

Energy Consumption Survey Year 2022

Main results

- The mining and quarrying and manufacturing industries' energy consumption rose by 73.0% in 2022 compared to 2021.
- The branches of activity with the highest consumption were metallurgy, food industry and chemical industry.
- The main energy product used was electricity, with 58.1% of the total consumption for the sector.

More information

- [Tables annex](#)
- [Detailed results](#)

Energy consumption in the extractive and manufacturing industry reached 24,655 million euros in 2022, an increase of 73.0% compared to 2021.

The main energy products used were electricity (58.1% of the total) and gas (31.2%). On the other hand, industrial consumption of petroleum products used as fuel accounted for 4.7% of the total.

Compared to the previous year, electricity consumption increased by 61.0%, and gas expenditure by 101.2%. This growth was affected by higher energy costs in 2022.

Energy consumption¹ in industry, by type of product. Year 2022

| | Consumption (thousands of euros) | % of the total | Variation compared to 2021 (%) |
|--------------------------------|----------------------------------|----------------|--------------------------------|
| Electricity | 14,319,055 | 58.1 | 61.0 |
| Gas | 7,680,920 | 31.2 | 101.2 |
| Total | 1,152,157 | 4.7 | 54.2 |
| Petroleum products | | | |
| Gasoil | 748,347 | 3.0 | 26.4 |
| Fueloil | 104,831 | 0.4 | 44.1 |
| Petrol and others | 298,979 | 1.2 | 263.7 |
| Coal and coal coke | 63,928 | 0.3 | -41.9 |
| Biofuels | 109,393 | 0.4 | 203.4 |
| Heat and other products | 1,330,020 | 5.4 | 104.1 |
| TOTAL | 24,655,473 | 100.0 | 73.0 |

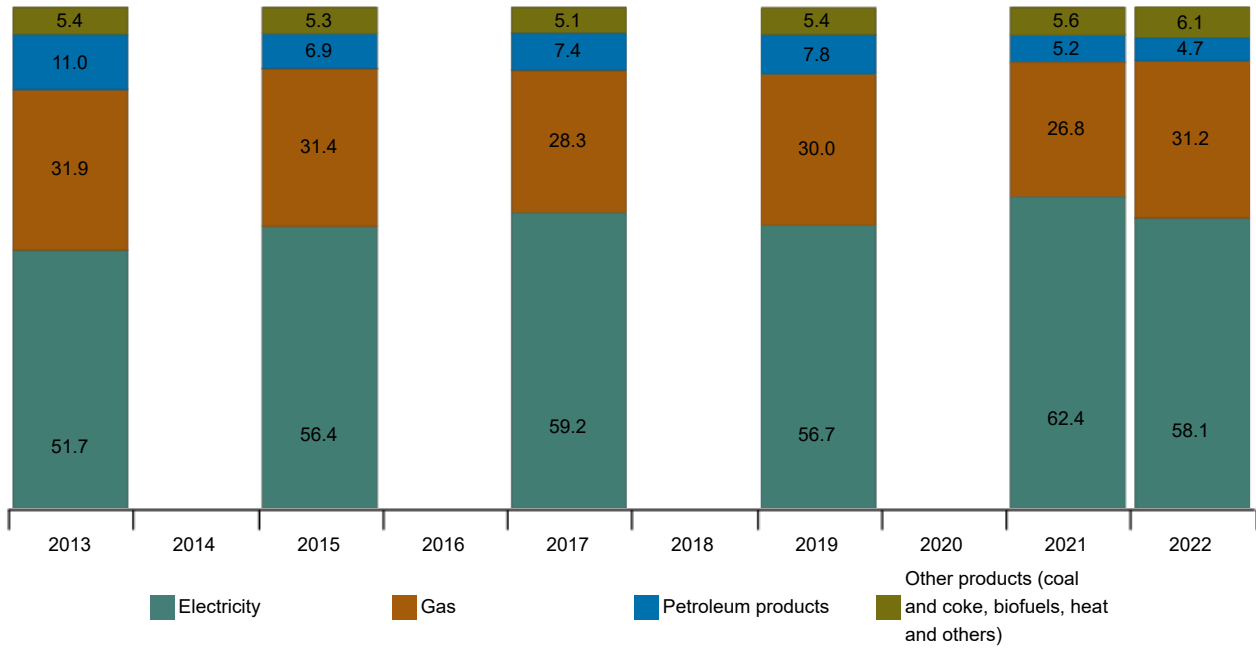
¹Energy consumption is measured in monetary terms, at current prices. Therefore, its evolution takes into account both the amount consumed and the variation in different energy products' prices.

Electricity has been the main energy product in terms of consumption in recent years, with percentages ranging from 51.7% in 2013 to 62.4% in 2021.

On the other hand, the consumption of petroleum products has been decreasing over this period, reaching 4.7% of the total in 2022, compared to 11.0% in 2013.

Energy consumption in industry, by type of product. Years 2013-2022

Percentage



Current press release at: <https://www.ine.es/dyngs/Prensa/en/ECE2022.htm>

Note: Until reference year 2021, the Energy Consumption Survey (ECE) was conducted biennially (only for odd-numbered years). Since 2022, the operation has become annual.

Results by branch of activity

The industrial branches of activity with higher energetic consumption in 2022 were *Metallurgy; manufacture of iron, steel and ferro-alloy products* (with 4,299 million euros, 17.4% of the total), *Food industry* (with 3,893 million euros, 15.8%) and *Chemical industry* (with 3,703 million euros, 15.0%).

On the other hand, the activities with the lowest consumption were *Tobacco industry*, *Manufacture of wearing apparel* and *Manufacture of computer, electronic and optical products*.

Energy consumption represented 4.6% of the total goods and services purchases (purchases, work done by other companies and external services) made by the industry in 2022.

The branches of activity with the highest percentages in terms of this ratio were *Extractive industries* (18.4%) and *Manufacture of other non-metallic ore products* (17.8%).

Results by branch of activity and type of energy product

In terms of the use of different types of fuels, it is worth noting the electricity consumption in the sectors of *Manufacture of computer, electronic and optical products* (90.4% of its total energy consumption), *Other manufacturing industries* (85.4%) and *Manufacture of wearing apparel* (82.6%).

On the other hand, gas accounted for 48.3% of the total energy consumption in the *Manufacture of other non-metallic ore products*, 41.8% in *Coke and petroleum refining*, and 32.4% in the *Food industry*.

Petroleum products consumption represented 35.5% of the total in the branch of *Repair and installation of machinery and equipment*, 17.4% in *Extractive industries* and 16.2% in the *Tobacco industry*.

Results by autonomous communities

The autonomous communities with the highest industrial energy consumption in 2022 were Cataluña (with 4,820 million euros, 19.6% of the national total), Comunitat Valenciana (14.6%) and Andalucía (11.9%).

Conversely, Illes Balears (0.2%), Canarias (0.3%) and La Rioja (0.7%) presented the lowest percentages.

Energy consumption by autonomous communities and energy products. Year 2022

Thousands of euros and percentage of total

| | Electricity | Gas | Petroleum products | Other products | Total Energy Consumption | % of the total |
|-----------------------------|-------------------|------------------|--------------------|------------------|--------------------------|----------------|
| Andalucía | 1,653,989 | 830,160 | 143,753 | 301,806 | 2,929,708 | 11.9 |
| Aragón | 736,139 | 306,174 | 44,894 | 9,080 | 1,096,288 | 4.4 |
| Asturias, Principado de | 936,136 | 283,772 | 56,255 | 77,474 | 1,353,638 | 5.5 |
| Balears, Illes | 25,137 | 2,997 | 8,409 | 792 | 37,335 | 0.2 |
| Canarias | 55,808 | 4,457 | 22,104 | 1,761 | 84,130 | 0.3 |
| Cantabria | 377,849 | 141,680 | 18,446 | 46,189 | 584,164 | 2.4 |
| Castilla y León | 873,255 | 427,336 | 103,429 | 118,854 | 1,522,874 | 6.2 |
| Castilla - La Mancha | 699,022 | 280,807 | 86,756 | 65,270 | 1,131,855 | 4.6 |
| Cataluña | 3,059,538 | 1,299,161 | 155,424 | 306,030 | 4,820,153 | 19.6 |
| Comunitat Valenciana | 1,556,787 | 1,854,275 | 124,124 | 71,672 | 3,606,858 | 14.6 |
| Extremadura | 257,564 | 118,755 | 22,349 | 3,404 | 402,071 | 1.6 |
| Galicia | 955,804 | 533,971 | 115,075 | 46,981 | 1,651,830 | 6.7 |
| Madrid, Comunidad de | 580,695 | 264,888 | 66,478 | 13,743 | 925,804 | 3.8 |
| Murcia, Región de | 482,986 | 294,992 | 42,251 | 306,134 | 1,126,363 | 4.6 |
| Navarra, Comunidad Foral de | 521,745 | 217,558 | 65,869 | 53,417 | 858,589 | 3.5 |
| País Vasco | 1,435,585 | 776,666 | 62,462 | 79,491 | 2,354,204 | 9.5 |
| Rioja, La | 109,882 | 43,271 | 14,051 | 1,242 | 168,446 | 0.7 |
| Ceuta | * | * | * | * | * | * |
| Melilla | * | * | * | * | * | * |
| TOTAL | 14,319,055 | 7,680,920 | 1,152,157 | 1,503,341 | 24,655,473 | 100.0 |

(*) Data protected by statistical confidentiality

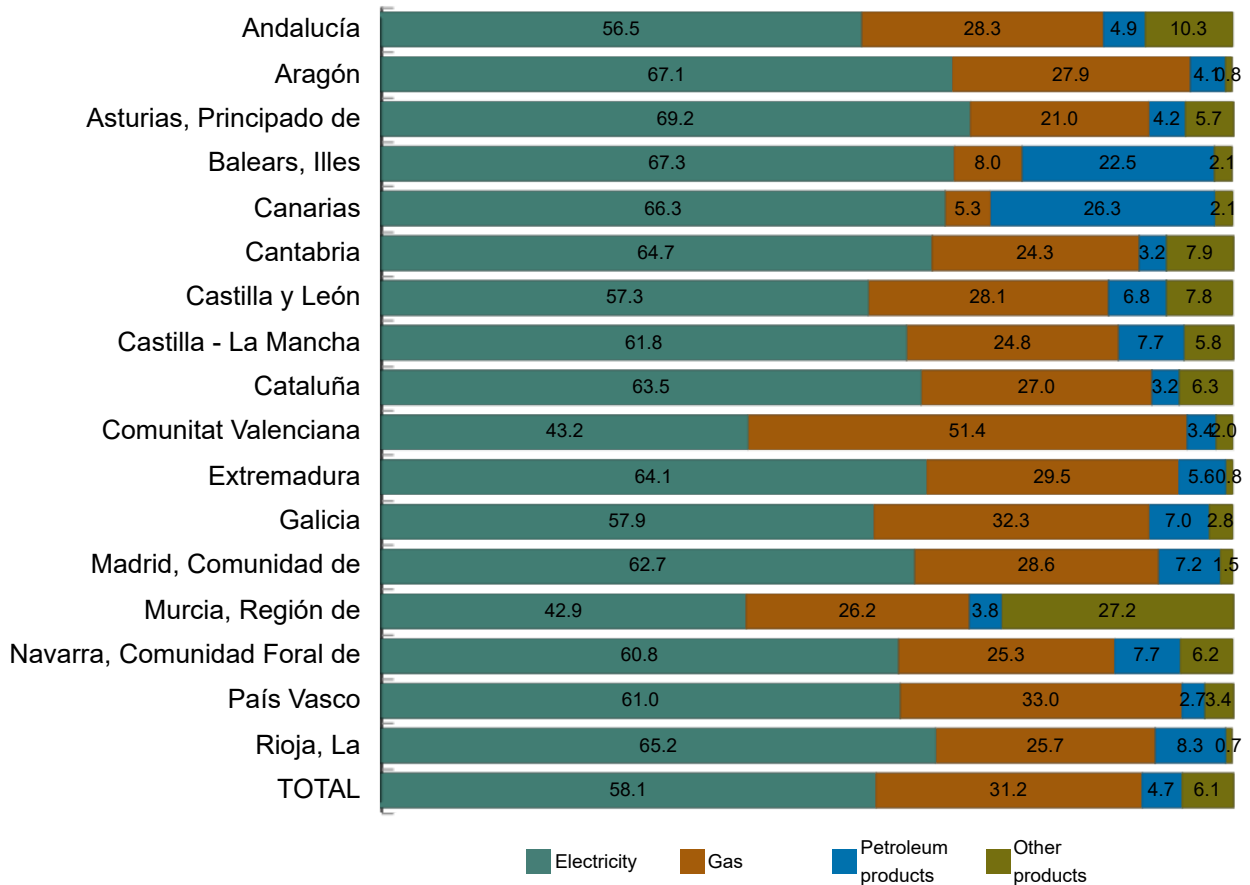
In terms of the use of different types of fuels, electricity consumption accounted for more than half of the total energy consumption in 15 Autonomous Communities and more than 60% in 12.

The Communities with the highest percentages of gas use were Comunitat Valenciana (51.4% of the total energy consumption of the industry in the community) and País Vasco (33.0%).

On the other hand, Canarias (26.3%) and Illes Balears (22.5%) presented the highest consumption of petroleum products.

The use of other energy products (heat, coal, biofuels, and others) exceeded 10% in Andalucía and Region de Murcia.

Percentage distribution of energy consumption in each autonomous community by energy products. Year 2022



Data reviews and updates

The data published today are final. All results are available on [INEbase](#).

Current press release at: <https://www.ine.es/dyngs/Prensa/en/ECE2022.htm>

Methodological note

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

Since its implementation in reference year 2001, this operation has been carried out and published biennially. Given the growing statistical need in energy matters, and in response to requests from some users regarding data availability, starting from 2022, the ECE will be conducted annually.

Type of survey: annual continuous operation.

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: Double sampling (14,000 units in the first phase and 5,130 in the second).

Data collection method: through questionnaires, mainly via the internet (IRIA system).

For more information, you can access the [methodology](#) and the [standardised methodological report](#).

INE statistics are produced in accordance with the Code of Good Practice for European Statistics. More information on [Quality at INE](#) and [Code of Best Practices](#).

For further information see [INE base](#)

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