

Electricity and natural gas price statistics

Data from February 2013. Most recent data: Further Eurostat information, Main tables and Database .

This article highlights the evolution of electricity and natural gas prices both for industrial and [household](#) users within the [European Union \(EU\)](#) , but includes also price data from Norway, Turkey, Croatia, Former Yugoslav Republic of Macedonia (FYROM), Albania, Bosnia-Herzegovina, Montenegro and Iceland

The price of energy in the EU depends on a range of different supply and demand conditions, including the geopolitical situation, import diversification, network costs, environmental protection costs, severe weather conditions, or 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 industrial/business users. An overview of the average prices in euro per kilowatt hour of natural gas and electricity for the last 3 years (first semester for each year) is given in Table 1.

	Electricity prices (per kWh)						Gas prices (per kWh)					
	Households (1)			Industry (2)			Households (3)			Industry (4)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
	s1	s1	s1	s1	s1	s1	s1	s1	s1	s1	s1	s1
EU-27	0.168	0.179	0.186	0.104	0.110	0.117	0.052	0.056	0.063	0.031	0.035	0.040
Euro area	0.177	0.189	0.194	0.108	0.115	0.124	0.057	0.062	0.062	0.033	0.037	0.037
Belgium	0.196	0.214	0.233	0.106	0.110	0.108	0.053	0.063	0.063	0.029	0.033	0.033
Bulgaria	0.081	0.083	0.085	0.065	0.065	0.069	0.037	0.043	0.043	0.024	0.029	0.029
Czech Republic	0.135	0.150	0.150	0.103	0.111	0.104	0.047	0.054	0.054	0.031	0.031	0.031
Denmark	0.267	0.291	0.300	0.094	0.099	0.097	0.107	0.116	0.116	0.057	0.067	0.067
Germany	0.238	0.253	0.260	0.112	0.125	0.128	0.057	0.059	0.059	0.036	0.046	0.046
Estonia	0.097	0.097	0.110	0.069	0.072	0.078	0.036	0.042	0.042	0.029	0.028	0.028
Ireland	0.180	0.190	0.215	0.112	0.116	0.132	0.050	0.051	0.051	0.028	0.038	0.038
Greece	0.118	0.125	0.139	0.095	0.105	0.118	.	.	.	.	.	.
Spain	0.173	0.198	0.182	0.117	0.114	0.121	0.053	0.054	0.054	0.028	0.029	0.029
France	0.128	0.138	0.141	0.078	0.085	0.097	0.052	0.058	0.058	0.033	0.037	0.037
Italy	0.197	0.199	0.219	0.139	0.152	0.179	0.062	0.069	0.069	0.030	0.031	0.031
Cyprus	0.186	0.205	0.278	0.151	0.167	0.224	.	.	.	.	.	.
Latvia	0.105	0.117	0.139	0.089	0.098	0.110	0.031	0.039	0.039	0.026	0.029	0.029
Lithuania	0.116	0.121	0.126	0.100	0.105	0.114	0.038	0.044	0.044	0.032	0.035	0.035
Luxembourg	0.173	0.168	0.170	0.102	0.100	0.105	0.043	0.051	0.051	0.037	0.042	0.042
Hungary	0.170	0.168	0.158	0.106	0.100	0.106	0.054	0.056	0.056	0.030	0.031	0.031
Malta	0.170	0.170	0.170	0.180	0.180	0.180	.	.	.	.	.	.
Netherlands	0.171	0.174	0.186	0.102	0.098	0.097	0.063	0.064	0.064	0.034	0.034	0.034
Austria	0.197	0.199	0.198	0.112	0.110	0.108	0.062	0.069	0.069	0.039	0.040	0.040
Poland	0.134	0.147	0.142	0.098	0.101	0.092	0.043	0.046	0.046	0.030	0.033	0.033
Portugal	0.158	0.165	0.199	0.094	0.099	0.114	0.059	0.061	0.061	0.027	0.034	0.034
Romania	0.103	0.108	0.105	0.085	0.080	0.083	0.028	0.028	0.028	0.022	0.023	0.023
Slovenia	0.140	0.144	0.154	0.099	0.099	0.095	0.058	0.067	0.067	0.043	0.045	0.045
Slovakia	0.152	0.168	0.172	0.117	0.128	0.132	0.044	0.047	0.047	0.033	0.035	0.035
Finland	0.133	0.154	0.155	0.069	0.076	0.076	.	.	.	0.030	0.042	0.042
Sweden	0.184	0.209	0.203	0.081	0.089	0.081	0.100	0.119	0.119	0.043	0.051	0.051
United Kingdom	0.139	0.143	0.168	0.099	0.098	0.115	0.041	0.043	0.043	0.023	0.025	0.025
Iceland	.	.	0.111	.	.	.	.	.	.	.	.	.
Norway	0.203	0.213	0.188	0.103	0.111	0.092	.	.	.	.	.	.
Montenegro	.	0.087	0.091	.	.	.	.	.	.	.	.	.
Croatia	0.115	0.114	0.121	0.094	0.091	0.090	0.038	0.038	0.038	0.034	0.041	0.041
FYR of Macedonia	.	.	.	.	.	.	.	.	.	.	0.038	0.038
Turkey	0.134	0.122	0.132	0.089	0.079	0.087	0.032	0.029	0.029	0.024	0.022	0.022
Albania	.	0.115	0.116	.	.	.	.	.	.	.	.	.
Bosnia and Herzegovina	0.074	0.075	0.080	0.062	0.061	0.065	0.038	0.045	0.045	0.042	0.048	0.048

- (1) Annual consumption: 2 500 kWh < consumption < 5 000 kWh.
(2) Annual consumption: 500 MWh < consumption < 2 000 MWh.
(3) Annual consumption: 5 600 kWh < consumption < 56 000 kWh (20 - 200 GJ).
(4) Annual consumption: 2 778 MWh < consumption < 27 778 MWh (10 000 - 100 000 GJ).

Table 1.1: Half-yearly electricity and gas prices(EUR/kWh)Source: Eurostat (nrg_pc_204), (nrg_pc_205), (nrg_pc_202), (nrg_pc_203)

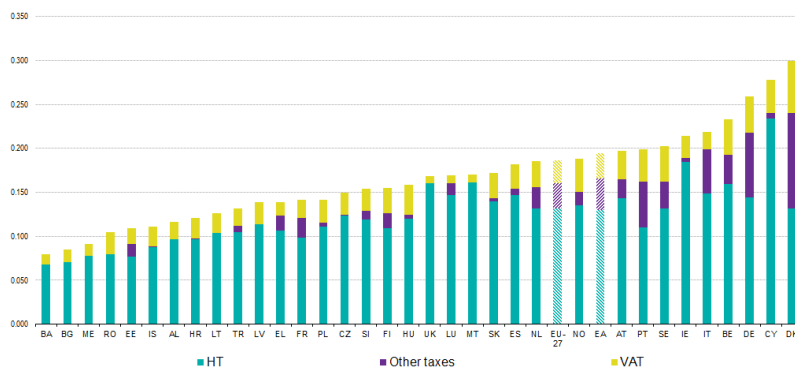


Figure 1: Electricity prices for households consumers 2012s1(EUR/kWh)Source: Eurostat (nrg_pc_204)

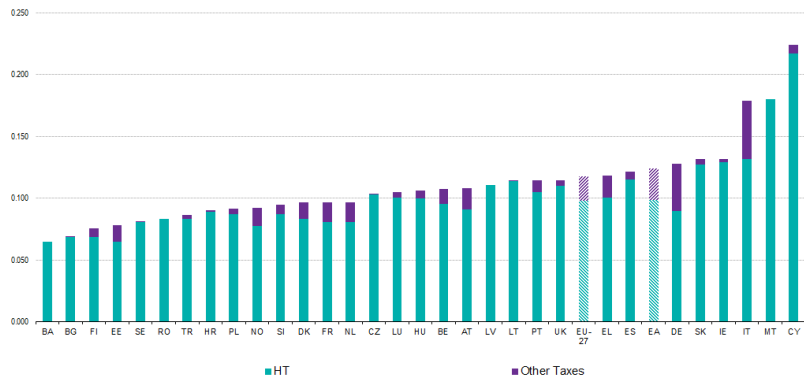


Figure 2: Electricity prices for industrial consumers 2012s1(EUR/kWh)Source: Eurostat (nrg_pc_205)

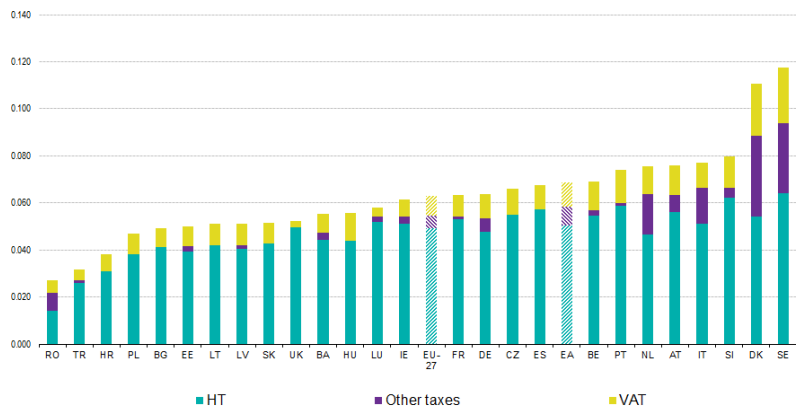


Figure 3: Natural gas prices for household consumers 2012s1(EUR/kWh)Source: Eurostat (nrg_pc_202)

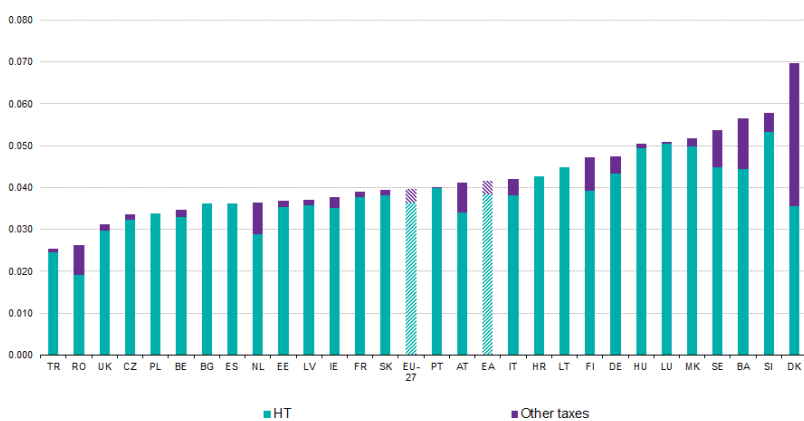


Figure 4: Natural gas prices for industrial consumers 2012s1(EUR/kWh)Source: Eurostat (nrg_pc_203)

Main statistical findings

Electricity prices for household consumers

For medium size household consumers, electricity prices during the first semester of 2012 were the highest in the EU in Denmark, in Cyprus and in Germany (see Figure 1).

The lowest electricity prices in the EU for households are found in Bulgaria, in Romania and in Estonia.

The price of electricity for households in Denmark (EUR 0.300 per kWh) was more than three times compared to Bulgaria (EUR 0.085 per kWh).

The [EU-27](#) average price (this price is weighted with the most recent national consumption for the household sector which is data for 2011) is EUR 0.186 per kWh.

Table C (tables and figures that are numbered with letters are only included in the attached excel file below) shows the proportion of taxes and levies in the overall electricity retail price for household consumers.

The first data column corresponds to the prices excluding all taxes and levies. The figures displayed in columns 2 and 3 for households are absolute tax contributions in euro per kWh. The last column shows the relative share of taxes and levies in the final electricity price.

For household consumers, the relative amount of tax contribution is the lowest in the United Kingdom (4.7%) where a relatively low VAT rate is applied to the basic price and no other taxes are applied.

The highest taxes are charged in Denmark where more than half of the final price (56%) is made up of taxes and levies.

Figure A shows the trend of the EU-27 and [EA](#) (euro area) electricity prices for household consumers over the last 5 years.

Electricity prices for households increased in 2008, remained stable or even decreased in 2009, but went up again in 2010, 2011 and in 2012.

Table D and Figure B show the electricity prices for household consumers including all taxes and VAT in national currency (NAT) and its percentage change during the last 12 months. Between the first half of 2011 and the first half of 2012, electricity prices for households increased in most of the EU Member States.

The largest price increases among EU Member States between 2011 semester1 and 2012 semester1 were observed in Cyprus (+36%) and in Portugal (20%) while prices went down by 8% in Spain.

In Table E and Figure C, [purchasing power standards \(PPS\)](#) are used to make alternative international comparisons. PPS is an artificial common reference currency unit that eliminates price level differences between countries. One PPS thus buys the same given volume of goods/services in all countries. From this comparison, it follows that, relative to the cost of other goods and services, electricity for household consumers is the most expensive in Cyprus, Hungary and in Germany. Electricity is relatively cheap in France and in Finland.

Electricity prices for industrial consumers

For industrial consumers, electricity prices during the first semester of 2012 were the highest in Cyprus, Malta and in Italy (see Figure 2). The EU-27 average price (this price is weighted with 2011 national consumption for industrial consumers) is EUR 0.117 per kWh.

Table G shows the proportion of taxes and levies in the overall electricity price for industrial consumers.

The first data column corresponds to the prices excluding all taxes and levies. The figures displayed in columns 2 and 3 are the absolute and relative tax contributions in euro per kWh and in percent. For industrial consumers, no energy or other taxes are applied in Latvia, Malta and in Romania.

The highest taxes are charged in Italy where more than one quarter of the final price (28%) is made up of taxes and levies.

Figure E shows the trend of EU-27 and EA (euro area) electricity prices for industrial consumers over the last 5 years.

Electricity prices for this sector increased in 2008 and during the first semester of 2009, decreased during the second semester of 2009, went up again in 2010, 2011 and in 2012.

Table H and Figure F show the electricity prices for industrial consumers including all non-recoverable taxes and levies in national currency (NAT) and its percentage change during the last 12 months. Between the first half of 2011 and the first half of 2012, electricity prices in this sector increased in most of the EU Member States. The largest price increases among EU Member States between 2011 semester1 and 2012 semester1 were observed in Cyprus and in Ireland while prices went down in the Denmark (7%), in Sweden and in France (both 5%). In Norway, the electricity prices for the industrial consumers decreased significantly (18%).

Natural gas prices for household consumers

For medium size household consumers, natural gas prices during the first semester of 2012 were the highest in Sweden, in Denmark, and in Italy (see Figure 3 and Tables J and K).

The lowest natural gas prices in the EU for households are found in Romania, Poland and in Bulgaria. The price of natural gas for households in Sweden (EUR 0.117 per kWh) was four times the price that is charged in Romania (EUR 0.028 per kWh).

The EU-27 average price (this price is weighted with 2011 national consumption for the household sector) is EUR 0.063 per kWh.

Table L shows the proportion of taxes and levies in the overall natural gas price for household consumers.

The first data column corresponds to the prices excluding all taxes and levies. The figures displayed in columns 2 and 3 for households are absolute tax contributions in euro per kWh. The last column shows the relative share of taxes and levies in the final natural gas price.

For household consumers, the relative amount of tax contribution is the lowest in the United Kingdom (4.8%) where a relatively low VAT rate is applied to the basic price and no energy or other taxes are applied.

The highest taxes are charged in Denmark where more than half of the final price is made up of taxes and levies.

Figure H shows the trend of the EU-27 and EA (euro area) natural gas prices for household consumers over the last 5 years.

Table M and Figure I show the natural gas prices for household consumers including all taxes, levies and VAT in national currency (NAT) and its percentage change during the last 12 months. Between the first half of 2011 and the first half of 2012, natural gas prices for household consumers increased in nearly all EU Member States. Cyprus, Malta, Greece and Finland did not report these prices.

The largest price increases among EU Member States between 2011 semester1 and 2012 semester1 were observed in Latvia (31%), in Spain (26%) and in Czech Republic (25%).

In Table N and Figure J, purchasing power standards (PPS) are used to make alternative international comparisons. From this comparison, it follows that, relative to the cost of other goods and services, natural gas for household consumers is the most expensive in Bulgaria and in Slovenia. Natural gas is relatively cheap in Luxembourg and in the United Kingdom.

Natural gas prices for industrial consumers

For industrial consumers, natural gas prices during the first semester of 2012 were the highest in Denmark and in Slovenia (see Figure 4).

The lowest natural gas prices that are charged to medium level industrial consumers in the EU were found in Romania, United Kingdom and in Czech Republic. Turkish gas prices are however below this level.

The EU-27 average price (this price is weighted with 2011 national consumption for industrial consumers) is EUR 0.040 per kWh.

Table O shows the proportion of taxes and levies in the overall natural gas price for industrial consumers.

The first data column corresponds to the prices excluding all taxes and levies. The figures displayed in columns 2 and 3 are the absolute and relative tax contributions in euro per kWh and in percent. For industrial consumers, the relative amount of tax contribution in EU-27 is the lowest in Spain, Lithuania, Bulgaria and Poland where no energy or other taxes are applied.

The highest taxes are charged in Denmark where nearly half of the final price is made up of taxes and levies.

Figure K shows the trend of EU-27 and EA (euro area) natural gas prices for industrial consumers over the last 5 years.

Natural gas prices for the industrial sector increased in 2008, decreased in 2009, but went up again between 2010 and 2012.

Table P and Figure L show the natural gas prices for industrial consumers including all non-recoverable taxes and levies in national currency (NAT) and its percentage change during the last 12 months. Between the first half of 2011 and the first half of 2012, natural gas prices in this sector increased in all 23 EU Member States that reported these prices, except in Ireland. The largest price increases among EU Member States between 2011 semester 1 and 2012 semester 1 were observed in Hungary (79%) and in Italy (34%).

Data sources and availability

Electricity household consumers

Throughout this article, a reference to "household" will relate to the medium standard household consumption band with an annual electricity consumption between 2500 and 5000 kWh. All figures are consumer retail prices and include all taxes, levies and VAT.

Price data for Italy and Spain is provisional.

Remark: The comparison between the 2011 and 2012 prices are made with National Currency prices to exclude changes in national currency to euro exchange rates for non-euro Member States.

Electricity industrial consumers

Throughout this article, a reference to "industrial consumer" will relate to the medium standard industrial consumption band with an annual consumption of electricity between 500 and 2000 MWh.

In this article, only level 2 prices are presented that correspond to the basic price for electricity production and network costs including all non-recoverable taxes and levies.

Price data for Italy and Spain is provisional.

Natural gas household consumers

Throughout this article, a reference to "household consumers of natural gas" will relate to the medium standard household consumption band with an annual consumption of natural gas (only piped gas is considered) between 5600 kWh and 56000 kWh (20 Gigajoule (Gj) and 200 Gj). All figures are consumer prices and include all taxes levies and VAT.

Price data for Italy is provisional.

Natural gas industrial consumers

Throughout this article, a reference to "industrial consumer of natural gas" will relate to the medium standard industrial consumption band with an annual consumption of natural gas between 2778 and 27778 GWh (10000 and 100000 Gj).

In this article, only level 2 prices are presented that correspond to the basic price for natural gas including all non-recoverable taxes and levies. Greece, Cyprus and Malta did not report natural gas prices for the industrial sector. Quantities of natural gas that are used for chemical processes or electricity production are excluded from this survey.

Euro conversion rates can be found in Table R, and are average exchange rates for the first semester of 2012.

Methodology

Due to a change in methodology from 2007 onwards, there is a break in series and hence only a relatively short [time series](#) available. Nevertheless, even in this relatively short timeframe, electricity and gas prices have fluctuated considerably - in particular, gas prices.

The transparency of energy prices is guaranteed within the EU through the obligation for EU Member States to send [Eurostat](#) information relating to prices for different categories of industrial and business users (prices for the household sector are provided on a voluntary basis), as well as data relating to market shares, conditions of sale, and pricing systems.

Electricity and gas tariffs or price schemes vary from one supplier to another. They may result from negotiated contracts, especially for large industrial users. For smaller consumers, they are generally set according to the amount of electricity or gas consumed along with a number of other characteristics; most tariffs also include some form of fixed charge. There is, therefore, no single price for electricity or natural gas. In order to compare prices over time and between countries, this article shows information for consumption bands from the household sector and for industrial/business users. There are in total five different types of households for which electricity prices are collected following different annual consumption bands, while for natural gas statistics information is collated for three different types of household. Across industrial/business users, electricity prices are collected for a total of seven different types of users, while for natural gas prices there are six different types of users distinguished.

Statistics on electricity and natural gas prices charged to industrial/business users are collected under the legal basis of a [European Commission Decision \(2007/394/EC\)](#) of 7 June 2007 amending [Council Directive \(90/377/EEC\)](#) with regard to the methodology to be applied for the collection of gas and electricity prices. [Directive 2008/92/EC](#) of the [European Parliament](#) and Council of 22 October 2008 concerns procedures to improve the transparency of gas and electricity prices charged to industrial end-users. As noted above, gas and electricity prices for households are collected on a voluntary basis.

The prices presented cover average prices over a period of six months (semester) from January to June (semester 1 or S1) and from July to December (semester 2 or S2) of each year. Prices include the basic price of the electricity/gas, transmission and distribution charges, meter rental, and other services. Electricity prices for household consumers are presented in this article including taxes, levies, non-tax levies, fees and value added tax (VAT) as this generally reflects the end price paid by consumers in the domestic sector. As industrial/business users are usually able to recover VAT and some other taxes, prices for these enterprises are shown without VAT and other recoverable taxes/levies/fees in this article. The unit for electricity prices in this article is that of euro per kilowatt hour (EUR per kWh); a similar set of criteria are used for the natural gas prices.

Context

The price and reliability of energy supplies, electricity in particular, are key elements in a country's energy supply strategy. Electricity prices are of particular importance for international [competitiveness](#), as electricity usually represents a significant proportion of total energy costs for industrial and service-providing businesses. In contrast to the price of [fossil fuels](#), which are usually traded on global markets with relatively uniform prices, there is a wider range of prices within the EU Member States for electricity or natural gas. The price of electricity and natural gas is, to some degree, influenced by the price of primary fuels and, more recently, by the cost of carbon dioxide (CO₂) emission certificates.

These issues were touched upon in a Communication from the European Commission titled, ' [Facing the challenge of higher oil prices](#) ' (COM(2008) 384), which called on the EU to become more efficient in its use of energy, and less dependent on fossil fuels - in particular, by following the approach laid out in the climate change and renewable energy package.

The EU has acted to liberalise 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. Deadlines were set for opening markets and allowing customers to choose their supplier: as of 1 July 2004 for business customers and as of 1 July 2007 for all consumers (including households). Certain countries anticipated the liberalisation process, while others were much slower in adopting the necessary measures. Indeed, significant barriers to entry remain in many electricity and natural gas markets as seen through the number of markets that are still dominated by (near) monopoly suppliers. In July 2009, the European Parliament and Council adopted a [third package of legislative proposals](#) aimed at ensuring a real and effective choice of suppliers, as well as benefits for customers. It is thought that 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 can be made more effective by publishing and broadcasting as widely as possible prices and pricing systems.

Further Eurostat information

Publications

- [Gas and electricity market statistics](#)
- [Panorama of energy: energy statistics to support EU policies and solutions](#)

Main tables

- [Energy \(t_nrg\)](#), see

Energy Statistics - prices (t_nrg_price)

Natural gas prices for medium size industrial standard consumers (ten00112)

Natural gas prices for medium size household standard consumers (ten00113)

Electricity prices for medium size industrial standard consumers (ten00114)

Electricity prices for medium size household standard consumers (ten00115)

Database

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

Energy Statistics - prices (nrg_price)

Energy Statistics: gas and electricity prices - New methodology from 2007 onwards (nrg_pc)

Energy Statistics: gas and electricity prices - Old methodology until 2007 (nrg_pc_h)

Dedicated section

- [Energy](#)

Methodology / Metadata

- [Energy Statistics: gas and electricity prices - New methodology from 2007 onwards](#) (ESMS metadata file - nrg_pc_esms)
- [Energy Statistics: gas and electricity prices - Old methodology until 2007](#) (ESMS metadata file - nrg_pc_h_esms)

Source data for tables and figures (MS Excel)

- [Download Excel file](#)

External links

- [Eurelectric - Electricity for Europe - Statistics](#)
- [European Commission - Energy](#)
- [Gas & Electricity - Electricity Regulatory Forum \(Florence\)](#)
 - [Market observatory - Oil bulletin](#) (weekly oil pump prices)
 - [Gas & Electricity - Gas Regulatory Forum \(Madrid\)](#)
- [International Energy Agency \(IEA\) - World Energy Outlook](#)

See also

- [Energy prices come of age](#)
- [Energy production and imports](#)