

Energy Consumption Survey 2021
Final data

The mining and quarrying and manufacturing industries' energy consumption rose by 27.0% in 2021 compared to 2019

The branches of activity with the highest consumption were the metallurgy, food industry and chemical industry

The main energy product used is electricity, with 62.4% of the total consumption for the sector

Energy consumption¹ in the extractive and manufacturing industry² reached 14,254 million euros in 2021, an increase of 27.0% compared to 2019, the last year in which this survey was carried out.

The main energy products used were electricity (62.4% of the total), gas (26.8%) and petroleum products (5.2%).

These companies' consumption of electricity increased a 39.6% compared to 2019, and their gas expenditure a 13.2%. This growth is affected by higher energy costs in 2021, in particular for electricity and gas.

Energy consumption in industry, by type of product. Year 2021

Type of product	Consumption (thousands of euros)	% of the total	Variation 2019/2017 (%)
Electricity	8.892.228	62,4	39,6
Gas	3.817.158	26,8	13,2
Petroleum products	747.116	5,2	-14,8
- Gasoil	592.139	4,2	-12,7
- Fueloil	72.771	0,5	-26,6
- Petrol and others	82.206	0,6	-17,7
Coal and coke	110.110	0,8	5,2
Biofuels	36.055	0,3	-19,4
Heat and other products	651.504	4,6	41,3
TOTAL	14.254.170	100,0	27,0

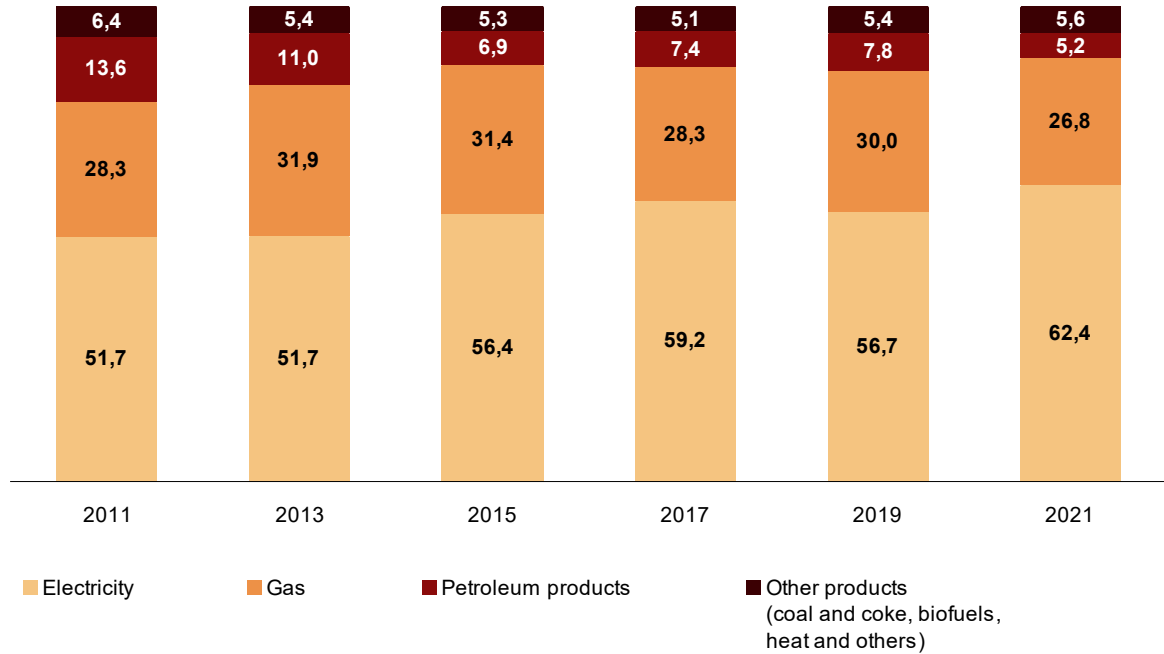
In the last 10 years, electricity has remained the main energy product in terms of consumption, with percentages ranging from 51.7% to 62.4%. In 2021, it represented a 62.4% of the total.

¹ Energy consumption is measured in monetary terms, at current prices. Therefore, its evolution takes into account both the amount consumed and the variation in different energy products' prices.

² The target population of study of the Energy Consumption Survey is legal units with 20 or more employees, and whose main activity is described in Sections B and C of the 2009 CNAE.

On the other hand, the consumption of petroleum products has been decreasing over this period, reaching 5.2% of the total, while 10 years earlier it represented 13.6% of total consumption.

Percentage distribution of energy consumption in industry, by type of product. Years 2011-2021

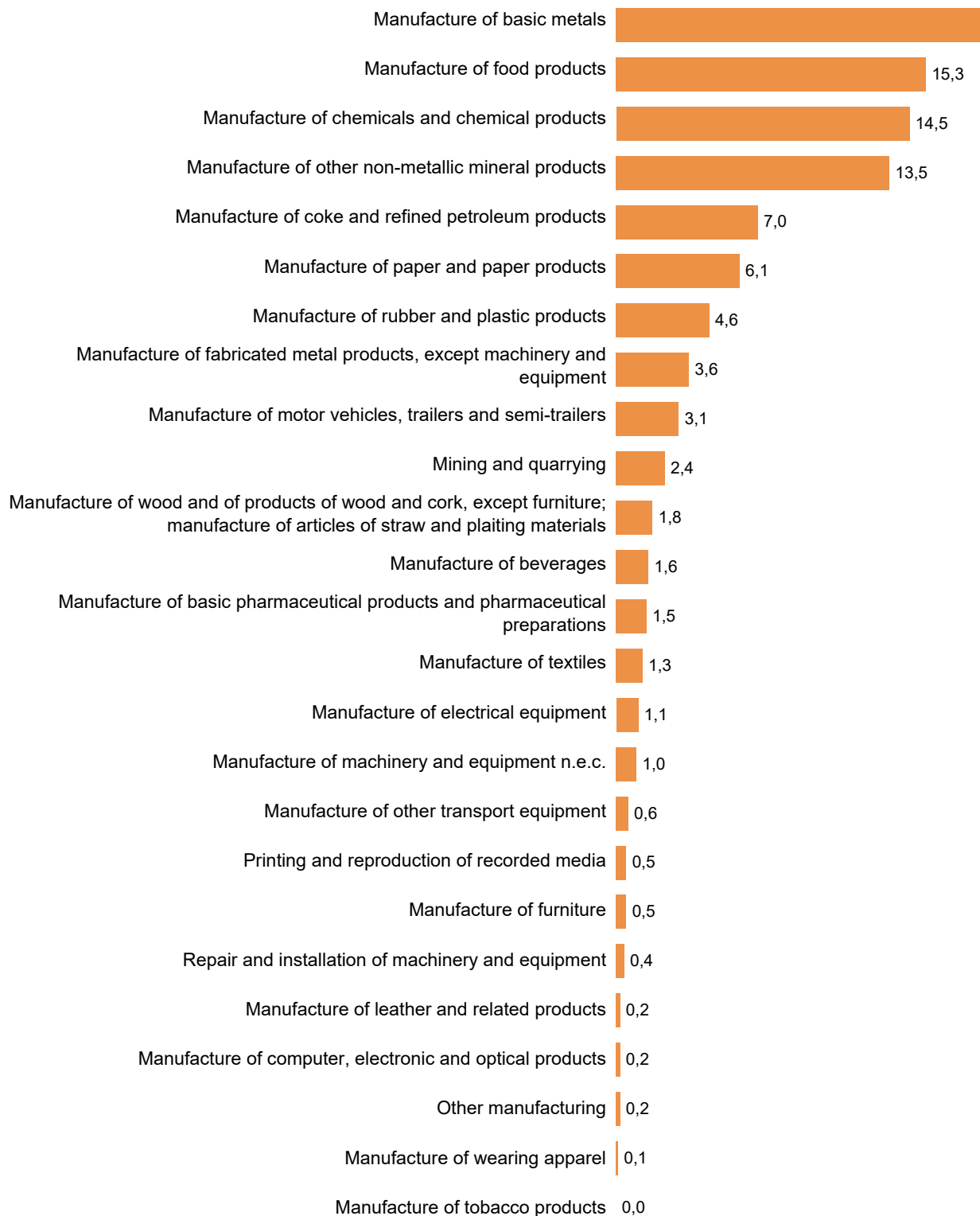


Results by branch of activity

The industrial branches of activity with higher energetic consumption in 2021 were *Metallurgy; manufacture of iron, steel and ferro-alloy products* (with 2,684 million euros, 18.8% of the total), *Food industry* (with 2,182 million euros, 15.3%) and *Chemical industry* (with 2,067 million euros, 14.5%).

On the other hand, the activities with the lowest consumption were *Tobacco industry*, *Manufacture of wearing apparel* and *Other manufacturing industries*.

Percentage distribution of energy consumption in industry, by branch of activity. Year 2021



Energy consumption represented 3.4% of the total goods and services purchases (purchases, work done by other companies and external services) made by the industry in 2021.

The branches of activity with the highest percentages in terms of this ratio were *Extractive industries* (13.1%) and *Manufacture of other non-metallic ore products* (12.9%).

Energy consumption in industry, by branch of activity. Year 2021

Branches of activity	Energy consumption (thousands of euros)	Energy consumption / Purchases (%)
Mining and quarrying	340.286	13,1
Manufacturing	13.913.884	3,4
Manufacture of food products	2.181.775	2,4
Manufacture of beverages	232.116	2,1
Manufacture of tobacco products	3.370	0,8
Manufacture of textiles	189.380	5,2
Manufacture of wearing apparel	15.223	0,6
Manufacture of leather and related products	33.255	1,6
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	260.587	6,0
Manufacture of paper and paper products	862.404	7,4
Printing and reproduction of recorded media	72.659	3,7
Manufacture of coke and refined petroleum products	992.207	2,3
Manufacture of chemicals and chemical products	2.067.361	5,4
Manufacture of basic pharmaceutical products and pharmaceutical preparations	211.093	2,0
Manufacture of rubber and plastic products	658.506	4,2
Manufacture of other non-metallic mineral products	1.920.937	12,9
Manufacture of basic metals	2.684.088	8,0
Manufacture of fabricated metal products, except machinery and equipment	516.593	2,3
Manufacture of computer, electronic and optical products	26.551	0,8
Manufacture of electrical equipment	158.561	1,1
Manufacture of machinery and equipment n.e.c.	139.359	1,0
Manufacture of motor vehicles, trailers and semi-trailers	441.327	0,8
Manufacture of other transport equipment	88.852	0,9
Manufacture of furniture	67.190	1,9
Other manufacturing	32.229	1,4
Repair and installation of machinery and equipment	58.260	1,8
TOTAL	14.254.170	3,4

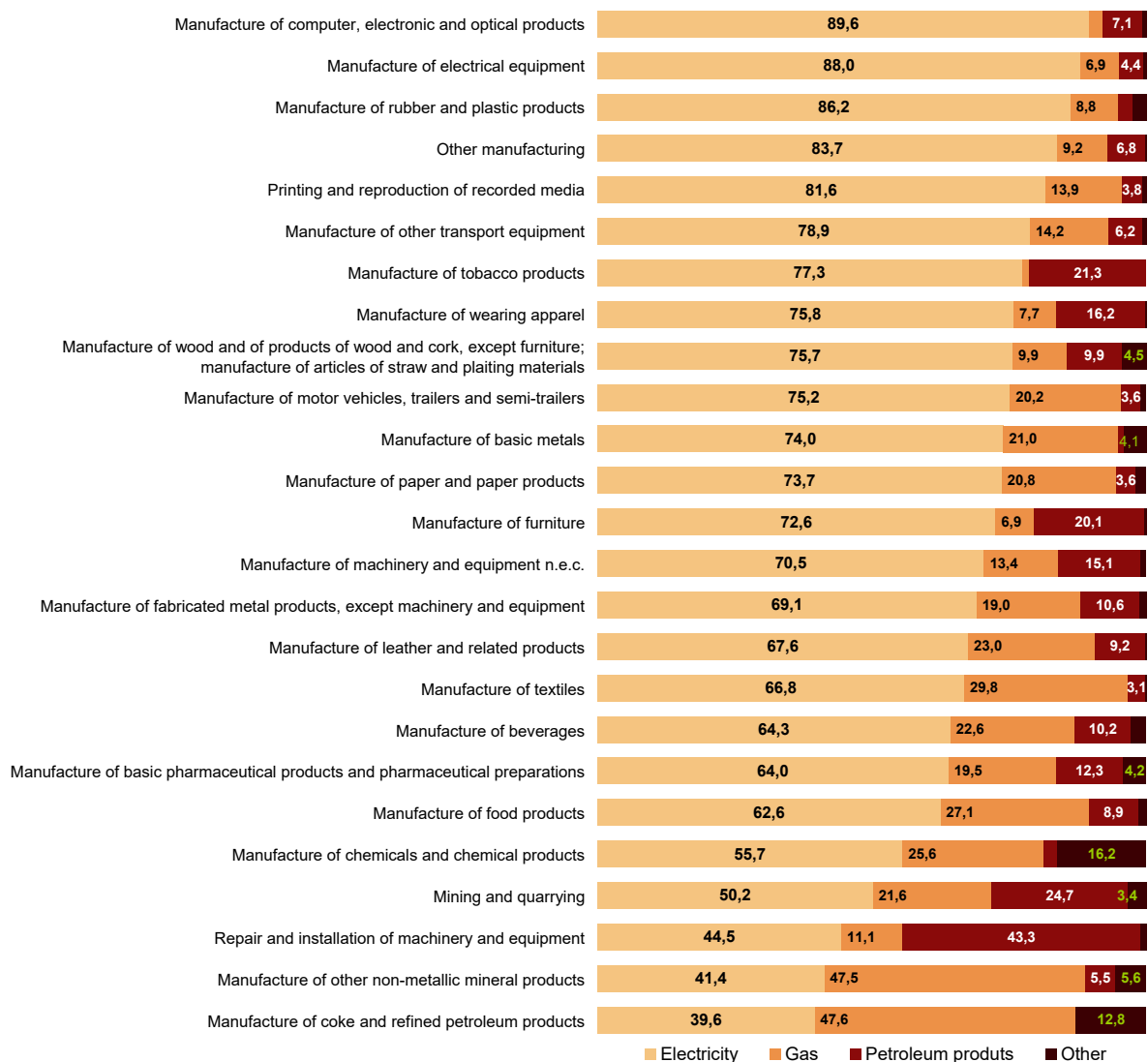
Results by branch of activity and type of energy product

Regarding the use of the different types of energy sources, it is worth noting the high consumption of electricity in percentage registered by the following branches of activity: *Manufacture of computer, electronic and optical products* (89.6% of its total energy consumption), *Manufacture of electronic material and equipment* (88.0%) and *Manufacture of rubber and plastic products* (86.2%).

In turn, the use of gas accounted for 47.6% of the total energy consumption for the *Manufacture of coke and refined petroleum products*, 47.5% for the *Manufacture of other non-metallic ore products* and 29.8% in *Textile industry*.

Petroleum products consumption represented 43.3% of the total in the branch of *Repair and installation of machinery and equipment*, 24.7% in *Extractive industries* and 21.3% in the *Tobacco industry*.

Percentage distribution, by type of energy and branch of activity. Year 2021



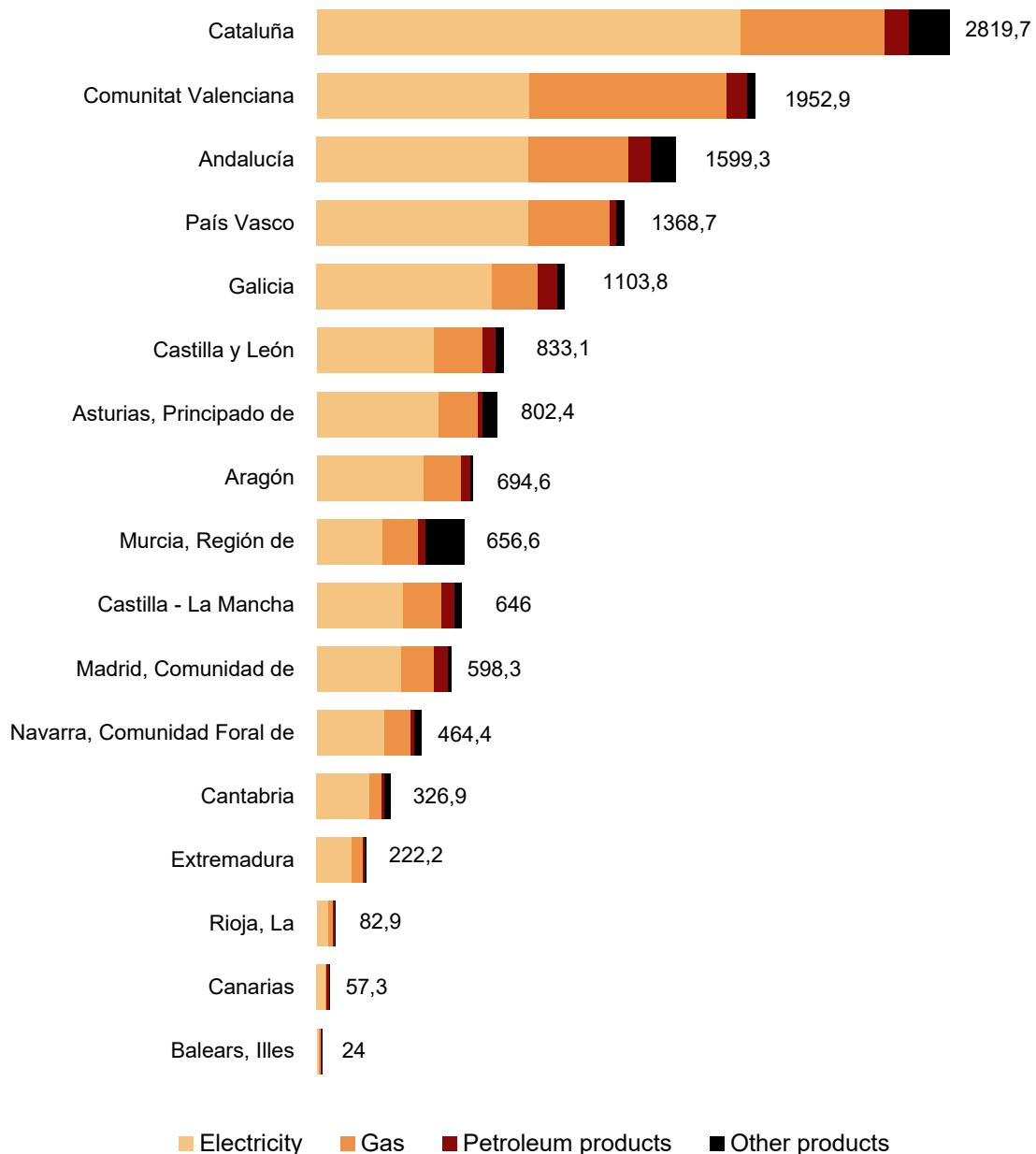
Results by autonomous communities

The autonomous communities with the highest industrial energy consumption in 2021 were Cataluña (with 2,820 million euros, 19.8% of the national total), Comunitat Valenciana (13.7%) and Andalucía (11.2%).

Conversely, Illes Balears (0.2%), Canarias (0.4%) and La Rioja (0.6%) presented the lowest percentages.

Energy consumption in industry, by Autonomous Community. Year 2021

Millions of euros



Regarding the different energy sources used, the consumption of electricity accounted for more than half of the total energy consumption in 15 Autonomous Communities and more than 60% in 12.

The Communities with the highest percentages of gas use were Comunitat Valenciana (45.0% of the total energy consumption of the industry in the community) and Andalucía (28.0%).

On the other hand, Canarias (24.9%) and Illes Balears (19.2%) presented the highest consumption of petroleum products.

Regarding the use of coal and coke, while low in most communities, its consumption stands out in Comunidad Foral de Navarra (4.3% of the total) and Illes Balears (3.8%).

Percentage distribution of energy consumption, by type of energy and Autonomous Community. Year 2021

Autonomous Community	Electricity	Gas	Petroleum products	Coal and coke	Biofuels	Others
Andalucía	58,9	28,0	6,2	0,4	0,4	6,1
Aragón	68,8	23,6	6,0	0,5	0,4	0,7
Asturias, Principado de	67,8	21,7	2,2	1,3	0,0	7,0
Balears, Illes	52,1	24,1	19,2	3,8	0,7	0,1
Canarias	66,4	6,7	24,9	0,6	0,2	1,3
Cantabria	71,3	17,3	3,7	0,9	0,1	6,6
Castilla y León	62,7	26,2	6,7	0,9	0,4	3,2
Castilla - La Mancha	59,5	26,8	8,6	1,8	0,3	2,9
Cataluña	67,0	22,7	3,8	0,6	0,2	5,7
Comunitat Valenciana	48,5	45,0	4,8	0,3	0,1	1,4
Extremadura	69,7	21,8	5,1	3,0	0,3	0,1
Galicia	70,6	18,6	7,9	0,5	0,6	1,9
Madrid, Comunidad de	62,9	24,2	10,2	1,2	0,1	1,4
Murcia, Región de	44,7	23,8	4,9	0,1	0,3	26,2
Navarra, Comunidad Foral de	65,5	25,1	2,8	4,3	0,2	2,1
País Vasco	68,7	26,6	2,2	0,3	0,1	2,0
Rioja, La	63,4	23,3	12,5	0,1	0,3	0,4
Ceuta	(*)	(*)	(*)	(*)	(*)	(*)
Melilla	(*)	(*)	(*)	(*)	(*)	(*)
TOTAL	62,4	26,8	5,2	0,8	0,3	4,6

(*) Data protected by statistical confidentiality

Data review and update

The data published today are final. The results are available at INEBase.

Methodological note

The Energy Consumption Survey is a biennial survey targeting legal units with 20 or more employees whose main activity is included in Sections B (extractive industries) or C (manufacturing industry) of the 2009 CNAE.

This statistical survey provides information on the consumption of different types of energy products. These products are understood to mean those products acquired to be used as fuel (energy products used as a commodity or intended for resale without transformation are excluded). Energy consumption is quantified in monetary terms. Detailed results are offered at the national level and by Autonomous Community.

The sample of the Energetic Consumption Survey is chosen as a subsample of the total sample of legal units of the *Structural Enterprise Statistics. Industrial Sector*. Both operations share procedures for collecting and processing information.

Type of operation: biennial continuous survey (for odd reference years).

Population scope: legal units with 20 or more employees, whose main activity is included in Sections B (extractive industries) or C (manufacturing industry) of the 2009 CNAE.

Geographical scope: the entire national territory.

Reference period for the results: The calendar year.

Sample size: 5,600 units, approximately.

Collection method: completion of the questionnaire by the respondent, mainly via the Internet (IRIA system).

For further details, please see the general methodology for this survey on the INE website:

http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736146240&menu=ultiDatos&idp=1254735576715

And the standardised methodological report at:

<https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30070>

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