

**Energy Consumption Survey 2013**

Final data

**Energy consumption<sup>1</sup> by the extractive and manufacturing industry reaches 11,086 million euros in 2013, that is, 2.2% less than in 2011**

**The metallurgy industry consumes the most energy resources, with 2,185 million euros, or 19.7% of the total**

**The main energy product used is electricity, with 51.7% of the total consumption for the sector**

Energy consumption by industrial companies<sup>2</sup> reached 11,086 million euros in the year 2013, with a 2.2% drop as compared with 2011, the last year in which this survey was conducted.

**Energy consumption in industry, by type of product. Year 2013**

Type of product	Consumption (thousands of euros)	% of the total	% Variation 2013/2011
Electricity	5.734.736	51,7	-2,1
Gas	3.537.949	31,9	10,1
Petroleum products	1.215.421	11,0	-21,0
- Gasoil	758.065	6,8	-18,5
- Fueloil	332.513	3,0	-22,7
- Petrol and others	124.843	1,1	-30,1
Coal and coke	175.963	1,6	-27,7
Biofuels	55.453	0,5	-13,1
Heat and other products	366.674	3,3	-12,0
<b>TOTAL</b>	<b>11.086.196</b>	<b>100,0</b>	<b>-2,2</b>

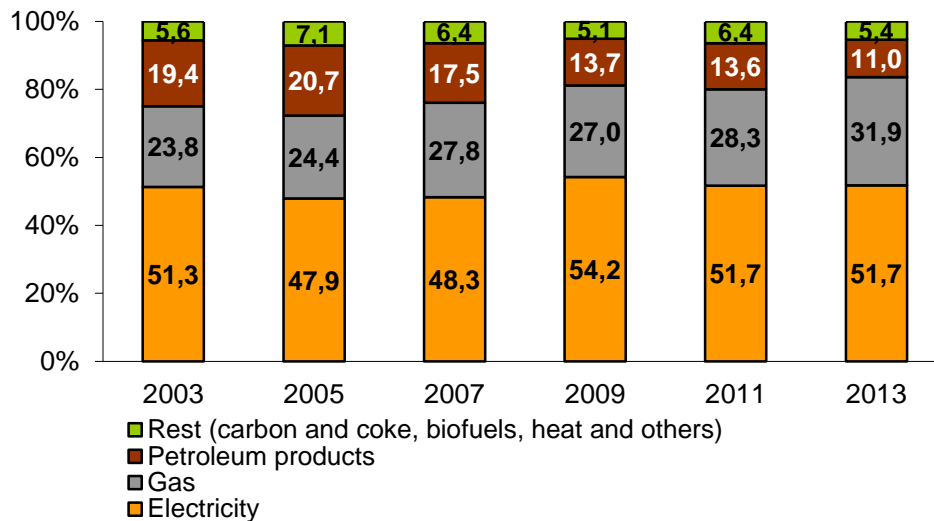
The main energy products used by industrial companies were electricity (51.7% of the total), gas (31.9%) and petroleum products (11.0%).

In the last 10 years, electricity has always been the main energy product in terms of consumption, with percentages ranging from 47.9% to 54.2% of the total. In turn, the percentage of the consumption of petroleum products has decreased, to stand at 11.0% of the total.

<sup>1</sup> Energy consumption is measured in monetary terms, at current prices. Therefore, its evolution considers both the evolution of the amounts consumed and the evolution of the prices of the different energy products.

<sup>2</sup> The target population of study of the Energy Consumption Survey is the set of companies with 20 or more employed persons, and whose main activity is described in Sections B and C of CNAE-2009.

## Percentage distribution of energy consumption, by type of product. Years 2003-2013



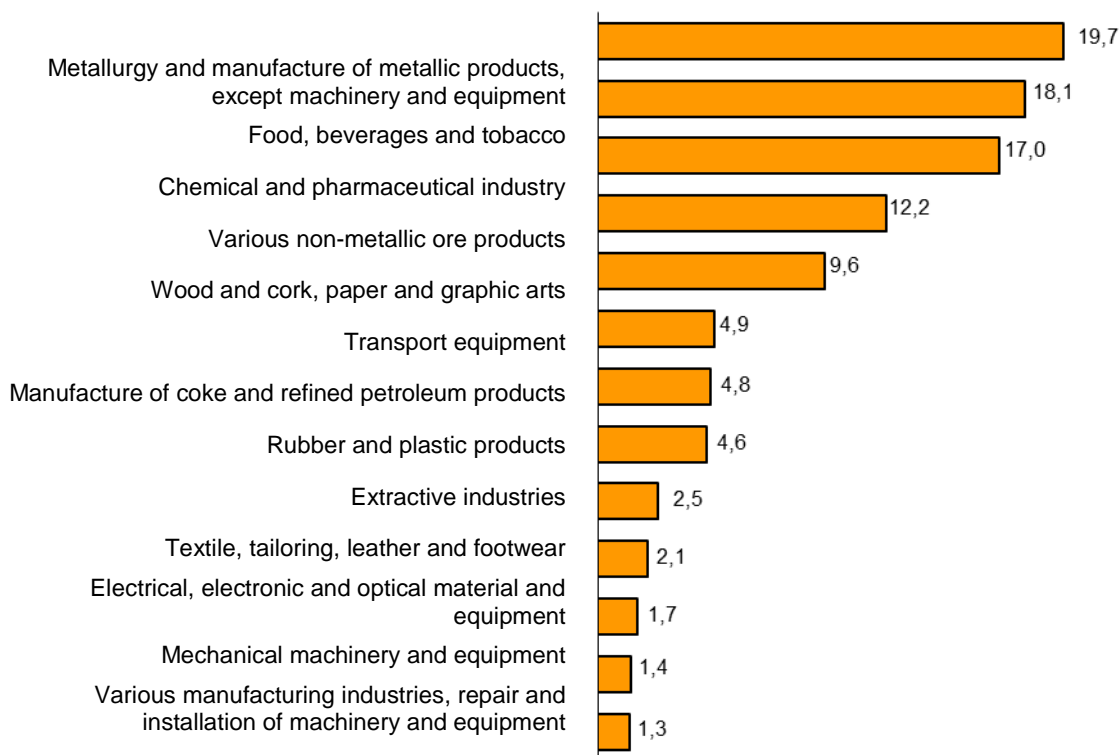
## Results by activity grouping

The activity groupings with the greatest energy consumption in the year 2013 were *Metallurgy and manufacture of metallic products, except machinery and equipment* (with 19.7% of the total), *Food, beverages and tobacco* (18.1%) and the *Chemical and pharmaceutical industry* (17.0%).

## Energy consumption in industry, by activity grouping. Year 2013

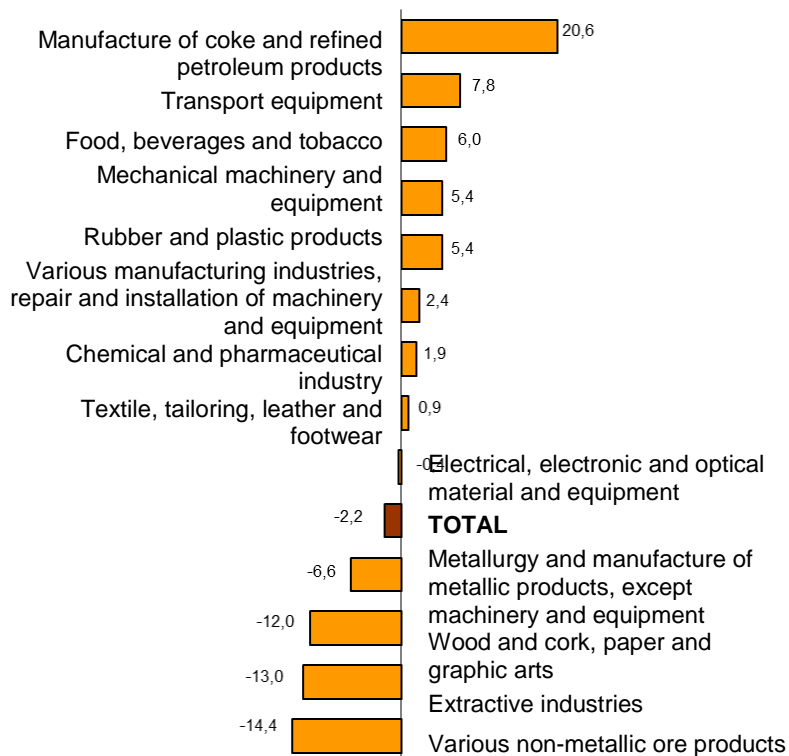
Activity groupings	Consumption (thousands of euros)	% of the total	% Variation 2013/2011
Extractive industries	280.093	2,5	-13,0
Food, beverages and tobacco	2.006.625	18,1	6,0
Textile, tailoring, leather and footwear	231.997	2,1	0,9
Wood and cork, paper and graphic arts	1.063.032	9,6	-12,0
Manufacture of coke and refined petroleum products	531.131	4,8	20,6
Chemical and pharmaceutical industry	1.887.206	17,0	1,9
Rubber and plastic products	511.675	4,6	5,4
Various non-metallic ore products	1.354.596	12,2	-14,4
Metallurgy and manufacture of metallic products, except machinery and equipment	2.185.315	19,7	-6,6
Electrical, electronic and optical material and equipment	186.680	1,7	-0,4
Mechanical machinery and equipment	152.853	1,4	5,4
Transport equipment	546.155	4,9	7,8
Various manufacturing industries, repair and installation of machinery and equipment	148.838	1,3	2,4
<b>TOTAL</b>	<b>11.086.196</b>	<b>100,0</b>	<b>-2,2</b>

## Percentage distribution of energy consumption, by activity grouping



The branches of activity with the greatest increase in energy consumption between 2011 and 2013 were the *Manufacture of coke and refined petroleum products* (20.6%) and *Transport equipment* (7.8%).

**Annual variation (%) of the total energy consumption, by activity grouping**

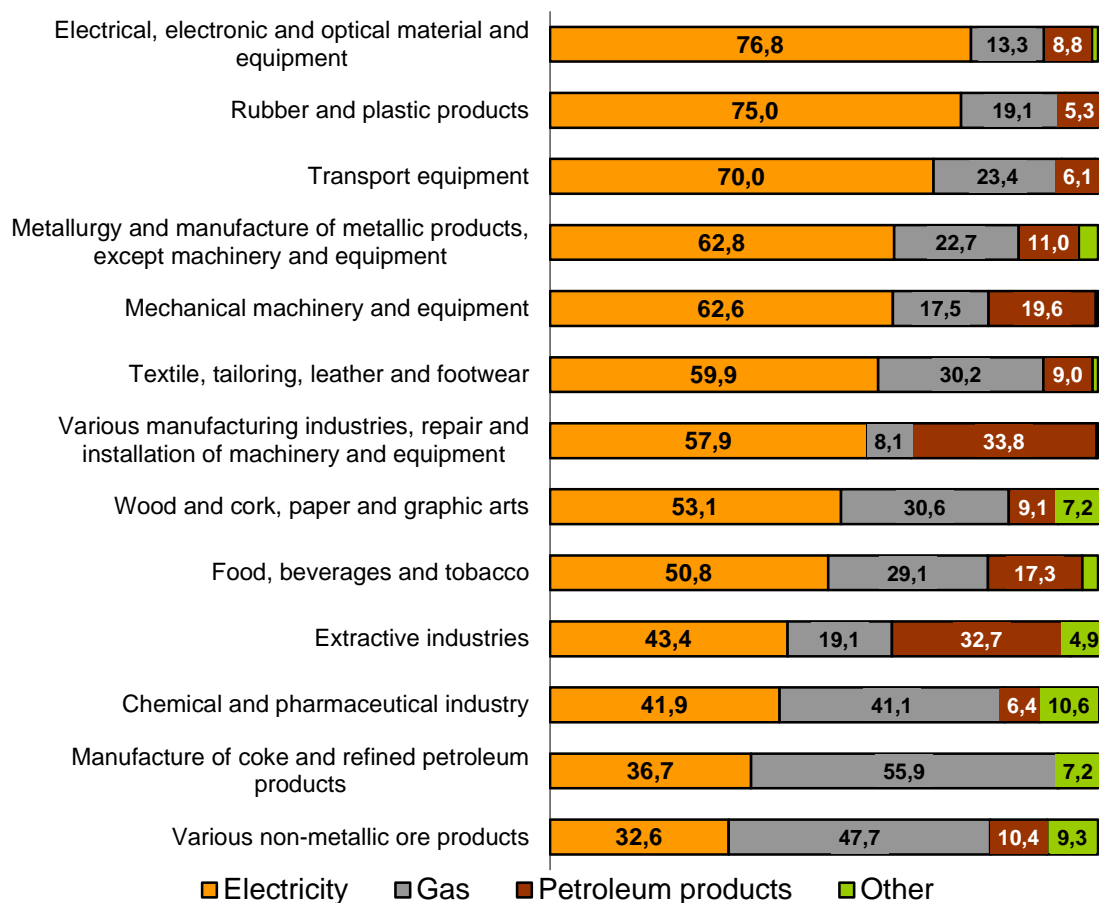


Based on the use of the different types of fuel, worth noting was the high percentage consumption of electricity recorded by the following activity groupings: *Electrical, electronic and optical material and equipment* (76.8% of the total energy consumption for said grouping), *Rubber and plastic products* (75.0%) and *Transport equipment* (70.0%).

In turn, gas use accounted for 55.9% of the total energy consumption for the *Manufacture of coke and refined petroleum products* activity grouping, and 47.7% for *Various non-metallic ore products*.

The consumption of petroleum products represented 33.8% of the total in the *Various manufacturing industries, repair and installation of machinery and equipment* grouping, and 32.7% in the *Extractive industries*.

## Percentage distribution, by type of energy and activity grouping

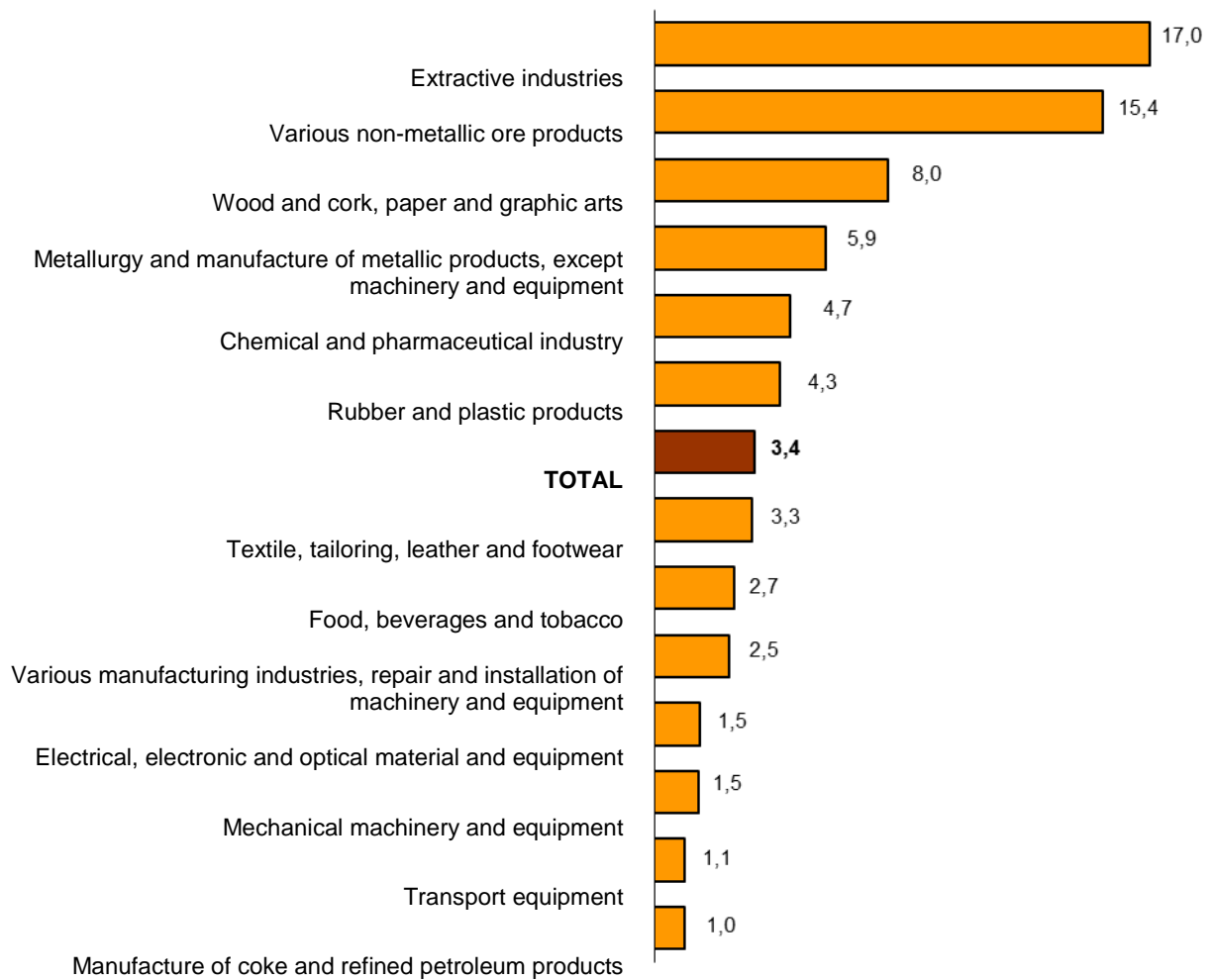


**Energy consumption in total purchases by companies**

The percentage represented by energy consumption, over the total purchases of goods and services (purchases, work carried out by other companies and external services) for the industry total was 3.4%.

The grouping carrying the greatest weight were the *Extractive industries*, with 17.0%, followed by *Various non-metallic ore products*, with 15.4%.

**Importance of energy consumption over the total purchases of goods and services, by activity grouping (as a percentage)**



## Energy consumption by activity sector

The Energy Consumption Survey offers data broken down for 96 activity sectors, which enables a detailed study of industrial reality, as it provides information regarding which of the different types of fuel are the most significant in consumption.

The following table presents the 10 sectors with the most energy consumption, which represented more than 50% of the total of said consumption in the extractive and manufacturing industry.

The activity sector that presented the most consumption in 2013 was the *Manufacture of basic chemical products*, with 12.5% of the total.

### The 10 sectors with the most energy consumption

Activity sectors:	Consumption (thousands of euros)	% of the total
Manufacture of basic chemical products	1.390.747	12,5
Manufacture of basic products in iron, steel and ferro-alloys	811.478	7,3
Production of precious metals and other non-ferrous metals	680.329	6,1
Manufacture of pulp, paper and cardboard	574.848	5,2
Petroleum and natural gas industries	533.319	4,8
Manufacture of ceramic products for construction	410.838	3,7
Manufacture of plastic products	403.323	3,6
Meat industry	377.215	3,4
Manufacture of glass and glass products	329.063	3,0
Manufacture of cement, lime and plaster	277.861	2,5
	<b>11.086.198</b>	<b>100,0</b>

Consumption of **electricity** represented a very significant percentage of the total for a large number of industrial sectors, and especially in the *Manufacture of electronic components and assembled printed circuits* (92.8% of the total) and in the *Manufacture of consumer electronics* (91.9%).

### The 10 sectors with the highest percentage of use of electricity

Activity sectors:	Electricity
Manufacture of electronic components and assembled printed circuits	92,8
Manufacture of consumer electronics	91,9
Manufacture of fur items	86,7
Manufacture of jewellery, costume jewellery and the like	86,4
Manufacture of medical and dental instruments and supplies	86,4
Manufacture of cables and cable devices	84,2
Manufacture of computers and peripherals	84,0
Manufacture of telecommunications equipment	83,2
Radiation and medical and therapeutic equipment; optical instruments and photographic equipment; magnetic and optical media	82,2
Manufacture of articles of cork, straw and plaiting materials and other wood products	80,2

Use of **gas** (natural and manufactured) was very significant in the *Manufacture of ceramic products for construction* (75.0% of the total) and *Textile finishings* (61.7%) sectors.

**The 10 sectors with the highest percentage of use of gas**

Manufacture of ceramic products for construction	75,0
Textile finishings	61,7
Sugar, coffee, tea and infusions and confectionery	60,8
Manufacture of artificial and synthetic fibres	60,0
Manufacture of ceramic products, except those used for construction	58,7
Manufacture of glass and glass products	58,7
Manufacture of abrasive products and non-metallic mineral products n.e.c.	56,9
Petroleum and natural gas industries	55,6
Paints, varnishes, printing ink and mastics	52,6
Treatment and coating of metals	43,1

The sectors with the highest percentage use of **petroleum products** were the *Installation of industrial machines and equipment* (62.9%) and the *Sawmilling and planing of wood* (50.1%).

**The 10 sectors with the highest percentage of use of petroleum products**

Activity sectors:	% Petroleum products
Installation of industrial machines and equipment	62,9
Sawmilling and planing of wood.	50,1
Manufacture of builders' metal carpentry and joinery	45,1
Manufacture of elements made of concrete, cement and plaster	42,5
Repair of metallic products, machinery and equipment	41,8
Manufacture of wooden containers and packaging	41,7
Fishing industry	41,0
Stone cutting, working and finishing	40,7
Manufacture of metal structures and their components	35,0
Extraction of rocks and metallic ores	34,5

Regarding **coal**, a very residual use of it as a source of energy was observed, with the exception of the *Manufacture of cement, lime and plaster* sector, where it represented 31.5% of the total energy consumption by companies practising said activity in 2013.

## Results by Autonomous Community

The Autonomous Communities with the greatest participation in the total energy consumption in the year 2013 were Cataluña (21.0% of the total), Comunitat Valenciana (12.2%) and Andalucía (10.9%).

Conversely, Illes Balears (with 0.3%), Canarias and La Rioja (both with 0.8%) were the Autonomous Communities presenting the least weight out of the total.

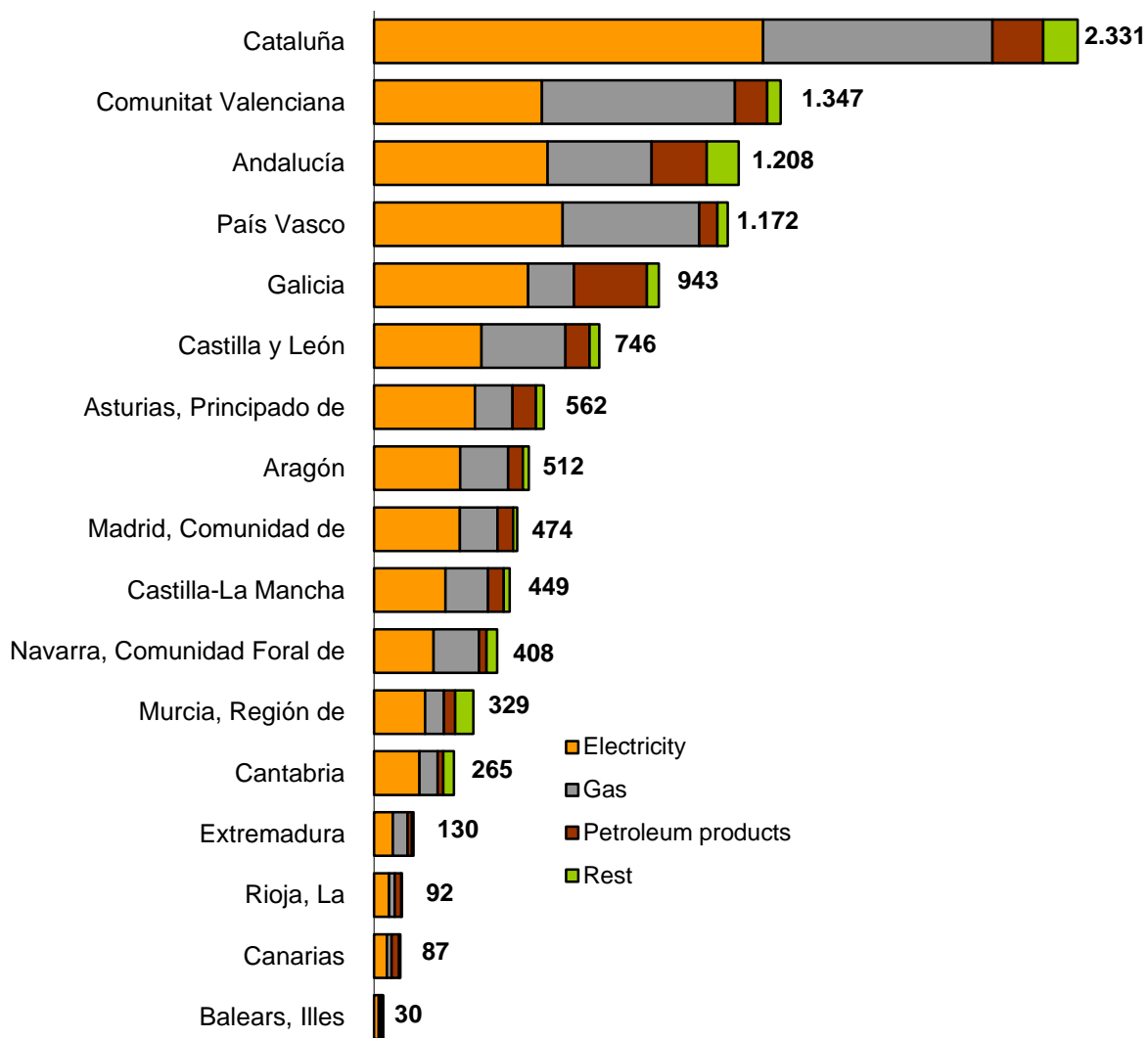
### Energy consumption in the industrial sector, by Autonomous Community. Year 2013

Autonomous Community.	Consumption (thousands of euros)	% of the total	% Variation 2013/2011
Andalucía	1.207.766	10,9	-0,1
Aragón	512.396	4,6	-18,4
Asturias, Principado de	561.954	5,1	-1,4
Balears, Illes	29.780	0,3	-1,4
Canarias	86.953	0,8	-20,8
Cantabria	264.684	2,4	-8,8
Castilla y León	746.083	6,7	-2,8
Castilla-La Mancha	449.439	4,1	-8,4
Cataluña	2.330.958	21,0	3,9
Comunitat Valenciana	1.347.450	12,2	5,3
Extremadura	130.266	1,2	-7,0
Galicia	943.453	8,5	-6,7
Madrid, Comunidad de	474.400	4,3	-13,4
Murcia, Región de	328.793	3,0	2,5
Navarra, Comunidad Foral de	407.875	3,7	-0,3
País Vasco	1.172.001	10,6	-2,4
Rioja, La	91.572	0,8	0,8
Ceuta	(*)	-	-
Melilla	(*)	-	-
<b>TOTAL</b>	<b>11.086.196</b>	<b>100,0</b>	<b>-2,2</b>

(\*) Data protected by statistical secrecy



**Energy consumption (millions of euros), by Autonomous Community. Year 2013**



With regard to the different fuels used, worth noting was that the consumption of electricity accounted for more than half of the total energy consumption in 10 Autonomous Communities (in Comunidad de Madrid, it represented 60.0%).

The Autonomous Communities that presented the highest percentages in the use of gas during the year 2013 were Comunitat Valenciana (47.4%) and País Vasco (38.7%).

The Autonomous Communities that presented the highest percentages in the consumption of petroleum products were Canarias (28.8%) and Galicia (25.5%).

In terms of the use of coal and coke, though this was already significantly reduced in all of the Autonomous Communities, worth noting was their consumption in Illes Balears (5.7%), Comunidad Foral de Navarra (4.3%) and Cantabria (3.6%).

### Percentage distribution of energy consumption, by type of energy and Autonomous Community. Year 2013

Autonomous Community.	Electricity	Gas	Petroleum products	Coal and coke	Other
Andalucía	47,6	28,5	15,1	1,9	6,8
Aragón	55,7	30,9	9,5	1,9	1,9
Asturias, Principado de	59,3	22,2	13,9	2,3	2,3
Balears, Illes	49,4	26,3	17,3	5,7	1,3
Canarias	48,8	17,6	28,8	1,8	2,9
Cantabria	56,9	22,6	7,0	3,6	9,9
Castilla y León	47,6	37,4	10,6	1,5	2,9
Castilla-La Mancha	52,6	31,4	11,5	1,4	3,1
Cataluña	55,3	32,6	7,2	1,3	3,6
Comunitat Valenciana	41,3	47,4	8,0	1,0	2,4
Extremadura	47,8	36,8	11,1	1,5	2,8
Galicia	54,1	16,0	25,5	1,6	2,7
Madrid, Comunidad de	60,0	26,1	11,0	1,1	1,8
Murcia, Región de	51,3	19,1	11,2	1,3	17,1
Navarra, Comunidad Foral de	48,3	36,9	6,1	4,3	4,3
País Vasco	53,3	38,7	5,1	1,0	1,9
Rioja, La	53,4	21,3	23,1	0,3	1,8
Ceuta	(*)	(*)	(*)	(*)	(*)
Melilla	(*)	(*)	(*)	(*)	(*)
<b>TOTAL</b>	<b>51,7</b>	<b>31,9</b>	<b>11,0</b>	<b>1,6</b>	<b>3,8</b>

(\*) Data protected by statistical secrecy

## Methodological note

The **Energy Consumption Survey** is a two-yearly survey targeting companies with 20 employed persons or more, located in the national territory, and whose main activity is included in Sections B (extractive industries) or C (manufacturing industry) of CNAE-2009.

This statistical operation enables obtaining detailed information regarding the different types of energy consumption, measured in monetary terms, in the extractive and manufacturing industry (coal and coke, gasoil, fueloil, gas, electricity, biofuels, etc.). Detailed results are offered on a national level, for each one of the 12 activity groupings, and for each one of the 96 activity sectors belonging to the extractive and manufacturing industries. Results are also provided by Autonomous Community.

The sample for the Energy Consumption Survey is selected as a sub-sample of the total sample from the Industrial Companies Survey, for the purpose of achieving better integration in the results from the two studies. The annual sample comprises a total of approximately 6,000 companies.

For further detail, please see the general methodology for this survey on the INE website.

<http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft04%2Fp01&file=inebase&L=1>