This article highlights the development of natural gas prices for household and non-household consumers within the European Union (EU); it also includes prices data from Liechtenstein, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina, Moldova, Georgia and Ukraine, when available.

The price of energy in the EU depends on a range of different supply and demand conditions, including the geopolitical situation, the national energy mix, import diversification, network costs, environmental protection costs, severe weather conditions, and levels of excise and taxation. Note that prices presented in this article include taxes, levies and VAT for household consumers but exclude refundable taxes and levies and VAT for non-household consumers.

### Natural gas prices for household consumers

#### Highest gas prices in the Netherlands, Denmark and Portugal

For household consumers in the EU (defined for the purpose of this article as medium-sized consumers with an annual consumption between 20 Gigajoules (GJ) and 200 GJ), natural gas prices in the first half of 2021 were highest in the Netherlands, Denmark and Portugal, and lowest in Lithuania, Latvia and Hungary (see Figure 1). The price of natural gas for households in the Netherlands (EUR 0.0961 per kWh) was more than three times the price charged in Lithuania (EUR 0.0279 per kWh).
The average price in the EU — a weighted average using the most recent (first half 2021) data for natural gas consumption by household consumers — was EUR 0.0639 per kWh.¹

Figure 1 presents the development of natural gas prices for household consumers in the EU since the first half of 2008. Generally, these prices are higher in the second half of each year. This is due to the seasonal effect and reflected in the zig-zag shape of the curves in figure 2. Overall in the EU, there was an upward trend in natural gas total prices in the first half of each year from a low of EUR 0.0562 per kWh in the first half of 2010 to a peak of EUR 0.0692 per kWh in the first half of 2013. The price was then on the decrease until 2017, but started increasing again in 2018, before dropping once more in 2020. The decreasing trend of first-semester prices continued again in 2021, when the price of natural gas for household consumers stood at EUR 0.0639 per kWh, slightly lower than a year ago in the same period (EUR 0.0645 per kWh). When adjusted for inflation, both the price without taxes and the price including taxes in the first half of 2021 are below the prices in the first half of 2008. This is despite the fact that the weight of the taxes increased from 25 % in the first half of 2008 to 36 % in the first half of 2021.

¹At the time of publishing this article, the 2021 data for Sweden has not yet been reported to Eurostat. Sweden is therefore missing from all the figures that refer to 2021. The EU aggregate was calculated using an estimate for Swedish data.
**Weight of taxes and levies greatly between Member States**

Figure 3 shows the proportion of taxes and levies in the overall natural gas retail price for household consumers. The relative tax contribution in the first half of 2021 was smallest in Greece (8.5 %) where a low VAT rate applies to the basic price. The highest taxes are observed in the Netherlands, where taxes and levies correspond to 63.6 % of the final price. In Denmark this percentage is 55.9 %. The VAT in the EU represents 15.8 % of the total price. The share of VAT in the total price ranges from 5.1 % in Greece to 21.1 % in Hungary.
Figure 3: Share of taxes and levies paid by household consumers for natural gas, first half 2021 (%) Source: Eurostat (online data codes: nrg_pc_202)

Note: Data for Sweden (reference period 2021S1), Finland, Malta and Cyprus are not available

Increase in gas prices for household consumers in Denmark, Germany and Luxembourg

Figure 4 shows the change in natural gas prices for household consumers including all taxes, levies and VAT from the first half of 2020 to the first half of 2021. For comparison purposes the national currencies were used. These prices fell during the period under consideration in 20 of the 23 EU Member States for which data are available — Cyprus, Malta and Finland do not report natural gas prices in the household sector. The largest decreases are observed in Lithuania (-22.7 %), Slovakia (-10.1 %) and Poland (-9.0 %). There were only three Member States where natural gas prices for household consumers rose between the first half of 2020 and the first half of 2021: Denmark with by far the sharpest increase (18.8 %), followed by Germany (8.4 %) and Luxembourg (6.3 %). The cost of energy was the main driver of this increase in Denmark, whereas in Germany and Luxembourg it was an increase in taxes which triggered the rise in prices.
Change in natural gas prices for household consumers compared with previous year's same semester, first half 2021 (%)

Map 1: Gas prices for household consumers in the first half of 2021 are shown in purchasing power standard (PPS) grouping the available countries in six categories, with gas price categories ranging from above 7.1 PPS per 100 kWh to below 5.0 PPS per 100 kWh. The final burden for the consumer needs to be calculated based on its own consumption. The gas prices expressed in purchasing power standard are highest in Portugal (9) and the Netherlands (8). The lower gas prices based on the Purchase Power Standard are observed in the Luxembourg (3) and Lithuania (4).

Source: Eurostat (online data codes: nrg_pc_202)
Note: Data for Sweden (reference period 2021S1), Finland, Malta and Cyprus are not available

Figure 4: Change in natural gas prices for household consumers compared with previous year's same semester, first half 2021 (%) Source: Eurostat (nrg_pc_202)

Gas prices in purchasing power standard

In Map 1, gas prices for household consumers in the first half of 2021 are shown in purchasing power standard (PPS) grouping the available countries in six categories, with gas price categories ranging from above 7.1 PPS per 100 kWh to below 5.0 PPS per 100 kWh. The final burden for the consumer needs to be calculated based on its own consumption. The gas prices expressed in purchasing power standard are highest in Portugal (9) and the Netherlands (8). The lower gas prices based on the Purchase Power Standard are observed in the Luxembourg (3) and Lithuania (4).
Gas prices for household consumers, 2021S1
(PPS per 100 kWh)

Map 1: Gas prices for household consumers, first half 2021 (PPS per 100 kWh) Source: Eurostat (nrg_pc_202)

Natural gas prices for non-household consumers

Gas prices for non-household consumers highest in Finland and the Netherlands

For non-household consumers in the EU (defined for the purpose of this article as medium-sized consumers with an annual consumption between 10 000 GJ and 100 000 GJ), natural gas prices in the first half of 2021 were by far the highest in Finland (EUR 0.0600 per kWh) at almost twice the EU average, followed by the Netherlands (EUR 0.0422 per kWh) and France (EUR 0.0343 per kWh). The lowest prices were recorded in Belgium (EUR 0.0221 per kWh) (see Figure 5).

The EU average price — a weighted average using the most recent (first half 2021) data for natural gas consumption by non-household consumers — was EUR 0.0303 per kWh.
Natural gas prices for non-household consumers, first half 2021 (EUR per kWh)

Figure 5: Natural gas prices for non-household consumers, first half 2021 (EUR per kWh) Source: Eurostat (nrg_pc_203)

Figure 6 shows the development of natural gas prices for non-household consumers in the EU since the first half of 2008. These prices display the same trend as observed for household consumers (see Figure 2) but without the seasonal effect. After falling to EUR 0.031 per kWh in the second half of 2009, the natural gas total price for non-household consumers increased each half year peaking at EUR 0.042 per kWh in the first half of 2013. Then, it decreased every semester, reaching a low of EUR 0.029 in the second half of 2017, before rising again until the first semester of 2019. Since then, prices decreased until the first semester of 2021, when the price increased from EUR 0.028 per kWh in the second half of 2020 to EUR 0.303 per kWh. Excluding taxes, in the first semester of 2021, the price is EUR 0.0239 per kWh, almost unchanged from the EUR 0.0238 per kWh in the second half of 2020, which was the lowest price since 2008. The weight of the taxes have increased from around 7% in 2008 to around 21% in 2021.
Figure 6: Development of natural gas prices for non-household consumers, EU, 2008-2021 (EUR per kWh)

Source: Eurostat (nrg_pc_203)

Figure 7 presents the proportion of taxes and levies in the total natural gas price that non-household consumers cannot recover. For non-household consumers, the share of these non-recoverable taxes in the first half of 2021 was lowest in Romania (2.9%), Poland (3.6%) and Bulgaria (4.4%). The Netherlands (50.9%), Finland (35.2%) and Denmark (26.3%) found themselves at the other end of the spectrum, registering the highest shares of taxes.
Figure 7: Share of taxes and levies paid by non-household consumers for natural gas, first half 2021 (%)

Source: Eurostat (online data codes: nrg_pc_203)
Note: Data for Sweden (reference period 2021S1), Malta and Cyprus are not available

Figure 8 shows the change in natural gas prices for non-household consumers including all non-recoverable taxes and levies from the first half of 2020 to the first half of 2021. For comparison purposes the national currencies were used. These prices fell in ten EU Member States out of 24 having reported these data — Cyprus and Malta do not report natural gas prices in the non-household sector. The price dropped by 18.1 % in Romania followed by Spain (-17.1 %) and Portugal (-13.4 %). By contrast, natural gas prices for the non-household sector rose in 14 EU Member States, with the highest increases observed in Lithuania (33.2 %), Denmark (29.0 %) and Ireland (17.4 %).
Figure 8: Change in natural gas prices for non-household consumers compared with previous year’s same semester, first half 2021 (%) Source: Eurostat (nrg_pc_203)

Source data for tables and figures (MS Excel)

- Natural gas price statistics tables and graphs

Data sources

Defining household consumers

Throughout this article, references to household consumers relate to the medium standard household consumption band with an annual consumption of natural gas (only piped gas is considered) between 5 555 kWh and 55 555 kWh (20 Gigajoule (GJ) and 200 GJ). All figures are consumer retail prices and include taxes, levies and VAT. Cyprus, Malta and Finland do not report natural gas prices in the household sector. The full datasets for gas prices for households consumers are available at:

- Gas prices for household consumers - bi-annual data (from 2007 onwards) (nrg_pc_202)
- Gas prices components for household consumers - annual data (nrg_pc_202_c)

and

- Share for transmission and distribution in the network cost for gas and electricity - annual data (nrg_pc_206)

Defining non-household consumers

Throughout this article, references to non-household consumers relate to the medium standard non-household consumption band with an annual consumption of natural gas between 2 778 and 27 778 GWh (10 000 and 100...
000 GJ. Prices correspond to the basic price for natural gas, including all non-recoverable taxes and levies. Cyprus and Malta do not report natural gas prices in the non-household sector. Quantities of natural gas used for chemical processes or electricity and/or combined heat and power production are excluded from these data. The full datasets for gas prices for non-households consumers are available at:

- Gas prices for non-household consumers - bi-annual data (from 2007 onwards) (nrg_pc_203)

- Gas prices components for non-household consumers - annual data (nrg_pc_203_c)

and

- Share for transmission and distribution in the network cost for gas and electricity - annual data (nrg_pc_206)

Methodology

Prices in national currencies are converted into euro using the average exchange rate of the period for which the prices were reported.

Prices are always compared with the prices of the same semesters (i.e. year on year) in order to avoid seasonal effects.

In 2016, Regulation (EU) No 2016/1952 entered into force. It defines the obligation for the collection and dissemination of natural gas prices for household and non-household consumers. Until 2016, the domain of non-household consumers was defined as industrial consumers, but reporting authorities were allowed to include other non-household consumers. With Regulation (EU) No 2016/1952, the definition was changed from industrial to non-household consumers to have a unique methodology for all reporting countries. Until January 2017, the reporting authorities provided their price data for the household sector on a voluntary basis.

Natural gas tariffs or price schemes vary from one supplier to another. They may result from negotiated contracts, especially for large non-household consumers. For smaller consumers, they are generally set according to a number of characteristics including the amount of natural gas consumed. Most tariffs also include some form of fixed charge. There is, therefore, no single price for natural gas. In order to compare prices over time and between EU Member States, this article shows information for consumption bands for household consumers and for non-household consumers. Natural gas prices for household consumers are divided into three annual consumption bands and, for non-household consumers, into six different consumption bands.

The prices collected cover average prices over a period of six months (a half-year or semester) from January to June (first semester) and from July to December (second semester) of each year. Prices include the basic price of natural gas, transmission and distribution charges, meter rental, and other services. Natural gas prices for household consumers presented in this article include taxes, levies, non-tax levies, fees and value added tax (VAT) as this generally reflects the total price paid by household consumers. As non-household consumers are usually able to recover VAT and some other taxes, prices for non-household consumers are shown without VAT and other recoverable taxes/levies/fees. The unit for natural gas prices is that of euro per kilowatt-hour (EUR per kWh).

Context

The price and reliability of energy supplies are key elements in a country’s energy supply strategy. Natural gas prices are of particular importance for international competitiveness, as natural gas might represent a significant proportion of total energy costs for industrial and service-providing businesses. Contrary to the price of fossil fuels, which are usually traded on global markets with relatively uniform prices, natural gas prices vary widely among EU Member States.

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Tackling rising energy prices: a toolbox for action and support, COM2021(0660) final, points out the observed increase of wholesale energy prices. It is expected that it will be reflected in the final consumer prices in the official statistics for this reference period. The energy prices evolution in the second semester 2021 will be available as European official statistics level in April 2022.

The EU has acted to liberalize electricity and gas markets since the second half of the 1990s. Directives adopted in 2003 established common rules for internal markets for electricity and natural gas. Up to now, significant barriers to entry remain in many electricity and natural gas markets as seen through the number of markets still dominated by
In 2019, the European Commission presented the Clean energy for all Europeans package. The Commission completed a comprehensive update of its energy policy framework to facilitate the transition away from fossil fuels towards cleaner energy and to deliver on the EU’s Paris Agreement commitments for reducing greenhouse gas emissions.

The Fit for 55 legislative proposals cover a wide range of policy areas including climate, energy, transport and taxation, setting out the ways in which the Commission will reach its updated 2030 target in real terms.


Regulation (EU) No 2016/1952 tackles data weaknesses led to the recommendation to improve the detail, transparency and consistency of energy price data collection. An energy prices and costs report would be prepared every 2 years. The European Commission thus published such a report also in 2016 and 2018.

The fourth report on energy prices and costs was published in October 2020, as part of the 2020 State of the energy union report, which focuses on progress made on the EU’s policies on the energy transition policies and initiatives related to the European Green Deal. It also assesses the impact of the COVID-19 pandemic on the recent and expected evolution of the analyzed indicators. The 2021 State of the Energy Union report is expected to be published at the end of October 2021.

Increased transparency for gas and electricity prices should help promote fair competition, by encouraging consumers to choose between different energy sources (oil, coal, natural gas and renewable energy sources) and different suppliers. Energy price transparency is more effective when publishing and broadcasting as widely as possible prices and pricing systems.

Other articles

- Electricity price statistics
- Energy production and imports

Main tables

- Energy (t_nrg), see

  Energy Statistics - prices (t_nrg_price)

  Gas prices by type of user (ten00118)

Database

- Energy (nrg), see:

  Energy Statistics - prices of natural gas and electricity (nrg_price)

  Energy Statistics - natural gas and electricity prices (from 2007 onwards) (nrg_pc)
  Energy Statistics - natural gas and electricity prices (until 2007) (nrg_pc_h)
Dedicated section

- Energy

Methodology

- Energy statistics - Natural gas prices for domestic and industrial consumers, price components (ESMS metadata file — nrg_pc_202_esms)

Visualisations

- Visualisation energy prices

External links

- Eurogas — Statistics
- Europe’s Energy Portal
- European Commission — Energy

- Weekly oil bulletin (weekly pump prices)
  - State of the energy union reports (State of the energy union reports)

- International Energy Agency (IEA) — Prices and taxes statistics