



# OVERVIEW OF THE SPANISH GAS MARKET IN YEAR 2006

## CONSUMPTION

### NATURAL GAS

- In year 2006 initial reports suggest a total natural gas sales in Spain of 391 000 GWh with a 4.1% growth rate in comparison with 2005 (375 653 GWh). That is the most humble raise since 1993 and it has broken the trend of two-digit growth rates of previous years (17.6% growth in 2005, 16% in 2004 and 13.3% in 2003). Behind this minor growth it is hidden a divergent behaviour between the consumption of the gas-fired power plants and the rest of others consumers.
- Again, during year 2006, the gas consumption in Spain was driven by power generators totalling 134 697 GWh, a 21% more in comparison with 2005 (111 320 GWh), raising its share in the total consumption from 29.6% in year 2005 to 30.5% in 2006, while consumption of industrial, commercial and households sectors endured a negative growth of -3%.
- This raise of the consumption of the power sector was due to some extent to the new six gas-fired power stations put into service in the course of the year, that have added a new operative capacity worth of 3 880 MW. The increase in the gas consumption has taken place despite of a 32% and 9% increase of the electrical production in hydro dams and wind farms respectively. Also nuclear plants increased its production because of less maintenance stops during 2006 in comparison with 2005. Nowadays, natural gas fired power plants generate a 24% of the total electricity production in Spain and it has become the second source of electricity in Spain after coal.
- The industrial/commercial/households users consumed only 250 000 GWh (258 000 GWh in 2005), and the reasons for this slide down are:
  - A mild weather, with average temperatures over the standard, has driven down the need of fuel for space heating.
  - A step reduction of gas employed in CHP plants (co-generation) because of a significant drop in the premium price paid for the electricity sold to the grid.
  - A decline in the industrial demand because of the important price raises that took place during 2005 that have encouraged users to implement saving technologies.



## **INFRASTRUCTURE & BUSINESS DEVELOPMENT**

- During year 2006 investments from transport companies have been focused on LNG terminals: in May 2006, the new LNG terminal of Sagunto (located in the Mediterranean East coast, near the town of Valencia) was operational. It comprises two 150 000 m<sup>3</sup> LNG tanks and a vaporizer worth of 750 000 m<sup>3</sup>/h emission capacity.
- In the coming months a new LNG terminal in Mugaros (Galicia, Northwest Atlantic coast) will be put into service and it will become the sixth operational terminal in Spain.
- Also the existing LNG terminals have been upgraded with additional tanks and further emission capacity: In July 2006 it was put into service a third tank in the Cartagena terminal worth of 130 000 m<sup>3</sup> and in October it was completed another tank in the Barcelona terminal (the sixth one) with 150 000 m<sup>3</sup> of capacity.
- Also during 2006 the emission capacity of the existing terminals was augmented: 450 000 m<sup>3</sup>/h of additional capacity were added to the Cartagena terminal which has reached a peak capacity of 1 350 000 m<sup>3</sup>/h. The Huelva terminal was also upgraded with additional capacity worth of 150 000 m<sup>3</sup>/h ending with 1 200 000 m<sup>3</sup>/h and also the Barcelona terminal increased its emission capacity with a new vaporizer of 150 000 m<sup>3</sup>/h.
- The expansion of the natural gas grid during 2006 was more moderated, with only 50 Km of new pipes put into service, in comparison with the 600 Km of new gas pipelines that became operational in 2005
- It continued the investments in future underground storages in the centre of Spain (aquiferous), Mediterranean coast (depleted oil field) and in the South (depleted natural gas field).
- Medgaz, the company in charge of construction and operation of the new gas pipe between Algeria and Spain, started the assembling phase in December 2006. The pipe with a capacity of 8 bcm and a length of 210 Km will reach a maximum depth of 2 160 m, and it is expected to be operational in 2009.

The total cost of the project is estimated in 900 Million €. Medgaz is a venture of Sonatrach (36%), CEPSA (20%), IBERDROLA (20%), ENDESA (12%) and Gaz de France (12%).

## **MARKET OPENING**

In year 2006, provisional consumption in the TPA market amounted to 327 000 GWh (84% of total consumption), with 2 400 000 customers while the total market reached 391 000 GWh and 6 400 000 customers.

In Spain all customers (including residential sector) are eligible since January 1<sup>st</sup> 2003 (including industrial, residential and commercial sectors), in accordance with Royal Decree 6/2000. This regulation set the aperture schedule, lowering gradually the threshold to become eligible customer: From three Million m<sup>3</sup> in August 2000, one Million in January 2002 and fully aperture in January 1<sup>st</sup> 2003.



This calendar was followed by a set of regulatory measures. The core was founded in the Royal Decree 949/2001 that enforced the basic rights and requirements for TPA access and set the economic framework of all market players, including a postal TPA tariff. The other milestone was the Royal Decree 1434/2002, which regulated the activities of transmission, distribution and supply of natural gas.

The effects of all these regulatory measures, complemented with several reductions in the level of TPA tariffs have led to an impressive growth of the market share of new suppliers and significant discounts in the price paid for final consumers.

Along 2006 the Ministry has continued the trend to develop the TPA market by the method of a progressive removal of regulated maximum end-users tariffs. In the 1<sup>st</sup> July, the high pressure tariffs (supply pressure over 60 bar), the ones applied to high volume consumers supplied between 4 and 60 bar, and also the interruptible tariff were removed. In the 1<sup>st</sup> July 2007 it is expected to withdraw the entire end-user tariffs applied to industrial consumers supplied between 4 and 60 bar.

Then, only low pressure customers will have a maximum regulated tariff, which will be replaced in the 1<sup>st</sup> July by a new scheme called "last resource tariff" applied essentially to households.

## **SUPPLIES**

- Total natural gas imports (LNG + NG) from October 2005 to September 2006 were increased by 4.7 %, amounting to 409 273 GWh (390 807 GWh during year 2005). This growth was mainly based on LNG purchases (279 839 GWh, 10% more than year 2005) while NG acquisitions decreased by 5% reaching 129 434 GWh (135 757 GWh in year 2005).
- During year 2006, Algeria with 137 090 GWh continued as the main supplier of natural gas to Spain with 37% of total imports, but its weight in the imports basket continued decreasing comparing to years 2004 and 2005 with 51% and 43,3% respectively.
- Nigeria has become the second supplier of Spain after Algeria, LNG from this country has risen a 30% (80 079 GWh in year 2006), and its quota in the imports basket has already attained a 20%.
- LNG from Gulf countries (United Arab Emirates, Qatar and Oman) has decreased from 76 938 GWh in 2005 to 70 044 GWh in 2006, becoming the third supplier to the Spanish market, with a 17% share in the imports basket.

## **DOMESTIC PRODUCTION**

Domestic production in the year 2006 has continued the declining trend of past years, accomplishing a negligible figure of only 870 GWh, only a 0.2% of the entire Spanish consumption, data very remote from the 6 000 GWh extracted in 2001.



## **REGULATORY POLICIES**

The main regulations published during 2006 are the following ones:

- August, Instruction of the Energy Directorate in order to approve the conditions for the application of the interruptible TPA tariff (August 2006). Basically it set the upper limit of the interruption period, the maximum capacity offered, the prerequisites to be eligible, and the procedure to grant this kind of contract when demand excess the quantity offered.
- July 2006, Instruction of the Energy Directorate amending the conditions that rule the unloading of LNG cargoes in the Spanish terminals. The Instruction was targeted to share fairly the scarce LNG storage capacity available in Spain in order to avoid hoarding.
- November 2006, Instruction of the Energy Department, which published the so-called “Winter Scheme” that, in order to avoid any supply shortage, establishes several temporary requirements, mandatory for all the shippers, from December 1st to March 31st:
  - 1.- A minimum entry flow in the Spain-France connection of Larrau
  - 2.- A mandatory minimum LNG stock for each shipper equal to three days of consumption.
  - 3.- A restrain in the use of emission capacity from the subterranean storage, in order to set aside a stock to be used in case of cold spell.
  - 4.- A reserve of the Magreb pipeline capacity to supply the household market in case of cold spells.
- In December 2006 five new orders were published with the following regulation:
  - Order ITC/3996/2006, that set the TPA tariff in force during 2007. It has introduced by the first time a different LNG charge depending on the terminal.
  - Order ITC/3991/2006, that set the end-user maximum tariffs for 2007. Nowadays only customer with a supply pressure lower than 60 bar have a tar and from 1<sup>st</sup> July only tariffs for consumers supplied under 4 bar will be enforced.
  - Order ITC/3995/2006, that set the procedure to assess the revenue assigned to subterranean storages.
  - Order ITC/3994/2006, that set the procedure to assess the revenue assigned to LNG terminals.
  - Order ITC/3993/2006, that set the revenues assigned to gas pipes, compression stations...etc.



## SPANISH NATURAL GAS CONSUMPTION

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (*)
HOUSEHOLD- COMMERCIAL	21 648	26 488	31 979	34 253	40 183	42 855	47 300	51 483	55 856	54 118
INDUSTRIAL	93 938	111 309	128 825	144 993	152 933	167 006	181 914	196 230	202 278	195 985
RAW MATERIAL FOR FERTILIZER	6 825	6 807	6 103	6 130	6 087	5 752	6 086	5 687	6 199	6 200
POWER PLANTS	20 425	7 206	7 673	10 378	12 730	27 375	40 045	66 092	111 320	134 697
<b>TOTAL</b>	<b>142 836</b>	<b>151 810</b>	<b>174 580</b>	<b>195 754</b>	<b>211 933</b>	<b>243 525</b>	<b>275 345</b>	<b>319 492</b>	<b>375 653</b>	<b>391 000</b>

Unit: GWh (\*) Provisional

## TOTAL NUMBER OF NATURAL GAS CUSTOMERS

1998	1999	2000	2001	2002	2003	2004	2005	2006 (*)
3 492 660	3 845 653	4 203 385	4 606 335	4 935 784	5 305 297	5 661 057	6 177 718	6 445 000

(\*) Provisional

## SPANISH NATURAL GAS SUPPLIES

IMPORTS	2000	2001	2002	2003	2004	2005	2006 (*)
ALGERIA LNG	48 273	55 773	68 422	84 732	75 364	59 074	33 343
ALGERIA NG	72 009	62 587	74 634	74 329	87 664	110 113	103 747
LIBYA LNG	9 292	9 463	7 100	8 442	7 765	10 641	9 111
NORWAY NG	26 864	26 841	26 433	26 640	25 884	24 723	24 683
QATAR LNG	3 457	8 148	24 434	22 340	44 483	54 355	58 082
U.A.E. LNG	2 758	1 989	4 510	4 394	3 672	2 759	0
TRINIDAD Y TOBAGO	10 096	5 470	5 309	977	0	4 532	32 279
NIGERIA LNG	20 966	18 858	18 695	46 345	56 299	61 279	80 079
AUSTRALIA LNG	0	0	487	892	0	0	0
OMAN LNG	0	11 967	12 602	6 450	14 807	19 824	11 962
EGYPT LNG	0	0	0	0	0	39 545	54 983
OTHERS LNG	4 274	2 676	2 061	139	912	3 041	0
OTHERS NG	0	0	0	0	1 177	921	1 004
<b>TOTAL IMPORTED</b>	<b>197 989</b>	<b>203 772</b>	<b>244 687</b>	<b>275 680</b>	<b>318 027</b>	<b>390 807</b>	<b>409 273</b>
<b>TOTAL LNG</b>	<b>99 116</b>	<b>114 344</b>	<b>143 620</b>	<b>174 711</b>	<b>203 302</b>	<b>255 050</b>	<b>279 839</b>
<b>TOTAL NG</b>	<b>98 873</b>	<b>89 428</b>	<b>101 067</b>	<b>100 969</b>	<b>114 725</b>	<b>135 757</b>	<b>129 434</b>

Unit: GWh

(\*) Provisional. From November 2005 to October 2006