

Natural gas supply statistics

Statistics Explained

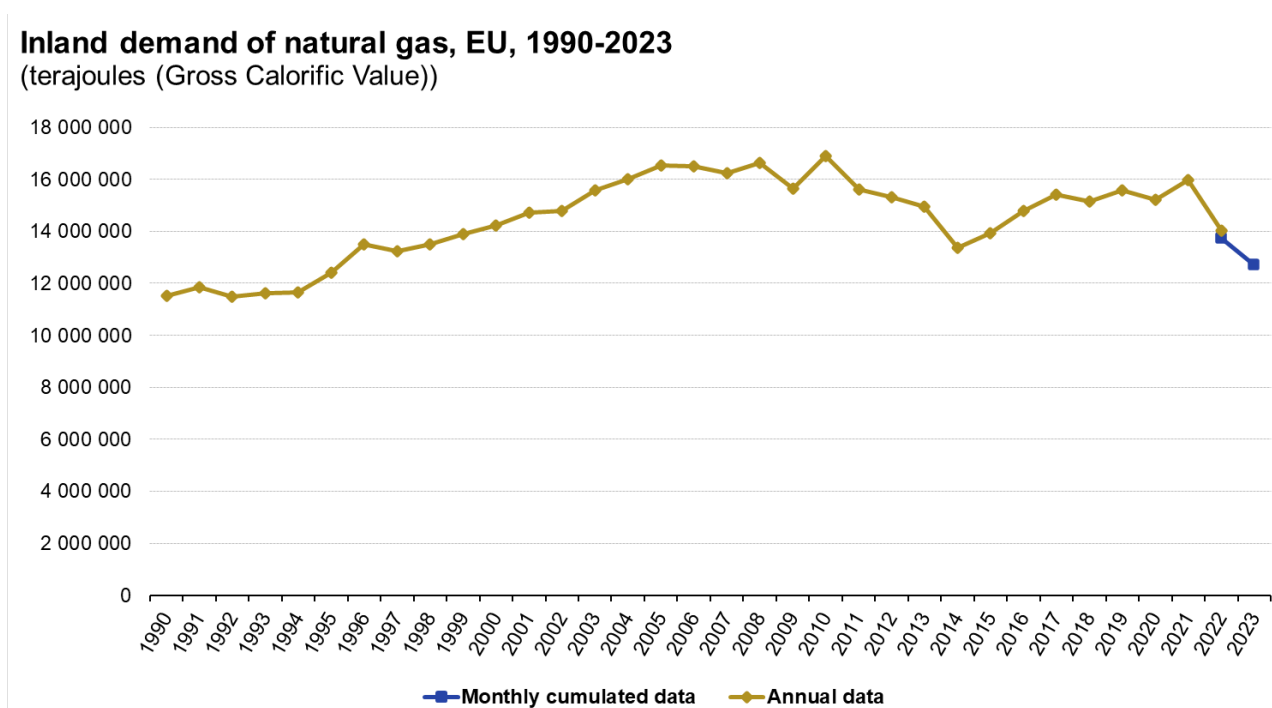
Data from May 2024.
Planned article update: 6 June 2025.

Highlights

" In 2023, inland demand of natural gas in the EU decreased by 7.1 % compared with 2022."

" In 2023, the EU's natural gas import dependency rate was 90 %."

" EU natural gas production continued its decreasing trend, falling by 18.6 % in 2023 compared with 2022."



Source: Eurostat (online data codes: nrg_cb_gasm, nrg_cb_gas)

eurostat

Figure 1: Inland demand of natural gas in EU in terajoules (gross calorific value) Source: Eurostat (nrg_cb_gasm), (nrg_cb_gas)

This article looks at monthly cumulated data on natural gas in the [European Union \(EU\)](#) for 2022 and 2023, as well as changes between these two years. It covers all aspects of the supply side - [primary production](#) , imports (entries) and exports (exits), stock changes, inland demand - as well as natural gas [energy dependency](#) data by EU Member State and for the European [aggregates](#) , i.e. the [EU](#) and [euro area](#) .

Consumption trends

In 2023, inland demand of natural gas in the EU decreased by 7.1 % compared with 2022, to drop to 12 719 409 terajoules. The largest increases in consumption were recorded in Finland (25.6 %), Sweden (11.1 %) and Poland (5.2 %), while the largest drops occurred in Portugal (20.2 %), Austria (13.2 %) and Czechia (11.9 %). In 2022, Germany, Italy and France had the highest inland demand with 2 956 782 terajoules, 2 351 303 terajoules and 1 362 744 terajoules respectively (see Table 1, Table 2 and Figure 2).

In Table 1 and Table 2, a negative dependency rate indicates a net exporter country. Positive values over 100 % indicate stocks build-up during the [reference period](#).

Provisional natural gas balance sheet, by country, 2022-2023
(terajoules (Gross Calorific Value))

		EU	Belgium	Bulgaria	Czechia	Denmark	Germany	Estonia	Ireland	Greece	Spain	France	Croatia	Italy	Cyprus
1. Primary production	2022	1 637 005.63	449.80	693.10	8 629.06	57 932.34	160 692.00	0.00	54 071.09	0.00	1 368.64	827.91	29 648.09	126 798.00	0.00
	2023	1 332 672.76	462.50	374.03	6 304.51	55 811.51	143 531.61	0.00	43 399.29	95.41	1 091.60	737.23	27 529.49	113 804.70	0.00
	Growth rate 2022-2023 (%)	- 18.59	2.82	- 46.04	- 26.94	- 3.66	- 10.68	:	- 19.74	:	- 20.24	- 10.95	- 7.15	- 10.25	:
2. Imports (entries)	2022	23 049 658.34	2 379 565.40	601 803.99	1 046 096.98	107 059.10	5 211 611.66	13 661.84	153 579.00	636 775.56	1 605 806.43	2 296 693.67	116 538.69	2 758 559.00	0.00
	2023	18 487 074.61	2 022 307.50	624 839.60	308 385.65	343 466.55	3 560 327.55	27 664.50	149 225.00	624 995.98	1 427 223.62	1 916 925.82	108 393.52	2 347 074.30	0.00
	Growth rate 2022-2023 (%)	- 19.79	- 15.01	3.83	- 70.52	220.82	- 31.68	102.49	- 2.84	- 1.85	- 11.12	- 16.54	- 6.99	- 14.92	:
3. Resources ⁽¹⁾	2022	24 686 663.97	2 380 015.20	602 497.09	1 054 726.04	164 991.44	5 372 303.66	13 661.84	207 650.09	636 775.56	1 607 175.06	2 297 521.58	146 186.78	2 885 357.00	0.00
	2023	19 819 747.37	2 022 770.00	625 213.63	314 690.16	399 278.06	3 703 859.16	27 664.50	192 624.29	625 091.39	1 428 315.21	1 917 663.05	135 923.01	2 460 879.00	0.00
	Growth rate 2022-2023 (%)	- 19.71	- 15.01	3.77	- 70.16	142.00	- 31.06	102.49	- 7.24	- 1.83	- 11.13	- 16.53	- 7.02	- 14.71	:
4. Stock change	2022	1 302 326.56	5 308.50	7 231.86	48 027.53	10 058.92	367 181.00	0.00	3 197.31	43 865.60	135 117.39	7 163.21	98 795.00	0.00	
	2023	119 793.31	3 666.00	81.01	6 443.44	502.29	- 39 870.00	0.00	0.00	- 4 307.62	- 16 301.50	- 1 609.09	- 4 667.50	14 668.50	
	Growth rate 2022-2023 (%)	- 91.21	- 31.21	- 98.89	- 86.54	- 97.52	- 108.17	:	:	- 100.00	- 100.00	- 100.00	- 100.00	15.21	
5. Exports (exits)	2022	8 212 254.51	1 769 379.60	487 407.44	711 414.83	88 345.00	1 931 226.93	0.00	0.00	426 507.74	243 507.85	636 105.74	38 575.45	174 956.00	0.00
	2023	7 035 601.30	1 447 633.60	524 062.55	40 346.27	336 649.24	786 947.33	15 146.00	0.00	443 104.48	267 356.04	585 670.03	39 347.01	94 907.10	0.00
	Growth rate 2022-2023 (%)	- 14.33	- 18.18	7.52	- 94.33	281.06	- 59.25	:	:	3.89	9.79	- 7.93	2.00	- 45.75	:
6. Inland demand	2022	13 692 384.22	607 418.80	108 138.99	304 159.42	92 843.94	3 073 895.74	13 661.84	207 650.09	204 935.56	1 307 696.71	1 543 620.09	100 448.12	2 611 602.00	0.00
	2023	12 719 409.48	572 711.70	100 994.30	267 900.45	93 879.85	2 956 781.83	12 518.50	192 568.17	184 438.95	1 174 274.07	1 362 743.93	101 243.50	2 351 303.40	0.00
	Growth rate 2022-2023 (%)	- 7.11	- 5.71	- 6.61	- 11.92	1.12	- 3.81	- 8.37	- 7.26	- 10.00	- 10.20	- 11.72	0.79	- 9.97	:
7. Energy dependency ⁽²⁾	2022	108.36	100.46	105.79	110.04	20.16	106.72	100.00	73.96	102.60	104.18	107.58	77.62	98.93	0.00
	2023	90.03	100.34	99.78	100.05	7.26	93.80	100.00	77.49	98.62	98.77	97.69	68.20	95.78	0.00
	Growth rate 2022-2023 (%)	- 17.00	0.00	- 0.69	- 0.95	- 64.53	- 12.53	0.00	6.00	- 2.00	- 4.00	- 8.00	- 11.00	- 3.00	0.00

⁽¹⁾ 1+2

⁽²⁾ - Decrease in stocks

+ Increase in stocks

⁽³⁾ (2 - 5) / 6 * 100

Source: Eurostat (online data code: nrg_cb_gasim)

eurostat

Table 1: Provisional natural gas balance sheet in thousand terajoules (GCV) Source: Eurostat (nrg_cb_gasim)

Provisional natural gas balance sheet, by country, 2022-2023
(terajoules (Gross Calorific Value))

		Latvia	Lithuania	Luxembourg	Hungary	Malta	Netherlands	Austria	Poland	Portugal	Romania	Slovenia	Slovakia	Finland	Sweden
1. Primary production	2022	0.00	0.00	0.00	53 798.00	0.00	611 522.88	24 552.89	152 007.72	0.00	351 683.00	172.01	2 159.12	0.00	0.00
	2023	0.00	0.00	0.00	56 747.00	0.00	394 185.63	22 110.67	107 792.16	0.00	358 572.00	175.94	1 947.48	0.00	0.00
	Growth rate 2022-2023 (%)	:	:	:	5.48	:	- 35.54	- 9.95	- 29.09	:	1.39	2.29	- 8.80	:	:
2. Imports (entries)	2022	74 698.45	223 634.00	24 469.58	426 015.00	15 039.84	2 064 384.63	1 213 758.67	591 956.71	248 711.34	110 132.00	48 729.00	997 011.18	54 171.00	29 195.63
	2023	78 436.38	216 525.00	22 929.66	407 129.00	14 729.16	1 960 603.46	603 612.76	666 110.07	207 745.70	103 259.00	38 985.00	588 973.05	81 889.00	35 317.78
	Growth rate 2022-2023 (%)	5.00	- 3.18	- 6.29	- 4.43	- 2.07	- 5.03	- 50.27	12.53	- 16.47	- 6.24	- 20.00	- 40.93	51.17	20.97
3. Resources ⁽¹⁾	2022	74 698.45	223 634.00	24 469.58	479 813.00	15 039.84	2 675 907.51	1 238 311.56	743 964.43	248 711.34	461 815.00	48 901.01	999 170.30	54 171.00	29 195.63
	2023	78 436.38	216 525.00	22 929.66	463 876.00	14 729.16	2 354 789.09	625 723.43	773 902.23	207 745.70	459 831.00	39 160.94	590 920.53	81 889.00	35 317.78
	Growth rate 2022-2023 (%)	5.00	- 3.18	- 6.29	- 3.32	- 2.07	- 12.00	- 49.47	4.02	- 16.47	- 0.43	- 19.92	- 40.86	51.17	20.97
4. Stock change ⁽²⁾	2022	- 3 535.47	725.00	0.00	51 656.00	23.55	212 804.61	183 976.01	20 769.60	8 856.86	32 048.00	0.00	67 928.85	1 587.00	- 459.78
	2023	23 702.64	- 2 351.00	0.00	52 997.00	- 1 050.65	35 192.01	25 991.47	9 790.93	- 4 314.28	6 804.00	0.00	11 466.09	2 163.00	796.59
	Growth rate 2022-2023 (%)	670.50	- 323.14	0.00	1.92	- 4500.00	15.53	12.53	46.47	- 50.00	21.25	0.00	17.07	135.44	174.44
5. Exports (exits)	2022	45 793.65	158 591.00	0.00	61 636.00	0.00	1 371 156.80	739 533.61	27 509.07	15 473.89	36 593.00	16 139.00	754 844.02	4 074.00	404.66
	2023	24 417.65	156 739.00	0.00	83 130.09	94.98	1 274 152.17	324 857.70	31 868.69	36 223.81	85 171.00	7 300.00	411 529.80	18 595.06	351.72
	Growth rate 2022-2023 (%)	- 46.68	- 1.17	:	34.87	:	- 7.07	- 56.07	15.85	134.10	132.75	- 54.77	- 45.48	356.43	- 13.08
6. Inland demand	2022	31 848.89	64 318.00	24 640.65	367 383.65	15 013.67	1 099 944.75	316 047.65	695 685.76	221 238.94	393 174.00	32 762.01	176 009.57	48 998.00	29 247.40
	2023	30 280.69	62 137.00	23 098.64	327 773.47	15 682.30	1 045 753.46	274 343.96	732 259.01	176 635.78	367 856.00	31 880.94	166 346.43	61 558.94	32 484.20
	Growth rate 2022-2023 (%)	- 4.99	- 3.39	- 6.26	- 10.78	4.45	- 4.93	- 13.20	5.26	- 20.16	- 6.44	- 2.75	- 5.49	25.64	11.07
7. Energy dependency ⁽³⁾	2022	90.76	101.13	99.31	99.18	100.17	63.02	150.05	81.14	105.42	104.18	107.58	77.62	98.93	98.44
	2023	178.51	96.22	99.27	98.85	93.32	65.64	101.61	86.61	97.10	98.77	97.69	68.20	95.78	98.44
	Growth rate 2022-2023 (%)	96.78	- 4.00	- 0.69	- 0.95	- 6.50	- 2.50	6.00	10.00	- 10.00	- 4.00	- 8.00	- 11.00	- 3.00	0.00

⁽¹⁾ 1+2

⁽²⁾ - Decrease in stocks

+ Increase in stocks

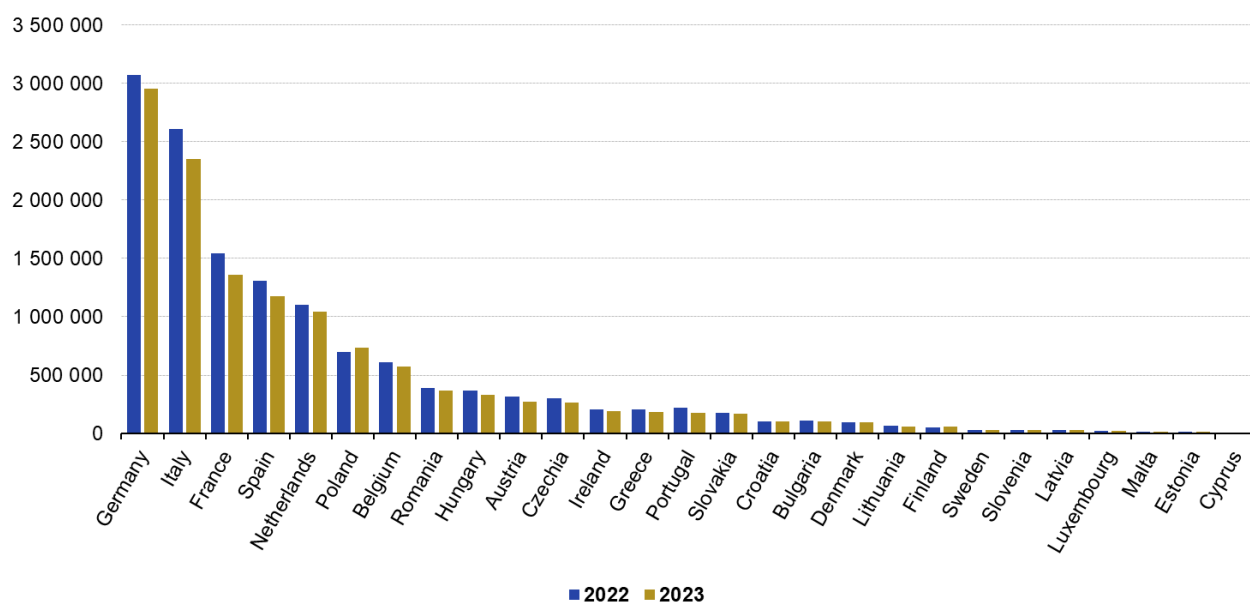
⁽³⁾ (2 - 5) / 6 * 100

Source: Eurostat (online data code: nrg_cb_gasim)

eurostat

Table 2: Provisional natural gas balance sheet in thousand terajoules (GCV) Source: Eurostat (nrg_cb_gasim)

Inland demand of natural gas, by country, 2022-2023 (terajoules (Gross Calorific Value))



Source: Eurostat (online data code: nrg_cb_gasm)

eurostat

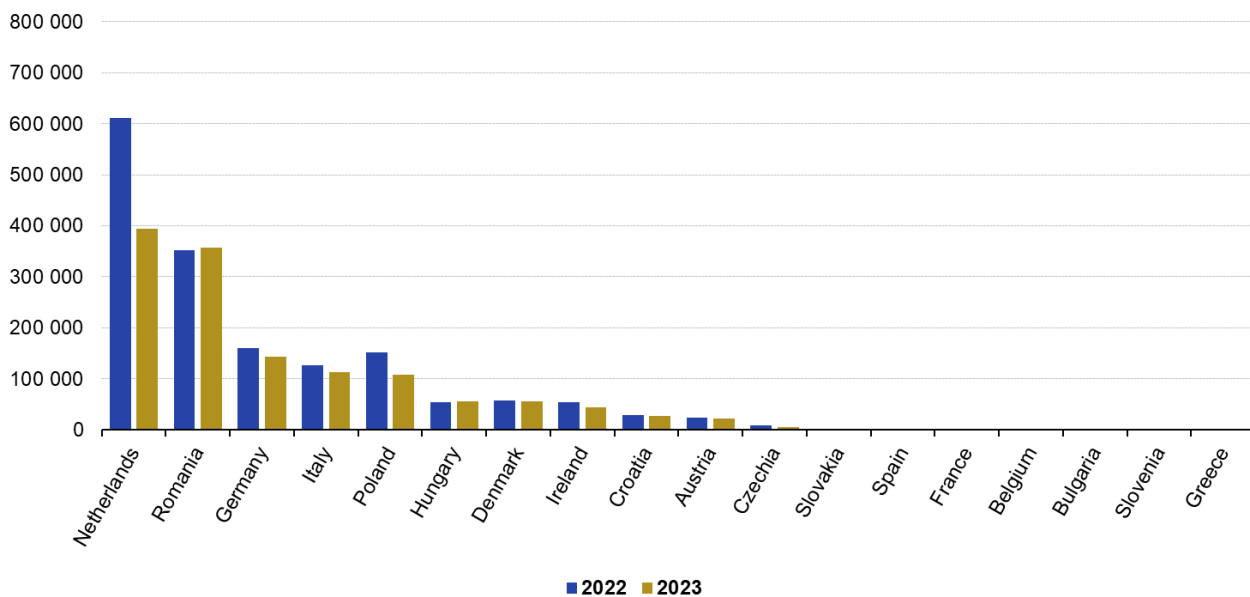
Figure 2: Inland demand of natural gas in terajoules (GCV) Source: Eurostat (nrg_cb_gasm)

Supply structure

Natural gas production

EU natural gas production continued its decreasing trend, falling by 18.6 % in 2023 compared with 2022, to 1 332 673 terajoules. The main EU natural gas producer, the Netherlands, registered a drop in production of 35.5 %. With a natural gas production of 394 186 terajoules in 2023, the Netherlands remained the highest producer of natural gas in the EU, followed by Romania, whose primary production equaled 356 572 terajoules (an increase of 1.4 %), and Germany, whose primary production was 143 532 terajoules (a decrease of 10.7 %) (see Figure 3).

Primary production of natural gas, by producing country, 2022-2023 (terajoules (Gross Calorific Value))



Source: Eurostat (online data code: nrg_cb_gasm)



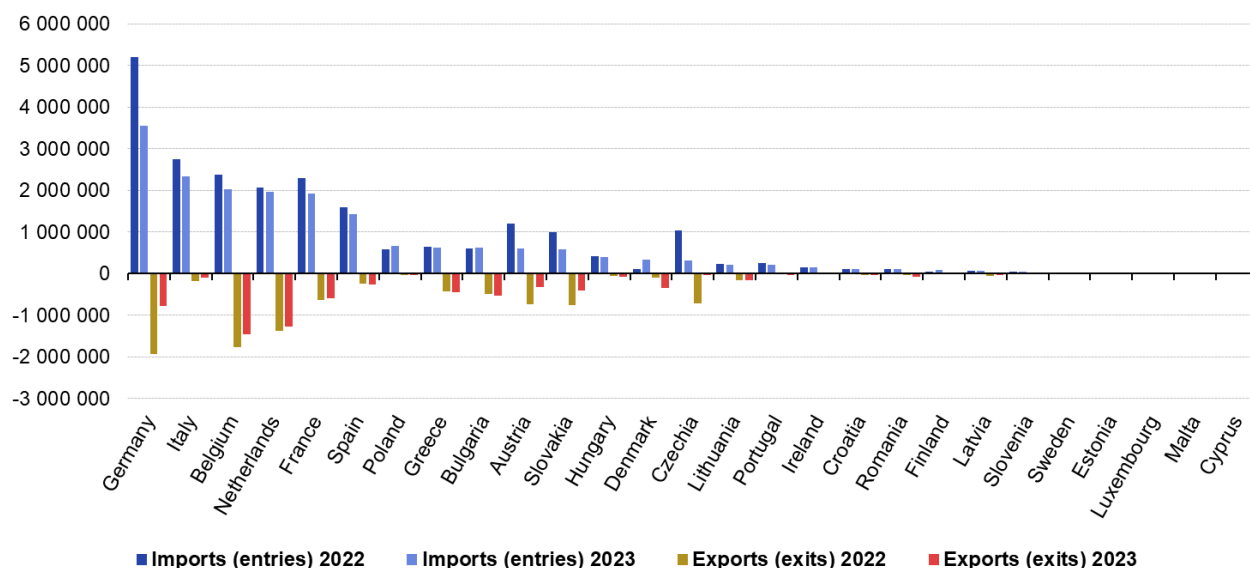
Figure 3: Primary production in terajoules (GCV) Source: Eurostat (nrg_cb_gasm)

Natural gas imports

Total EU imports of natural gas decreased by 19.8 % to reach 18 487 075 terajoules. The most significant increases in 2023 compared with 2022 among the main importers, i.e., countries importing at least 500 000 terajoules, was observed in Poland (12.5 %) and Bulgaria (3.8 %) whereas the main decreases were recorded in Austria (-50.3 %), Slovakia (-40.9 %) and Germany (-31.7 %) (see Figure 4).

Total imports and exports of natural gas, by country of origin and destination, 2022-2023

(terajoules (Gross Calorific Value))



Note: Positive values: Imports; Negative values: exports

Source: Eurostat (online data code: nrg_cb_gasm)

eurostat

Figure 4: Total imports and exports in terajoules (GCV) Source: Eurostat (nrg_cb_gasm)

It is important to remember a methodological change in reporting monthly natural gas trade since reference month January 2013. The monthly reporting provides import figures as entries from the last transit country (mostly neighbouring countries) instead of the country of origin (i.e. the country of primary/indigenous production) and export figures as exits from the reporting country (thus including all natural gas transiting its national territory). This is different from the methodology for annual data, where the ultimate origin of imports is reported, thus excluding all natural gas transit, also from export figures.

Source data for tables and graphs

- [Natural gas consumption statistics](#)

Data sources

All data used in this article correspond to cumulative monthly figures and may differ from the annual data.

The reporting is based on [Regulation \(EC\) No 1099/2008 on energy statistics](#) .

Context

Timely data are essential to all stakeholders for an efficient monitoring of the market evolutions, especially in the energy domain. Therefore, Eurostat not only collects detailed annual statistics but also complements them with a reduced number of data points collected on a monthly basis. The reporting deadline for countries to transmit monthly natural gas statistics to Eurostat is within 55 days after the end of the reference month. Eurostat validates received data and publishes them as soon as validated. In this framework, the natural gas monthly data covers its

supply – and to a limited extent its consumption, thus providing early information about the developments in the natural gas market both in the EU and in each Member State.

Explore further

Other articles

- [Energy statistics - an overview](#)
- [Electricity production, consumption and market overview](#)
- [Energy production and imports](#)
- [Natural gas market indicators](#)

Database

- [Energy - detailed datasets \(nrg\)](#) , see:

Energy Statistics - quantities, monthly data (nrg_quant)

Energy Statistics - supply, transformation, consumption (nrg_10m)

Supply - gas - monthly data (nrg_103m)

Energy statistics - imports (by country of origin) (nrg_12m)

Imports (by country of origin) - gas - monthly data (nrg_124m)

Energy statistics - exports (by country of destination) (nrg_13m)

Exports (by country of destination) - gas - monthly data (nrg_134m)

Thematic section

- [Energy](#)

Publications

- [Energy, transport and environment indicators](#) - 2020 edition

Selected datasets

- [Energy - selected datasets \(t_nrg\)](#) , see:

Energy Statistics - quantities (t_nrg_quant)

Gross available energy by product (ten00121)

Final energy consumption by product (ten00123)

Energy dependence (t2020_rd320)

Methodology

- [Energy statistics - supply, transformation, consumption \(monthly\)](#) (ESMS metadata file — nrg_10m_esms)

Legislation

- [Regulation \(EC\) No 1099/2008](#) on energy statistics

Visualisation

- [Explore monthly energy data](#) - This interactive tool helps you to obtain an overview of seasonal energy trends in Europe or your country.
- [Discover the world of energy trade](#) - With this interactive tool you can easily discover the main trading partners of your country and visualise the trade flows in different ways.