: Auction administrator and the Spanish NRA

4.1.3 Network tariffs and economic system

TPA tariffs.

In Spain, the Government is currently the responsible for setting access gas tariffs; CNMC issues an opinion by means of a non-binding report to the Government before each update or tariff revision. Afterwards, access tariffs are published in the Official Spanish Journal.

The Ministerial Order IET/2446/2013 established the rates, tolls and fees for third-party access to gas installations applicable in 2014, introducing a general increase of around 2%.

The tariff model for transmission applied in Spain is the entry-exit model with a single balancing area. In addition, regulated tariffs for LNG terminals and underground storage are set.

According to Law 3/2013, CNMC is responsible for elaborating the methodology to calculate rates, tolls and fees transmission and distribution, regasification, storage and tank truck fill-up, in accordance with transparent, non-discriminatory and cost-reflective criteria.

During the last years, CNMC has been working on the above mentioned methodology. A draft methodology was circulated in order to receive the comments of the stakeholders at the beginning of 2014. However, uncertainty about the development of the “Network code on Harmonised Transmission Tariff Structures for gas” and the recent modification of the Hydrocarbons Law (by the Law 8/2015) has delayed the Commission developments.

The Law 18/2014, and previously the Royal Decree-Law 8/2014, establish the principle of economic and financial sustainability for the gas system; this principle is reinforced with the obligation to automatically review the corresponding tariffs if the annual imbalance exceeds the following limits:

- 10% of the forecasted income receivable for the year or
- 15% of the sum of the annual imbalance plus annual payments recognized and pending amortization.

The part of the imbalance that, without exceeding the above limits, is not compensated by the increase in tariffs will be financed by the parties to the settlement system in proportion to the remuneration that corresponds to them for their activities. This imbalance may be received in the following five years and will earn an interest rate equivalent to the market rate.

In 2015, Law 8/2015 sets that the legal authority to establish the structure and conditions applicable to the access tariffs for transportation and distribution networks corresponds to the Government. Therefore, the definition of the structure and conditions applicable to the access tariffs are a prerequisite for the development of the Commission methodology.

Revision of the economic system for the regulated activities (LNG, storage, transport and distribution)

In July 2014, the Government approved the Royal Decree-Law 8/2014, and in October 2014, the Parliament approved the Law 18/2014, with reform of the economic system for the regulated activities in the gas sector: LNG, storage, transport and distribution.

The reform introduces principles of economic sustainability in the actions of the government, TSOs and DSOs, establishing mechanisms to deal with the accumulated deficit (estimated at 1,000 million€ in December 2014) through a 15 years’ payment (the accumulated deficit at 31 December 2014, which will be determined in the definitive settlement of 2014 and will be financed by those parties subject to the settlement system at a market rate, still to be defined) and establishing transparent conditions to determine the necessary increases in TPA tariffs, just in case of occurrence of future deficit.
It also modifies the remuneration system, establishing a regulatory periods of six years, with stability conditions in the methodology and the parameters applicable (remuneration rate and unit values of investment and operation and maintenance for transmission, storage and regasification), revisable every 3 years if costs and revenues change significantly, therefore removing automatic annual updating formulas.

In transmission remuneration, main changes include a single retribution system, independently of the construction year of the facilities, the reduction of the spread of the financial retribution (Spanish 10 year bond plus 200) and the elimination of the annual actualization of cost with the price index. The financial retribution, for transport, LNG and storage, also changed to be fixed on the value of the net assets. A new remuneration term (“Remuneration for the continuation of supply”22) is included dependent on the demand (with a cap and a floor) and an efficiency factor.

In transmission, LNG facilities and storage, the regulatory lifetime of some assets was expanded, resulting in lower annual payment for amortization.

In distribution, the asset base is reduced a 7.5%. The remuneration due to distribution facilities is related to customer increases and the new demand they generate. The new system includes an incentive for DSO to connect customers in new areas.

The Law also contemplate a compensation of 163 M€ to Gas Natural Fenosa, as this company loose in 2010 an international arbitration with Sonatrach regarding the gas supply contract with Algeria (full regulated tariffs until 2008 were calculated using this contract as a reference).

The estimated savings of the new model are 238 M€ per year (110€ in distribution activity, 97 M€ in transport, 23 in LNG terminals and 8 M€ in UGS). The measures taken ensure the financial sustainability of the natural gas system.

The Law also creates the Energy Efficiency National Found, according to the article 20 of Directive 2012/27/UE of Energy Efficiency. Energy companies (oil, gas and electricity) have to contribute to this Found to fulfil the energy efficiency obligation schemes set out in Article 7 of the Directive.

4.1.4 Cross-border cooperation and implementation of European gas network codes

The implementation of European Network codes is considered to be a crucial step towards the completion of the gas internal market.

The CNMC has already approved the CMP and CAM mechanisms and is working on the balancing code, to be fully implemented by October 2016.

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22 This term allows the rebalancing of imbalances resulting from demand fluctuations. This variable component is shared among all the facilities on the basis of the weighting of their replacement value with respect to all the facilities that perform the activity.
CNMC, in cooperation with other regulators, is working in a number of areas according to the priorities defined in the Work Plan for the South Gas Regional Initiative (SGRI).

**Congestion management procedures**

CNMC approved the Circular 1/2013, dated 18\textsuperscript{th} December 2013, establishing congestion management procedures (CMP) to be applied at international connections by pipeline with Europe.

The rules for the implementation of the three mechanisms already applicable (over-subscription and buy-back, capacity surrender and long-term use-it-or-lose-it [UIOLI]) have been developed by this Circular 1/2013.

During 2014, the South Gas Regional Initiative worked on a coordinate implementation of CMP procedures among regional TSOs (Enagas, REN, TIGF and GRTgas) and NRAs (CNMC, ERSE and CRE), including the discussion of the over-subscription and buy-back procedures, to be approved by the regulators in 2015.

**Capacity allocation mechanisms**

The European regulation has been transposed in Spain, France and Portugal resulting in a set of harmonized rules for capacity allocation in all borders.

In this regard, CNMC approved the Circular 1/2014, dated 12\textsuperscript{th} February, establishing capacity allocation mechanisms (CAM) to be applied at international connections by pipeline with Europe.

In the context of the early implementation of the CAM NC, auctions in the South Gas Regional Initiative (including France, Spain and Portugal) have allocated capacity for the first time at all interconnections between entry-exit systems in the whole region, via VIPs between Portugal, Spain and France.

Capacity at these VIPs was allocated via PRISMA in 2014.

According to the roadmap, different auctions for the different time horizons products were gradually introduced since March 2014, in decreasing order, until reaching day-ahead and daily products in 2015:

- The first coordinated mechanism to allocate capacity products pursuant to the CAM NC took place in March 2014. Firm bundled and unbundled yearly products were auctioned at the two VIPs (on the FR-ES and PT-ES borders) simultaneously via the PRISMA platform.

- In June 2014, quarterly products were auctioned. TSOs in the region made public the auction calendar for the period from March 2014 to September 2015 to allocate capacity products at the two VIPs.
- Monthly products have been auctioned since September 2014 using the PRISMA platform.

- In October 2015, it is envisaged to introduce auctions for day-ahead and daily products

Cross-border Cooperation

CNMC, in cooperation with ACER, NRAs and European Commission, is working on promoting 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, ensuring appropriate conditions for the effective and reliable operation of gas networks, taking into account long-term objectives.

Concretely, apart from the progress on CAM early implementation, it is also remarkable the progress made by SGRI on issues such as increase interconnection capacity with the rest of Europe, improve interoperability between systems, increase transparency, implementation of the Directive and development of gas markets.

4.1.5 Compliance

Compliance of regulatory authorities with binding decisions of the Agency and the Commission

The Spanish NRA has to comply with and put into practice those pertinent and binding decisions issued by ACER and the EC. Throughout 2014, there weren’t any binding decisions issued by the EC or ACER towards the Spanish NRA.

Compliance of transmission and distribution companies, system owners and natural gas undertakings with relevant Community legislation, including cross-border issues

CNMC ensures compliance of transmission and distribution system operators and, where relevant, system owners, as well as of any gas undertakings with the relevant Community legislation, including cross-border issues.

CNMC is entitled 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; CNMC has the power to carry out investigations and to impose legally binding decisions.

CNMC has powers to request any information from gas undertakings. In this regard, CNMC shall issue the so-called “Circulars” that must be published in the Official State Journal, detailing and specifying the content of the information to be requested.
4.2 Market functioning

According to the Act 3/2013, CNMC is in charge of monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition at the Spanish gas markets.

4.2.1 Wholesale markets

4.2.1.1 International gas markets

One of the most notable elements of the gas market developments since 2010 is the large price differential between regional gas markets.

In the US market the new production technologies have sharply reduced the costs of production of unconventional gas, lowering gas prices and decoupling gas prices compared to oil. The Japan market, whose supply is only possible through LNG, has increased its imports of LNG for electricity production from March 2011 (the tsunami crippled its nuclear power plants), thus increasing the cost of supply. In addition, several emerging countries in Asia (China and India) and South America (Brazil, Argentina, Chile) have begun to import LNG, contributing to the increase in international market prices of LNG.

In Europe, with intermediate price levels, the existence of a network of highly interconnected gas transportation hubs allows northern and central Europe show a remarkable convergence of prices, and some decoupling on the price of oil. The less liquid markets have a higher price differential, although the trend is towards convergence of prices, as has happened with the Italian market.
In 2014, international gas markets suffered major changes:

- Spot oil prices declined from 115 dollars/barrel in June to 58 dollars/barrel in December 2014. Main attributed reasons are weaker global oil demand, US rising domestic production and competitive response from Saudi Arabia to keep market share and US Dollar appreciation.

- In addition, the price of Asian LNG declined sharply at the end of 2014 due to several factors: lower than expected demand in Japan, Korea and China; growing supply competition from new commissioned liquefaction capacity in Australia (and soon to be made on US); and falling oil prices diminishing oil-indexed LNG long-term contract charges. The price reduction registered in Asian LNG reduced the gas price-spread with the European market.

- In Europe, gas consumption totalled 4.460 TWh in 2014, a significant 11% decrease compared to 2013 values. Lower demand is one of the leading causes of significant prices reductions observed during most part of the year in European gas hubs. Prices recovered to some extent in autumn due to market risk sentiments linked to the Ukraine crisis and winter demand recovery.

4.2.1.2 Spanish Gas import prices

Spain imports most of the gas it consumes, since its gas production is minimal, and a majority of long term contract are oil-indexed. Another relevant factor that influences gas price in Spain is the importance of LNG in gas procurement (see chapter 4.3 Security of supply). The ability to arbitrate in the global LNG market, makes the Spanish consumer more exposed to international prices and has suffered in recent years higher prices than in northern Europe, as Spain was influenced by high LNG Asian prices.

In order to provide a price reference for gas in Spain, CNMC has developed an index of natural gas border prices, from gas imports data, which is available at CNMC website\(^{23}\) based on the data provided by Customs of the Spanish Tax Agency (AEAT).

Gas import prices remain stable in most part of 2014. A majority of long term contract are oil-indexed, but the lowering oil prices took place from the second half of 2014 and gas prices track oil with a lag of several months, so their effects are further observable in 2015.

In 2014, it is worth mentioning the significant increase in Spain LNG re-exports, with 70 operations performed accumulated a total of 60.200 GWh, which was a new record. The Asian Spot LNG price also declined at the end of 2014, thus making Spanish LNG re-exports less attractive.

\(^{23}\) [http://www.cnmc.es/es-es/energ%C3%ADa/hidrocarburos/gaseosos/mercadomayorista.aspx](http://www.cnmc.es/es-es/energ%C3%ADa/hidrocarburos/gaseosos/mercadomayorista.aspx)
The following figure shows the evolution of natural gas prices from January 2002 to December 2014 at the border (according to this index), including LNG and natural gas introduced to Spain through pipelines from Morocco, Algeria and France.

![Natural gas border prices in Spain](image)

**Figure 14. Evolution of natural gas border prices in Spain (€/MWh) (Jan 2002 - Dec 2014)**  
*Source: AEAT and CNMC*

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 2014, natural gas border price has remained in the band of 25,10-26,62 €/MWh. The prices from July 2009 to December 2014 have risen up a 88,3% from 14,03 up to 26,42 €/MWh. The table below shows the monthly evolution of these prices in 2014 (in €/MWh):

<table>
<thead>
<tr>
<th>(€/MWh)</th>
<th>Natural gas (pipeline)</th>
<th>LNG</th>
<th>Average import price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2014</td>
<td>25,50</td>
<td>26,28</td>
<td>25,88</td>
</tr>
<tr>
<td>Feb 2014</td>
<td>25,72</td>
<td>26,76</td>
<td>26,28</td>
</tr>
<tr>
<td>Mar 2014</td>
<td>25,18</td>
<td>26,64</td>
<td>25,87</td>
</tr>
<tr>
<td>Apr 2014</td>
<td>26,46</td>
<td>25,02</td>
<td>25,70</td>
</tr>
<tr>
<td>May 2014</td>
<td>26,60</td>
<td>24,15</td>
<td>25,32</td>
</tr>
<tr>
<td>Jun 2014</td>
<td>26,37</td>
<td>23,45</td>
<td>25,17</td>
</tr>
<tr>
<td>Jul 2014</td>
<td>25,38</td>
<td>24,94</td>
<td>25,18</td>
</tr>
<tr>
<td>Aug 2014</td>
<td>26,41</td>
<td>23,97</td>
<td>25,10</td>
</tr>
<tr>
<td>Sep 2014</td>
<td>26,34</td>
<td>26,84</td>
<td>26,62</td>
</tr>
<tr>
<td>Oct 2014</td>
<td>26,05</td>
<td>25,43</td>
<td>25,69</td>
</tr>
<tr>
<td>Nov 2014</td>
<td>27,66</td>
<td>25,03</td>
<td>26,38</td>
</tr>
<tr>
<td>Dec 2014</td>
<td>27,71</td>
<td>24,86</td>
<td>26,42</td>
</tr>
</tbody>
</table>

**Table 16. Natural gas border prices in Spain, 2014.**  
*Source: AEAT and CNMC*
4.2.1.3 Spanish Wholesale markets

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

Most of the gas traded in the Spanish market is negotiated in bilateral OTC transactions. The volume of gas traded on the OTC market is communicated to the system operator, in order to register the transfer of ownership, through the ENAGAS “MS-ATR platform”.

There are nearly 70 active traders in this platform. It is remarkable that number of active traders at OTC market increased in 27 in 2014. The entry of new competitors in the market is very dynamic, and the number of traders registered in Spain has continued to increase since the beginning of liberalization. This include the incorporation of companies involved in international gas trading as Statoil, ENI, Vitol, Koch, Gunvor, Alpic, Gasela, Merrill Lynch and Morgan Stanley which adds in 2014 Gazprom, although most of them are not operating in the retail market (not making sales to final customers).

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 four Spanish underground storage sites in operation (Serrablo, Gaviota, Marismas and Yela).

The volume of gas traded stood at 533,000 GWh in 2013, a 33% of increase from 2013, and is a 77% higher than the demand for this year, with more than 7,000 transactions per month. Many of the trades are temporary swap, as the OTC market is mainly used as a tool to manage the stocks of LNG and gas balance.
Figure 15. Balancing and trading points
Source: CNMC

Figure 16. Spanish OTC gas market v. consumption 2014 (GWh/month)
Source: ENAGAS and CNMC
Liquidity lies mainly on the LNG terminals, which accounted for 68.4% of all OTC trade in 2014. Huelva LNG terminal was the main trading point with 19.8% of gas trade. The AOC, which could look like an attractive virtual trading point, increased its operations since last year and it drew 30.5% of OTC trade in 2014.

<table>
<thead>
<tr>
<th>Balancing point</th>
<th>Traded gas 2014 (TWh)</th>
<th>Production (TWh)</th>
<th>Churn rate</th>
<th>Number of active traders</th>
<th>Market share of 3 main traders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona LNG Terminal</td>
<td>92.439</td>
<td>31.596</td>
<td>2.9</td>
<td>34</td>
<td>47%</td>
</tr>
<tr>
<td>Huelva LNG Terminal</td>
<td>105.675</td>
<td>20.146</td>
<td>5.2</td>
<td>39</td>
<td>39%</td>
</tr>
<tr>
<td>Bilbao LNG Terminal</td>
<td>36.639</td>
<td>17.026</td>
<td>2.2</td>
<td>19</td>
<td>58%</td>
</tr>
<tr>
<td>Cartagena LNG Terminal</td>
<td>42.973</td>
<td>11.795</td>
<td>3.6</td>
<td>28</td>
<td>61%</td>
</tr>
<tr>
<td>Mugardos LNG Terminal</td>
<td>11.940</td>
<td>13.183</td>
<td>0.9</td>
<td>16</td>
<td>75%</td>
</tr>
<tr>
<td>Sagunto LNG Terminal</td>
<td>75.622</td>
<td>17.051</td>
<td>4.4</td>
<td>29</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Total LNG</strong></td>
<td><strong>365.288</strong></td>
<td><strong>110.797</strong></td>
<td><strong>3.3</strong></td>
<td><strong>59</strong></td>
<td><strong>34%</strong></td>
</tr>
<tr>
<td>Underground storage</td>
<td>5.567</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission balancing point</td>
<td>162.847</td>
<td>190.703</td>
<td>0.9</td>
<td>45</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Total Spain</strong></td>
<td><strong>533.702</strong></td>
<td><strong>301.500</strong></td>
<td><strong>1.8</strong></td>
<td><strong>70</strong></td>
<td><strong>46%</strong></td>
</tr>
</tbody>
</table>

Table 17. Main features – OTC
Source: ENAGAS

Transactions in the Spanish OTC market in 2014 represented globally 1.77 times natural gas demand.

Next figures show the monthly evolution of gas traded and of the number of transactions – around 84,000 – registered in the Spanish OTC market in 2014.

Figure 17. Gas traded in the OTC market during 2014
Source: ENAGAS
The figure below shows the market sharing-out in the OTC gas market for 2014 in terms of purchases of energy.

Figure 19. Market share (purchases) in the OTC market in 2014
Source: ENAGAS and CNMC
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.

Some gas price references are available from the auction mechanisms for the purchase of gas for TSO operations, cushion gas and last resort tariffs. The results of all auctions held to date have been located above the prices of the main European spot or futures markets gas.

b) Roadmap to develop a gas exchange in Spain

Spanish wholesale market was facing problems regarding lack of liquidity and transparency in price issues. In April 2010, the Spanish NRA published a roadmap to develop a gas exchange in Spain. The objective was 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.

In 2014, the creation of a gas hub has received a new impetus. The Ministry of Industry has created a new working group in order to analyse and discuss the regulatory measures needed to remove all the regulatory barriers to develop this hub in 2015.

There are two different initiatives to create a Spanish gas market: Iberian Gas Hub and MIBGAS. In March 2014, the two initiatives signed a MOU that may result in a better coordination of both projects (i.e. Iberian Gas Hub may focus in futures markets, and MIBGAS in spot market).

As a highlight of regulatory aspects in 2015, it should be mentioning the Law 8/2015 that establishes the creation of a gas exchange, to start in September 2015.

The Law 8/2015, amending Law 34/1998 on the hydrocarbons sector, establishes the implementation of an organized gas market, and nominates MIBGAS as the independent market operator. The gas exchange will consist of transactions purchase and sale of natural gas in the virtual point of balance of the gas system, with physical products with a horizon of delivery to the last day of the following month.

According to the road map established on the Law, the gas exchange has to be operational on September 23, 2015:

- Constitution of the market operator: Within 2 months (before July 23, 2015), OMEL will promote the adaptation of the corporation MIBGAS shareholding requirements set out in Law 8/2015:
  - The sum of the shares of OMEL and OMIP will be 30% in proportion 2/3 and 1/3

24 All provisions of this Act relating to the Operator do Mercado Ibérico (Portugal), SGPS, SA or the Technical Manager of the Gas System Portuguese will be conditioned to the adoption by the Republic of Portugal of legislation that allows its application to such entities.
- The sum of the shares of the Spanish and Portuguese technical managers is 20%, in proportion 2/3 and 1/3
- Companies that operate in the energy sector may not exceed a 3% stake. In total, energy companies may not exceed 30%.
- Other companies may only reach 5%

- Financing the market operator: Until the market reach sufficient liquidity levels, it will be included as a cost of the system.

- Date of start: The market shall be operating within a period of four months from the entry into force of the Act (expires on September 23, 2015). This requires that before that date, the Government approved the market rules.

- The gas exchange will function as a trading platform, as defined in the European network code on the balance of gas transport networks.

- Market surveillance. CNMC shall publish annually a report in which the level of market liquidity analysis. The report will recommend steps to foster the liquidity, including the possibility to introduce market makers.

c) **Auctions for the procurement of gas for TSO needs and regulated tariffs**

In addition to OTC trading, there are public auctions at different horizons for the procurement of gas for the TSOs needs (working gas and cushion gas) and for the procurement of gas for the regulated tariffs (the buyers at the auctions are the last resort suppliers). These auctions are run by OMIE, the electricity market operator, and are monitored by CNMC.

- **Auctions to buy operational gas for TSOs**

Order IET/2812/2012, which lays down the charges associated with access by third parties to gas facilities and remuneration of the regulated activities, established that TSOs 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, 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. CNMC is the supervisory body of these auctions and the Spanish power exchange (Operador del Mercado Ibérico de Energía, Polo Español, S.A. -OMEL)\(^{25}\) is the institution responsible for organising them.

\(^{25}\) Through its subsidiary OMEL Diversificación S.A.U. from 2009.
Article 15 of Order IET/2446/2013, of 27 December 2013, establishes the possibility to hold more than one auction per year. During year 2014, two auctions were held (on 27 May 2014 and 18 November 2014 respectively).

The auction is based on a mechanism of multi-round descending clock price. The following table summarises the results of the auctions held in 2011, 2012, 2013 and 2014.

<table>
<thead>
<tr>
<th>Type</th>
<th>Date</th>
<th>Multi-round descending-price, electronic mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 May 2011</td>
<td></td>
</tr>
<tr>
<td>GWh operating gas</td>
<td>1,504.9</td>
<td></td>
</tr>
<tr>
<td>GWh min. filling level</td>
<td>89.4</td>
<td></td>
</tr>
<tr>
<td>GWh total</td>
<td>1,594.2</td>
<td></td>
</tr>
<tr>
<td>Supply period</td>
<td>1 July 2011 -</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 June 2012</td>
<td></td>
</tr>
<tr>
<td>Auction price</td>
<td>26.16 €/MWh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29 May 2012</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,961.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,021.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32.31 €/MWh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28 May 2013</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,927.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,950.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.85 €/MWh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 May 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td>914.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>98.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,013.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29.70 €/MWh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 Nov 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td>963.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 18. Auctions for operating and minimum filling level gas\(^{26}\): results of the auctions held in 2011-2014

Source: auction administrator and CNMC

- 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, regulated 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 have to be celebrated each year for the “base load gas” product and one for the “winter gas” product\(^{27}\).

The products subject to auction during year 2014 were: (i) the base load gas at a pre-established monthly amount for the period 1 July 2014 - 31 December 2014 and for the period 1 January 2015 – 30 June 2015; and (ii) the winter gas for pre-established monthly amounts for the period November 2014 - March 2015.

A multiple-round descending-clock price mechanism was used for the two auctions celebrated during year 2014, and their results were the followings:

\(^{26}\) In the auctions of years 2011, 2012 and 2013 no minimum filling level gas was actually auctioned, being the 100% corresponding to operating gas. The operating gas correspond to “full requirement”, therefore the final amount supplied can slightly deviate from the indicative figure in the table.

\(^{27}\) According to article 5.4 of Order ITC/1660/2009 establishing the calculation methodology for the Last Resort Tariff of natural gas, by means of the redaction given by Order ITC/1506/2010.
Table 19. Auctions for natural gas for last resort supply: results of the auctions held in 2014

<table>
<thead>
<tr>
<th>Type</th>
<th>Multi-round descending price, electronic mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>17 June 2014 28 October 2014</td>
</tr>
<tr>
<td>Monthly base load gas (GWh)</td>
<td>1 320 GWh (220 GWh/month) for second half of year 2014</td>
</tr>
<tr>
<td></td>
<td>1 320 GWh (220 GWh/month) for first half of year 2015</td>
</tr>
<tr>
<td>Winter gas (GWh)</td>
<td>2 095 GWh (November 2014 - March 2015)</td>
</tr>
<tr>
<td></td>
<td>not applicable</td>
</tr>
<tr>
<td>Supply period</td>
<td>1 July 2014 - 30 June 2015</td>
</tr>
<tr>
<td>Auction price for base load gas</td>
<td>28.81 €/MWh</td>
</tr>
<tr>
<td></td>
<td>30.76 €/MWh</td>
</tr>
<tr>
<td>Auction price for winter gas</td>
<td>32.14 €/MWh</td>
</tr>
<tr>
<td></td>
<td>not applicable</td>
</tr>
</tbody>
</table>

- Auctions to buy cushion gas for the new underground storage facilities

On 4 June 2014 the third auction for the procurement of cushion gas for the new underground storage facilities took place. The main regulation related to that auction is:

- Resolution of the State Energy Secretariat (SEE) of 17 April 2012, establishing the auction procedure, taking into account the amendments from Resolution SEE of 7 May 2013.
- Resolution of the General Directorate of Energy Policy and Mining (DGPEM) of 6 May 2014, establishing the operational rules for the development of the auction for the purchase for the period 1 July to 31 October 2014 of the natural gas needed to fill the minimum level of the basic underground storage “Yela”. The maximum amount to be auctioned was fixed in 1,934 GWh.

The total matched amount was 1,500 GWh, allocated between the 7 winners. The deliveries were arranged in two periods of two and a half months: the first period from 1 July 2014 to 31 August 2014, and the second period from 1 September 2014 to 31 October 2014. These electronic auctions are arranged according to the sealed-bid method and, in particular, they employ the “pay-as-bid” mechanism, i.e. there is not a single equilibrium price.

REMIT


Law 8/2015, of 21 May 2015, amending Law 34/1998 on the hydrocarbons sector introduces sanctions for the REMIT infringements in the wholesale Spanish gas market. In particular,

28 In the auction held on 18 June 2013, the matched quantities were 50% and 40% of the base load and winter gas, respectively, of the auctioned amounts shown in Table 5.
Article 110 (paragraph “u”) of the resulting Gas law establish an infringement consisting in engagement in (or attempt to engage in) market manipulation, insider trading or not publishing inside information, according to Regulation (EU) 1227/2011; the sanctioning faculty corresponds to CNMC. Article 110 corresponds to serious infringements.

4.2.1.4 Wholesale market monitoring and effectiveness of competition

Market monitoring

The Spanish NRA 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).

Furthermore, in the monthly monitoring report on wholesale market it is followed up the evolution of the prices in the international markets in order to compare with the domestic prices of gas.

Wholesale market indicators

The following table summarizes the main indicators of the wholesale gas market in Spain in 2014

<table>
<thead>
<tr>
<th>Wholesale market indicators</th>
<th>Year 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Gas Production</td>
<td>500 GWh/year</td>
</tr>
<tr>
<td>Gas Consumption</td>
<td>301,709 GWh</td>
</tr>
<tr>
<td>Import by pipeline and LNG</td>
<td>53% Pipeline / 47% GNL</td>
</tr>
<tr>
<td>Main origin of gas suppliers</td>
<td>Algeria (53%)</td>
</tr>
<tr>
<td>Number of origins of gas supplies</td>
<td>11</td>
</tr>
<tr>
<td>Number of registered traders in Spain</td>
<td>120</td>
</tr>
<tr>
<td>Number of traders bringing gas to Spain</td>
<td>27</td>
</tr>
<tr>
<td>Market share of the largest entity bringing natural gas</td>
<td>45.2% (Gas Natural Fenosa)</td>
</tr>
<tr>
<td>HHI for gas imports(^{29})</td>
<td>2295</td>
</tr>
<tr>
<td>Number of traders active in the wholesale market (OTC)</td>
<td>70</td>
</tr>
</tbody>
</table>

\(^{29}\) Calculated on the base of the gas importing companies (not calculated on the base of market share of the international gas producers, like Sonatrach)
<table>
<thead>
<tr>
<th>Number of traders involved in gas auctions</th>
<th>Between 7 y 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading volume in the OTC gas market</td>
<td>533,000 GWh/año</td>
</tr>
<tr>
<td>Number of transactions in the OTC</td>
<td>7,000 trades/month</td>
</tr>
<tr>
<td>Number of transactions in the gas exchanges</td>
<td>0</td>
</tr>
<tr>
<td>Gas import prices to Spain (2014 average)</td>
<td>25,80 €/MWh</td>
</tr>
<tr>
<td>Spot gas price</td>
<td>N/D</td>
</tr>
</tbody>
</table>

Table 20. Main Wholesale market indicators
Source: CNMC

4.2.2 Retail market

Retail market structure

In 2014, the Spanish gas demand felt an 8.28%, to 301,709 GWh. Since 2008, the gas demand has felt a 33%, mainly for the decrease in gas consumption for electricity generation.

In 2014, the decrease in gas demand is similar in all sectors: the decrease in electricity generation (-9%) was driven by the increase in coal and renewable energies, in particular an increase of hydroelectric production; the industrial consumption of gas decreased an 8%, mainly as a result of a reduction of the incentives for the cogeneration plants.

The household consumption also fell a 7% in 2014, as a result of the warm weather, regardless of the increase of 100,000 new gas consumers in 2014.

The figure below shows the share of supplies in the Spanish market in 2014 by company, in terms of energy volume:
In December 2014, the total number of gas consumers was 7,548,654 (+99,827 consumers with regard to December 2013).

In terms of number of customers, the sharing-out of supplies at 31 December 2014 is showed in the next figure:
The natural gas consumption by end-use sectors in 2014 was as follows:

![Pie chart showing natural gas consumption by sectors in 2014.]

Figure 22. Consumption of natural gas by sectors (2014).  
Source: Sedigas

The evolution of this segmentation shows a very remarkable decrease in the share of gas dedicated to electricity generation, reaching a percentage of 17.2% in 2014 from a 40% in year 2009. During the last five years, there has been a decrease in the use of gas in electricity generation due to the reduction in consumption due to the crisis and the increase of production with renewable energies and with coal.

![Bar chart showing natural gas sales in Spain (GWh) from 1990 to 2014.]

Figure 23. Natural gas sales in Spain (GWh).  
Source: Sedigas
Table 21. Natural gas consumption and number of consumers in 2014.
Source: CNMC

The previous table shows the 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:

Evolution of gas market shares

At the end of 2014, there were 120 companies registered as retailers in the Spanish gas market. The share of the retailers in the liberalised market could be seen in the next figure:
In the industrial market, the number of companies is growing, with 41 gas marketers with sales to industrial consumers in 2014.

However, the number of competitors for households is more reduced. Thus, in 2014, at the price comparison tool for gas and electricity offers run by CNMC, there were only 7 retailers with national gas supply deals.

This difference may be due to the high entry cost of the retail activity (commercial cost to contract new customers), the existence of economies of scale in managing retail customers that benefit incumbents, and the lack of a liquid gas market, that makes difficult the entry of retailers without international gas procurement activity.

**Switching rate and cuts for non-payments**

The Royal Decree-Law 13/2012, of March 30th, introduced a general time limit of three weeks for the switching process in gas.

In 2011 and 2012, consumer activity gathered momentum and recorded a very high switching rate, but after that, switching rate has stabilised.

With respect to total changes supplier of natural gas, in 2014 was 754,000 changes, equivalent to 9.99% of gas customers in Spain, lower than the figure of 2013 (890,000 changes).
### Gas Switching Data 2010-2014

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic switching rate</td>
<td>12.48%</td>
<td>19.56%</td>
<td>19.36%</td>
<td>11.78%</td>
<td>9.95%</td>
</tr>
<tr>
<td>Number of domestic customers</td>
<td>7,111,612</td>
<td>7,207,431</td>
<td>7,323,988</td>
<td>7,396,840</td>
<td>7,498,055</td>
</tr>
<tr>
<td>Total switching rate</td>
<td>12.28%</td>
<td>19.54%</td>
<td>19.32%</td>
<td>11.83%</td>
<td>9.99%</td>
</tr>
<tr>
<td>Number of all customers</td>
<td>7,180,367</td>
<td>7,278,501</td>
<td>7,398,013</td>
<td>7,470,174</td>
<td>7,548,867</td>
</tr>
<tr>
<td>Number activated supplier’s changes</td>
<td>895,935</td>
<td>1,395,148</td>
<td>1,394,644</td>
<td>890,103</td>
<td>754,167</td>
</tr>
<tr>
<td>% failed switches</td>
<td>7.94%</td>
<td>6.08%</td>
<td>4.46%</td>
<td>6.62%</td>
<td>11.21%</td>
</tr>
</tbody>
</table>

Table 22. Gas switching data 2010-2014.

Source: CNMC, OCSUM

The number of cuts natural gas supply for non-payment in 2014 was approximately 65,000 cuts (cutting about 100 customers in the domestic market), with a decrease of 13% over 2013 values.

**DSOs**

The main DSOs are Gas Natural Distribución Group (69% supply points) and EDP group (14%), both vertically integrated with supplying activities. It should be mention the creation of 2 new ownership unbundled DSOs since 2010: Madrileña Red de Gas, with 842,000 supply points (11%), and Redexis Group, with 390,000 supply points (5%), in both cases as the result of a disinvestment in DSO grids from Gas Natural and Endesa. Other small DSOs are Gas Extremadura (1%) and Gas Directo (0.1%).

**Regulated tariffs**

Since July 2008, regulated tariffs for end-users (last resort tariff) 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 last resort tariff.

The number of customers supplied at regulated tariff continues the decreasing trend.

By 31 December 2014, the number of consumers supplied at a free price was 5,636,409 (74.67% of all consumers), while the number of consumers supplied at the last resort tariffs was 1,912,245 (25.33% of the consumers). In volume, consumers supplied at last resort tariff represent only 3.04% of the Spanish gas market. With respect to 2013, the number of customers in the last resort tariff has been reduced to 157,860.
Retail prices

At retail level, CNMC monitors retail prices through the commercial offers that are published in the CNMC's price comparison tool.

There is an obligation for the suppliers to communicate to CNMC all public offers of gas or electricity, including any change in tariffs to the price comparison tool. The suppliers are responsible for the data presented, as they have to send updated information.
Regarding the offers for households, the spread between the maximum and the minimum gas offer pose a difference in turnover of between 39 €/year and 140 €/year depending on the type of consumer.

### 4.2.2.1 Retail market monitoring and effectiveness of competition

**Market monitoring**

The Spanish NRA 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).

**Retail market indicators**

The following table summarizes the main indicators of the retail gas market in Spain in 2014.
### Retail market indicators

<table>
<thead>
<tr>
<th></th>
<th>Year 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Consumption</strong></td>
<td>301.709 GWh</td>
</tr>
<tr>
<td>Number of natural gas customers</td>
<td>7.548.854</td>
</tr>
<tr>
<td>Number of registered gas marketers</td>
<td>120</td>
</tr>
<tr>
<td>Number of retailers with sales to customers</td>
<td>41</td>
</tr>
<tr>
<td>Number of retailers with market shares &gt;5%</td>
<td>5</td>
</tr>
<tr>
<td>Number of retailers with customer shares &gt; 5%</td>
<td>4</td>
</tr>
<tr>
<td>Switching rate</td>
<td>11,5%</td>
</tr>
<tr>
<td>Customers under regulated tariff</td>
<td>25%</td>
</tr>
<tr>
<td>HHI in terms of sales</td>
<td>2.601</td>
</tr>
<tr>
<td>HHI in terms of customers</td>
<td>3.895</td>
</tr>
<tr>
<td>Number of supply cuts by non-payment</td>
<td>65.664</td>
</tr>
<tr>
<td>Evolution of the price of gas for the average consumer (9000 kWh / year), TUR-2, tax excluded</td>
<td>560,15€/year (-0,08€/year)</td>
</tr>
<tr>
<td>Number of gas offers at Price Comparison Tool (December 2013)</td>
<td>124</td>
</tr>
</tbody>
</table>

*Table 23. Main Retail market indicators
Source: CNMC*

#### 4.3 Security of supply

##### 4.3.1. Monitoring origin and mix of gas imports

**Domestic gas production.**

The domestic production of Spanish fields is marginal and reaches only 496 GWh, 0,16% of Spanish gas demand in 2014. This production comes from three gas fields that are close to depletion; it could be used as underground storages in the future. The rest of the gas consumed in Spain is imported.
Origin and mix of gas imports

In 2014 Spain received natural gas from a total of eleven different countries. Algeria was the main supplying country, with 55.2% of the gas imports, followed by Norway (12.2%), Qatar (9.1%), Nigeria (8.2%) and Trinidad & Tobago.

The figure below shows the mix of gas supplies to the Spanish system in 2014.

![Figure 27. Sources of gas imported to Spain in 2014. Source: CNMC](image)

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 (46.8% in 2014):

<table>
<thead>
<tr>
<th></th>
<th>2013 (GWh)</th>
<th>2014 (GWh)</th>
<th>Annual variation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline</td>
<td>202,237</td>
<td>204,569</td>
<td>1.2%</td>
</tr>
<tr>
<td>LNG</td>
<td>173,944</td>
<td>180,090</td>
<td>3.5%</td>
</tr>
<tr>
<td>Total</td>
<td>376,181</td>
<td>384,659</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

*Table 24. Gas imports in Spain 2014 vs 2013. Source: ENAGAS*
LNG high presence provides the Spanish system with a high level of flexibility, favouring the access to new upstream gas sources. LNG is also functions as a back-up for renewable sources.

4.3.2. Evolution of gas demand and gas demand scenarios

Evolution of gas demand

In 2014, the Spanish gas demand fell 8.28 %, to 301.709 GWh.

Since 2008, the gas demand has fell 33%, mainly for the decrease in gas consumption for electricity generation.

![Evolution of gas demand in the Spanish market](image)

**Figure 28. Evolution of gas demand in the Spanish market. (2002 - 2014)**

*Source: CNMC*
In 2014, the decrease in gas demand is similar in all sectors: the decrease in electricity generation (-9%) was driven by the increase in coal and renewable energies, in particular an increase of hydroelectric production; the industrial consumption of gas decreased an 8%, mainly as a result of a reduction of the incentives for the cogeneration plants. The household consumption also felt a 7% in 2014, as a result of the warm weather, regardless of the increase of 100,000 new gas consumers in 2014.

The next table shows the evolution of gas demand in the Spanish market in 2014.

<table>
<thead>
<tr>
<th></th>
<th>2013 (GWh)</th>
<th>2014 (GWh)</th>
<th>Annual variation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand of gas (except power generation)</td>
<td>276.718</td>
<td>249.736</td>
<td>-9.8%</td>
</tr>
<tr>
<td>Demand of gas for power generation</td>
<td>56.782</td>
<td>51.765</td>
<td>-8.8%</td>
</tr>
<tr>
<td><strong>Total demand in Spain</strong></td>
<td>333.500</td>
<td>301.501</td>
<td>-9.6%</td>
</tr>
</tbody>
</table>

Figure 29. Gas demand in Spain in 2014 vs 2013.  
*Source: ENAGAS*

**Gas demand scenario**

It is expected a stabilization of the gas demand with regard to the current value, with a slight increase of conventional demand and the demand for electricity generation, largely because of increases in renewable sources, mainly wind power. Nevertheless, regarding demand for power generation, it is remarkable that 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 renewable sources.

**CNMC’s demand forecast for the period 2015-2020 in Spain is detailed in the following table:**

<table>
<thead>
<tr>
<th>Energy Demand (TWh)</th>
<th>2014 (Real)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas demand (except power generation)</td>
<td>250</td>
<td>258</td>
<td>259</td>
<td>262</td>
<td>265</td>
<td>269</td>
<td>274</td>
</tr>
<tr>
<td>Gas demand for power generation</td>
<td>52</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>51</td>
<td>56</td>
<td>59</td>
</tr>
<tr>
<td><strong>Total gas demand in Spain</strong></td>
<td>302</td>
<td>308</td>
<td>309</td>
<td>312</td>
<td>316</td>
<td>326</td>
<td>333</td>
</tr>
</tbody>
</table>

*Source: CNMC. Report on the Forecast of the evolution of different items of income and cost of natural gas system for the period 2015-2020*

It is important to remark that expected gas demand in 2020 is still expected to be under 2005 levels, so no need for new infrastructures.
4.3.3. Capacity of infrastructures and new investments

Six LNG import terminals are operational in the Spanish gas system, and one has been mothballed.

Spain has international gas pipeline connections with Morocco, Portugal and France, and 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 bcm/year to Spain and 4 bcm/year to Portugal) and the connection with France at Larrau, 5 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 the new entrants, which has favoured the development of gas competition in Spain.

The capacity use rate in 2014 was only 26,0% in average for the LNG plants, varying from 8% (the minimum, at Cartagena), to 29% (maximum, at Mugardos). In addition to that, the new LNG terminal of Gijón (Musel) was mothballed, as there is no need for this plant to be in operation with the current gas demand.

The following table shows the LNG storage and send-out capacity of each one of the six terminals:
### Capacity of LNG Terminals

<table>
<thead>
<tr>
<th>LNG Terminal</th>
<th>LNG storage capacity (m³)</th>
<th>Send-out capacity (m³/(n)/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona</td>
<td>760.000</td>
<td>1.950.000</td>
</tr>
<tr>
<td>Huelva</td>
<td>619.500</td>
<td>1.350.000</td>
</tr>
<tr>
<td>Cartagena</td>
<td>587.000</td>
<td>1.350.000</td>
</tr>
<tr>
<td>Bilbao</td>
<td>450.000</td>
<td>800.000</td>
</tr>
<tr>
<td>Sagunto</td>
<td>600.000</td>
<td>1.000.000</td>
</tr>
<tr>
<td>Mugardos</td>
<td>300.000</td>
<td>412.800</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>3.316.500</strong></td>
<td><strong>6.862.800</strong></td>
</tr>
</tbody>
</table>

*Table 27. Capacity of LNG terminals at Dec, 31 2014. Source: ENAGAS*

### Capacity of International Pipeline Interconnections

Spain has several international gas pipeline connections to other countries: to Algeria through Morocco (Tarifa) and Almeria (Medgaz), to Portugal through Tuy and Campo Maior (Badajoz), and to France through Larrau and Irún. The interconnection with Algeria (Medgaz) is operational since April 2011. Its initial capacity is 8 bcm/year.

In April 2013, there was an increase in the gas pipeline capacity through Larrau, reaching an import/export capacity of 165 GWh/day.

The current capacities of international interconnections are the following:

<table>
<thead>
<tr>
<th>Pipeline connection</th>
<th>Capacity (GWh/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larrau (ES-&gt;FR)</td>
<td>165</td>
</tr>
<tr>
<td>Larrau (FR-&gt;ES)</td>
<td>165</td>
</tr>
<tr>
<td>Irún (ES-&gt;FR)</td>
<td>5 (Winter) / 9 (Summer)</td>
</tr>
<tr>
<td>Irún (FR-&gt;ES)</td>
<td>0 (Winter) / 10 (Summer)</td>
</tr>
<tr>
<td>Tarifa (MO-&gt;ES)</td>
<td>444</td>
</tr>
<tr>
<td>Almería (AL-&gt;ES)</td>
<td>266</td>
</tr>
<tr>
<td>Badajoz (ES-&gt;PT)</td>
<td>134</td>
</tr>
<tr>
<td>Badajoz (PT-&gt;ES)</td>
<td>35 (Winter) / 70 (Summer)</td>
</tr>
<tr>
<td>Tuy (ES-&gt;PT)</td>
<td>30 (Winter) / 40 (Summer)</td>
</tr>
<tr>
<td>Tuy (PT-&gt;ES)</td>
<td>25</td>
</tr>
</tbody>
</table>

*Table 28. Interconnection physical capacities at Dec, 31 2014. Source: ENAGAS*
c) Storage capacity

There are four underground storage facilities in Spain: Serrablo, Gaviota, Marismas and Yela, these two last entered in operation in 2012.

- 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).
- Yela Underground Storage Facility is located at Guadalajara, in the central area of Spain, and is connected to Enagas’ basic network by three different gas pipelines.
- Marismas, that entered in operation in 2012, is located in Huelva.

It is interesting to compare this capacity with the storage potential of the other facilities namely, LNG tanks and the marginal storage capacity of the transmission network (linepack):

<table>
<thead>
<tr>
<th>Storage Type</th>
<th>Capacity (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underground storage</td>
<td>28.579</td>
</tr>
<tr>
<td>Tanks in LNG terminals</td>
<td>22.084</td>
</tr>
<tr>
<td>Linepack</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>51.663</strong></td>
</tr>
</tbody>
</table>

*Table 29. Storage capacity in Spain: underground storages, LNG tanks and pipelines
Source: ENAGAS*

d) Booked and available capacity

At the end of 2014 there was available capacity in all LNG terminals. Booked TPA capacity at LNG terminals was 26% throughout the year. Available capacity ranges from a minimum value of 10% in Cartagena up to 37% in Mugardos.

In the pipeline interconnections, there was available capacity with Portugal in both directions. The two interconnections with Portugal (Tuy and Badajoz) are booked thought a single virtual interconnection point.

In the Maghreb pipeline, importing gas from Algeria through Morocco, the capacity was booked around 77% throughout the year. In Medgaz pipeline, capacity booked was 91%.

There was only 1% of free capacity at the connection with France, with 99% of average import capacity booked during 2014 (single virtual point).

The following table shows the situation at all these pipelines interconnections, in terms of average rates of booked and available capacity during 2014:
Table 30. Available physical average capacities in 2014 (LNG terminal and Interconnections).
Source: ENAGAS

<table>
<thead>
<tr>
<th>Entry (or exit) point</th>
<th>Contracted capacity in 2014 (%)</th>
<th>Available capacity in 2014 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barcelona LNG terminal</td>
<td>24,0%</td>
<td>76,0%</td>
</tr>
<tr>
<td>Sagunto LNG terminal</td>
<td>29,0%</td>
<td>71,0%</td>
</tr>
<tr>
<td>Cartagena LNG terminal</td>
<td>10,0%</td>
<td>90,0%</td>
</tr>
<tr>
<td>Huelva LNG terminal</td>
<td>27,0%</td>
<td>73,0%</td>
</tr>
<tr>
<td>Mugardos LNG terminal</td>
<td>37,0%</td>
<td>63,0%</td>
</tr>
<tr>
<td>Bilbao LNG terminal</td>
<td>29,0%</td>
<td>71,0%</td>
</tr>
<tr>
<td>TOTAL LNG TERMINALS</td>
<td>24,0%</td>
<td>76,0%</td>
</tr>
<tr>
<td>Maghreb pipeline (import)</td>
<td>77,0%</td>
<td>23,0%</td>
</tr>
<tr>
<td>Portugal (Badajoz+Tuy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Francia (Larrau+Irun)</td>
<td>Import (F=&gt;E) 99,0%</td>
<td>1,0%</td>
</tr>
<tr>
<td></td>
<td>Export (E=&gt;F) 55,0%</td>
<td>45,0%</td>
</tr>
<tr>
<td></td>
<td>Portugal (Badajoz+Tuy)</td>
<td>Import (P=&gt;E) 1,0%</td>
</tr>
<tr>
<td></td>
<td>Export (E=&gt;P) 72,0%</td>
<td>28,0%</td>
</tr>
</tbody>
</table>

e) New investments in infrastructure

New infrastructures in 2014

This transport pipelines that have entered into operation in 2014:

- Pipeline to Mariña Lucense (82 Km, 16 inches), which enhances the Galicia’s transport system in Lugo’s coast.
- Son Reus-Inca-Alcudia pipeline (41 km, 10 inches), which connects those towns to the Mallorca’s transport system.
- Elche-Monóvar-La Algueña pipeline (60 km, 10 inches)
- Baza-Guadix pipeline, which connects the provinces of Almeria and Granada (52 km, 16 inches).
- El Musel-Llanera pipeline (18 km, 30 inches, 80 bar), which connects Gijon’s port with Llanera.
- Second branch of Llanera-Otero interconnection (0,95 km, 26 inches, 80 bar), which connects Llanera with Otero, in Asturias.

Regarding LNG, the third storage LNG tank at Bilbao LNG terminal was finished in 2014.
By the end of 2014, there were 25 tanks in the Spanish system, with a total LNG capacity of 3,316,500 cubic metres.

**Future investments**

The large investments made in the gas sector in recent years and the decrease in demand have already created a surplus on capacity, and an imbalance between revenues and costs, albeit much lower than the past imbalances in the electricity sector.

The Royal Decree Law 13/2012 contains some measures in order to prevent further non-needed expansion: (i) a moratorium on new regasification plants; (ii) a moratorium on administrative authorisations for new gas transport pipelines and metering stations. Also, the new LNG terminal of Gijon is mothballed. Infrastructures that can still be developed are the island gas infrastructures and gas interconnections with Europe.

Due to the actual surplus in transport and LNG infrastructures in Spain, the focus should be in developing DSO gas grids, connecting new customers to the grid and facilitating new gas uses, like marine transportation with LNG or compressed gas in vehicles, in order to facilitate the recovery of the gas demand.

There are 2 projects for LNG terminal construction in Gran Canaria and Tenerife Islands, but they are on a very early stage, and subject to environmental approval.

**Spain – France interconnections**

It is remarkable the progress made at the Spain – France interconnection during the last years

- The capacity at Larrau interconnection was increased up to 5,5 bcm/year in 2013 in both directions.
- The capacity at Irun/Biriatou interconnection will increase in 2 bcm/year in the Spain-France direction, reaching 7,5 bcm/year, by the end of 2015.

This extension will be completed in 2015 with the compression station of Biriatou.
Monitoring investment plans and assessment of consistency with Community wide network development plan

CNMC monitors the investment plans of the transmission system operators with regard to the TNYDP approved by the Spanish Government. Moreover, regarding the consistency with the Community-wide network development, CNMC participates in the selection of the Projects of Common Interest, PCI process: ENTSOG Cost Benefit Analysis methodology, JRC ranking methodology, preliminary results.

CNMC, inside ACER and through the regional initiative, participates in the different gas infrastructures task forces. The selection of PCI list of candidates will continue during the year 2015. During the process room for improvements are being detected.

4.3.4. Security of supply obligations and safeguard measures

Due to the growing importance of natural gas within the Spanish energy supply and virtually total external dependency in the supply of natural gas, the Hydrocarbons Act introduced certain measures for the security of supply of gas in order to cover hypothetical events of big shortfalls at international production or interconnections facilities. For this purpose, it established the obligation of maintenance of minimum safety stocks of gas and included the need for diversification of external supplies.
These measures were developed through Royal Decree 1716/2004, and current obligations are the following:

- Suppliers and direct consumers in the market have the obligation to maintain a minimum strategic safety stock and a minimum operational stock, equivalent to 10 days of their firm sales in the previous calendar year each, 20 equivalent days.

- If all the natural gas supplies intended for national consumption coming from the same country are over 50% of total supplies, suppliers and direct consumers in the market who provide supplies for a percentage above the 7% of total supplies in the preceding calendar year, must diversify their portfolio so that their own supplies from the largest supplier country to the domestic market are less than 50%.

The peak demand can be easily supplied by an increase in the production of the six regasification plants, as they have a large excess of regasification capacity.

**Safeguard measures for emergency situations**

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 purpose, Royal Decree 1716/2004 states emergency situations shall be those cases where due to circumstances that are out of control of one or all agents intervening in the gas system, there is a risk of shortage or scarcity of supply 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.

**Monitoring on security of supply**

The competent authority to monitor the security of supply according with article 5 of Directive 2009/73/EC is the Ministry of Industry, Energy and Tourism. CORES also monitors the strategic safety stock and diversification of supply.

The Ministry of Industry, Energy and Tourism has published on 31 July 2012 the 1st report outlining the findings resulting from the monitoring of security of supply, according with article 5 of Directive 2009/73/EC, available here:


Additionally, CNMC 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.
Hibernation of Castor Underground Facility

Following the resignation of Escal to operate the underground facility, in October 2014, the Government approved the Royal Decree-Law 13/2014, adopting urgent measures to guarantee safety in relation to the Castor natural gas underground storage facility.

The Castor underground storage, located in the Mediterranean Sea, 21km off Castellón shore, was affected, in September 2013 by a series of earthquakes, following the injection of the cushion gas.

The Royal Decree-Law ruled to terminate the Castor operating concession and approved the hibernation of the facilities. Further, Enagás Transporte SAU has been appointed to manage the maintenance of the facility during the hibernation period. ESCAL UGS received from ENAGAS TRANSPORTE a compensation for the net recognized value of the facility. To finance the compensation, the gas system issued credit rights (30 year’s maturity) to ENAGAS TRANSPORTE, that were securitised to several banks, and that can be further assigned to third parties. The credit right’s holders will receive an annuity from the gas system’s settlements, starting in 2016, to recover principal and interests (fixed interest rate set at 4.267%). The annuity will be received in 12 monthly payments on the 25th each month, with priority of payment from the rest of the gas system’s cost.
5 Consumer protection and dispute settlement in electricity and gas

5.1. Consumer protection

As mentioned in Chapter 2, in 2013 the Spanish regulatory framework of consumers’ protection was highly reinforced.

On one hand, the general framework for consumers’ protection was modified by the Act 3/2014 revising the text of General Act of Consumer Protection and transposing into the Spanish law the Directive 2011/83/EU of 25 October on Consumer Rights.

This new legal provision obliges traders to adopt the new set of contractual guidelines as from June 13, 2014. In this regard, it is important to mention that the legal provisions are also applicable to electricity and gas contracts. In particular, the Act 3/2014 has introduced new measures in switching for gas and electricity, setting up clear procedures when desisting from a switching request and procedures in case of non-requested switches.

In general terms, the Act 3/2014 harmonizes a set of concepts such as "consumer", "trader", "distance contract", "off-premises contracts" and "durable medium", among others.

Likewise, it is worth mentioning the strengthening of the information that must be provided to consumers before the execution of contracts. In particular, such information shall be provided in distance and off-premises contracts.

Moreover, the legal provisions on customer service, additional payments and charges for the use of certain means of payment have been also modified in this new draft of the Consumers Act.

Price comparison tools and advices to customers

Concerning electricity and gas markets, additional measures have been introduced by Law 3/2013, including the Ministry taking over responsibility for information and complaint handling, although the NRA remains in charge of other protective functions, such as handling the web gas and electricity price comparison tool: http://comparadorofertasenergia.cnmc.es/

As of 30 June 2015, the comparison tool counted 411 active offers of gas, electricity or dual supply from about 50 different companies.

Suppliers shall inform clients about their rights and establish a procedure in the case of complaints. Free customer information services must be made available, including free phone lines. Additionally, the Electricity Act (Law 24/2013) provides that CNMC will monitor the effectiveness and application of consumer protection measures and may issue legally binding resolutions aimed at their fulfilment.
The latest monitoring report of the retail market gas and electricity offers listed in the CNMC price comparison tool includes a leaflet with some recommendations or advices to suppliers and consumers\(^\text{30}\) to take into account in the process of hiring of the supply of gas or electricity.

The main advice for consumers is to compare the prices and services that offer several different companies and always read the contract carefully before deciding on a new offer. It also advises consumers to use applications like the CNMC comparison tool if they find difficult to understand or compare the gas or electricity offers.

Public service obligations

Spain maintains public service obligations through Reference Suppliers in the case of electricity and through Last Resort Suppliers in the case of gas.

a) Electricity

Small electricity customers (below 10 kW) have the right to be supplied by Reference Suppliers under the modality called “Voluntary Price for the Small Consumer” as developed by Royal Decree 216/2014. This category of customers can also choose a regular supplier in the free market.

As explained in chapter 3.2, the Voluntary Price for the Small Consumer (PVPC) changes the method whereby the price of power is calculated on the bills received by small end-consumers: whereas this price was previously set by a quarterly auction, bills are now be based on the price of electricity in the spot market.

Red Eléctrica de España, as Spanish TSO, is responsible for managing some aspects of the “Voluntary Price for Small Consumer” (PVPC). This price is calculated daily by the Spanish TSO based on the energy prices per hour in the spot market and applying the average consumer profile.

To this end, it has developed an IT information service through which the small consumer can be fully informed of the price of electricity that will be applied in accordance with this Royal Decree. This new system let end users change their consumption patterns and improve the management of their electricity consumption.

The prices that the system operator will publish through the “Voluntary Price for Small Consumer” IT service will apply only to those consumers whose contracted power capacity does not exceed 10 kilowatts (kW) and choose this system. These prices will be applied to the electricity consumption (variable energy charge - kWh consumed) of the bill that the system operator calculates using the new approved methodology.

\(^{30}\) These recommendations and advices are available at the CNMC Website: http://cnmc.es/Portals/0/Ficheros/Energia/Consumidores/1501808_Diptico%20recomendaciones.pdf.
In this way, Red Eléctrica offers consumers who have opted for PVPC, the ability to see the financial impact of their electricity consumption depending on the access costs plan chosen between the general tariff, the night tariff or the super-valley tariff (electric vehicle).

The total of the electricity bill is completed by the inclusion of a fixed charge proportional to the power contracted by the user as well as the taxes established by current legislation.

These prices can be applied to all small consumers, whether they have smart meters with hourly metering or not. In the latter case, prices are based on the profiles that Red Eléctrica establish with the new methodology approved by the Government and is published and updated weekly on Red Eléctrica’s “eSios” website.

b) Gas

Since July 1st 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.

In 2014, the following last resort suppliers are appointed:

- Endesa Energía XXI, S.A.U
- Gas Natural SUR SDG, S.A.
- Iberdrola Comercialización de Último Recurso, S.A.U.
- EDP Comercializadora Último Recurso, S.A.U.
- Madrileña Suministro de Gas S.U.R, S.L.

According to Royal Decree 104/2010, customers without any energy supply contract and not eligible to be supplied at TUR, are allowed to be supplied by last resort suppliers at the regulated tariff (TUR) during one month.

The Law 12/2007 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: energy costs, access tariffs and commercialization costs.

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.

Vulnerable customers definition

The concept of vulnerable customers has only been established so far for electricity customers.
The Law 24/2014 defines the vulnerable customers as the customers that fulfil social characteristics relating with his consumption and purchasing power. These customers have to pay last resort tariff instead of the voluntary price for small customers.

The above mentioned Law defines the social bonus as the difference between the last resort tariff and the voluntary price for small customers. The Royal-Decree 216/2014, dated March 28th sets up the social bonus as the 25% of the voluntary price for small customers.

Until the government develops the provision relating with vulnerable customers, the consumers (less than 1 kV) with contracted demand lower than or equal to 3 kW, a pensioner older than 60 years with a minimum pension, families where all members are unemployed and large families has this consideration.

The social bonus has the consideration of public service obligation pursuant to Directive 2009/72/EC and is financed by the parent group of companies or, where applicable, companies which develop simultaneously the activities of production, distribution and sale of electricity.

As of December of 2014, 2.468.469 customers have social bonus subsidies.

Compliance with Annex 1

As mentioned, the Electricity Act 24/2013 introduces important provisions on customers, some of them derived from the Third Package and others proposed by the Spanish NRA. Consumer’s right (from Annex 1) have also been introduced in the Gas Act by the Law 13/2012. According to the new Act:

• Consumers have the possibility to participate directly in the market.

• A deadline of 21 days for switching supplier (free of charge) is set up.

• There will be a dispute resolution procedure managed by the Ministry of Industry, Energy and Tourism. This procedure will be transparent, simple and free of charge. Furthermore, there is the possibility of alternative resolution (arbitration) by consumer authorities.

• CNMC will monitor the effectiveness and implementation of consumer protection measures and will be competent to issue binding enforcement resolutions.

• The contractual conditions will be equitable and transparent with clear and understandable language. Customers will be protected against abusive or misleading sales procedures.

• There is the possibility to choose among different payment methods.

• Transparent information on energy costs shall be ensured in the bill.
• Consumption data will be available for the consumer and data can be transferred to suppliers, under consumer agreement.

• The customer will receive a settlement of the former supplier’s account not later than 42 days following a switch of supplier.

• Suppliers and distribution companies will facilitate a customer service telephone number free of charge for the consumer.

• The supplier will inform the customer about the origin of the energy supplied as well as environmental impacts related.

• “Social bonus” will be a public service obligation as set forth by Directive 2009/72/CE.

• Essential supply points (including domestic consumers that need continuity in the supply for running medical equipment) cannot be disconnected.

5.2. Dispute settlement

Duties and powers of the regulatory authority of dispute settlement in the electricity market

CNMC is responsible for dispute settlement related to access to the transmission and distribution grids. The deadline for issuing a decision is the same that required by the Directive (2 months) as set forth by Law 24/2013 (Article 33.3). The decision is binding for the agents involved in the dispute and could be appealed directly to the Court.

On the other hand, CNMC 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 2014, seven disputes concerning access to the network and twelve disputes related to the economic and technical management of the system were registered in CNMC.

Duties and powers of the regulatory authority of dispute settlement in the gas market

According to article 12 of Act 3/2013, the CNMC is entitled to solve disputes 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, CNMC is responsible for solving any disputes that may be taken to it with regard to the economic and technical management of the system and transport, including connection facilities.

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

Additionally, CNMC shall act as an arbitration body in any dispute that may referred to it by agents carrying out activities in the electricity and hydrocarbon market.
In 2014, CNMC settled 4 disputes (conflicts) in the gas market:

- Three conflicts referred to the disagreement with the negative response of the TSO to several supplier requests for capacity contract reductions at international connections.
- One conflict referred to the disagreement with the denied of TPA Access to supply a combined cycle in Galicia, from the LNG terminal in Sagunto.