



Quarterly Energy Prices 2020 Annual Domestic Bills Estimates Supplement United Kingdom, 2020

28 January 2021

National Statistics

This publication outlines average prices paid for energy in the United Kingdom. Prices are presented for the domestic market, including estimates for household bills, and the non-domestic sector. International prices for both sectors are also included to illustrate how the UK compares with other countries.

- Households paid on average **£582 for gas** and **£705 for electricity** in 2020, a combined energy bill of **£1,287** (based on provisional figures). In current prices terms, this was a drop of **1.5 per cent or £20** on 2019.
(Estimates are based on fixed consumption of 13,600 kWh of Gas and 3,600 kWh of Electricity)
- Prices for Gas and Electricity in the **domestic sector** for the third quarter of 2020 (1 July to 30 September 2020) **decreased** compared to the previous year. There was a **decrease of 8 per cent** in domestic Electricity prices and a **decrease of 17 per cent** in domestic Gas prices compared to the third quarter of 2019.
(prices in real terms and including value added tax)
- Households are encouraged to change energy supplier to get a competitive price for their bills. Based on Ofgem data, an average of **504,000 households per month** switched their **Electricity** supplier and **361,000 households per month** switched their **Gas** supplier between July and September 2020, both lower than switches over the same period in 2019.
- Average prices paid for electricity in the **industrial sector** had **decreased by 2.3 per cent** and prices **decreased by 16 per cent** for gas over the period July to September 2020 compared with the prices paid in the same period in 2019.
(prices in real terms, not seasonally adjusted and including the Climate Change Levy)
- In December 2020 unleaded petrol was on average **113.2 pence per litre**, **9.0 per cent lower** than in December 2019. Average diesel price was **118.0 pence per litre**, **8.8 per cent lower** than the previous year. Prices remain lower than in 2019; this year has seen large decreases in crude oil prices and the lockdown measures in response to COVID-19 have reduce the volume of road traffic in the UK.
- Diesel continues to be more expensive than unleaded petrol and has remained so over the past 3 years. In December 2020 it was **4.8 pence per litre more** than unleaded petrol. March 2019 when diesel was 10.3 pence per litre more expensive than unleaded which was the largest difference seen in the past 10 years.

Please note: This release was first published in December 2020 without the 2020 household bills estimates due to processing issues. This issue was re-published in January 2021 with these estimates included.

Data tables are published with this quarterly release, providing detailed breakdowns of the data covered are available [online](#). There are data series for each section covered in this release on [Domestic](#) prices, [Industrial](#) prices, [Fuel](#) prices and [International](#) price comparisons.

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Introduction

The **Quarterly Energy Prices** (QEP) publication and the associated tables provide information on prices paid for energy and for various types of fuels in the United Kingdom.

Information is presented for both the **domestic market** (which are the prices paid by households for their energy and fuels) and the **non-domestic sector**.

Domestic market metrics presented include the **consumer price index** for fuels used in households (based on Office for National Statistics data), **average gas & electricity bills** for UK households, information on **how customers pay** for their electricity and statistics on **competition in the market**.

Domestic Market Prices

Data are presented on the **non-domestic sector** (any user of energy that is not a household) and subcategories within this population. Prices paid for fuels in the **industrial sector**, by **manufacturing companies** within this sector and by electricity generating companies (**major power producers**) are outlined in this section.

Non-Domestic Sector Prices

The publication also provides a summary of national information on prices for **oil and petroleum** products. Additionally, road fuels are collated and published online both on a weekly and monthly basis [here](#).

Oil and Petroleum Prices

International data are also collated and presented in the publication to provide comparisons in prices with the European Union (EU) member states and other members of the International Energy Association (IEA).

International Comparisons

Information about this release

Please note: this issue of the Quarterly Energy Prices release presents provisional household bills information for 2020 in the **Domestic Market Prices section**.

This publication was first released on 22 December 2020 excluding the provisional 2020 household bills. In January 2021, this issue was republished including the provisional bills estimates; all other data relate to July to September (Quarter 3 2020) and are unchanged.

Provisional estimates for the 2020 calendar year are calculated using price data reported to the Department by energy supplier's household bills data from the first 9 months of 2020.

The data for the last 3 months estimated using the data provided for the third quarter of the 2020 calendar year and the most recent price cap levels set by Ofgem:

[ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-october-2020-31-march-2021](https://www.ofgem.gov.uk/publications-and-updates/default-tariff-cap-level-1-october-2020-31-march-2021)

All these are presented using a fixed level of consumption to track solely the changes in price.

These figures will again be updated in the March 2021 issue to incorporate data reported by suppliers from 1 October to 31 December. Additionally, bills based on actual consumption over the year will also be presented.

Notes about the data

When a '**quarter**' is referred to in this release it is a quarter (3 months) in the context of a **calendar year**, so 'Quarter 3' refers to 1 July to 30 September unless otherwise stated.

Background to the release series

The Quarterly Energy Prices publication was first published in June 2001. The wider series associated with this release includes underlying tables that are available as Excel files.

The tables for the specific areas covered are available at the following links:

Accompanying Tables	
Domestic energy prices	www.gov.uk/government/collections/domestic-energy-prices
Industrial energy prices	www.gov.uk/government/collections/industrial-energy-prices
International energy price comparisons	www.gov.uk/government/collections/international-energy-price-comparisons
Road fuel prices	www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices

In addition to the quarterly updates with this publication, there are monthly updates to the **domestic energy price indices** and the **prices of petroleum products**, and any other tables that are affected by changes or updates to the GDP deflator.

More information on the frequency and specific content of these tables can be found in the [accompanying tables](#) section in this document.

Domestic Market Prices

This section details the average prices paid by households for energy, the payment methods for gas and electricity and regional information on customers in the domestic energy market.

Households in the UK predominantly use **Electricity** from the national grid as energy for lighting, utilities and heating. A significant number of households (approximately 23.7 million in Great Britain) use **Gas** for heating and cooking in their homes. Households also use **other fuels** such as heating oil and gas oil for fuel-based generators and heating.

This issue provides statistics on the **proportions of households** using Gas (for Great Britain) and Electricity (for United Kingdom) by the different payment types, regions and types of contract households have with energy companies. **Competition in the market** is reflected through energy company switching statistics and an update on **domestic fuels indices** is also provided.

Domestic Data

All underlying domestic data and related publications can be found on GOV.UK here: <https://www.gov.uk/government/collections/domestic-energy-prices>

Notes about the data

All household bills data and customer proportions are based on quarterly snapshots of data provided by a sample of energy companies throughout the year.

Bills data are presented (unless noted otherwise) with fixed annual consumption levels of:

3,600 kWh for Standard Electricity

5,100 kWh for Economy 7 Electricity

13,600 kWh for Gas

This is to allow comparisons over time of **price** changes by keeping consumption changes constant.

For information on the derivation of these figures and the process for reviewing these please see the review document on the domestic methodology page here:

<https://www.gov.uk/government/publications/domestic-energy-prices-data-sources-and-methodology>

Highlights and Headline Figures

Key Points for July to September 2020 (Quarter 3 2020)

The price paid for all domestic fuels in **real terms** has **decreased by 12 per cent** in Quarter 3 (July to September) 2020 compared with the same quarter in 2019. (Tables 2.1.1 – 2.1.2)

Between Quarter 3 2019 and Quarter 3 2020, in **real terms** prices (including VAT) there has been a **decrease of 8 per cent** for Electricity and a **decrease of 17 per cent** for Gas. (Tables 2.1.1 – 2.1.2)

In order to strengthen competition in the energy market [Ofgem encourages consumers](#) to switch energy suppliers to get the best deal.

- The number of these transfers made within the domestic **Electricity** market **decreased by 1.3 per cent** between the third quarter of 2019 and the same quarter in 2020, with an estimated 1,512,000 Electricity transfers in Quarter 3. (Table 2.7.1)
- Meanwhile transfers in the **Gas** market **decreased by 11.8 per cent** over the same time period with an estimated 1,083,000 Gas transfers being made in Q3 2020. (Table 2.7.1)

Domestic Bills 2020 (Provisional)

Average energy bills based on BEIS standard energy consumption¹ in 2020 are estimated to be **£1,287**. In current prices terms, this was a drop of **1.5 per cent or £20** on 2019. In real terms this equates to a **7.4 per cent or £82 fall**.

In current prices terms, Electricity bills **increased by 1 per cent or £7 to be £705 in 2020** compared to 2019 (assuming a standard consumption level of 3,600 kWh per annum).

In current prices terms, Gas bills **decreased by 4.4 per cent or £27 to be £582 in 2020** compared to 2019 (using a consumption level of gas of 13,600 kWh per annum).

For combined Standard Electricity and Gas bills, Credit remained the most expensive method of payment at **£1,395** (a **decrease of 1.1 per cent or £16** since 2019). Direct Debit was the cheapest at **£1,246** (a **decrease of 2.1 per cent or £27** since 2019). This makes Direct Debit bills, on average, **£150 cheaper** than Credit in 2020 (differences reported in current prices terms).

In current prices terms, the average annual bill for Gas and Standard Electricity in 2020 was **4.4 per cent or £55 more expensive** for Home supplier customers when compared with Non-Home supplier customers.

In 2020, the average annual domestic Gas and Standard Electricity bills for customers on a fixed tariff were **10 per cent or £131 cheaper** compared to those on variable tariffs (differences reported in current prices terms).

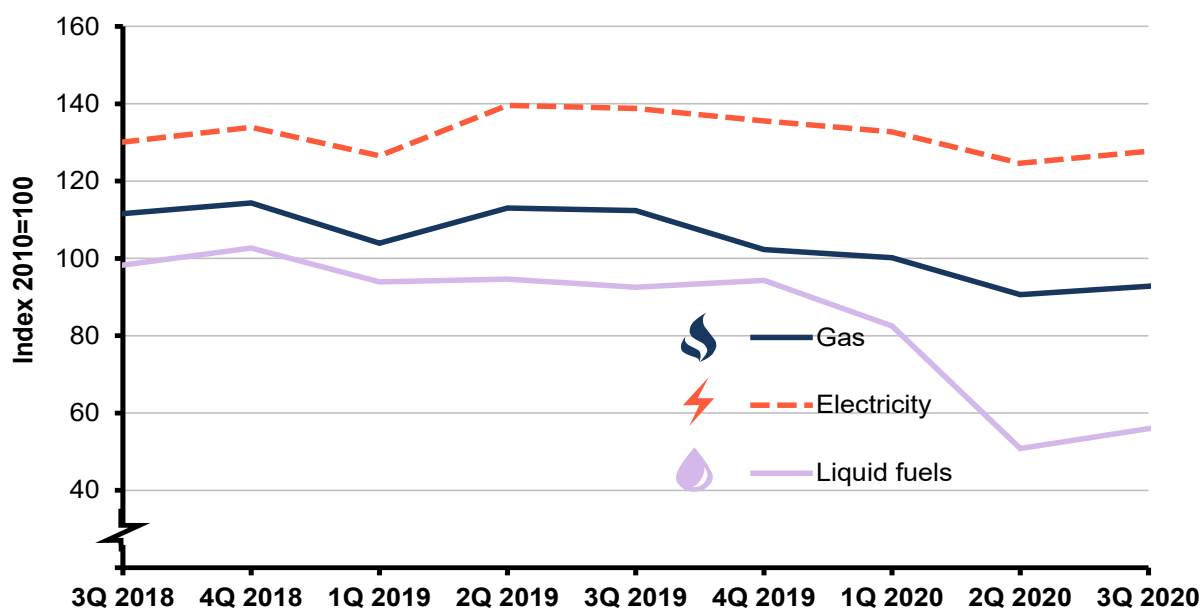
¹ 13,600kWh for gas and 3,600kWh for electricity.

Retail Price of Fuels for the Domestic Sector

This section focuses on retail market price **indices** of fuels used in the domestic sector. This includes indexes on prices for gas, electricity and other fuels used by households. This information is sourced from the Office for National Statistics' **Consumer Price Index (CPI)** data series:

www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation

Chart 2.1: Real terms fuel price indices in the domestic sector⁽¹⁾, quarterly, UK



1. Data in real terms, adjusted for inflation using the GDP (market prices) deflator
Source: Office of National Statistics, Consumer Prices Index

Reference and link to tables:

[Table 2.1.1: Consumer prices index: fuel components in the UK](#)

[Table 2.1.2: Consumer prices index: fuel components in the UK relative to GDP deflator](#)

[Table 2.1.3: Consumer prices index: fuel components, monthly figures](#)

Chart 2.1 shows quarterly changes in the domestic sector price indices (in real terms) over the past 2 years.

Solid fuels in this release include coal and smokeless fuel. The prices presented are based on standard grade household coal and boiler grade smokeless fuel

Liquid fuels in this release comprises of domestic kerosene and similar heating oils.

In terms of the domestic fuel price indices, the price for all domestic fuels (solid fuel, liquid fuel, gas and electricity combined) in **real terms** has **decreased by 12 per cent** in quarter 3 2020 compared to quarter 3 2019.

Compared to Q3 2019, in Q3 2020, in real terms:

- domestic electricity prices have **decreased by 8 per cent**
- gas prices have **decreased by 17 per cent**
- prices for liquid fuels have **decreased by 40 per cent**

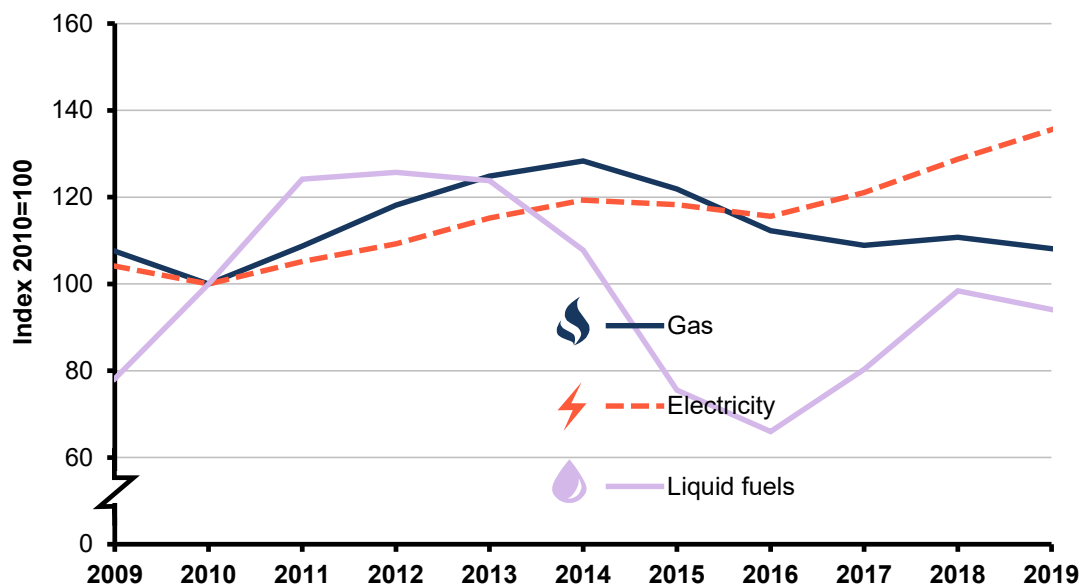
The prices of liquid fuels are based on retail market prices so vary depending on the locations where sold and are also prone to the effects of other factors such as demand, weather and delivery costs.

When comparing domestic fuels with the previous quarter (Q2 2020), in real terms:

- domestic electricity prices have **increased by 2.5 per cent**
- gas prices have also **increased by 2.4 per cent**
- prices for liquid fuels have **increased by 10 per cent**

Although not illustrated above, motor fuel and motor oil (e.g. engine oil and lubricants) prices have **decreased by 17 per cent** and prices of solid fuels have **decreased by 1.8 per cent** in real terms between Q3 2019 and Q3 2020.

Chart 2.2 Real terms fuel price indices in the domestic sector⁽¹⁾ - Annual



1. Data in real terms, adjusted for inflation using the GDP (market prices) deflator.
Source: Office of National Statistics, Consumer Prices Index

Reference and link to tables:

[Table 2.1.1: Consumer prices index: fuel components in the UK](#)

[Table 2.1.2: Consumer prices index: fuel components in the UK relative to GDP deflator](#)

[Table 2.1.3: Consumer prices index: fuel components, monthly figures](#)

Chart 2.2 shows the changes in the average domestic price for each year, presented as indices in real terms for the years 2009 to 2019.

Liquid fuels prices typically follow crude oil prices. Apart from a sharp fall in 2009, between 2003 and 2012 liquid fuel prices increased strongly in real terms.

Since 2013 prices have fallen but more so between 2014 and 2016. Liquid fuel prices rose in 2017 and 2018 but fell by 4.4 per cent in real terms in 2019.

Motor fuel prices generally similarly follow crude oil prices, but can vary according to changes in the duty payable on petrol and diesel, and to the rate of VAT.

Domestic electricity and gas bills

This release contains provisional domestic bills data for the year; revised estimates will be published in the March issue.

Notes about the data

BEIS estimates for bills with fixed annual consumption levels of 13,600kWh for gas and 3,600kWh for electricity (unless noted otherwise). This is to allow comparisons over time of price changes by keeping consumption changes constant.

Actual average domestic consumption of both gas and electricity varies from year to year due to changes in weather and energy efficiency improvements.

Price Caps

Following a consultation process in March 2018, a default tariff cap² was implemented by the regulator, Ofgem, on 1 January 2019, to ensure gas and electricity customers pay a fairer price for their energy and to protect customers against being overcharged.

The cap is set for a specific time period and applies to tariffs for all customers on standard variable tariffs. Energy suppliers can charge prices at or below the level but cannot charge more.

Table 1 Default tariff cap announcement and cap levels³

Default Tariff Cap Announced	Period Covered	Cap Level
Jan-19	Jan 2019 - Mar 2019	£1,137
Feb-19	Apr 2019 - Sep 2019	£1,254
Aug-19	Oct 2019 - Mar 2020	£1,179
Feb-20	Apr 2020 - Sep 2020	£1,162
Aug-20	Oct 2020 - Mar 2021	£1,042

The default tariff cap has had an impact on how much suppliers charge for variable tariffs. As caps were implemented three separate times in 2019 this had an impact on the figures produced for the annual average price in this year.

Ofgem now reviews these biannually, with two caps a year. One covering April to September and the other covering October to March of the following year.

A separate price cap applies to customers on Prepayment meter tariffs which is implemented alongside the default tariff cap. The Prepayment cap was introduced in April 2017 and was originally due to end in 2020⁴. In August Ofgem set this cap for the six months from October 2020 to March 2021 (£1,070).

Please note that the method we use to calculate average bills can produce average figures higher than the cap. We take an average of prices provided to us from energy companies each quarter. As we request all active tariffs at that point in time, this includes fixed tariffs

² For more information on the default tariff cap, see: <https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/default-tariff-cap>

³ Based on a typical customer using typical consumptions for dual fuel and paying by Direct Debit. For further information, see <https://www.ofgem.gov.uk/energy-price-caps/about-energy-price-caps>

⁴ Prepayment cap was expected to end in 2020 but in August Ofgem announced that the Default Tariff Cap for the period 1 October 2020 to 31 March 2021 includes a new prepayment cap level, which will protect prepayment customers with default tariffs once the CMA Prepayment Meter Price Cap expires on 31 December 2020.

offered in previous years that could be charging more than new tariffs offered at the time of request. Furthermore, Ofgem standard energy consumption rates used to calculate cap levels (12,000 kWh for gas and 3,100kWh for electricity) are lower than the BEIS standard energy consumption rates used to calculate annual bills (13,600kWh for gas and 3,600kWh for electricity).

Table 2 – Provisional average annual bills 2020 (current prices) compared to 2019 ⁵

	2019	2020p	Change	% Change
Standard Electricity	£698	£705	£7	1%
Gas	£609	£582	-£27	-4.4%
Combined	£1,307	£1,287	-£20	-1.5%

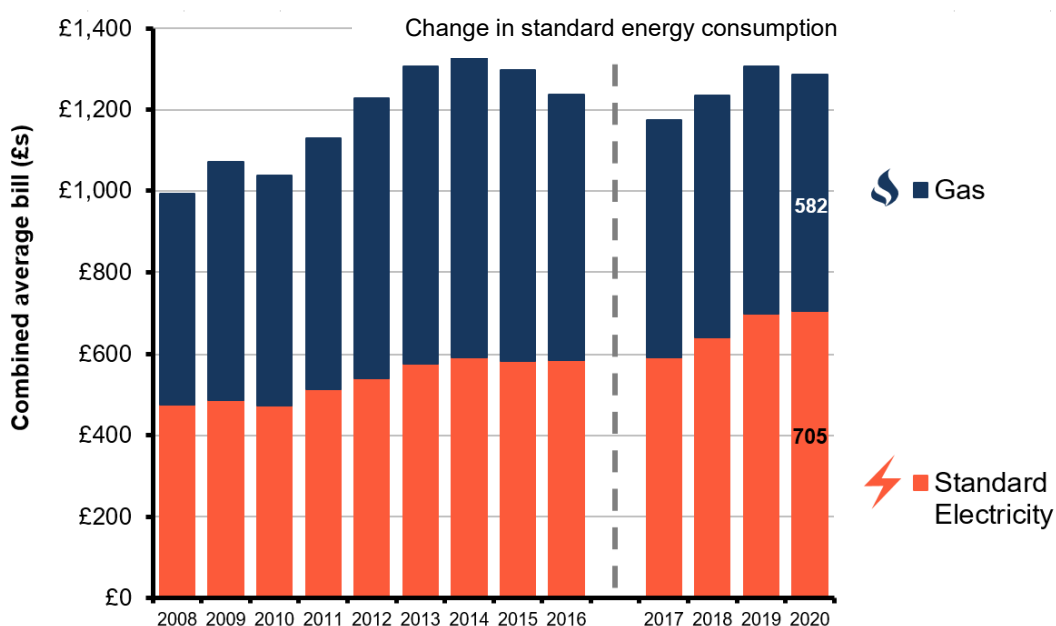
Average energy bills based on BEIS standard energy consumption in 2020 are estimated to be **£1,287**⁶. In current prices terms, this was a decrease of **1.5 per cent** or **£20** on 2019.

The average Standard Electricity bill **increased by 1.0 per cent** or **£7** to **£705** in 2020, while the average Gas bill **decreased by 4.4 per cent** or **£27** to **£582** in 2020 (differences reported in current prices terms).

These changes differ dependant on which payment type and type of contract that customers are on which is explored in more detail later in this report.

Chart 2.3 shows that 2020 was the first year since 2017 where there was not a year-on-year increase in the average combined energy bill, as Gas bills decreased more than the increase in Standard Electricity.

Chart 2.3: Average Standard Electricity and Gas bills (cash terms) ⁷



Reference and link to tables:

[Table 2.2.1: Average annual domestic electricity bills, by home and non-home supplier](#)

[Table 2.3.1: Average annual domestic gas bills, by home and non-home supplier](#)

⁵ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated using non-rounded figures.

⁶ 13,600kWh for gas and 3,600kWh for electricity.

⁷ There was a change in the BEIS standard annual consumption in 2020 from 3,800 kWh to 3,600 kWh for Standard Electricity and from 15,000 kWh to 13,600 kWh for Gas. This change is currently backdated to 2017.

Payment methods

This section presents data based on the fixed consumption levels as outlined in the previous section (3,600 kWh for Electricity, 13,600 kWh for Gas) but explores the variations and trends seen in prices split by the three main payment methods consumers use to pay for their domestic energy bills.

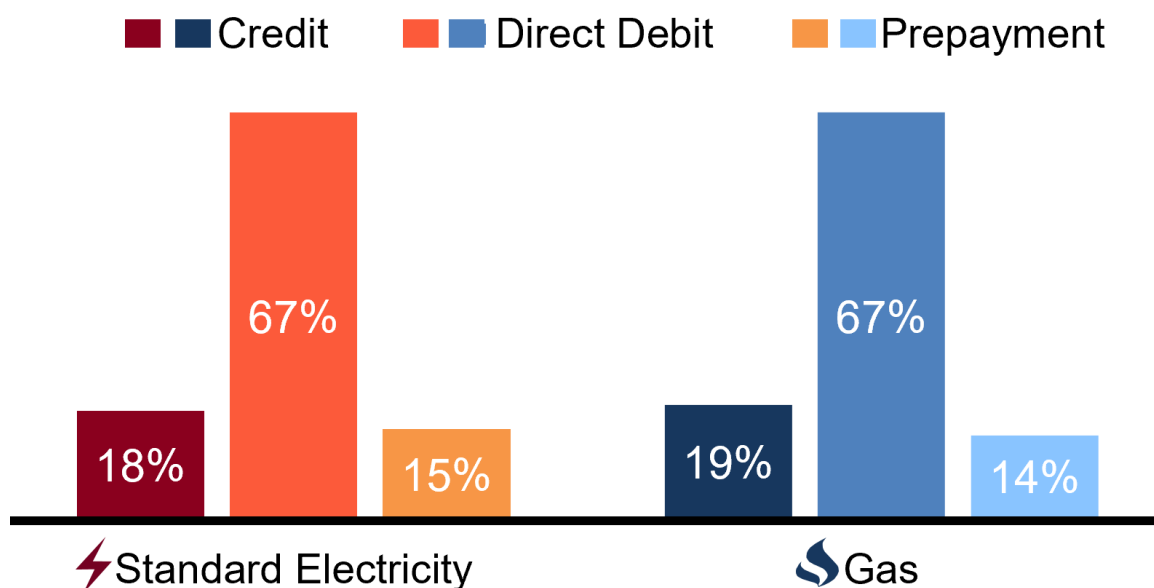
These are:

- **Prepayment**
- **Credit**
- **Direct Debit**

The section also explores variations in the proportions of customers who are on each payment type and explores this by different regions across the UK.

Prepayment is essentially a 'pay as you go' method, users topping up an allowance and usage drawing on their balance. **Credit** is where households settle the bill on the electricity or gas, they used upon receipt but do not pay a recurring set payment as with **Direct Debit**.

Chart 2.4: Proportion of households by payment type



Reference and link to tables:

[Table 2.4.2: Regional variation of payment method for standard electricity](#)

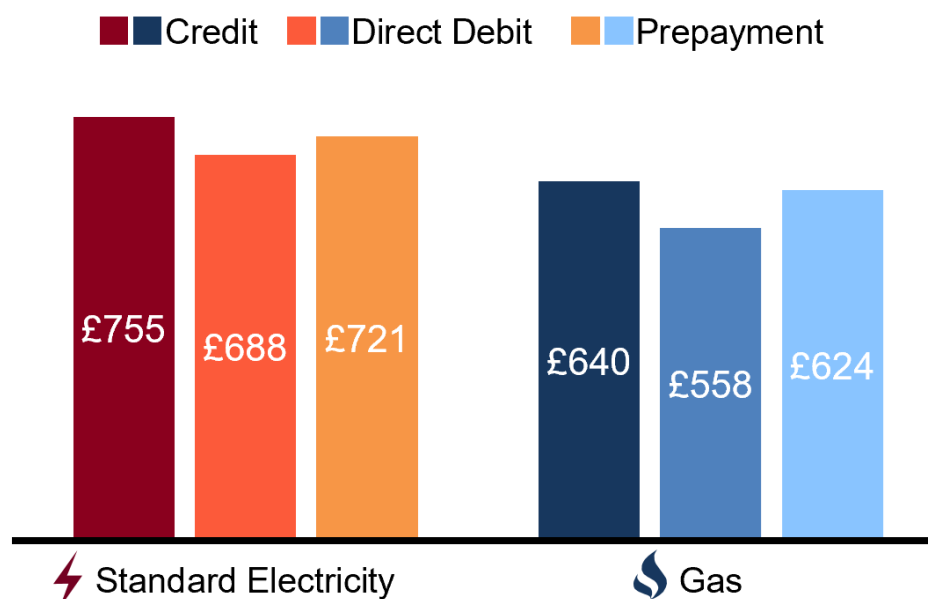
[Table 2.5.2: Regional variation of payment method for Gas](#)

At the end of September 2020, most Standard Electricity customers in the United Kingdom (UK) and Gas customers in Great Britain (GB⁸) were paying their bills via by **Direct Debit**.

Chart 2.4 shows the proportion of customers that use each of the three main payment methods for both Gas and Standard Electricity. Over time the percentage of customers on Direct Debit has been steadily increasing whereas the percentage of customers who pay on receipt of their bill (Standard Credit) has decreased.

⁸ Gas is not yet widely available in Northern Ireland, and so this country has not been included in this Table.

Chart 2.5: Average annual bills on each payment type, 2020



Reference and link to tables:

[Table 2.2.1: Average annual domestic electricity bills, by home and non-home supplier](#)

[Table 2.3.1: Average annual domestic Gas bills, by home and non-home supplier](#)

Table 3 – Average annual bills, in current prices, by payment method⁹, 2020

	Credit	Direct Debit	Prepayment	Overall
Standard Electricity	£755	£688	£721	£705
Gas	£640	£558	£624	£582
Combined	£1,395	£1,246	£1,345	£1,287

For combined bills, based on BEIS consumption levels ¹⁰, Credit remained the most expensive method of payment at **£1,395** (a **decrease**, in current prices terms, **of 1.1 per cent** or **£16** since 2019).

Direct Debit was the cheapest for combined bills at **£1,246** (a **decrease**, in current prices terms, **of 2.1 per cent** or **£27** since 2019). Direct Debit is the cheapest option for both Gas and Electricity.

Average prices paid on Direct Debit (assuming both fuels are paid for by this method) were **£150 cheaper** than those on Credit in 2020 (difference in current prices terms).

Prepayment with a combined bill of **£1,345** was more expensive than Direct Debit, with an **increase of 1.2 per cent** or **£16** compared with 2019 (difference in current prices terms).

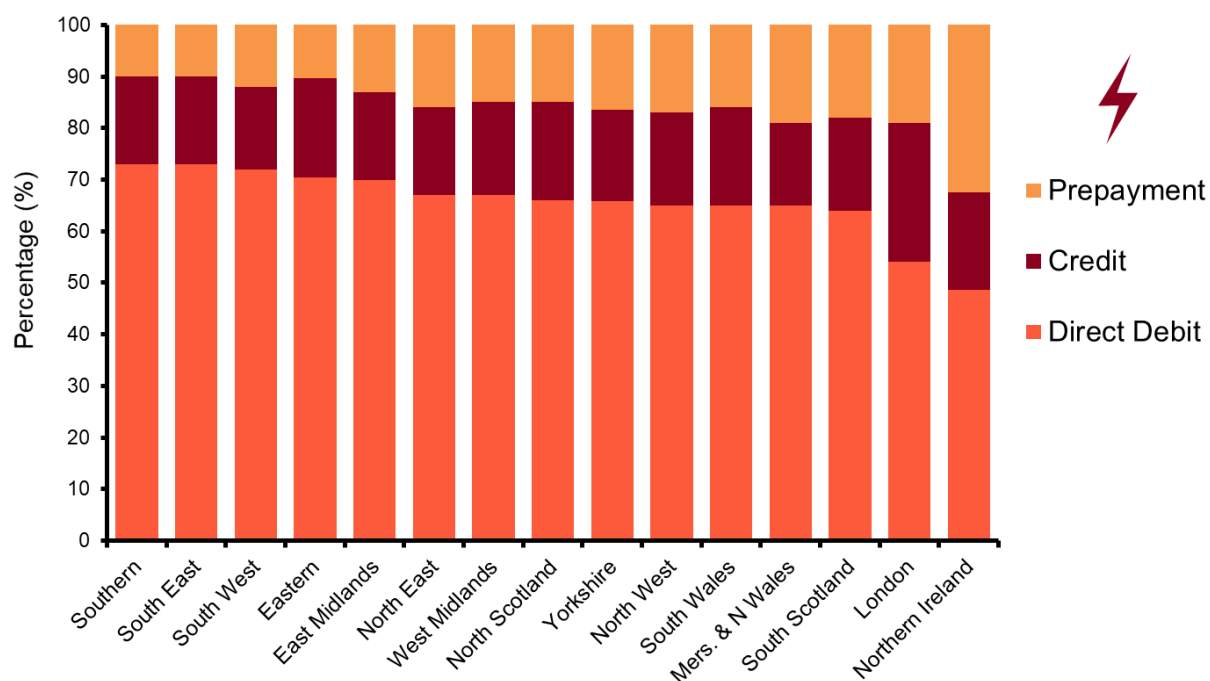
For both Standard Electricity and Gas bills, Direct Debit was the least expensive and Credit was the most expensive payment method for households.

⁹ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

¹⁰ 13,600kWh for gas and 3,600kWh for electricity.

Regional variation of payment methods – Electricity

Chart 2.6: Regional Variation of Payment Methods for Electricity, United Kingdom, July to September 2020



Reference and link to tables:

[Table 2.4.2: Regional variation of payment method for standard electricity](#)

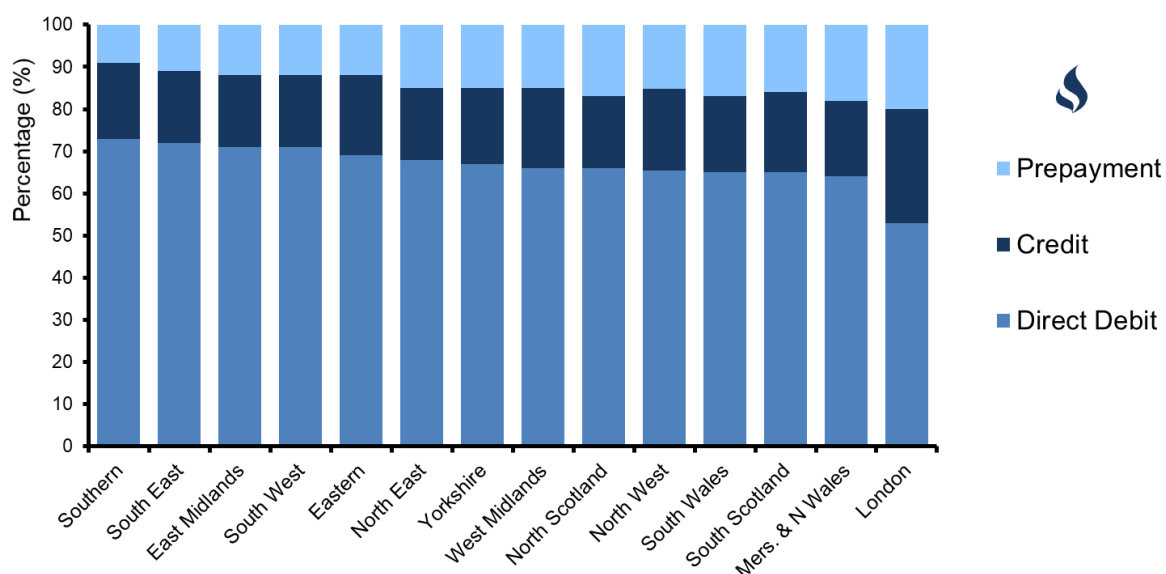
The proportion of customers by the different payment methods varies by region however for Standard Electricity, Direct Debit was the most popular payment method in all regions in the third quarter of 2020.

The Southern and South East regions show the highest proportion of households paying by Direct Debit at **73 per cent** for the quarter ending 30 September 2020.

For Northern Ireland, the difference in the proportion of customers who pay by Prepayment (**33 per cent**) and those who pay by Direct Debit (**49 per cent**) is much lower than that observed in other regions, as illustrated in Chart 2.6.

Regional variation of payment methods - Gas

Chart 2.7 Regional Variation of Payment Methods for Gas, Great Britain, July to September 2020



Reference and link to tables:

[Table 2.5.2: Regional variation of payment method for Gas](#)

The preferred payment method for Gas in each region is Direct Debit, similar to the trend seen in Standard Electricity.

The Southern region shows the highest proportion of households paying by Direct Debit at **73 per cent** for the quarter ending September 2020.

London has the lowest percentage of customers paying by Direct Debit, at **53 per cent** but the highest percentage of Credit customers at **27 per cent**. London has also the highest percentage of Gas customers paying by Prepayment at **20 per cent**, as illustrated in Chart 2.7.

Domestic energy competition

Prior to the privatisation of the GB energy market, all energy customers were supplied by their regional electricity and Gas boards. Following privatisation these boards became the commercial 'home' suppliers for each region to which all customers in that region belonged before the market opened to competition.

The first trial in competitive Gas supply started in April 1996 in South West England, with all customers able to choose their Gas supplier by May 1998. Competition in domestic electricity supply began on 14 September 1998 with 750,000 consumers in four areas and was gradually extended to all consumers in Great Britain by 24 May 1999.

In Northern Ireland, the market is now open to competition, after being monopolistic for many years, although two suppliers still currently supply most of the market. Gas is still not yet widely available in Northern Ireland, although the number of customers with access to the Gas grid is increasing.

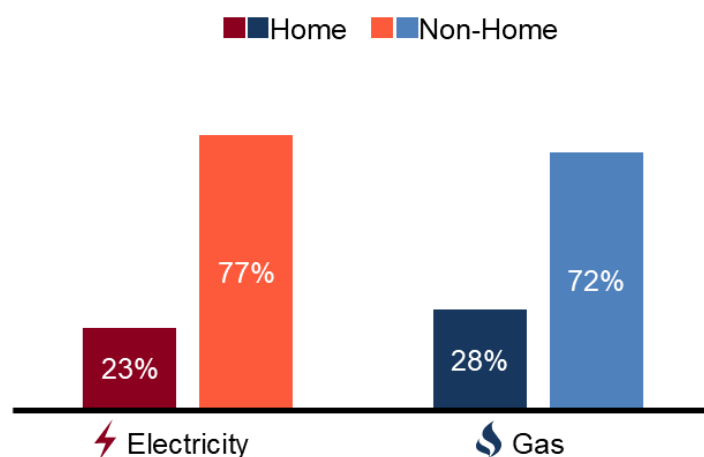
Recent trends in customers with original home supplier

At the end of September 2020, BEIS estimated that over **22.1 million (77 per cent)** domestic Electricity¹¹ customers and over **17 million (72 per cent)** domestic Gas customers in Great Britain¹² were no longer with their original home supplier - which was the firm who had supplied that region before the energy market opened to competition (see chart 2.8).

'Home' suppliers as referred to in this release, are those energy companies that are the regional suppliers of Gas and electricity to households prior to privatisation.

'Non-home' suppliers are those energy companies that were not the regional suppliers of Gas and electricity to households prior to privatisation.

Chart 2.8: Proportion of customers with their original home supplier



Reference and link to tables:

[Table 2.4.1: Percentage of domestic electricity customers by region by supplier type](#)

[Table 2.5.1: Percentage of domestic Gas customers by region by supplier type](#)

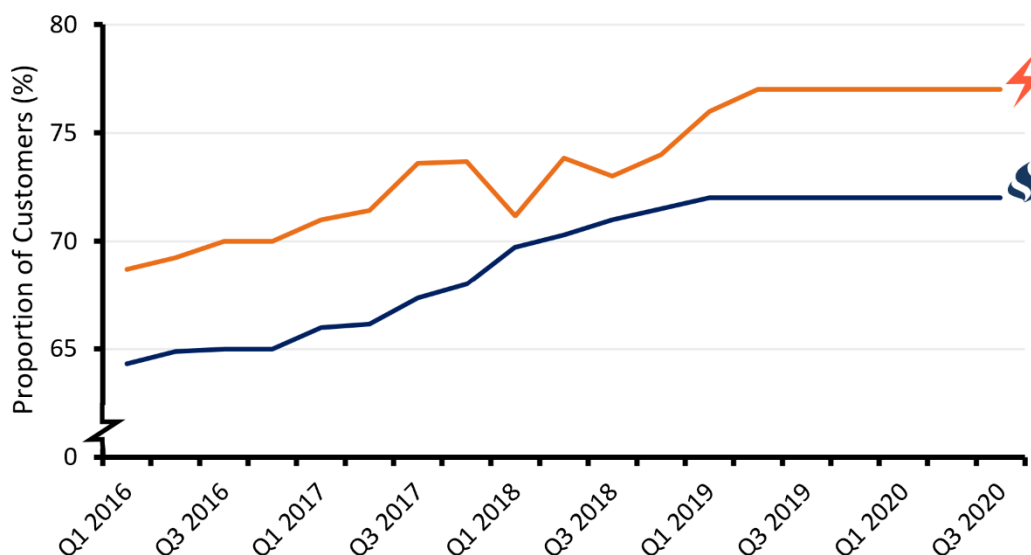
¹¹ Includes both standard electricity and Economy 7 electricity.

¹² Competition is still limited in scope for domestic customers in Northern Ireland, and so this country has been excluded from this analysis.

Direct Debit customers were most likely to have changed from home suppliers, with **80 per cent** of Electricity customers and **76 per cent** of Gas customers no longer with their home suppliers.

Credit customers were the least likely to have changed from home energy suppliers, with **66 per cent** of Electricity customers and **59 per cent** of Gas customers supplied by a non-home supplier.

Chart 2.9: Proportion of customers with ‘Non-Home’ suppliers since Quarter 1 2016



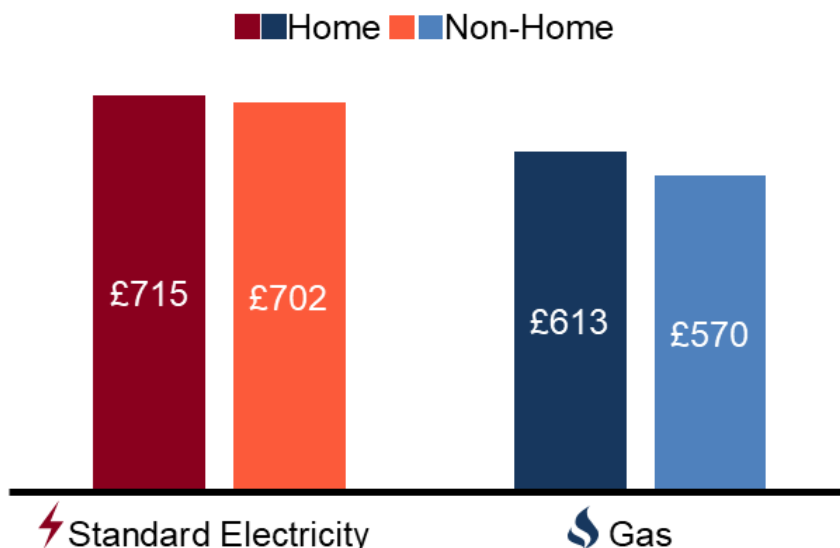
Reference and link to tables:
[Tables 2.4.1 – 2.5.2](#)

The number of Gas customers at the end of September 2020 now with non-home suppliers are the same as last quarter but **up 7 percentage points** since the end of June 2016¹³. The trend is similar for Electricity - the proportion of customers with a non-home supplier is now at **77 per cent** but up 8 percentage points since June 2016.

¹³ Before 2016, home and non-home customers numbers proportions were not adjusted as figures were primarily based on data from large suppliers. Since 2016, this has now been adjusted to be representative of Great Britain. This change means that figures before 2016 are not directly comparable with future years.

Variation in bills by energy competition and payment methods

Chart 2.10: Average annual Standard Electricity and Gas bills for home and non-home suppliers in GB, 2020



Reference and link to tables:

[Table 2.2.1: Average annual domestic electricity bills, by home and non-home supplier](#)

[Table 2.3.1: Average annual domestic Gas bills, by home and non-home supplier](#)

Table 4 – Average annual bills^(r) by payment method and supplier type for 2020¹⁴

	Credit		Direct Debit		Prepayment		Overall	
	Home	Non-Home	Home	Non-Home	Home	Non-Home	Home	Non-Home
Standard Electricity	£752	£757	£695	£686	£722	£721	£715	£702
Gas	£653	£631	£587	£549	£639	£617	£613	£570
Total	£1,405	£1,388	£1,282	£1,235	£1,361	£1,338	£1,328	£1,272

The average annual bill based on standard consumption¹⁵ for Gas and Standard Electricity in 2020 was lower for customers who were with “Non-Home” suppliers, with the average bill for customers with “Home” suppliers around **4.4 per cent** or **£55 more expensive** (differences reported in current prices terms). Average combined bills for non-home suppliers were cheaper than home suppliers for all payment methods.

Average bills for customers on “Home” supplier Gas tariffs were consistently higher than customers on those tariffs offered by “Non-Home” suppliers across all payment methods. Overall, on average, home supplier Gas bills were **7.5 per cent** or **£43 higher** than non-home supply bills (differences reported in current prices terms).

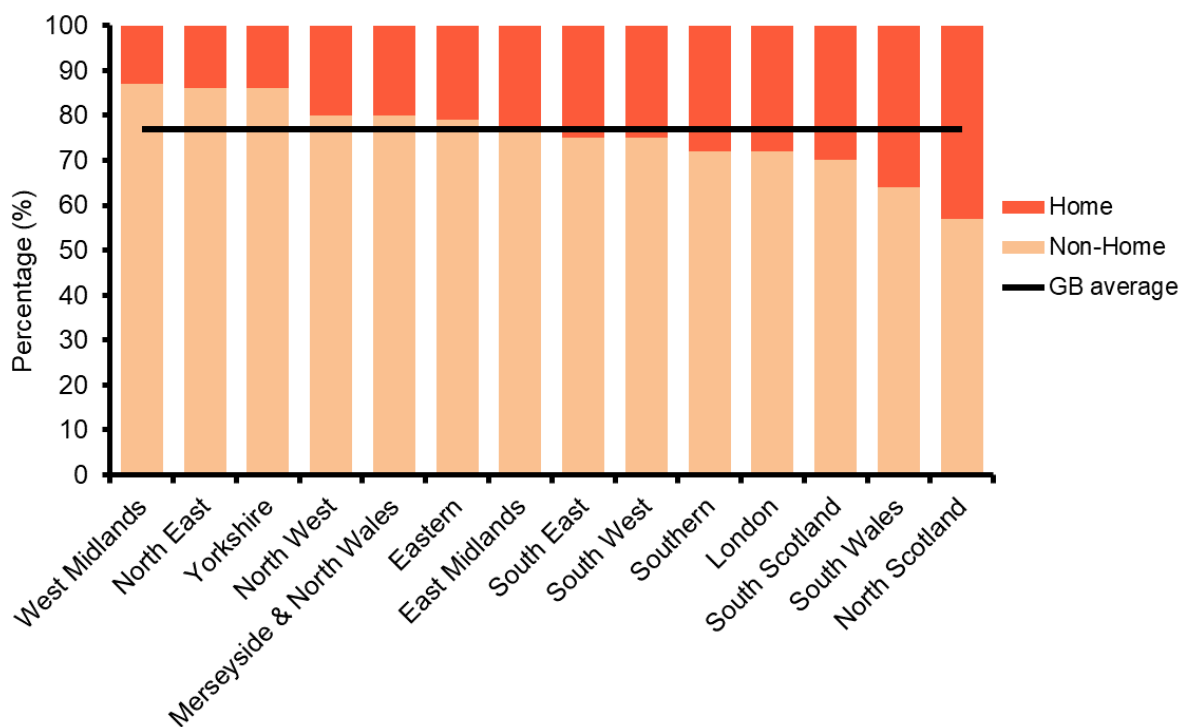
¹⁴ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

¹⁵ 13,600kWh for gas and 3,600kWh for electricity.

Though there was some variability across different payment methods for Standard Electricity; overall, customers on tariffs offered by “Home” suppliers, paid on average **1.8 per cent** or **£12 more** than customers on “Non-Home” supplier tariffs (differences reported in current prices terms).

Regional competition - Electricity

Chart 2.11: Percentage Electricity customers with a non-home supplier, September 2020



Reference and link to tables:

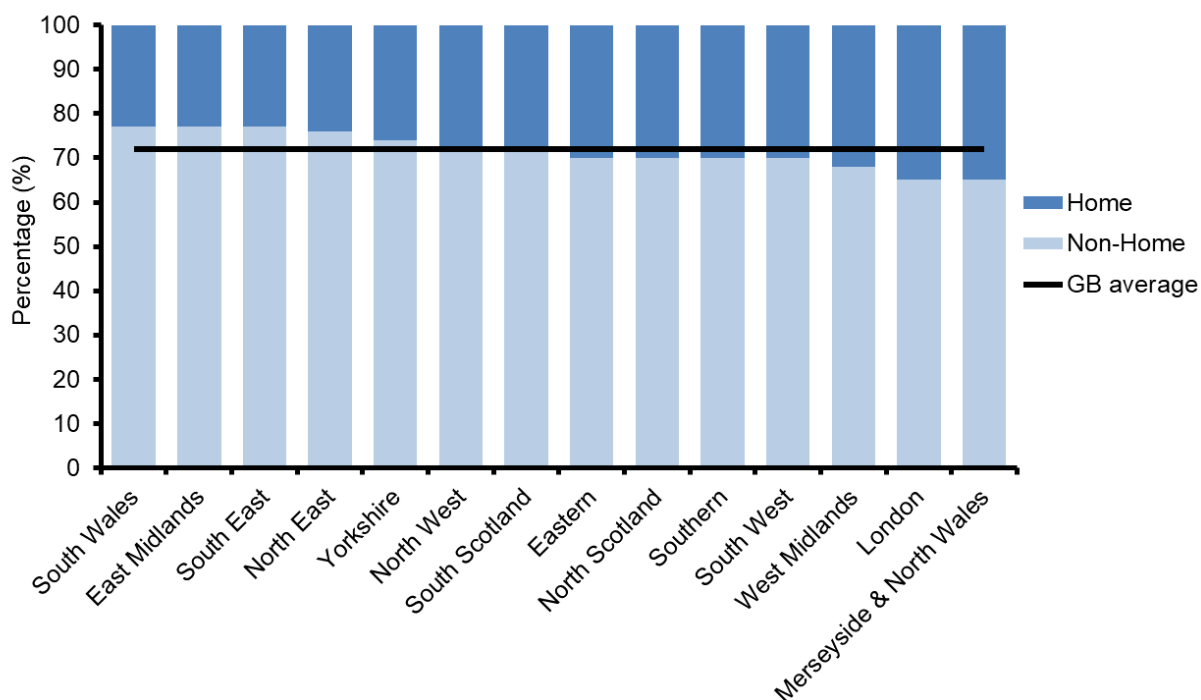
[Table 2.4.1: Percentage of domestic electricity customers by region by supplier type](#)

The West Midlands region has the **lowest** proportion of Electricity customers with a home supplier at **13 per cent**.

Overall, at the end of September 2020, customers in North Scotland were the least likely to have moved, with around **43 per cent** still with their home supplier, **nearly double** the national average at **23 per cent** (see Chart 2.11).

Regional competition - Gas

Chart 2.12: Percentage of Gas customers with a non-home supplier, September 2020



Reference and link to tables:

[Table 2.5.1: Percentage of domestic Gas customers by region by supplier type](#)

South Wales, East Midlands and the South East show the **lowest** proportion of households remaining with their Gas home supplier at **23 per cent**.

At the end of September 2020, customers in Merseyside & North Wales and London were the least likely to have moved Gas supplier, with around **35 per cent** still with their home supplier, which is **7 per cent higher** than the national average of customers at **28 per cent**.

Transfer statistics

The Office for Gas and Electricity Markets (Ofgem) provides BEIS with the number of domestic customers in Great Britain that have switched supplier for both electricity and Gas.

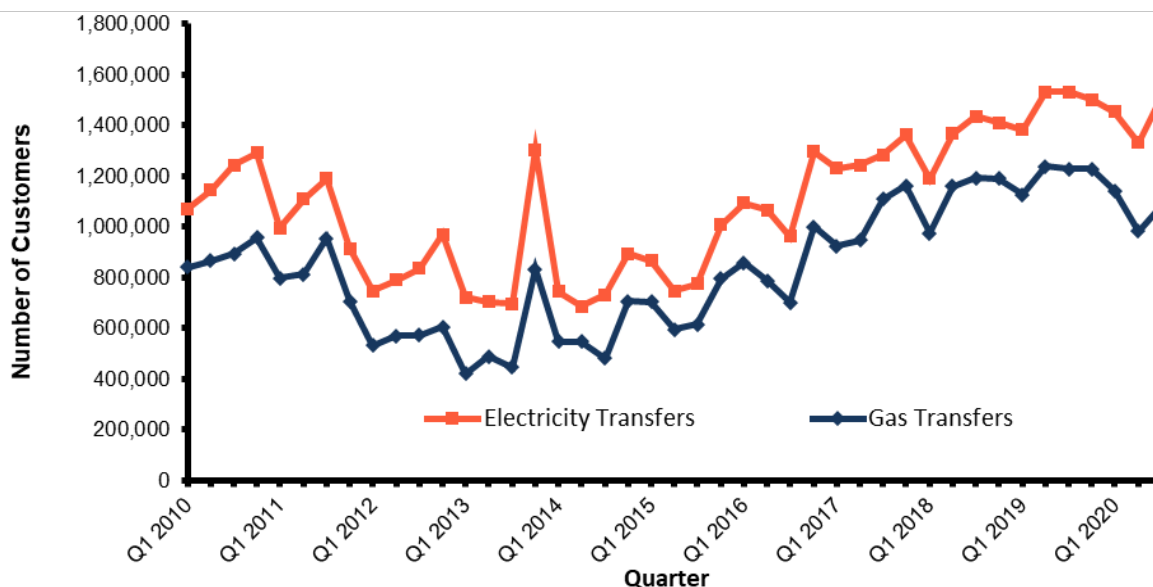
More can be found on Ofgem's website here:

www.ofgem.gov.uk/data-portal/number-domestic-customers-switching-supplier-fuel-type-gb

Customer switching figures for 2020 were updated on 25 September 2020 to incorporate a data correction from Ofgem. For more information visit Ofgem's website:

<https://www.ofgem.gov.uk/data-portal/retail-market-indicators>

Chart 2.13 Domestic Gas and Electricity transfers¹⁶



Source: Ofgem

Reference and link to tables:

[Table 2.7.1: Transfer statistics in the domestic Gas and electricity markets](#)

Please note: For Electricity, this covers the whole domestic market. Formerly Gas switching levels only covered the main six suppliers. From January 2014 Ofgem provided switching levels for the whole market.

There were an estimated 1,512,000 Electricity transfers in Q3 2020 and 1,083,000 Gas transfers in Q3 2020. Compared with Quarter 2 2020, Electricity transfers are up **13.6 per cent** from 1,331,000 and Gas transfers are up **10.2 per cent** from 983,000. Consumer behaviour is likely to have been affected by the impact of COVID-19.

These quarterly transfers represent around **5.3 per cent** for Electricity customers and **4.6 per cent** for Gas customers in the domestic market.

¹⁶ Since April 2016 data supplied to BEIS has included additional filtering to remove non-domestic customers. This data is sourced from network operators and filtered by the active suppliers in the market, who to the best of Ofgem's knowledge are operating in the domestic and non-domestic segments of the energy market. For this reason, the data supplied from April 2016 onwards may be more accurate but lower than levels before this time.

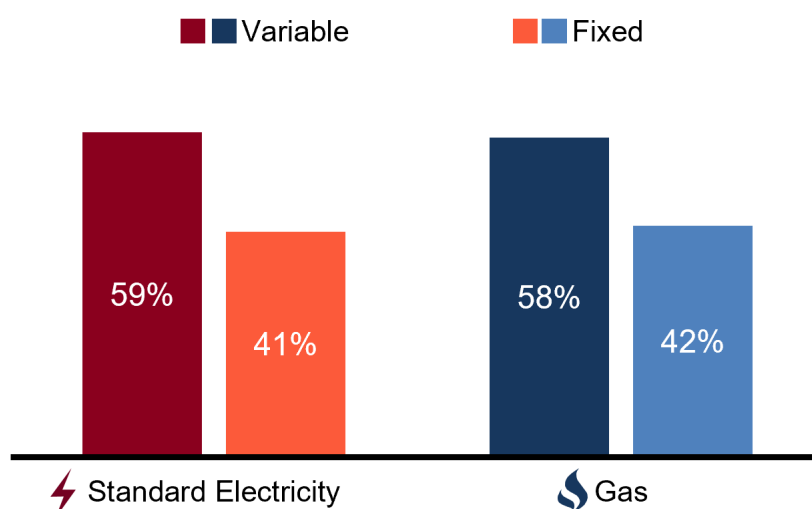
Fixed and Variable Tariffs

A **variable tariff** is a tariff that is subject to change at any point in time. A **fixed tariff**¹⁷ is one where the price has been set at a constant rate for a defined period.

Please note BEIS determines whether tariffs are fixed or variable, based on the attributes of tariff names provided by energy companies.

We are continually reviewing our methodology, but these are currently classed as **Experimental Statistics** and are not as robust as the data presented elsewhere in the release. We are intending to change this classification but will require a change to the data collection to include this information from companies on submission.

Chart 2.14: Proportion of customers on fixed tariffs for both Electricity and Gas, September 2020



Reference and link to tables:

[Table 2.4.2: Regional variation of payment method for standard electricity](#)

[Table 2.5.2: Regional variation of payment method for Gas](#)

At the end of September 2020, more Standard Electricity customers in the United Kingdom (UK) and Gas customers in Great Britain (GB) were on variable tariffs than on fixed tariffs. Around **41 per cent** of all Standard Electricity and **42 per cent** of all Gas customers were on fixed tariffs at the end of September 2020.

The picture is different when looking at the different payment types customers are on:

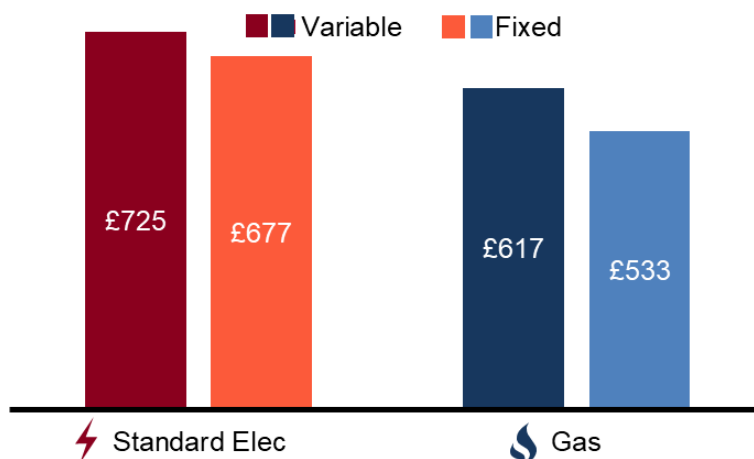
- **Direct Debit** customers are most likely to be on fixed tariffs with around **56 per cent** of these customers on a fixed deal for Electricity and **57 per cent** for Gas.
- **Credit** customers were the second most likely to be on a fixed tariff, with **14 per cent** of Standard Electricity customers and **16 per cent** of Gas customers on a fixed tariff.
- **Prepayment** customers were the least likely to be on a fixed tariff, with **1 per cent** of Standard Electricity and **2 per cent** of Gas customers on a fixed tariff.

¹⁷ The method used to determine a fixed tariff is dependent on the tariff name and BEIS' research of tariffs. It is therefore possible that some fixed tariffs have not been identified and may well have been incorrectly classified as a variable tariff.

Variation in bills by tariff type and payment methods

Please note: These are **experimental statistics**. The method used to calculate these figures does not allow BEIS to perfectly determine which tariffs are fixed/capped and which are not as it is dependent on the tariff name indicating that it is fixed or capped. Therefore, the comparison between fixed and variable tariffs should be treated with some caution.

Chart 2.15: Average Standard Electricity and Gas bills for fixed and variable tariffs



Reference and link to tables:

[Table 2.2.1: Average annual domestic electricity bills, by home and non-home supplier](#)

[Table 2.3.1: Average annual domestic Gas bills, by home and non-home supplier](#)

Table 5 – Average annual bills by payment method and tariff type, 2020¹⁸

	Credit		Direct Debit		Prepayment		Overall	
	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed
Standard Electricity	£755	£756	£709	£671	£721	£697	£725	£677
Gas	£643	£627	£600	£525	£624	£599	£617	£533
Combined	£1,398	£1,383	£1,310	£1,197	£1,345	£1,296	£1,342	£1,210

In 2020, annual domestic Gas and Standard Electricity bills for customers on a fixed tariff were cheaper overall compared to those on variable tariffs. In current prices terms, combined bills were around **10 per cent** or **£131 cheaper**¹⁹ for those on a fixed tariff. The average fixed tariff bills in 2020 were cheaper than variable tariff bills across all payment types for Combined bills.

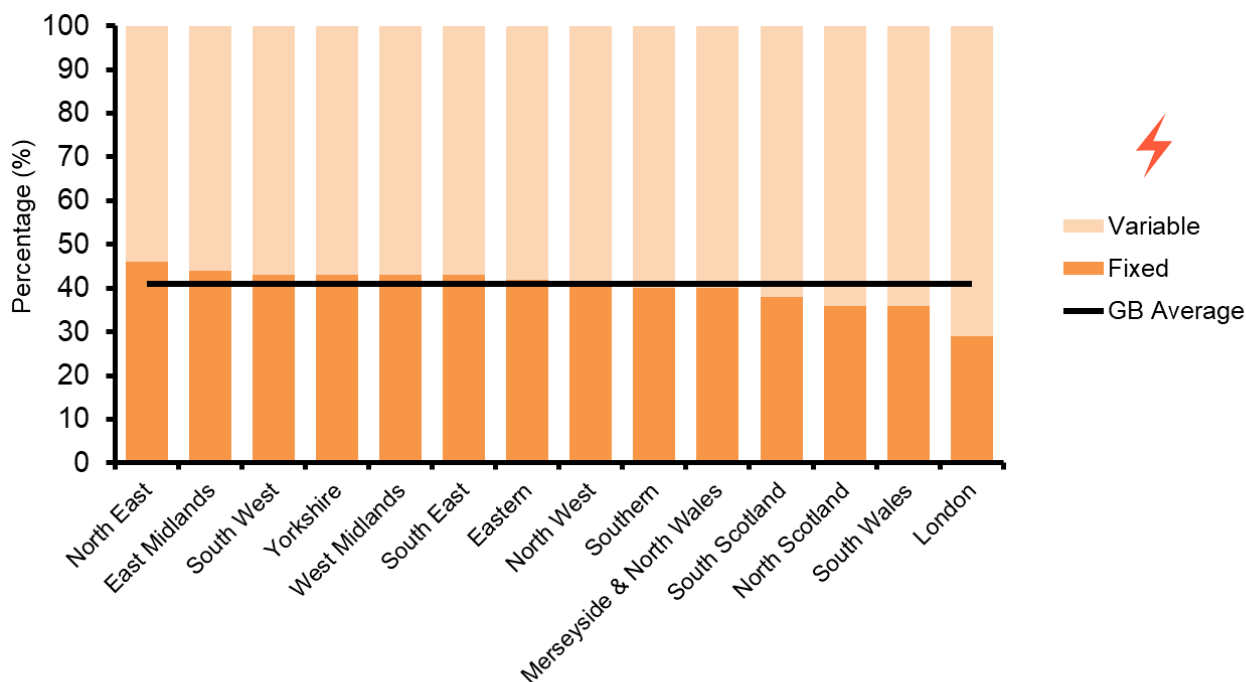
Average bills for customers on fixed Gas tariffs were consistently lower than customers on variable tariffs across all payment methods. There was some variability across different payment methods for Standard Electricity. However, overall, customers on fixed tariffs, on average, paid less than customers on variable tariffs.

¹⁸ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

¹⁹ Based on BEIS standard consumption. 13,600kWh for gas and 3,600kWh for electricity.

Regional variation of fixed tariff proportions – Electricity

Chart 2.16: Proportion of Standard Electricity customers on a fixed tariff, September 2020



Reference and link to tables:

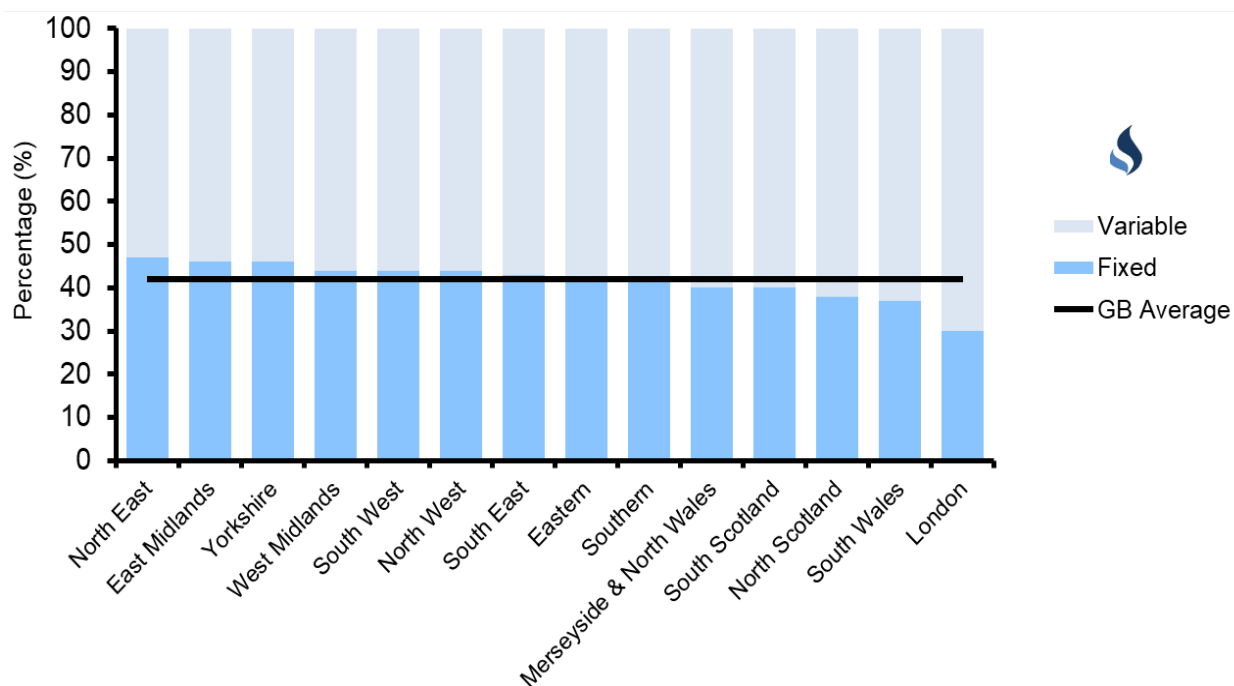
[Table 2.4.2: Regional variation of payment method for standard electricity](#)

The proportions of customers on Standard Electricity fixed tariffs, across all payment types, vary region to region. The North East region shows the highest proportion of households on Standard Electricity on a fixed tariff at **46 per cent**.

London had the lowest proportion of Electricity customers on fixed tariffs across all regions in Great Britain at **29 per cent**, 12 per cent below the average for Great Britain.

Regional variation of fixed tariff proportions – Gas

Chart 2.17: Proportion of Gas customers on a fixed tariff, September 2020



Reference and link to tables:

[Table 2.5.2: Regional variation of payment method for Gas](#)

Similar to Electricity, the proportions of customers on fixed Gas tariffs vary by region. The North East region showed the highest proportion of households on fixed Gas tariffs at **47 per cent**.

London also has the lowest proportion of customers on fixed Gas tariffs in Great Britain, at **30 per cent**.

Non-Domestic Sector Prices

The UK industry is reliant on fuels, particularly gas and electricity, to operate and this section gives an insight into the prices of fuels paid by the non-domestic sector.

Though the types of fuel used are usually the same, the prices paid by industry are generally not comparable with those paid by customers in the domestic market, given the different levies and taxes paid by industry compared to households.

This section presents information on prices of fuels (e.g. coal, oils, gas and electricity) paid by the manufacturing and industrial sectors to operate.

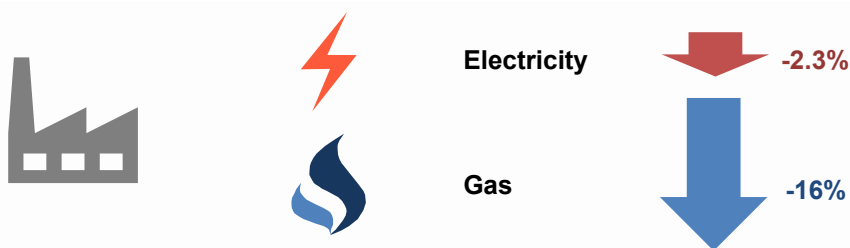
The prices paid for the fuels used by major power producers to generate electricity (mainly coal and gas) are also outlined in this publication.

Prices of electricity and gas used in the non-domestic sector are presented, with 'non-domestic' in this context referring to sectors and organisations other than households.

Non-domestic data: all of the detailed underlying data associated with this section and previous related datasets can be found on GOV.UK here: www.gov.uk/government/collections/industrial-energy-prices

Highlights and Headline Figures

The industrial sector in the UK is mainly dependent on electricity and gas. Compared to the same quarter in the previous year, the average industrial prices in real terms, not seasonally adjusted and including the [Climate Change Levy](#) (CCL) in Q3 2020 (1 July to 30 September 2020), **for electricity fell by 2.3 per cent and fell by 16 per cent for gas** (Table 3.3.2).



Compared to the same quarter in the previous year, industrial prices for **coal fell by 9.1 per cent** and **heavy fuel oil** (which is not subject to CCL) **fell by 8.6 per cent** (Table 3.3.2) in Q3 2020.

The 'major power producers' are part of the power sector and have been using gas and coal mainly as part of their fossil fuel mix to generate electricity. However, the fuel mix is changing with decreasing coal use and a shift towards renewables. Between Q3 2019 and Q3 2020, the price of coal used for electricity generation by major power producers in the UK **rose by 3.2 per cent** and the price of gas **fell by 20 per cent** in current pence per kWh terms (Table 3.2.1).

Wholesale gas prices in Q3 2020 were **59 per cent higher** on the previous quarter but **24 per cent lower** on the previous year. The rise in the quarter was largely due to an increase in demand for electricity generation which was up 37 per cent on the previous quarter.

Notes about the data

Changes in prices may also vary depending on the time period used, i.e. changes in annual average prices may be different to changes in prices between quarters a year apart.

Populations presented in these statistics

This section presents data which broadly cover the 'Non-Domestic' population and therefore include users of energy other than households. Specific populations described include:

- **Industrial** users that are specifically industry and exclude those in the Transport, Retail, Services and Commercial sectors. This **includes** the Manufacturing industry.
- **Manufacturing** which as a subset of industry that use fuels in the manufacturing process and include companies that produce by-products of the fuels.
- **Major Power Producers** which are another distinct entity within 'Non-Domestic', it covers companies that produce electricity.

Details on how these populations are defined are available within the associated data tables and the related methodology documentation.

Please note that the prices for each of the fuels presented in this section vary depending on the sectoral coverage (e.g. manufacturing industry, power sector or non-domestic including commercial and services consumers).

Variations in prices across populations

Prices of fuels may move by different amounts, or even in different directions, depending on the sectors and/or consumption size bands being compared.

There are differences in the prices of fuels paid between different category of users of fuels dependant on how much they use. For example, those who use a large amount are likely to pay less for their fuels given they can set up more competitive contracts over smaller companies that use less fuels or on a more ad-hoc basis.

Given also that because large consumers purchase large volumes, they may be more dependent on wholesale spot prices, and therefore more vulnerable to price spikes whereas the small consumers tend to be on more stable contracts.

Energy prices in the manufacturing sector

Prices of fuels in the manufacturing sector, excluding CCL, for various size bands of consumers are presented in [Tables 3.1.1 to 3.1.4](#). The fuels used in the manufacturing sector are mainly **heavy fuel oil, gas oil, electricity and gas** though **coal** is also used.

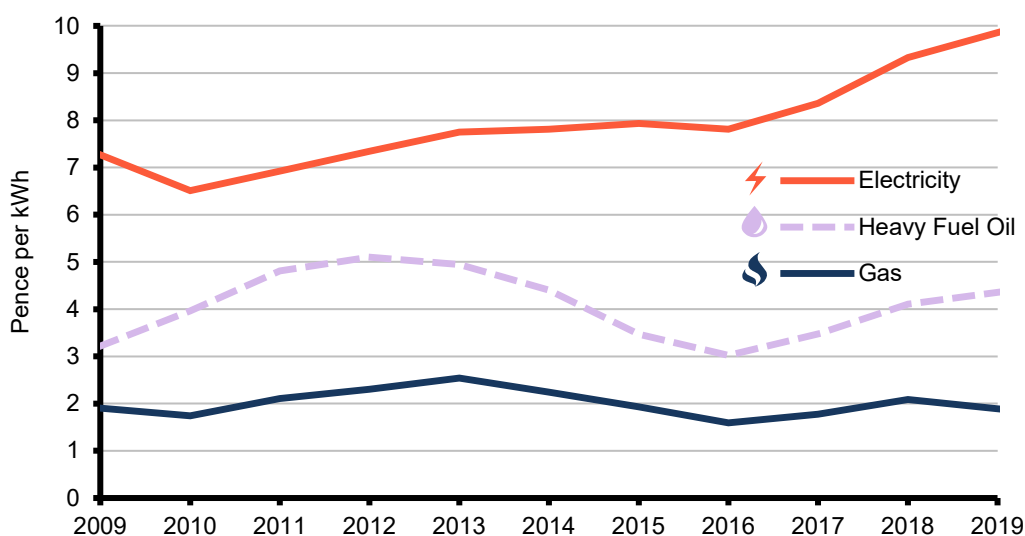
Heavy Fuel Oil, a derivative from the oil refining process is used for heating and to fuel furnaces and boilers in industrial plants. It is very viscous and requires to be kept at a high temperature and pre-heating before use.

Gas Oil (sometimes referred to as Red Diesel for agricultural uses) is a more refined product than Heavy Fuel Oil and is also used as a fuel for heating and in off-road vehicles like tractors and machinery in the construction and agricultural sectors.

Associated tables with this release also provide details on the movements of prices for **gas oil** and **coal** used in the manufacturing sector.

These prices are affected by a variety of factors such as consumption levels, relative bargaining positions of the larger users, length of contracts and also by the price of crude oil.

Chart 3.1: Average annual prices of fuels purchased by manufacturing industry



Reference and link to tables:

[Table 3.1.4: Annual prices of fuels purchased by manufacturing industry \(p/kWh\)](#)

Long term trends in manufacturing industry prices by fuel type

In the manufacturing sector, average annual **electricity** prices have been on a general upward trend (Chart 3.1), and in 2019 the average electricity price was the highest for over a decade.

Average **gas** prices in the manufacturing sector have been more variable. In 2016, average gas prices were 37 per cent lower than the peak in 2013. Gas prices in the manufacturing sector increased over the next two years but fell in 2019 by 9.5 per cent on the previous year as demand in industries fell and wholesale gas price fell 42 per cent to 1.20 p/kWh. As the prices are low, small changes in actual price can cause very large percentage changes.

For **heavy fuel oil** and **gas oil**, prices generally increased year on year until 2012. Prices then fell and by 2016 prices were back to the 2009 levels. Over the past three years heavy fuel oil prices have again increased but for gas oil following the recent increases in prices, in 2019 gas oil prices were down on the previous year by 4.5 per cent.

Coal prices generally increased each year until 2014 before falling. Between 2016 and 2017 coal prices rose but in 2019 coal prices were 2.7 per cent lower than in the previous year.

Short-term trends in average manufacturing industry prices

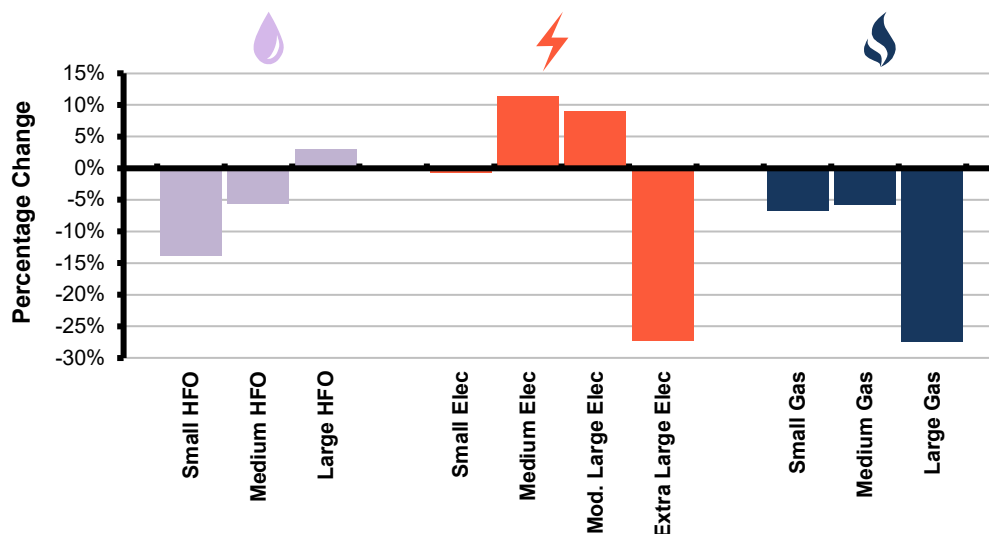
Data for 2019 shows that over the past five years (2014 to 2019) the **average industrial electricity** price has risen by **26 per cent** in cash terms (**15 per cent** in real terms), and compared to the previous year, average industrial electricity prices have increased by **5.7 per cent** (**3.5 per cent** in real terms).

Over the past five years the **average industrial gas** price has decreased by **16 per cent** in cash terms (**23 per cent** in real terms), and over the previous year, the average industrial gas price has decreased by **9.5 per cent** (**11 per cent** in real terms).

Recent trends in prices in the manufacturing industry by fuel type and size of consumer

Recent price movements by size band are shown in Chart 3.2.

Chart 3.2 Manufacturing industry price change between Q3 2019 and Q3 2020 by size of consumer ⁽¹⁾



1. Percentage price movement between Q3 2019 and Q3 2020 for heavy fuel oil (HFO), electricity and gas, in cash terms excluding Climate Change Levy (CCL)

References and link to tables:

[Table 3.1.1: Quarterly prices of fuels purchased by manufacturing industry \(original units\)](#)

[Table 3.1.2: Quarterly prices of fuels purchased by manufacturing industry \(p/kWh\)](#)

[Table 3.1.3: Annual prices of fuels purchased by manufacturing industry \(original units\)](#)

[Table 3.1.4: Annual prices of fuels purchased by manufacturing industry \(p/kWh\)](#)

For reference, the various bands of consumers for manufacturing firms classified by the amount of fuel purchased in a year are shown in the table below:

	Small	Medium	Large ¹	Extra Large
Heavy Fuel Oil (tonnes)	< 490	490 - 4,900	> 4,900	
Electricity (MWh)	< 880	880 - 8,800	8,800 - 150,000	>150,000
Gas (MWh)	< 1,500	1,500 - 8,800	> 8,800	

1. Large is 'Moderately Large' for Electricity

Compared to the previous year, **heavy fuel oil** consumers in the manufacturing industry in Q3 2020 have seen an average price **fall of 2.7 per cent** in cash terms.

Over the same period, the average price paid by **electricity** consumers in the manufacturing industry, in cash terms excluding CCL, has **remained broadly flat**. By consumer bands in Q3 2020, whilst the Medium and Moderately Large bands have seen **rises in their average prices of 11 and 9 per cent** respectively, the Large and Extra-Large bands on the other hands have seen **falls of 4.6 per cent and 27 per cent** respectively compared to Quarter 3 2019.

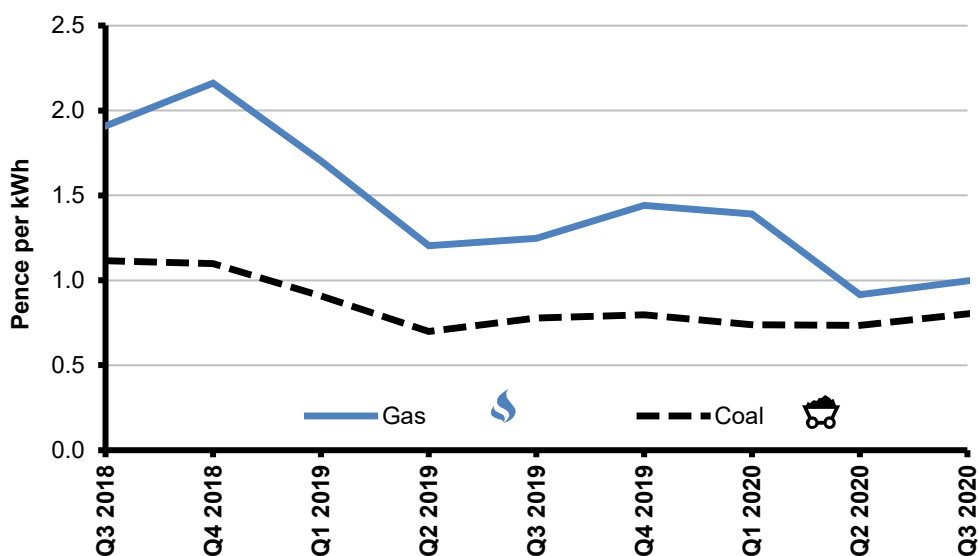
Compared to the previous year, in Q3 2020 the average price for **gas** consumers in the manufacturing industry, in cash terms excluding CCL, **decreased by 25 per cent**. Over the same period prices for all the consumer bands have also decreased. The larger consumers saw a much greater decrease in their average price of gas (**27 per cent**) compared to a **5.7 per cent decrease** in the medium consumer price and a decrease of **6.8 per cent** in the small consumer price over the same period.

Average prices of fuels purchased by the major UK power producers

Average purchase costs of fuels (presented in common units) used to generate electricity are recorded in [Table 3.2.1](#).

These figures present the fuel input costs, however comparing the different input costs between fuels does not explain the full costs involved in generation. Total generation costs are also affected by other costs, including transportation and the efficiency with which fuels are converted into electricity in different types of power station.

Chart 3.3 Price paid by UK power producers for coal and natural gas - quarterly



Reference and link to tables:

[Table 3.2.1: Average price of fuels purchased by the major UK power producers](#)

Recent trends in wholesale gas prices

April 2018	Wholesale gas prices saw a fall of 29 per cent in comparison to the high prices seen in the previous month
September 2018	Prices then continued to increase with a higher rise in September 2018, reaching a peak of 2.51 pence per kWh before falling steadily
September 2019	Wholesale gas prices were down to an average of 0.87 pence per kWh , the lowest for over five years.
November 2019	Wholesale gas prices rose by 42 per cent to 1.29 pence per kWh but have since fallen and remained at an average low of 0.45 pence per kWh .
Q2 2020	The average wholesale gas prices fell two quarters in a row since the beginning 2020 and in Q2 2020 at 0.45 pence per kWh was 47 per cent lower than in the previous quarter , 58 per cent lower than in the previous year and was the lowest for over five years. During the quarter prices were mainly affected by a fall in demand due to the warmer weather and lockdown measure from the Coronavirus pandemic.

Wholesale gas prices fell in the first two quarters of 2020 with a much sharper fall in quarter 2 bringing prices down to a low for over five years. In Q3 2020 wholesale gas prices rose by **59 per cent** on the previous quarter but compared to the previous year wholesale gas prices continued to remain low and were **24 per cent lower** than in Q3 2019.

In volume terms between Q3 2019 and Q3 2020, there was a 10 per cent increase in the total gas imports within which LNG imports increased by 28 per cent, despite a fall of 3.6 per cent in production, supply of gas was up by 3.0 per cent. Demand for gas in electricity generation was up by 13 per cent to meet falls in input from nuclear power stations due to outages.

By sectors, gas demand in the domestic sector in Q3 2020 was up by 3.6 per cent compared to the previous year on account of slightly cooler weather and with more people at home under the Covid-19 pandemic. Industry consumption was down by 11 per cent with lockdown restrictions impacting on demand.

Recent trends in fuels purchased by the major UK power producers

Between Q3 2019 and Q3 2020 the price of **coal** in cash terms for power stations **rose by 3.2 per cent** to just over 0.8 pence per kWh.

The price of **gas** over the same period **fell by 20 per cent** to just under 1.0 pence per kWh. As shown in Chart 3.3, in Q3 2020 the price of coal, in pence per kWh, was just over three-quarters that of gas leading to a price gap in cash terms of 0.2 pence per kWh.

Recent trends in fuels used by the major UK power producers

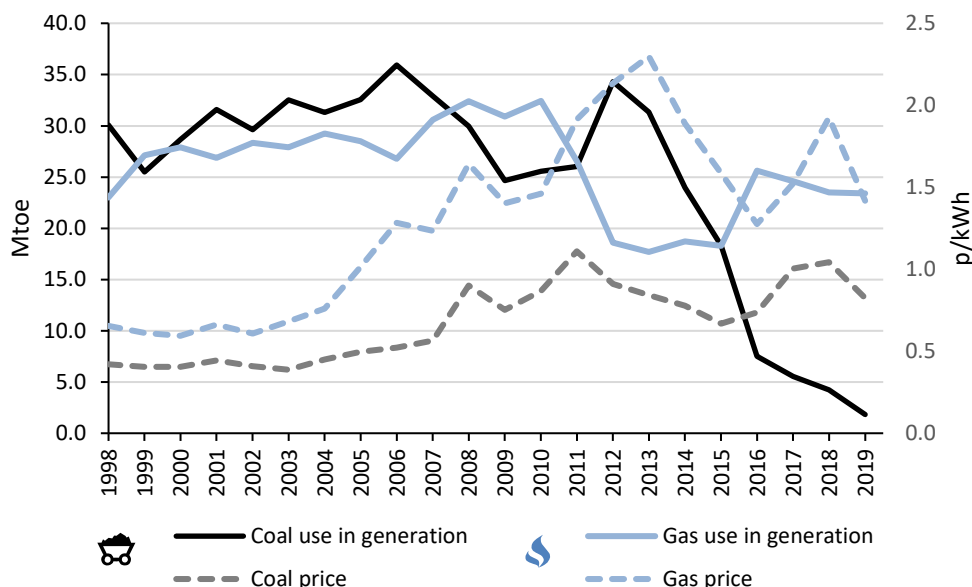
Since the start of 2020 and in the months to August, there were around 122 coal free generation days in the UK. Compared to the previous year, in Q3 2020 less coal (down 25 per cent) but more gas (up 13 per cent), was used in electricity generation despite fall in demand. The increase in gas use was to compensate for the fall in nuclear input, which was down by 20 per cent, due to outages at nuclear plants. Renewable sources in generation in Q3 2020 was up by 2.3 per cent.

In Q3 2020 total electricity generation fell by 1.5 per cent on the same quarter in the previous year as demand fell.

In terms of share of generation, in Q3 2020 gas remained the highest contributor and accounted for 41 per cent of the UK total electricity generation (2.9 percentage points higher than in the previous year), while coal's share was 0.7 per cent (0.3 percentage point lower to the previous year). Share of generation from renewables in Q3 2020 accounted for 40 per cent of the total generation (an increase of 0.9 percentage points on the previous year).

More detailed information on the volumes used in generation can be found in the Energy Trends tables (table ET 5.1 covers fuel used in electricity generation and electricity supplied) available [here](#).

Chart 3.4 Price paid by UK power producers for coal and natural gas – annual



Reference and link to tables:

[Table 3.2.1: Average price of fuels purchased by the major UK power producers](#)

Long term trends in fuels used by the major UK power producers

Prior to 2008, coal was the dominant fuel used in electricity generation. Between 2008 and 2011, gas overtook coal as the dominant fuel, but between 2012 and 2015 the relative prices of coal and gas meant that coal use increased once more at the expense of gas.

In 2013, gas fuelled generation fell to its lowest level since 1996 due to the high gas prices, but in 2014 gas fuelled generation increased by 5.3 per cent due to lower wholesale gas prices between June and August and in response to lower nuclear and coal output.

In 2015, gas use fell by 2.4 per cent while coal use fell by 23 per cent as a result of reduced coal capacity and an increase in the carbon price floor.

In 2016, the large fall in wholesale gas prices saw a 40 per cent increase in gas use. However, as a result of the increase in wholesale gas prices and in renewable sources in 2017 and 2018, gas use in generation fell. In 2019 despite the sharp fall of 42 per cent in wholesale gas price and the sharp fall of 26 per cent in the price of gas used at power stations, less gas was use in generation as demands were met by increased renewables sources and net imports.

Coal use has continued to fall since 2013 due to reduction in coal capacity, power station closures and increasing costs of generating from coal. In 2019, the UK recorded **83 days** of no coal use in generating electricity, almost four times as many as in 2018.

Short-term trends in fuels purchased by the major UK power producers

In 2019 **coal** prices for power generation, in **cash** terms, **decreased by 21 per cent** over the previous year while **gas** prices **decreased by 26 per cent**.

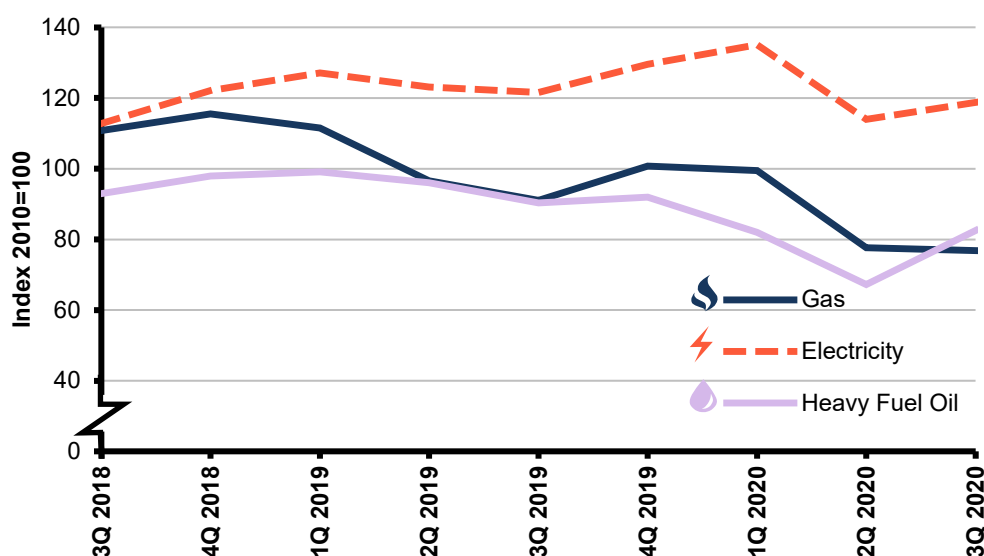
Gas prices in 2019 were 38 per cent lower than the peak of 2.3 pence per kWh seen in 2013 but 11 per cent higher than the low in 2016 (chart 3.4).

Over the past 5 years, the annual average **real** terms prices of **coal** have **decreased by 3.1 per cent** while natural **gas** used by the major power producers have **decreased by around 31 per cent**.

Fuel price indices for the industrial sector

Fuel price indices, both excluding and including the Climate Change Levy (CCL) in real and cash terms, are presented in Tables 3.3.1 and 3.3.2 for the wider industrial sector.

Chart 3.5 Industrial fuel price indices ⁽¹⁾ – quarterly



1. Data in real terms deflated using the GDP implied deflator at market prices. Prices include Climate Change Levy (CCL).

References and link to tables:

[Table 3.3.1 and 3.3.2: Fuel price indices for the industrial sector](#)

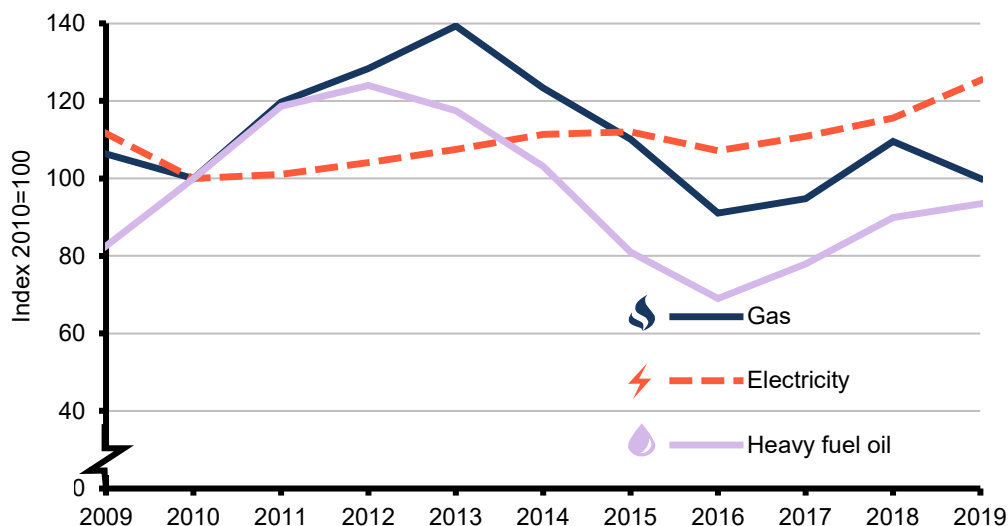
Recent trends in industrial fuel price indices by fuel type

As shown in Chart 3.5 between Q3 2019 and Q3 2020 the average industrial **electricity** prices including CCL were **2.3 per cent lower** in real terms, whilst industrial **gas** prices including CCL were **16 per cent lower**.

Over the same period the price of **coal** saw a real term **decrease of 9.1 per cent** while the price of **heavy fuel oil** (not subject to CCL) **decreased by 8.6 per cent**.

The inclusion of Climate Change Levy increases the average prices for coal by **5.2 per cent**, electricity by **5.5 per cent** and gas by **7.2 per cent** in Q3 2020 compared to the same quarter a year ago.

Chart 3.6 Industrial fuel price indices ⁽¹⁾ - annual



1. Data in real terms deflated using the GDP implied deflator at market prices. Prices include Climate Change Levy (CCL).

References and link to tables:

[Table 3.3.1 and 3.3.2: Fuel price indices for the industrial sector](#)

Long term trends in industrial fuel price indices by fuel type

In most recent years, fuel prices in the industrial sector, in real term, have risen and in 2019 **total fuel** prices (including CCL) were **5.6 per cent higher** than in the previous year and was the highest for over a decade.

The annual average price of **heavy fuel oil** over the five years to 2019 has decreased by 9.3 per cent in real terms. But in 2019 the average price of heavy fuel oil has increased by 3.9 per cent compared to the previous year.

The annual average price of **gas**, including CCL, fell by 19 per cent in real terms over the past five years, and decreased by 8.8 per cent on the previous year.

However, the annual average price of **electricity**, including CCL, has risen by 13 per cent in real terms over the past five years and by 8.4 per cent on the previous year.

Electricity and gas prices for the non-domestic sector in the UK

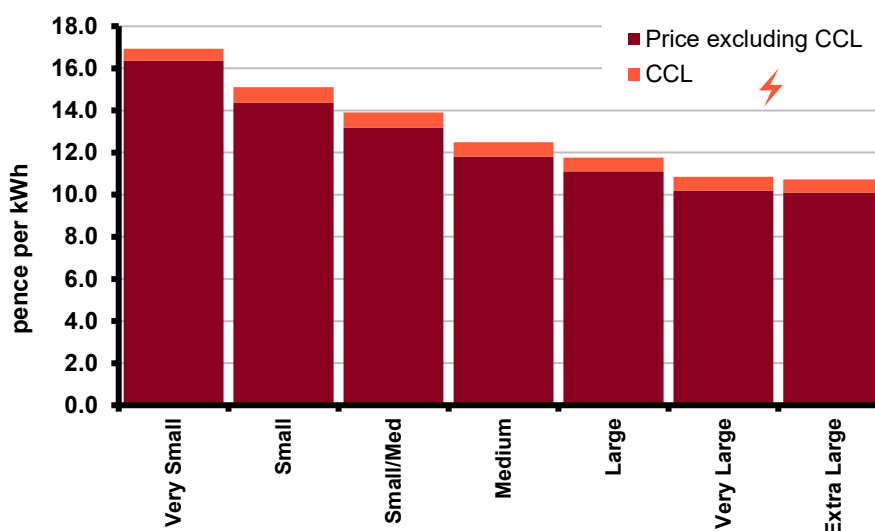
This section presents electricity and gas prices data in the non-domestic sector which **excludes** prices paid by households and generally **comprises** the industry sector (manufacturing, energy for example) and the commercial sector (services, retails for example).

Gas and electricity prices in the non-domestic sector, both including and excluding CCL, for various sizes of consumer are presented in [Tables 3.4.1 and 3.4.2](#).

Electricity size bands are defined in terms of approximate annual purchases by consumers:

Consumption Band	Consumption (in MWh)
Very Small	0 - 20
Small	20 - 499
Small/Medium	500 - 1,999
Medium	2,000 - 19,999
Large	20,000 - 69,999
Very Large	70,000 - 150,000
Extra Large	> 150,000

Chart 3.7 UK non-domestic electricity prices Q3 2020



Reference and link to tables:

[Table 3.4.1 and 3.4.2: Price of fuels purchased by non-domestic consumers in the UK excluding and including CCL](#)

Chart 3.7 shows the **electricity** prices in the non-domestic sector by size bands in Q3 2020. Between Q3 2019 and Q3 2020, the average electricity price in cash terms **excluding CCL** in the non-domestic sector **rose by 2.6 per cent**.

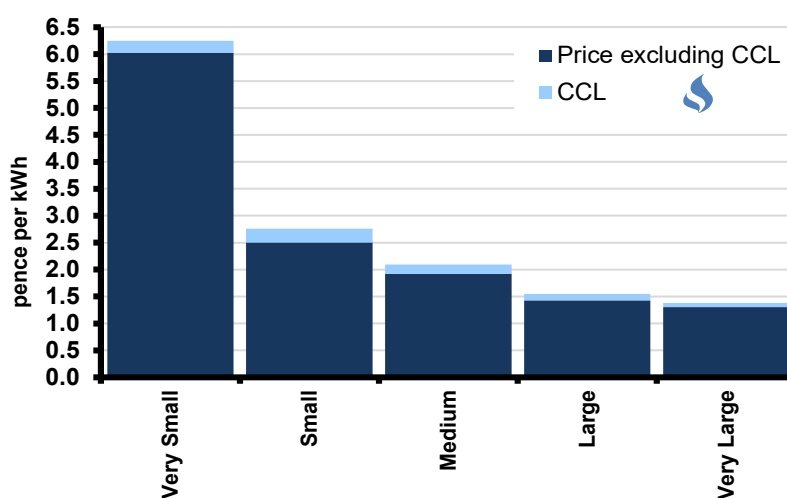
Prices for all the consumer bands increased over the same period, with increases **ranging from 1.5 per cent in Very Small band to 6.6 per cent in the Small/Medium band**. The Medium band and Large band increased by 3.1 and 2.4 per cent respectively.

Since the second quarter of 2011 and despite the recent falls, average electricity prices in the non-domestic sector, **including CCL**, have been on a general upward trend. In Q3 2020 the average price of **electricity** including CCL in the non-domestic sector was **2.1 per cent higher** than in the previous year. In Q3 2020, the inclusion of CCL increased the average price of electricity in the non-domestic sector by 5.6 per cent and by between 3.5 per cent to 6.3 per cent for the various consumer bands.

Gas size bands are defined in terms of approximate annual purchases by consumers:

Consumption Band	Consumption (in MWh)
Very Small	<278
Small	278 - 2,777
Medium	2,778 - 27,777
Large	27,778 - 277,777
Very Large	277,778 - 1,111,112

Chart 3.8 UK non-domestic gas prices Q3 2020



Reference and links to tables:

[Table 3.4.1 and 3.4.2: Price of fuels purchased by non-domestic consumers in the UK excluding and including CCL](#)

Chart 3.8 shows the gas prices in the non-domestic sector by size band in Q3 2020. Between Q3 2019 and Q3 2020, the average **gas** price in cash terms **excluding CCL** in the non-domestic sector **fell by 8.6 per cent**.

Apart from the Very Small band, prices for all the consumer bands fell between Q3 2019 and Q3 2020, with a fall of 3.8 per cent in the Very Large band to a fall 14 per cent in the Large band.

Average gas prices, including CCL, fell at a steady pace from the high reached in Q1 2014 to a low of 2.07 pence per kWh in Q4 2017 before rising again at a slow pace. In Q3 2020 the average gas price including CCL in the non-domestic sector stood at just over 2.2 pence per kWh.

The average **gas** price **including** the climate change levy **fell by 7.2 per cent** between Q3 2019 and Q3 2020. In Q3 2020, the inclusion of CCL increases the average price of gas in the non-domestic sector by 7.2 per cent and by between 3.6 to 10 per cent for the various other consumer bands.

Oil and Petroleum Product Prices

This section presents information on oil and petroleum products prices paid in the United Kingdom. The petroleum products referred to in this section are unleaded petrol, diesel, burning oil and gas oil.

Diesel and unleaded petrol comprise what are referred to as road fuels. Together these account for the majority of fuels used in the transport sector with aviation fuel, biofuels and some gas oil making up most of the remainder.

This section focuses on the average ‘forecourt’ or ‘pump’ prices for unleaded petrol and diesel. Other derivatives of oil products are presented as their average wholesale prices.

ULSP Ultra-Low-Sulphur Petrol. This is the specific grade of petrol that is commonly used on forecourts across the UK. It is the standard for petrol used when referring to ‘unleaded petrol’ in this release.

ULSD Ultra-Low-Sulphur Diesel. This is the grade of diesel product used on forecourts in the UK. Wherever **DERV** or **Diesel-Engine Road Vehicles** is used in this release, it is referred to this standard for diesel.

Details on the duty and value added tax (VAT) components of the average price figures for unleaded petrol and diesel are also outlined in this section.

Retail prices of petroleum products (for example unleaded and super unleaded petrol, diesel, burning oil and gas oil) along with an index of prices paid by UK refineries for the crude oil used to produce these petroleum by-products are covered in this publication.

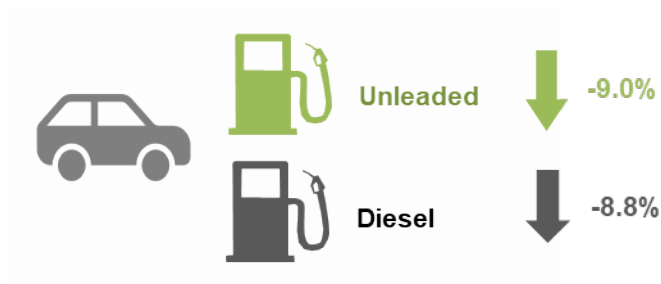
Oil and Petroleum Data: all underlying petroleum and oil data and other related publications can be found on GOV.UK here:
www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices

In addition to the summary in this publication, average road fuel **prices** are also published in the **Weekly Road Fuel Prices** publication and are available at: www.gov.uk/government/statistical-data-sets/oil-and-petroleum-products-weekly-statistics. Also, average **Weekly Road Fuels Sales and Stock Levels at Forecourts** (experimental) are available at <https://www.gov.uk/government/statistics/oil-and-oil-products-section-3-energy-trends>

Highlights and Headline Figures

The average annual price of **unleaded petrol** in 2019, including taxes and duty, fell slightly **by 0.3 per cent** on 2018 while that of **diesel** increased **by 1.1 per cent**. (Tables 4.1.1 and 4.1.2)

The provisional average retail (pump) price of petrol in the first half of December 2020 was **113.2 pence per litre** which was **just over 9 per cent lower** than that a year ago and the average retail diesel price at **118.0 pence per litre** was **8.8 per cent lower** compared to December 2019. (Tables 4.1.1 and 4.1.2)



The price of crude oil purchased by UK refineries, in pound sterling (£) terms, in November 2020 was **36 per cent lower** than a year ago, just over **1.0 per cent higher** than the previous month and **62 per cent higher** than the recent low seen in April 2020.

Crude oil prices

Movements in the price of crude oil can affect the prices of the various refined petroleum products and therefore impact on the domestic and industrial fuels.

Over the years, several factors have affected the prices of crude oil, for example: oil shortages (1973), over-supply and weak demand (1998), hurricanes (2005), the global recession (2008-9), geopolitical tensions (2008 onwards) and more recently the Coronavirus pandemic effects on global demands.

Crude oil is the raw material processed at refineries to produce various petroleum products. They vary in colour, composition and consistency. The economic value of crude oil increases as its API gravity (a measure of its density) increases and its sulphur content decreases.

Recent trends in Crude Oil Prices

Tables 4.1.1 and 4.1.2 contains index price for crude oil that can be used to explain growth in the prices of petroleum products.

The OPEC+ group production cuts of 1.2 million barrels per day (bpd), agreed at their 175th meeting in December 2018, came into effect in January 2019. The larger share of the cut came from the OPEC group (excluding Iran, Venezuela and Libya) with the rest from the Non-OPEC group including Russia.

The reduction was set for an initial period of six months but following a review at the 176th OPEC meeting on the 1st of July 2019, cuts to supply were extended until 2020. At their

177th meeting on December 5th 2019 in Vienna, the OPEC+ group agreed to cut their output production by a further half a million barrel per day from early 2020.

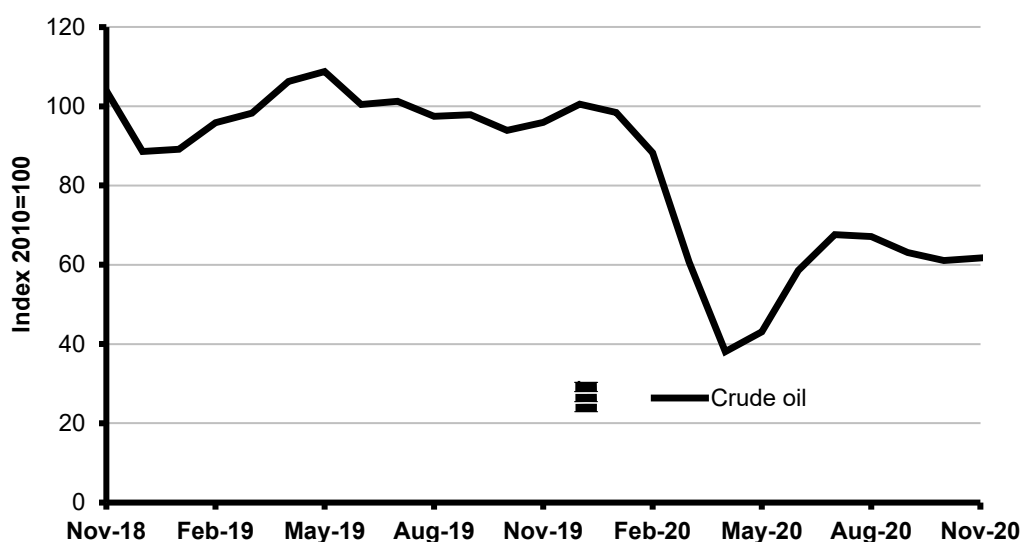
At their meeting in Vienna at the beginning of March 2020 OPEC failed to agree to an extension to output cuts by another 1.5 million barrels per day to offset the economic impact of COVID-19. Crude oil prices in Q1 2020 were **19 per cent lower** on the previous quarter.

In April 2020 OPEC+ agreed to cut production by 10 per cent to counter fall in demand due to lockdowns in response to COVID-19. The agreed cuts to supply were by 10 million barrels per day in May and June 2020. Easing to 8 million barrels per day between July to December 2020. This is intended to continue to 6 million barrels per day in January 2021 to April 2022. OPEC+ met again on June 2020 and agreed to extend the production cut of 10 million barrels per day to July 2020 as well. At their December 2020 meeting, OPEC+ agreed to ease production cuts to 7.2 million barrels per day from January 2021 and the organisation has agreed to continue assessing market conditions to make further decisions on production cuts from January 2021.

In Q2 2020 with demand continuing to be affected by the pandemic, crude oil prices fell significantly and were **38 per cent lower** on the previous quarter and **54 per cent lower** than in the previous year. In Q3 2020, however crude oil prices were **36 per cent higher** than in the previous quarter, following some easing on restrictions in response to the COVID-19 pandemic, but still **31 per cent lower** than in the previous year.

Brent prices (in dollar terms) increased steadily between January and April 2019 but fell at a slow pace until August, remaining broadly level around an average of \$61 per barrel till November before rising to just below an average of \$66 in December 2019. Since January 2020 prices have fallen largely due to the Coronavirus pandemic affecting demand, reaching a low of \$23 per barrel in April 2020, the lowest for over ten years. Brent prices then gradually increased to \$44 in August but in September at \$41 per barrel, Brent prices were 7.2 per cent lower on the previous month on account of Covid-19 rebound in several countries and fuel demands struggling and were 34 per cent lower on the previous year.

Chart 4.1 Monthly index⁽¹⁾ of crude oil prices acquired at refineries



1. The index represents the monthly average price paid by refineries, calculated in pound Sterling on a cost, insurance, freight (cif) basis, see Annex A.

Reference and link to tables:

[Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index](#)

Chart 4.1 shows the price indices of crude oil acquired by UK refineries over the past two years. Since the beginning of the year demand at refineries have been largely affected by the Coronavirus pandemic which has also driven prices down, reaching a low in April 2020 before rising again in recent months. The latest available crude oil price index is for November 2020 when the price index was **36 per cent lower** than that of a year ago, and **60 per cent below** that in March 2012, which was the highest level since our record began in 1991. This release does not provide comments on the most recent events on oil and on price changes for this month.

Long term trends in Crude Oil Prices

The annual crude oil price index for 2019 was **4.9 per cent** lower than 2018 and **28 per cent lower** than the high of 2012. Over the past five years (2014-2019) the average index price of crude oil acquired by refineries has decreased by **16 per cent**.

Timeline showing key events and trends in crude oil prices

Prices of most fuels broadly follow the trends in prices of crude oil. Because of the time it takes to refine crude oil and produce the derivatives, the effects are essentially 'lagged' by 1-2 months before they appear in the trends. Below is a timeline of some of the recent key events that have affected crude oil prices.

2012	Prices reach their most recent peak the highest in over a decade Prices around \$112 per barrel
2018	Geopolitical tensions lead to increases in crude oil prices, up 31 per cent on 2017 Prices at just above \$71 per barrel
Q1 2019	OPEC+ output cut by 1.2m barrels per day came into effect in January 2019. US imposing sanctions on Venezuela oil.
Q2 2019	Increased tensions in the Middle East. Oil tankers attacked in the Gulf of Oman. Oil prices up 8.5 per cent on the previous quarter
Q3 2019	Further tensions in the Middle East (e.g. Iran seized British tanker, drone attacks on Saudi Arabia oil facilities in September 2019 temporarily reducing global output by 5 per cent, Iran threats in the Strait of Hormuz). OPEC+ group at their meeting in July 2019 agreed to extend cuts to supply till 2020.
Q4 2019	US-China trade war generally affecting oil prices. At their meeting in December 2019 OPEC+ agreed to extend output cuts by a further half a million barrels per day from early 2020. Oil prices up 1.2 per cent on the previous quarter but down 7.6 per cent on the previous year.
2019	Oil prices fell 10 per cent to around \$64 per barrel despite sanctions, supply cuts and geopolitical tensions in the Middle East
Q1 2020	From the start of the year Coronavirus began to spread worldwide affecting oil demand and oil prices. As the world went into lockdown In March 2020, crude oil prices fell significantly by 40 per cent on the previous month to \$33 a barrel. In the UK the lockdown measure became effective on the 23 rd March 2020.
Q2 2020	Brent prices fell to a low of \$23 per barrel in April 2020 but rose significantly in May and in June as lockdown measure began to ease.
Q3 2020	Brent prices reached \$43 despite demand struggling under Covid-19 uncertainties and were up by 36 per cent on the previous month. However, prices were 31 per cent lower than in the previous year.

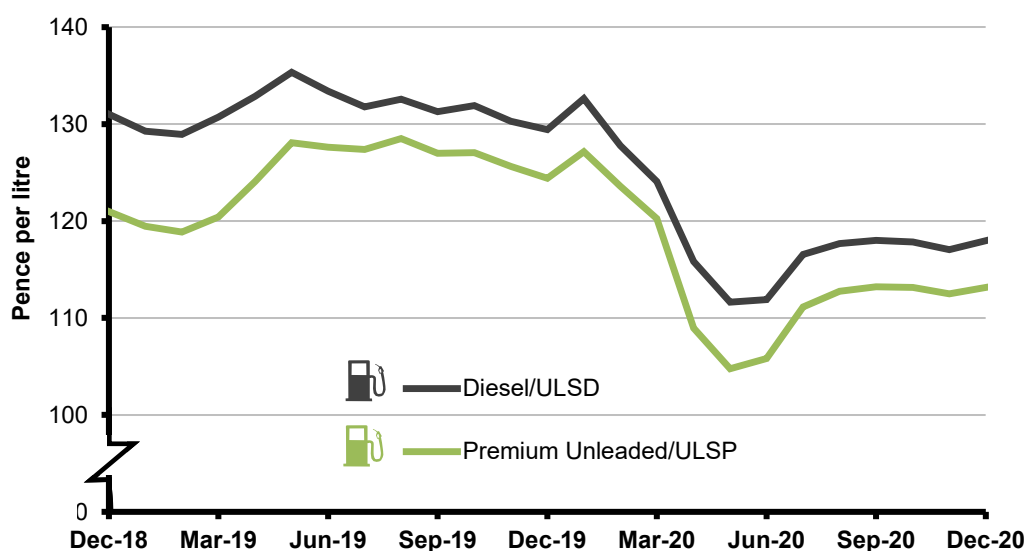
Retail prices of petroleum products

Prices of **unleaded petrol (ULSP)** and **diesel (ULSD)** peaked in April 2012, mainly due to the cost of crude oil. Relative to those peaks, petrol price in December 2020 was **29 pence lower** and the diesel price was **30 pence lower**.

On account of the Covid pandemic spread from the beginning of 2020 resulting in lockdown measures affecting movements on the roads, both unleaded petrol and diesel prices have fallen in the first half of 2020 with **unleaded petrol reaching a low of 104.8 pence per litre (down 18 per cent)** and **diesel a low of 111.6 pence per litre (down 16 per cent)** in May 2020. Prices have since increased and remained broadly level in recent months. From the low in May 2020, in December 2020 unleaded petrol was **8 per cent higher** and diesel was **5.7 per cent higher**.

Prices of petroleum products are also affected by duty rate changes (as listed in Annex C) and by changes in the general rate of VAT.

Chart 4.2 Retail prices of motor spirits – Monthly



Reference and link to tables:

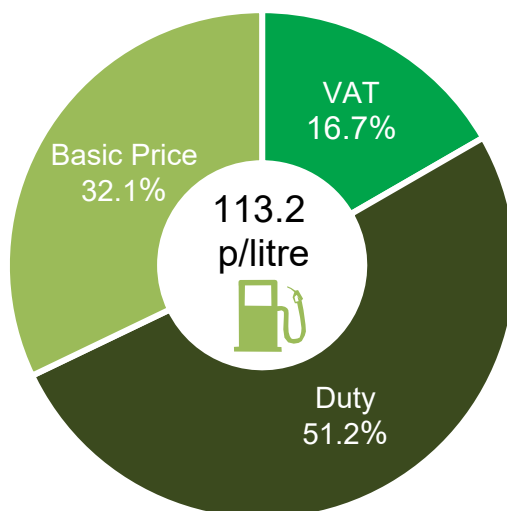
[Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index](#)

Prices of petroleum products, including road fuels, are presented in [Tables 4.1.1 to 4.1.3](#).

Chart 4.2 shows that, in the first half of December 2020, a litre of ULSP was on average **113.2 pence per litre**. This was 0.7 pence per litre higher than the previous month but 11 pence per litre (9 per cent) lower than a year ago.

The **ULSD** price was **118.0 pence per litre** which was 0.9 pence per litre higher than the previous month, but 11 pence per litre (8.8 per cent) lower than a year ago.

Chart 4.3 Component price of unleaded petrol, December 2020



1. Basic price is the price excluding VAT and duty

Reference and link to tables:

[Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index](#)

Chart 4.3 shows the components of the retail price of petrol in December 2020 when the basic price was **36.4 pence per litre**, duty at **58.0 pence per litre**, and VAT at 20 per cent of basic price plus duty (**18.9 pence per litre**).

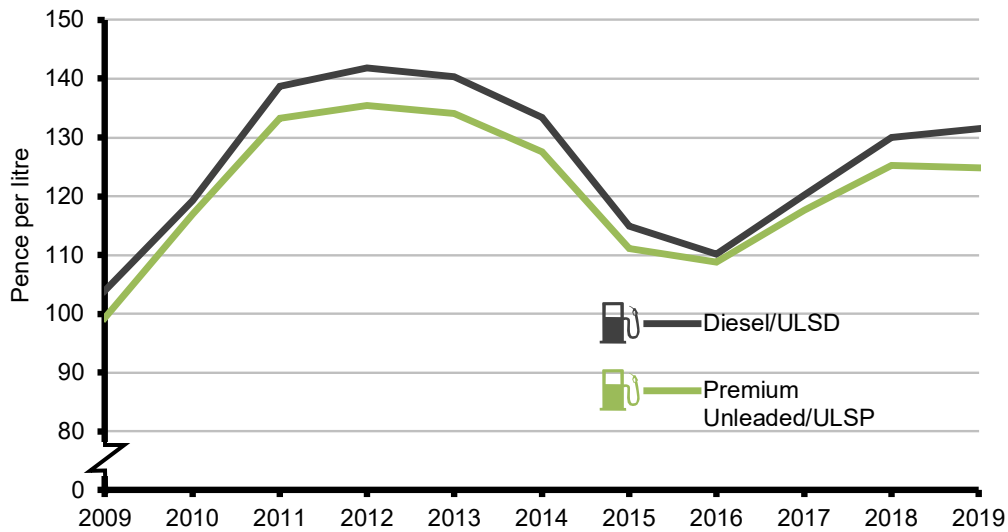
Relative to the peak in April 2012, the price of unleaded petrol, excluding tax and duty, in the first half of December 2020 was **40 per cent lower** and the price of diesel, excluding tax and duty, was **38 per cent lower**.

Motor fuel prices increased at a steady rate from the Gulf crisis in 1990/91 to 2000, mainly as a result of duty changes.

Since 2000, prices have followed oil prices, increasing rapidly in 2008, falling back in 2009, and then increasing once more in 2010 and 2011 before broadly levelling off in 2012 and 2013.

Prices fell in 2014 but more sharply in 2015 and though less so in 2016. Following the rises in 2017 and in 2018, prices for DERV in 2019 increased slightly while ULSP prices fell slightly along with the prices of crude acquired at refineries.

Chart 4.4 Retail prices of motor spirits - annual



Reference and link to tables:

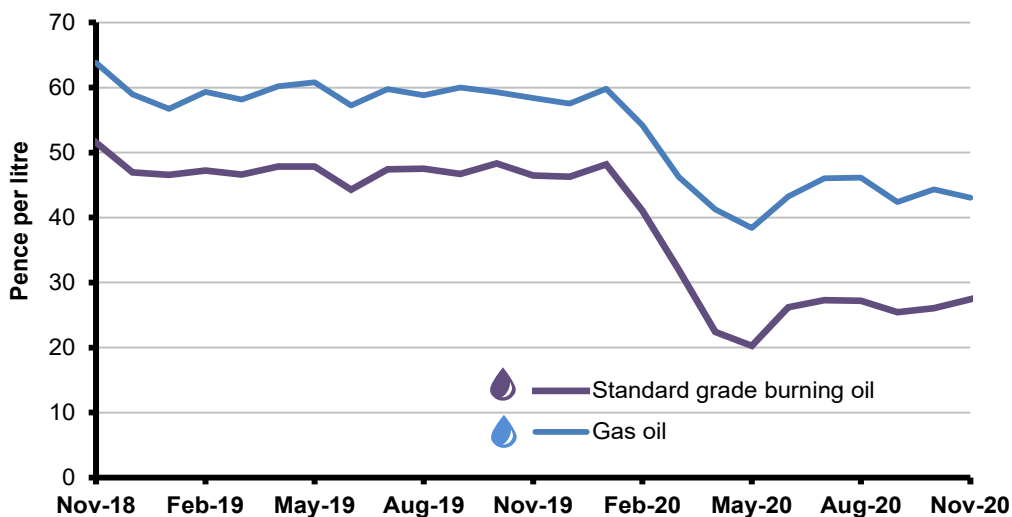
[Table 4.1.2: Typical monthly retail prices of petroleum products and a crude oil index](#)

Annual 2019 prices of ULSP and ULSD were lower than the record highs of 2012 by **7.8 per cent** and **7.3 per cent** respectively, as shown in Chart 4.4.

The differential between ULSP and ULSD in 2019 was **6.6 pence per litre**, a rise of 1.8 pence per litre on 2018.

Comparisons on how the UK petrol and diesel prices, including the relative proportions of taxes and levies to basic price, fare with the other European countries can be found in **Chapter 5**.

Chart 4.5 Retail prices of heating oil ⁽¹⁾ and gas oil



1. Heating oil is standard grade burning oil (SGBO)

Reference and link to tables:

[Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index](#)

Retail prices of heating oil such as standard grade burning oil (SGBO), and gas oil are more directly influenced by the price of crude oil rather than other petroleum products due to lower rates of duty and VAT.

The price of **SGBO** in November 2020 was **41 per cent lower** than a year ago (Chart 4.5) and **58 per cent lower** than the peak in February 2013

The price of **gas oil** in November 2020 was **26 per cent lower** than a year ago and **42 per cent lower** than the price in April 2012, which was the highest level on record which started in 1989.

International Comparisons

This section compares prices data for the United Kingdom with the European Union and the International Energy Association (IEA).

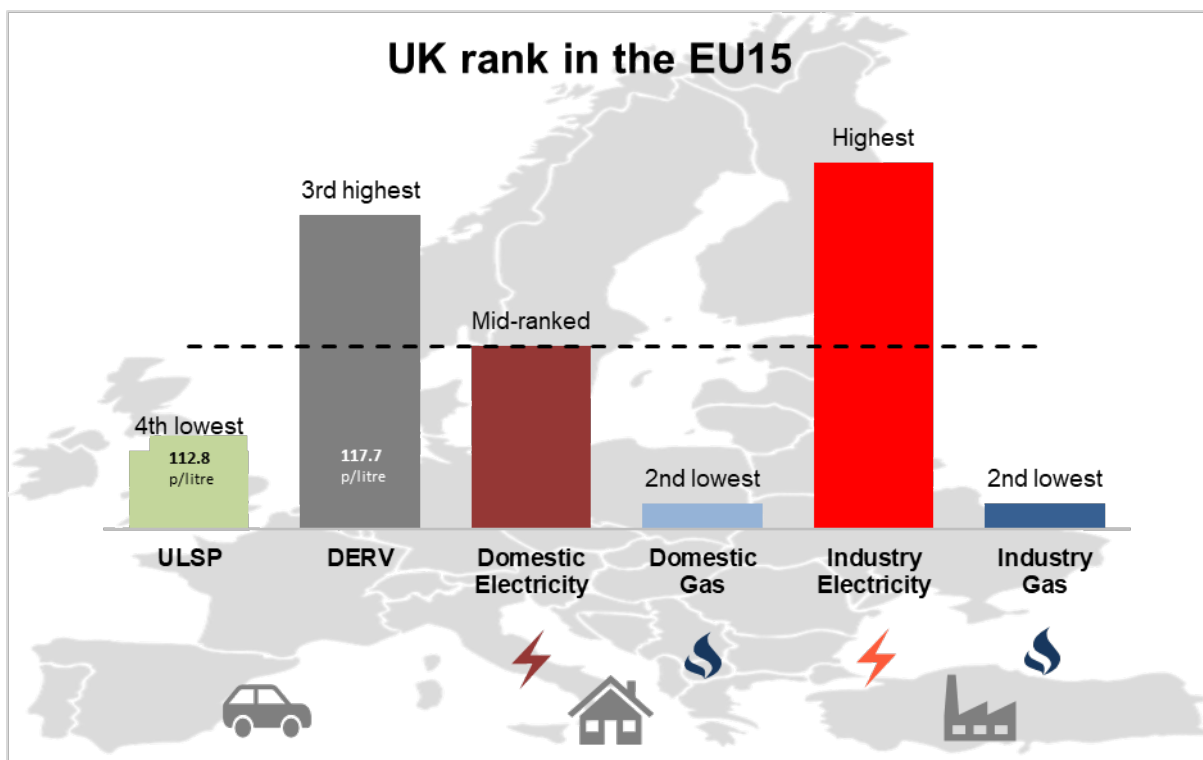
The Department provides both organisations with UK data throughout the year and data from other countries are used in this report to make consistent comparisons to highlight relative competitiveness.

International Data all the underlying international comparisons data and related publications can be found on GOV.UK here:

www.gov.uk/government/collections/international-energy-price-comparisons

Highlights and Headline Figures

This issue of the Quarterly Energy Prices provides comparisons of the prices paid for road fuels, electricity and gas by consumers in the UK focussing mainly on those countries within the EU15.



ULSP and DERV – November 2020
Domestic electricity and gas – January to June 2020
Industry electricity and gas – January to June 2020

Notes

International prices vary due to many reasons including differences in indigenous resources and market structures, global issues, varying exchange rates and inflation rates.

Unleaded petrol and diesel prices

Premium unleaded petrol prices

Chart 5.1 shows that in **November 2020** the **average UK unleaded petrol price**, including tax and duty, was **fifth lowest** in the EU15 at **112.5 pence per litre**.

Chart 5.1 Premium unleaded petrol prices, November 2020



Source: European Commission Oil Bulletin

Reference and link to tables:

[Table 5.1.1 and 5.2.1: Premium unleaded petrol prices in the EU](#)

When presented in a common currency basis the lowest price was in Austria at 93.5 pence per litre while the highest price was in the Netherlands at 137.3 pence per litre.

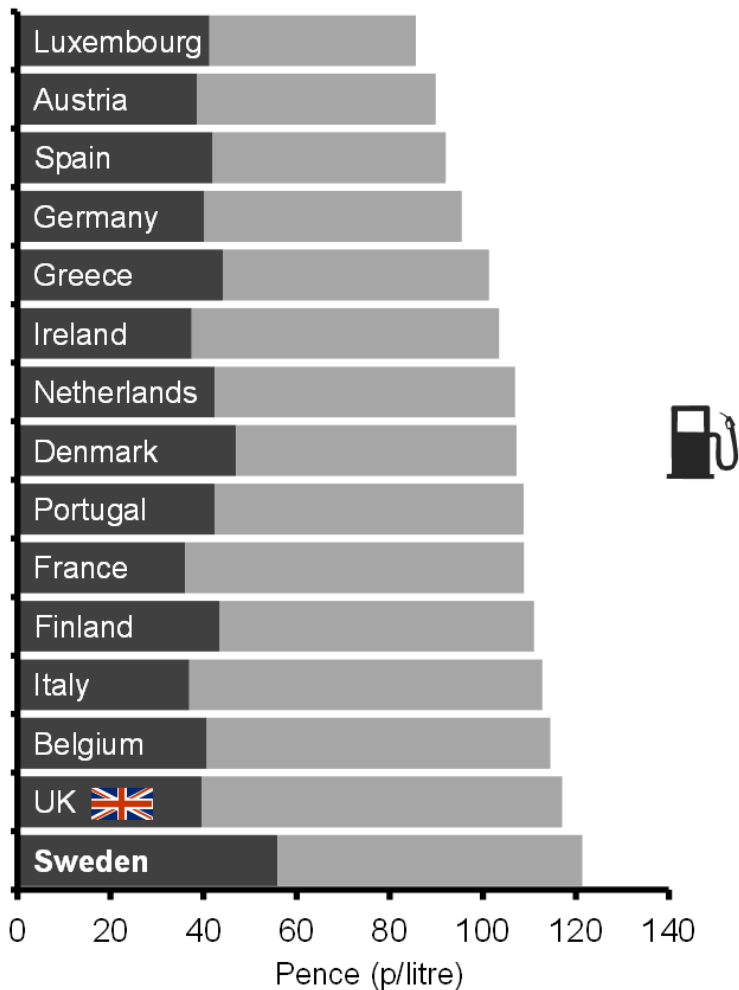
Excluding tax and duty, the average UK unleaded price was the **fourth lowest** in the EU15 at **35.8 pence per litre**. The highest price was in Denmark at 47.1 pence per litre.

Diesel prices

Chart 5.2 shows that in November 2020 the **average UK diesel price**, including tax and duty was the **second highest** in the EU15 at **117.0 pence per litre**.

The lowest price was in Luxembourg at 85.6 pence per litre while the highest was in Sweden at 121.4 pence per litre.

Chart 5.2 Diesel prices, November 2020



Source: European Commission Oil Bulletin

Reference and link to tables:

[Table 5.1.1 and 5.2.1: Premium unleaded petrol prices in the EU](#)

The high UK diesel prices are partly due to the taxes levied, which accounted for 66 per cent of the total price in November 2020. Luxembourg had the lowest proportion of total price as tax and duty at 52 per cent whilst Italy and France had a much higher proportion at 67 per cent.

Excluding tax and duty, the average UK diesel price was the **fifth lowest** in the EU15 at 39.6 pence per litre. The lowest was in France at 36.0 pence per litre while the highest price was in Sweden at 55.9 pence per litre.

Industrial electricity and gas prices

Prices for electricity and gas in this section and the related tables vary depending on the period covered (Eurostat generally provides data based on a 6-monthly basis but tables also provide annual estimates) and on the consumption level (by band size or an overall average).

Eurostat EU28 tables have more timely data on a 6-monthly ('semester') basis and reflect changes on a shorter timescale. These data can be found on the Eurostat website, published under the Energy section of the Energy & Environment theme in the Database here: <https://ec.europa.eu/eurostat/data/database>

The annual IEA tables allow comparisons on a broader level including with non-EU countries.

The data in this release always refers to a 'Medium' consumer (see the Annex for definitions) of each fuel type. Rankings will differ between the IEA and Eurostat tables as the charts only include actual data available at the time of publication. A line on the charts is included to represent the median price *including* taxes and levies.

Industrial electricity prices

Comparisons with EU Countries

Chart 5.3 shows the industrial electricity prices for the EU15 nations for the period January to June 2020.

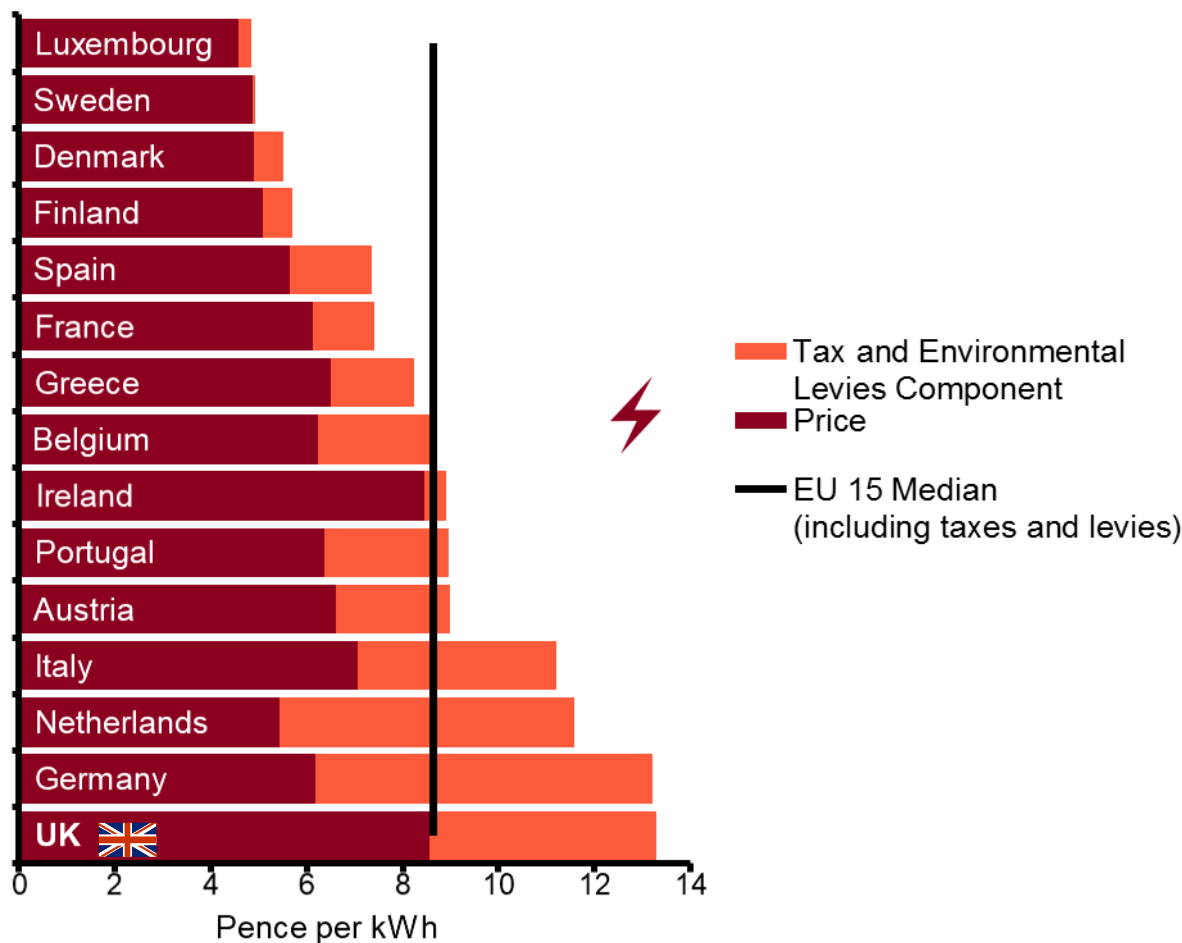
Average industrial electricity prices **including taxes** in the UK for medium consumers for the period January to June 2020 were the highest in the EU15 and were 54 per cent above the EU15 median of 8.6 pence per kWh.

The average industrial electricity prices **including taxes** rose in the UK and in half of the EU15 countries on the same period in 2019 for the medium consumers.

The UK price rose by 8.2 per cent, while the average price increase across the rest of the EU15 was just below 1.0 per cent. The largest increase was in the Netherlands by 58 per cent and the largest fall was in Luxembourg by 23 per cent.

The UK prices for medium consumers **excluding taxes** and levies were the highest in the EU15 and were 39 per cent above the median price of 6.2 pence per kWh.

Chart 5.3 Industrial electricity prices



Prices are for medium consumers in the EU15 for January to June 2020. Medium consumers are defined as having an annual consumption of 2,000 - 19,999 MWh per annum. Source: Eurostat Statistics in Focus electricity prices for EU Industry at: <http://ec.europa.eu/eurostat/data/database>

Reference and link to tables:
[Table 5.4.1: Industrial electricity prices in the EU](#)

Comparisons with other IEA Countries

In **2019**, average UK industrial electricity prices, including taxes, were the third highest in the IEA, third highest in the G7, and was 49 per cent above the IEA median price. UK industrial electricity prices were twice that in the US. The UK price increased by 11 per cent between 2018 and 2019.

Reference and link to tables:
[Table 5.3.1: Industrial electricity prices in the IEA including and excluding taxes](#)

Industrial gas prices

Comparisons with EU Countries

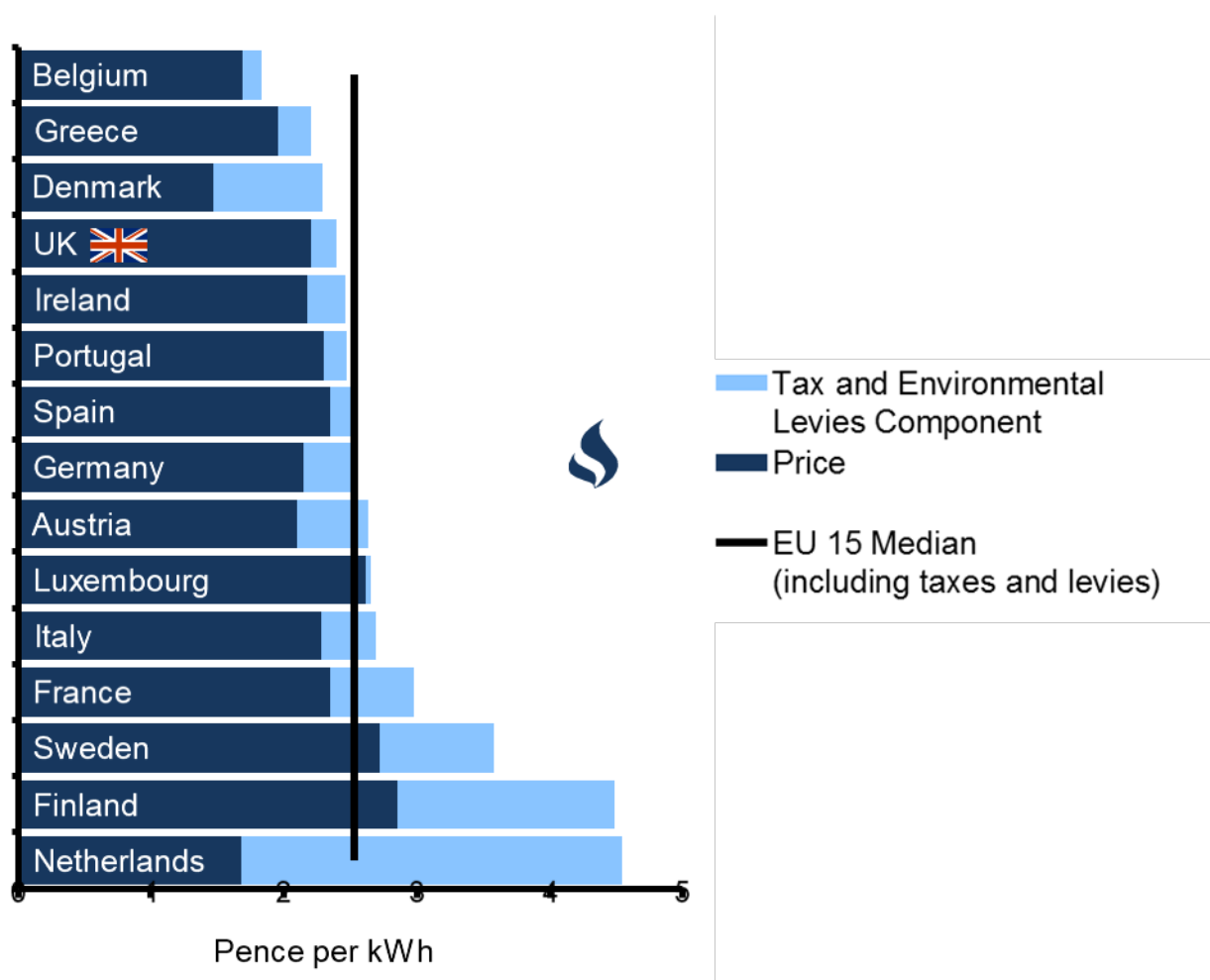
Chart 5.4 shows the average industrial gas prices for the EU15 nations for the period January to June 2020.

Average industrial gas prices for the period January to June 2020, **including taxes**, in the UK for medium consumers were the fourth lowest in the EU15 and were 5.2 per cent below the median price of 2.5 pence per kWh.

The average industrial gas price **including taxes** in the UK for medium consumers fell by 1.7 per cent on the same period in 2019. Across the rest of the EU15 the average price fall was 8.9 per cent. Industrial gas prices fell in all of the EU15, except for the Netherlands and Sweden where gas price rose by 35 per cent and 3.2 per cent respectively.

Prices **excluding taxes** for medium consumers in the UK were mid-ranked in the EU15.

Chart 5.4 Industrial gas prices



Prices are for medium consumers in the EU15 for January to June 2020

Medium consumers are defined as having an annual consumption of 2,778 – 27,777 MWh.

Source: Eurostat Statistics in Focus gas prices for EU Industry at: <http://ec.europa.eu/eurostat/data/database>

Reference and link to tables:

[Table 5.8.1: Average industrial gas prices in the EU](#)

Comparisons with other IEA Countries

In 2019, average UK industrial gas prices, including taxes where not refunded, were the ninth lowest in the IEA, third lowest in the G7, and were 11.4 per cent below the IEA median. UK industrial gas prices were just over twice that in the US.

Reference and link to tables:

[Table 5.7.1: Industrial gas prices in the IEA including and excluding taxes](#)

Domestic electricity and gas prices

Domestic electricity prices

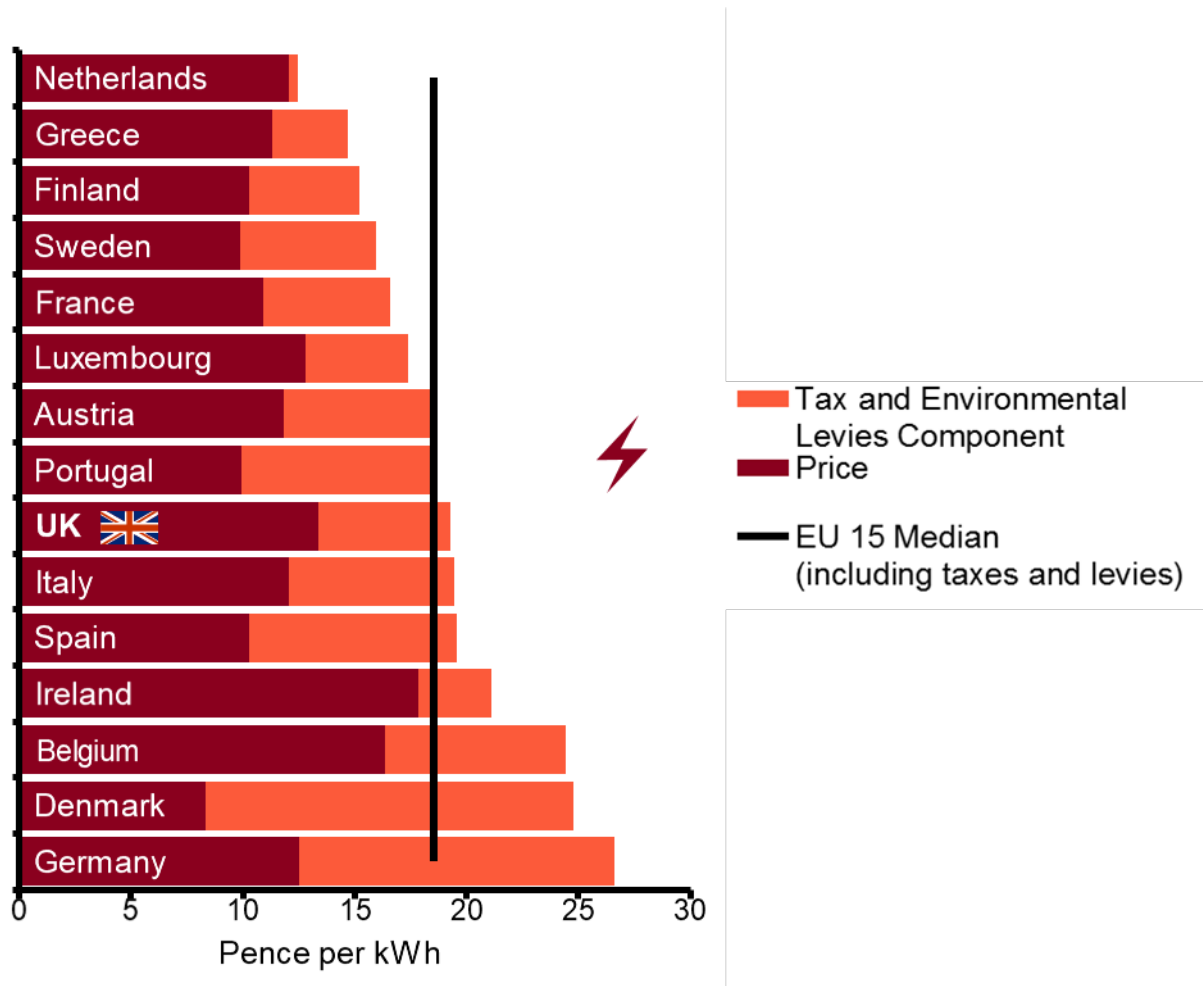
Comparisons with EU Countries

Chart 5.5 shows the domestic electricity prices for the EU15 nations for the period January to June 2020. The average domestic electricity price **including taxes** in the UK for medium consumers for the period January to June 2020 was seventh highest in the EU15 and was 3.9 per cent above the median price of 19.3 pence per kWh

The average domestic electricity prices **including taxes** fell in more half of the EU15 countries on the same period in 2019 with the largest fall in the Netherlands by 31 per cent and the largest rise in Luxembourg by 11 per cent. The UK price rose by 4.0 per cent, whilst the average price across the rest of the EU15 was down by 2.8 per cent.

The average UK price **excluding taxes** for medium consumers for the period January to June 2020 was the third highest in the EU15 and was 13 per cent above the median price of 11.8 pence per kWh.

Chart 5.5 Domestic electricity prices



Prices are for medium consumers in the EU15 for January to June 2020. Medium consumers are defined as having an annual consumption of 2,500 - 4,999 kWh per annum. Source: Eurostat Statistics in Focus electricity prices for EU households at: <http://ec.europa.eu/eurostat/data/database>

Reference and link to table:
[Table 5.6.1: Average domestic electricity prices in the EU](#)

Comparisons with other IEA Countries

In **2019**, average UK domestic electricity prices, including taxes, were the twelfth highest in the IEA, mid-ranked in the G7 and were 8.2 per cent higher than the IEA median. Compared to the USA, the UK domestic electricity prices were 68 per cent higher.

Reference and link to table:
[Table 5.5.1: Domestic electricity prices in the IEA including and excluding taxes.](#)

Domestic gas prices

Comparisons with EU Countries

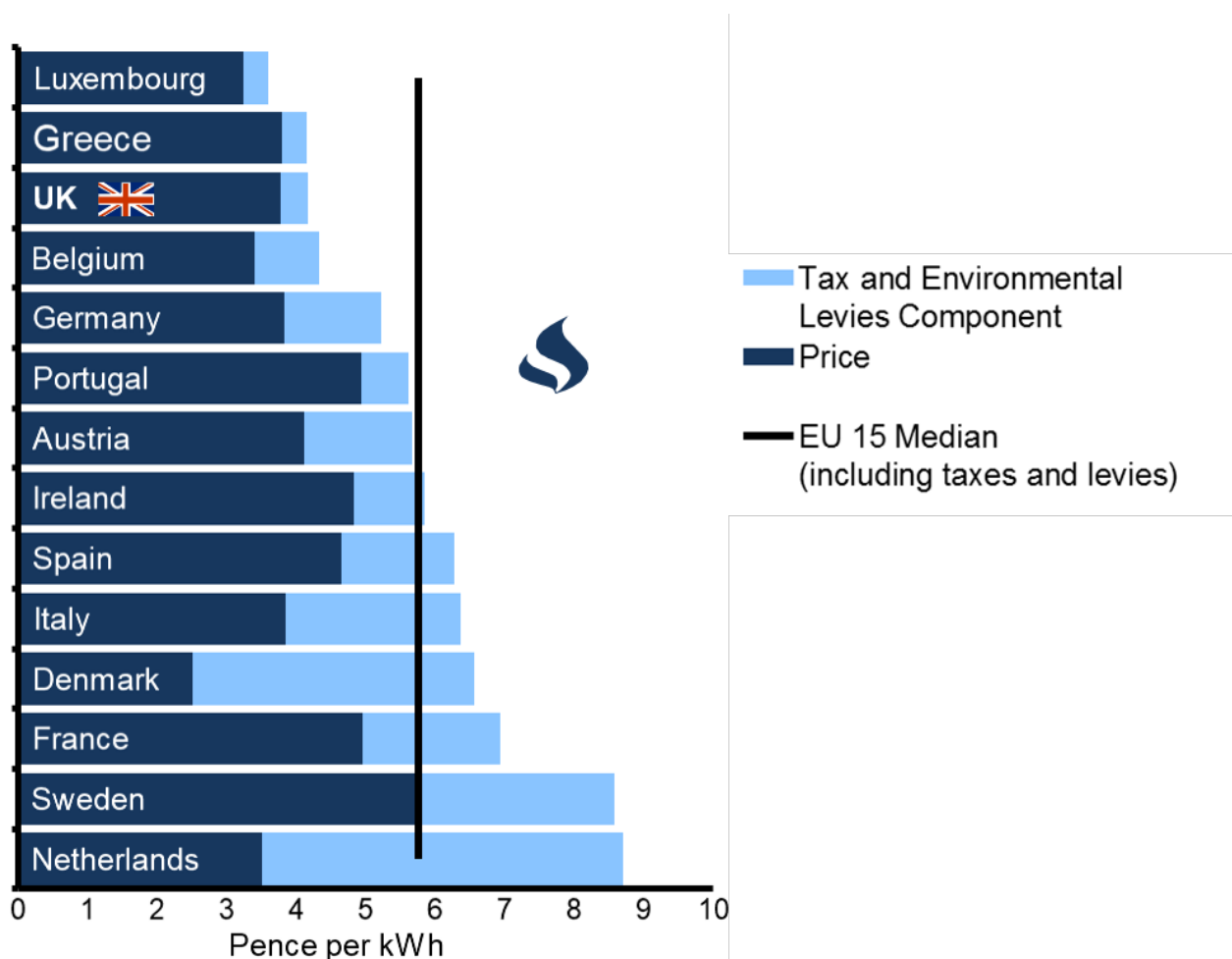
Chart 5.6 shows the domestic gas prices for the EU15 nations (with the exception of Finland where data are not available) for the period January to June 2020.

Average domestic gas prices, **including taxes**, in the UK for medium consumers for the period January to June 2020 were the third lowest in the EU15 and were 28 per cent lower than the median price of 5.8 pence per kWh.

The average domestic gas price **including taxes** in the UK for medium consumers fell by 3.3 per cent on the same period in 2019 and for the rest of the EU15 countries, prices fell by an average of 6.1 per cent. Prices fell in most of the other EU15 countries except for France and the Netherlands.

The UK price **excluding taxes** was the fifth lowest in the EU15 and was 1.9 per cent lower than the median price of 3.8 pence per kWh.

Chart 5.6 Domestic gas prices



Prices are for medium consumers in the EU15 for January to June 2020.

Medium consumers are defined as having an annual consumption of 5,557 – 55,556 kWh per annum.

Finland does not provide data to Eurostat for this series.

Source: Eurostat Statistics in Focus gas prices for EU households at: <http://ec.europa.eu/eurostat/data/database>

Reference and link to table:

[Table 5.10.1: Average domestic gas prices in the EU](#)

Comparisons with other IEA Countries

In **2019**, average UK domestic gas prices, including taxes where not refunded, were the eighth lowest in the IEA, third lowest in the G7, and were 26 per cent below the IEA median. Compared to the USA, the UK domestic gas prices were 60 per cent higher.

Reference and link to table:

[Table 5.9.1: Domestic gas prices in the EU15 and G7 countries including and excluding taxes](#)

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Accompanying tables

The following tables are available in Excel format on the department's [statistics website](#). Alongside this statistical bulletin, the department publishes data in monthly, quarterly and annual tables that form part of the wider Quarterly Energy Prices publication. The contents of these tables are detailed below and can be found by following the links.

Domestic

- Table 2.1.1: Consumer prices index UK: fuel components
- Table 2.1.2: Consumer prices index UK: fuel components, relative to GDP deflator
- Table 2.1.3: Consumer prices index UK: fuel components, monthly figures
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- Table 2.2.2: Average annual domestic electricity bills for UK countries
- Table 2.2.3: Average annual domestic standard electricity bills for UK regions with average unit costs
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- Table 2.3.5: Average annual domestic gas bills by payment type based on various consumption levels
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Table 5.3.1: Industrial electricity prices in the IEA

Table 5.4.1: Industrial electricity prices in the EU for small consumers, excluding tax

Table 5.4.1: Industrial electricity prices in the EU for small consumers, including tax

Table 5.4.2: Industrial electricity prices in the EU for medium consumers, excluding tax

Table 5.4.2: Industrial electricity prices in the EU for medium consumers, including tax

Table 5.4.3: Industrial electricity prices in the EU for large consumers, excluding tax

Table 5.4.3: Industrial electricity prices in the EU for large consumers, including tax

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Table 5.4.4: Industrial electricity prices in the EU for extra large consumers, including tax

Table 5.5.1: Domestic electricity prices in the IEA

Table 5.6.1: Domestic electricity prices in the EU for small consumers, excluding tax

Table 5.6.1: Domestic electricity prices in the EU for small consumers, including tax

Table 5.6.2: Domestic electricity prices in the EU for medium consumers, excluding tax

Table 5.6.2: Domestic electricity prices in the EU for medium consumers, including tax

Table 5.6.3: Domestic electricity prices in the EU for large consumers, excluding tax

Table 5.6.3: Domestic electricity prices in the EU for large consumers, including tax

Table 5.7.1: Industrial gas prices in the IEA

Table 5.8.1: Industrial gas prices in the EU for small consumers, excluding tax

Table 5.8.1: Industrial gas prices in the EU for small consumers, including tax

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Table 5.8.3: Industrial gas prices in the EU for large consumers, excluding tax

Table 5.8.3: Industrial gas prices in the EU for large consumers, including tax

Table 5.9.1: Domestic gas prices in the IEA

Table 5.10.1: Domestic gas prices in the EU for small consumers, excluding tax

Table 5.10.1: Domestic gas prices in the EU for small consumers, including tax

Table 5.10.2: Domestic gas prices in the EU for medium consumers, excluding tax

Table 5.10.2: Domestic gas prices in the EU for medium consumers, including tax

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Table 5.10.3: Domestic gas prices in the EU for large consumers, including tax

Update Timetable

Below are the update timetables for the four key areas covered in the Quarterly Energy Prices release. These underlying tables are published at various times of the year and sometimes outside of a quarterly National Statistics publication (which are published March, June, September and December each year).

Domestic Tables

Tables for the **Domestic energy prices** area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Domestic Energy Prices	Domestic energy price indices	Monthly	2.1.1	Consumer prices index: fuel components													
		Monthly	2.1.2	Consumer prices index: fuel components, relative to GDP deflator													
		Monthly	2.1.3	Consumer prices index: fuel components, monthly figures													
	Domestic Energy Bills Electricity	Annual	2.2.1	Average annual domestic electricity bills by home and non-home supplier			R										
		Annual	2.2.2	Average annual domestic electricity bills for UK countries			R										
		Annual	2.2.3	Average annual domestic standard electricity bills in 2017 for UK regions with average unit costs			R										
		Annual	2.2.4	Average variable unit costs and fixed costs for electricity for UK regions			R										
		Annual	2.2.5	Average annual domestic electricity bills by various consumption levels								R					
	Domestic Energy Bills Gas	Annual	2.3.1	Average annual domestic gas bills by home and non-home supplier			R										
		Annual	2.3.2	Average annual domestic gas bills for GB countries			R										
		Annual	2.3.3	Average annual domestic gas bills for GB regions with average unit costs			R										
		Annual	2.3.4	Average variable unit costs and fixed costs for gas for GB regions			R										
		Annual	2.3.5	Average annual domestic gas bills by various consumption levels									R				
	Customer numbers Electricity	Quarterly	2.4.1	Percentage of domestic electricity customers by region and supplier type													
		Quarterly	2.4.2	Regional variation of payment method for standard electricity													
		Quarterly	2.4.3	Regional variation of payment method for Economy 7 electricity													
	Customer numbers Gas	Quarterly	2.5.1	Percentage of domestic gas customers by region and supplier type													
		Quarterly	2.5.2	Regional variation of payment method for gas													
	Household Data	Annual	2.6.1	Total household expenditure on energy													
		Annual	2.6.2	Average expenditure each week on fuel per consuming household													
	Switch	Quarterly	2.7.1	Domestic energy switching statistics													

Industrial Tables

Tables for the **Industrial energy prices** area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Industrial Energy Prices	Manufacturing industry	Quarterly	3.1.1	Prices of fuels purchased by manufacturing industry in Great Britain (original units)													
		Quarterly	3.1.2	Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)													
		Annual	3.1.3	Annual Prices of fuels purchased by manufacturing industry in Great Britain (original units)							R						
		Annual	3.1.4	Annual Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)							R						
	Power Producer	Quarterly	3.2.1	Average prices of fuels purchased by the major UK power producers													
	Industrial energy price indices	Quarterly	3.3.1	Fuel price indices for the industrial sector in current terms excluding the Climate Change Levy													
		Quarterly	3.3.2	Fuel price indices for the industrial sector in current terms including the Climate Change Levy													
	Industrial Energy Bills	Quarterly	3.4.1	Prices of fuels purchased by non-domestic consumers in the UK excluding the Climate Change Levy													
		Quarterly	3.4.2	Prices of fuels purchased by non-domestic consumers in the UK including the Climate Change Levy													

Fuel Tables

Tables for the [Road fuel prices](#) area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Fuel Prices	Road Fuels and Petroleum Products	Monthly	4.1.1	Typical retail prices of petroleum products and a crude oil price index													
		Annual	4.1.2	Average annual retail prices of petroleum products and a crude oil price index	R												
		Annual	4.1.3	January prices of road fuels and petroleum products		R											

International Tables

Tables for the [International energy price comparisons](#) area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
International Prices	ULSP EU	Monthly	5.1.1	International road fuel prices Premium unleaded petrol prices in the EU													
	ULSD EU	Monthly	5.2.1	International road fuel prices Diesel prices in the EU													
	Ind. IEA Elec	Annual	5.3.1	Industrial electricity prices in the IEA													
	Industrial Prices EU Electricity	Biannual	5.4.1	Industrial electricity prices in the EU for small consumers (both excluding and including tax)													
		Biannual	5.4.2	Industrial electricity prices in the EU for medium consumers (both excluding and including tax)													
		Biannual	5.4.3	Industrial electricity prices in the EU for large consumers (both excluding and including tax)													
		Biannual	5.4.4	Industrial electricity prices in the EU for extra-large consumers (both excluding and including tax)													
	Dom. IEA Elec	Annual	5.5.1	Domestic electricity prices in the IEA													
	Domestic Prices EU Electricity	Biannual	5.6.1	Domestic electricity prices in the EU for small consumers (both excluding and including tax)													
		Biannual	5.6.2	Domestic electricity prices in the EU for medium consumers (both excluding and including tax)													
		Biannual	5.6.3	Domestic electricity prices in the EU for large consumers (both excluding and including tax)													
	Ind. IEA Gas	Annual	5.7.1	Industrial gas prices in the IEA													
	Industrial Prices EU Gas	Biannual	5.8.1	Industrial gas prices in the EU for small consumers (both excluding and including tax)													
		Biannual	5.8.2	Industrial gas prices in the EU for medium consumers (both excluding and including tax)													
		Biannual	5.8.3	Industrial gas prices in the EU for large consumers (both excluding and including tax)													
	Dom IEA Gas	Annual	5.9.1	Domestic gas prices in the IEA													
	Domestic Prices EU Gas	Biannual	5.10.1	Domestic gas prices in the EU for small consumers (both excluding and including tax)													
		Biannual	5.10.2	Domestic gas prices in the EU for medium consumers (both excluding and including tax)													
Biannual		5.10.3	Domestic gas prices in the EU for large consumers (both excluding and including tax)														

Key:

The colours on the timetable indicate the frequency and status of the data series:

Annual
Biannual
Quarterly
Monthly
R Revised

Technical information

Information in this publication is sourced from various surveys of the energy industry conducted by the Energy Prices Analysis team in the Department for Business, Energy and Industrial Strategy (BEIS).

- The domestic bills information is collected as part of the Domestic Fuels Inquiry which surveys key energy suppliers to provide a representative sample of the market.
- The majority of the non-domestic data are sourced from the Quarterly Fuels Inquiry return, run by ONS on behalf of BEIS. Data is also sourced from Ofgem, the ONS and other BEIS surveys.
- International comparisons data are sourced from the International Energy Association and European Union and include UK data provided by BEIS to those organisations.

Data presented in the tables are in cash terms unless noted otherwise. Real terms data are those from which the effects of inflation, as measured by the Gross Domestic Product (GDP) market prices deflator, have been removed. The [GDP deflator](#) provides an index of inflation for the whole economy and is applicable to domestic and industrial prices.

Further information on the data sources, processing methods, uses of and quality assurance of the data can be found in the associated Methodology documents:

[Domestic energy prices: data sources and methodology](#)

[Industrial price statistics: data sources and methodologies](#)

[International comparisons: data sources and methodologies](#)

[Road fuel price statistics: data sources and methodologies](#)

Changes to methodology

Please note: From March 2020, bills data has been presented with fixed annual consumption levels of 13,600 kWh for gas and 3,600 kWh for standard electricity (5,100 kWh for Economy 7 electricity) to allow comparisons over time of **actual price** changes, keeping change in consumption constant.

The new consumption levels were calculated using the [same methodology](#) as previously used in 2014. This takes weather adjusted consumption data for the United Kingdom from the [Digest of UK Energy Statistics \(DUKES\)](#) and calculates an average from this using customer numbers from the [Energy Consumption in the UK \(ECUK\)](#) publication.

If you have any queries, concerns or input to this change please contact:

energyprices.stats@beis.gov.uk

Further information

Future updates to these statistics

On Thursday 25 March 2021, the next issue of the Quarterly Energy Prices will be released. This will include data for the last quarter of 2020 and an update to the estimates for domestic energy bills for 2020. Underlying data tables will be released to the schedule outlined in the [Accompanying Tables](#) section.

Related statistics

Energy Trends

Energy Trends contains quarterly data on production and consumption of overall energy and of the individual fuels in the United Kingdom. Also includes data on foreign trade in fuels.

www.gov.uk/government/collections/energy-trends

Digest of UK Energy Statistics (DUKES)

Also available from The Stationery Office and can be ordered through Government Bookshops. DUKES contains annual data on production and consumption of overall energy and of the individual fuels in the United Kingdom. Also includes a commentary covering all the major aspects of energy and gives a comprehensive picture of energy production and use over the last five years with key series taken back to 1970.

www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

UK Energy in Brief

An annual publication summarising the latest statistics on energy production, consumption and prices in the United Kingdom. The figures are taken from the 'Digest of UK Energy Statistics'. Available at: www.gov.uk/government/collections/uk-energy-in-brief

Fuel Poverty Statistics

An annual publication outlining the number of households living in fuel poverty in England, with additional analysis of the composition of the fuel poor group and future projections of the number of households in fuel poverty. Available at:

www.gov.uk/government/collections/fuel-poverty-statistics

Revisions policy

The [BEIS statistical revisions policy](#) sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority [Code of Practice for Statistics](#).

Uses of these statistics

The data associated with this release is used in internal analysis to help form policy decisions and is also used by industry and the academic community to monitor trends in the prices market.

Currently the department has an obligation to provide processed data to the [European Union](#) (EU) and the [International Energy Association](#) (IEA). The data within and associated with this publication are also used to answer Parliamentary questions and Freedom of Information requests.

User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet their needs.

Comments on any issues relating to this statistical release are welcomed, please direct any suggestions about changes to the content or scope of this publication to William Nye (William.Nye@beis.gov.uk) or the wider team at energyprices.stats@beis.gov.uk

The BEIS statement on [statistical public engagement and data standards](#) sets out the department's commitments on public engagement and data standards as outlined by the [Code of Practice for Statistics](#).

National Statistics designation

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

Information in this release undergoes the level of quality checks expected of a [National Statistics](#) release. The full detail of the measure we take are in the associated [methodology documents](#).

The continued designation of these statistics as National Statistics was confirmed in September 2018 following a [compliance check](#) by the Office for Statistics Regulation. The statistics last underwent a [full assessment](#) against the [Code of Practice for Statistics](#) in June 2014.

Pre-release access to statistics

Some ministers and officials receive access to some key figures within these statistics up to 24 hours before release.

Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the [BEIS statement of compliance](#) with the Pre-Release Access to Official Statistics Order 2008.

Contact

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- Public enquiries: 0207 215 5073

This publication, including historical data, is available on the internet at:
www.gov.uk/government/collections/quarterly-energy-prices

Quarterly Energy Prices is prepared by the Energy Prices analysis team in BEIS:

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More information on BEIS energy publications is available on the BEIS website
www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics

Other Useful Websites

Ofgem

ofgem.gov.uk

HM Revenue and Customs

gov.uk/government/organisations/hm-revenue-customs

Office for National Statistics

ons.gov.uk

International Energy Agency

iea.org

Eurostat

ec.europa.eu/eurostat

UK Petroleum Industry Assoc.

ukpia.com

DEFRA

gov.uk/government/organisations/department-for-environment-food-rural-affairs

Annex A - Technical Notes

Tables 2.1.1 to 2.1.3

A1. The source of the prices in these tables is the Consumer Prices Index (CPI), published by the Office for National Statistics (ONS) and is the fuel components within the CPI. Table A1 below provides the weights within the total index, in parts per 1,000 of the fuel components. The CPI is calculated using prices collected on the second or third Tuesday of each month.

Table A1: Retail price index, fuel component weights

	All items	Domestic fuels	Solid fuels	Gas	Electricity	Liquid fuels	Motor fuels and oil
2000	1,000	33	1	13	17	2	38
2010	1,000	47	1	25	19	2	41
2011	1,000	44	1	22	19	2	43
2012	1,000	56	1	32	20	3	46
2013	1,000	48	1	26	19	2	40
2014	1,000	45	1	21	21	2	35
2015	1,000	42	1	20	20	1	34
2016	1,000	35	1	16	17	1	32
2017	1,000	34	1	15	17	1	33
2018	1,000	34	1	15	17	1	31
2019	1,000	31	1	12	17	1	30
2020	1,000	32	1	12	18	1	31

A2. Quarterly data are published three months in arrears. Any revised data are marked with an “r”. Annual data is published in the March edition of QEP. The real terms series in Table 2.1.2 are updated when the GDP deflator becomes available from ONS.

Table 2.1.1

A3. Solid fuels - Retail prices for the standard grade of household coal and for the smokeless fuel type grade for a boiler/room heater, obtained from local retailers in up to 146 areas throughout the United Kingdom.

A4. Gas – average of the major gas companies’ tariffs, plus butane gas.

A5. Electricity - average of the major electricity companies’ tariffs.

A6. Liquid fuels – Retail prices of domestic kerosene heating oil provided by retailers in up to 146 areas throughout the United Kingdom.

A7. Motor fuel and oil – Ultra-low sulphur petrol (ULSP), ultra-low sulphur diesel (ULSD) and motor oil - Retail prices of the different grades of motor spirit and engine oil obtained weekly from oil companies and supermarkets throughout the United Kingdom, with the weekly data averaged to produce a monthly figure.

Tables 2.2.1 to 2.5.2

A8. Tables 2.2.1 and 2.3.1 show the average annual bills split by fixed and variable tariffs and are experimental statistics. Fixed tariff - as the name implies - is the price of a tariff kept fixed for a set period of time. Variable tariffs, on the other hand, are tariffs that are not defined as fixed and include the 'standard' variable tariff as well as any other variable tariffs.

A9. Tables 2.2.4 and 2.3.4 are experimental statistics. They are used in the energy consumption model to calculate household notional energy bills for modelling fuel poverty level in England. These data are not suitable for calculating the average bills of low use consumers. The data reported are an average of the fixed and variable costs across the four quarters in the year. In the calculation, more weights are given to costs in Q1 and Q4, when it is assumed that more electricity and gas are consumed (and hence the price at this time should contribute more to the average). As a result these values should not be used to determine current average bills. For more information see the Fuel Poverty Methodology Handbook on the BEIS website at www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook

A10. Tables 2.2.3 and 2.3.3 show representative electricity and gas bills, by payment type, in each of the 15 Public Electricity Supply (PES) regions in the UK. The unit cost is the cost to the consumer per unit consumed and is calculated by dividing the bill amount by the number of units consumed (3,600 kWh for electricity, 13,600 kWh for gas). Data on regional electricity and gas bills from 2013 onwards are based on PES regions as opposed to selected towns and cities within the PES regions and the gas Local Distribution Zones (LDZ). This change has been made because most energy suppliers now charge for gas according to the PES area of a household. It is not possible to present historical data on gas bills in this way, as data for the previous years were collected differently. Table A2 maps the selected towns and cities to their corresponding gas LDZ and PES regions.

Table A2: Towns and cities by LDZ and PES area

	Gas LDZ	Electricity PES area
Aberdeen	Scotland	Northern Scotland
Belfast	n/a	Northern Ireland
Birmingham	West Midlands	West Midlands
Canterbury	South East	South East
Cardiff	Wales	South Wales
Edinburgh	Scotland	Southern Scotland
Ipswich	Eastern	Eastern
Leeds	North East	Yorkshire
Liverpool	North West	Merseyside & North Wales
London	London	London
Manchester	North West	North West
Newcastle	Northern	North East
Nottingham	East Midlands	East Midlands
Plymouth	South West	South West
Southampton	Southern	Southern

A11. Provisional annual data is published in the December edition of QEP, with final data published in March.

A12. Bills and unit costs are based on published prices and include standing charges where applicable. No allowances are made for introductory offers or non-cash benefits that may be available from new suppliers. Both electricity and gas bills and costs reflect the prices of all the suppliers in the survey. This basis is used for all the domestic bills and costs data in Tables 2.2.1 to 2.3.3. The bills shown relate to the total bill including VAT in cash terms received during the calendar year, for the tariff type shown, including all tariff changes and rebates. Averages are weighted by the number of domestic customers. An annual consumption of 3,600 kWh is used for electricity and 13,600 kWh for gas.

A13. The weighted average for all supplier gas bills is based on equivalent tariffs of British Gas and other gas supply companies. From 2007 onwards, due to a methodology change, the estimates are based on bills received during the calendar year. As part of this methodology change, it is now assumed that, of the 13,600 kWh of gas consumed per annum (see A8), 5,440 kWh are consumed in the first quarter, 2,720 kWh in the second quarter, 1,360 kWh in the third quarter and 4,080 kWh in the fourth.

A14. Tables 2.4.2, 2.4.3 and 2.5.2 show data for the 'Economy 7' tariffs, where a lower unit cost is applied to off-peak (night) consumption. Of the total consumption of 5,100 kWh, off-peak consumption has been considered as 2,550 kWh.

Table 2.6.1

A15. Household final consumption expenditure comprises household expenditure in the United Kingdom on the specified fuels and fuel purchases by foreign tourists. It excludes expenditure on fuels by businesses. VAT was levied on domestic fuels at 8 per cent in April 1994. It was then reduced to 5 per cent in September 1997 and is included in the table from 1994 onwards. For coal, coke and petroleum products it was assumed that all consumers paid VAT from the date of its introduction. For electricity and gas it was estimated that 5 per cent of electricity sales and 4 per cent of gas sales were covered by customers pre-paying their bills to avoid VAT in 1994 and 1995. Figures for total consumers' expenditure are also shown for comparison.

Due to reclassification of the Household Expenditure to conform to the European Systems of Accounts 1995 (ESA 95), the COICOP (Classification of Individual Consumption by Purpose) headings have been reviewed.

The following notes apply to Table 2.6.1:

A16. **Solid Fuels** – Household final consumption expenditure on these fuels is based on estimates of inland sales of solid fuels to domestic consumers. Expenditure in Northern Ireland is estimated based on values of colliery despatches of house coal to Northern Ireland.

A17. **Gas** - Personal consumption in the United Kingdom is taken as sales to domestic premises. Estimates of the quantity and value of liquid gases purchased by domestic consumers are provided by the petroleum industry. The average price used is the average revenue per kWh for the public supply sales of gas to domestic consumers.

A18. **Electricity** - Sales from the public electricity supply system to domestic consumers in the United Kingdom plus estimates of the domestic element included in sales to dual use premises. Sales are valued at the average revenue per unit for electricity sold to domestic consumers, which takes into account discounts and lump sum rebates.

A19. **Liquid fuels** (domestic heating and lighting oil) - For fuel oils and heating oils, information is available from the petroleum industry on quantities delivered to domestic consumers. The figures for domestic consumption are then valued using monthly prices collected from oil companies by the department.

A20. **Vehicle fuels and lubricants** (petrol, diesel, LPG, oil and lubricants, brake and other fluids, coolants) – Estimates of the quantity and value of lubricating oil purchased by domestic customers are provided by the petroleum industry. For motor spirit and diesel, estimates of business purchases of the fuels are made and deducted from the total deliveries in order to arrive at purchases by domestic consumers. The figures for domestic consumption are then valued using monthly prices collected by the department from oil companies.

Table 2.6.2

A21. Figures for Table 2.6.2 are taken from the Expenditure and Food Survey (EFS) conducted by the ONS. The figures are estimates based upon a representative sample of households. The averages in the table have been calculated based on those households consuming the fuels only, i.e. only those households who consumed the specified fuels are included in the calculation of the average expenditure. These estimates therefore differ from those published by the ONS in their "Family Spending" report, where the total of all households is used to calculate the average fuel expenditure. After the 1993 data publication, the survey moved to a financial year basis until 2005/06, but then returned to a calendar year basis from 2006 to 2014. However, from 2015, ONS returned back to reporting on a financial year basis as a result for 2015/16, Quarter 1 2015 is not reported in our tables. For ease of comparison, the data on expenditure of fuel as a proportion of total expenditure in Table 2.6.2 are based on all households and not just those consuming fuels.

Tables 3.1.1 to 3.1.4

A22. Prices in those tables are derived from information collected via the Quarterly Fuels Inquiry survey on fuel purchases from a panel of about 600 establishments within the manufacturing industry (excluding electricity generation). The panel consists of companies purchasing fuels in small to large quantities. To maximise the coverage on each fuel type and minimise the burden on business, larger users are surveyed proportionally more than smaller users.

A23. Provisional quarterly data is published three months in arrears, with final data published six months in arrears. Revised data are marked with an "r". Provisional annual data are published in the March edition of QEP, with final annual data published in June. The entire year's quarterly data is reviewed in June to ensure that each of the contributors who supply data have been allocated to the correct size band based upon their actual annual consumption. This means that there can be revisions made to data from Q1 to Q4 at this time.

A24. For each size of consumer, the average fuel price (exclusive of VAT) is calculated by dividing the total quantity of fuel purchased into their total value. The "all consumers average" price uses base weighting to weight the prices for each size band according to purchases by businesses in the size band recorded in the 1984 Purchases Inquiry (a large-scale survey conducted every 5 years until 1989 and conducted annually for a rotating selection of industries from 1994 to 1999). The weights are reviewed when more comprehensive up-to-date purchases data become available. The size bands for each fuel

are determined according to the approximate range of annual purchases covered (see Table A3).

A25. As described above the prices given are representative of market prices. This means that trades, which because of their size or dominance of total consumption, that would produce an unrepresentative price, are excluded. Coal purchased by the iron and steel sector is excluded, as is gas purchased for electricity generation.

A26. For some fuels, the relative size in volume terms of the largest users can result in the weighted average moving more towards the large user price. This is true for gas where, because of the growth in consumption, the weights provided by the 1984 purchases survey may be out of date. Therefore, for some fuels (e.g. gas and gas oil), the median price (the price at which 50 per cent of the prices paid are higher and 50 per cent lower) may be more appropriate than the average price.

A27. From Q1 2010 published coal prices are restricted to only average prices and prices for large consumers due to the small number of companies reporting data. Data for medium fuel oil, liquefied petroleum gases and hard coke were discontinued from Q1 2005, and there were no sub-divisions into size bands due to the small number of sites purchasing each of these fuels. The small sample sizes reflect the small overall consumption, relative to the major fuels covered, which meant that, although the prices were still representative, they could be subject to more sample effects than the other fuels (e.g. if a relatively large purchaser switches fuel).

A28. To enable coal prices to be calculated in common units, companies also record and report the calorific value of the coal they purchase. Conversion factors for fuel oil (both heavy and medium), gas oil, liquefied petroleum gas and hard coke are given in Annex B.

A29. The 10 per cent, median and 90 per cent deciles prices for each fuel are presented in addition to the prices for each size band. The 10 per cent decile is the point within the complete range of prices below which the lowest 10 per cent of those prices fall. Similarly, the 90 per cent decile is the point above which the highest 10 per cent of the prices occur. These values give some indication of the spread of prices paid by purchasers. The deciles and the median are calculated by giving equal "weight" to each purchaser but are scaled to represent the mix of fuel users by size in the industrial population using those represented by the panel. From Q1 2007, decile information is only published for gas and electricity.

Table A3: Range of annual purchases for the Quarterly Fuels Inquiry

Fuel	Large	Of which:		Medium	Small
	Greater than	Extra large	Moderately large	Less than	Less than
		Greater than			
Coal (tonnes)	7,600	..	..	760 to 7,600	760
Heavy fuel oil (tonnes)	4,900	..	..	490 to 4,900	490
Gas oil (tonnes)	175	..	..	35 to 175	35
Electricity (thousand kWh)	8,800	150,000	8,800 to 150,000	880 to 8,800	880
Gas(1) (thousand kWh)	8,800	..	..	1,500 to 8,800	1,500

⁽¹⁾ Respondents purchasing more than one type of supply (tariff, firm contract and interruptible contract) are treated as separate entities with respect to each type of supply.

Table 3.2.1

A30. The prices for fuels used in electricity generation are collected via a quarterly survey of electricity generators in the United Kingdom which covers companies that produce electricity from nuclear sources plus all companies whose prime purpose is the generation of electricity. The companies are: AES Electric Ltd., Centrica plc., Coryton Energy Company Ltd., Eggborough Power Ltd., E.On UK plc., Fellside Heat and Power Ltd., Fibrogen Ltd., Fibropower Ltd., Fibrothetford Ltd., International Power, Premier Power Ltd., Rocksavage Power Company Ltd., RWE Npower plc., Scottish Power plc., Scottish and Southern Energy plc., SELCHP Ltd., Spalding Energy Company Ltd.

A31. The data reported are the value and volume of fuel purchased during the quarter and may not always reflect the fuel actually used (i.e. there can be stocking and destocking, especially for coal). The prices reported are typically for long-term contracts, with price escalator factors, some of which may have already been implemented. As such, the prices can be higher than those paid by large industrial users who typically negotiate contracts each year.

A32. Provisional quarterly data is published three months in arrears, with final data published six months in arrears. Any revised data are marked with an "r". Provisional annual data for the most recent year is published in the March edition of QEP, with final data published in June.

Tables 3.3.1 and 3.3.2

A33. Data for these indices are taken from a number of sources: electricity data are taken from a monthly survey run by BEIS; gas data are taken from the monthly Producer Price Index (PPI) gas series created by BEIS; coal and heavy fuel oil data are taken from the Quarterly Fuels Inquiry (QFI) survey used to create Tables 3.1.1 – 3.1.4.

A34. Provisional quarterly data is published three months in arrears, with final data being published six months in arrears. Any revised data is marked with an "r". Provisional annual data is published in the March edition of QEP, with final data being published in June. The entire year's quarterly data for coal and HFO is reviewed in June to ensure that each of the

contributors who supply data to the Quarterly Fuels Inquiry have been placed in the correct size band based upon their annual consumption. This means that there can be revisions made to data from Q1 to Q4 at that time.

A35. The Climate Change Levy (CCL) came into effect in April 2001. The rates were increased in April 2007, 2008 and 2009 and then annually in April of each successive year since 2011. The rates are shown in Table A4.

Table A4: Climate Change Levy rates from April 2001

Period	Coal	Electricity	Gas	LPG
Apr-2001	£11.70/tonne	0.430 p/kWh	0.150 p/kWh	£9.60/tonne
Apr-2008	£12.42/tonne	0.456 p/kWh	0.159 p/kWh	£10.18/tonne
Apr-2009	£12.81/tonne	0.470 p/kWh	0.164 p/kWh	£10.50/tonne
Apr-2011	£13.21/tonne	0.485 p/kWh	0.169 p/kWh	£10.83/tonne
Apr-2012	£13.87/tonne	0.509 p/kWh	0.177 p/kWh	£11.37/tonne
Apr-2013	£14.29/tonne	0.524 p/kWh	0.182 p/kWh	£11.72/tonne
Apr-2014	£14.76/tonne	0.541 p/kWh	0.188 p/kWh	£12.10/tonne
Apr-2015	£15.12/tonne	0.554 p/kWh	0.193 p/kWh	£12.40/tonne
Apr-2016	£15.26/tonne	0.559 p/kWh	0.195 p/kWh	£12.51/tonne
Apr-2017	£15.51/tonne	0.568 p/kWh	0.198 p/kWh	£12.72/tonne
Apr-2018	£15.91/tonne	0.583 p/kWh	0.203 p/kWh	£13.04/tonne
Apr-2019	£26.53/tonne	0.847 p/kWh	0.339 p/kWh	£21.75/tonne
Apr-2020	£31.74/tonne	0.811 p/kWh	0.406 p/kWh	£21.75/tonne

Tables 3.4.1 and 3.4.2

A36. The prices for gas and electricity consumed by non-domestic users in the United Kingdom are collected via a quarterly inquiry of gas and electricity suppliers. The data reported are the value and volume of energy sold during the quarter in each of the size bands. The average price (excluding VAT) for each size band of consumer is obtained by dividing the total quantity of purchases for each fuel into their total value.

A37. The electricity and gas size bands shown in Tables 3.4.1 and 3.4.2 are defined in terms of the approximate annual purchases of the consumer band, as shown in Table A5. The size bands from Q1 2006 onwards differ slightly from those published previously as the average electricity price from Q1 2007 includes the Extra-Large size band. This has introduced a discontinuity in the averages for previous quarters' series. Also, some electricity size bands were renamed in Q1 2008 however, the consumptions remained unchanged.

Table A5: Range of annual purchases for the Price Transparency survey

		Annual consumption MWh			Annual consumption MWh
Electricity	Very Small	0 - 20	Gas	Very Small	<278
	Small	20 - 499		Small	278 – 2,777
	Small/Medium	500 - 1,999		Medium	2,778 – 27,777
	Medium	2,000 - 19,999		Large	27,778 – 277,777
	Large	20,000 - 69,999		Very Large	277,778 – 1,111,112
	Very Large	70,000 – 150,000			
	Extra Large	>150,000			

A38. Quarterly data are combined to produce annual average prices by size band which are also published within the table spreadsheet.

Tables 4.1.1 to 4.1.3

A39. The data published are national average prices calculated using prices supplied by all major motor fuel marketing companies. Prior to 1977 prices data were collated from a variety of sources, mainly the published wholesale prices of the oil companies to which retailers' margins were added. The results of various consumers' surveys were also taken into consideration in arriving at a typical price. From January 1995 sales by super/hyper markets are included in the price estimates.

A40. Crude oil prices are shown in Table 4.1.1 as an index based on a "basket" of both indigenous and imported crude oil prices also used as an input, along with other fuel prices, for the Producer Prices Index (PPI) produced by ONS. The index represents the average price paid by refineries for the month and is calculated in pounds sterling on a cost, insurance and freight (cif) basis.

A41. Provisional monthly prices are usually revised in the month following their original publication, with revisions marked with an "r". Provisional annual prices are published in December with revisions made during the following two months as more data become available.

Tables 5.1.1 to 5.10.3

A42. International comparisons are based on data published by international organisations.

A43. Motor fuel prices are taken from the European Commission's 'Oil Bulletin' and converted from euros to pound sterling. Data in these tables show prices of unleaded petrol and diesel in the EU, with and without tax, on or about the 15th of the month, with the UK ranked within the EU 15 and EU 28.

A44. Annual electricity and gas prices in Tables 5.3.1, 5.5.1, 5.7.1 and 5.9.1 are collated and published by the International Energy Agency (IEA) in 'Energy Prices and Taxes'. Prices are shown excluding and including taxes in sterling, with the UK price compared to the IEA median price and ranked within the IEA and G7. Methodology can vary between countries. From December 2013, prices for all IEA countries are shown, rather than for just the EU and G7 countries as previously published.

A45. The data presented in Tables 5.4.1, 5.6.1, 5.8.1 and 5.10.1 are derived from Eurostat's Statistics in Focus series. Eurostat publishes data on gas and electricity prices around six months after the end of the reference period. Prices are shown excluding and including taxes in sterling, with the UK price compared to the EU 15 and EU 28 median price and ranked within the EU 15 and EU 28.

A46. From 1st January 2008, data are average prices over 6-month periods (January - June and July - December) and each size band covers a range of consumption. Prior to 2008, the data were for a single point in time (1st January and 1st July), and each size band was represented by a single consumption figure. Eurostat's change to the methodology created a discontinuity within the price series. The new methodology prices are published within the original tables, with a clear distinction between old and new data. Whilst prices using the old methodology is not comparable with the new one, the UK ranking and UK price relative to the EU median should be broadly comparable across the old and new data. The size bands for consumers from January 2008 onwards are shown in Table A6.

Table A6: Eurostat size bands

Industrial Electricity	Eurostat size band	Annual consumption (MWh)
Small	Band IB	20 – 499
Medium	Band ID	2,000 - 19,999
Large	Band IE	20,000 - 69,999
Very Large	Band IF	70,000 – 150,000

Industrial Gas	Eurostat size band	Annual consumption (MWh)
Small	Band I2	278 – 2,777
Medium	Band I3	2,778 – 27,777
Large	Band I4	27,778 – 277,777

Domestic Electricity	Eurostat size band	Annual consumption (kWh)
Small	Band DB	1,000 – 2,499
Medium	Band DC	2,500 – 4,999
Large	Band DD	5,000 – 15,000

Domestic Gas	Eurostat size band	Annual consumption (kWh)
Small	Band D1	< 5,557
Medium	Band D2	5,557 – 55,557
Large	Band D3	>55,557

A47. It is important when comparing international prices to bear in mind the impact of the exchange rates (as the data are presented in a common pound sterling basis, the changing level of the pound will cause some changes in the relative prices) and inflation rates in individual countries.

A48. For Tables 5.3.1 to 5.10.3, where data is not available, we have estimated the price in relation to the median for that table. A '+' indicates that the price is likely to exceed the median price, '+/-' indicates that the price is likely to be around the median, '-' indicates that the price is likely to be below the median price. This methodology is intended to give a better indication of the UK position when compared with those countries where up-to-date data are not available.

A49. When determining which tables to use to compare international gas and electricity prices, the 6-monthly Eurostat tables (5.4, 5.6, 5.8 and 5.10) provide prices for different sizes of consumer, and in general have more timely data reflecting changes on a shorter timescale, but comparisons with non-EU countries require the use of the annual IEA tables (5.3.1, 5.5.1, 5.7.1 and 5.9.1). Rankings may differ between the IEA and Eurostat tables.

A50. For 2015 onwards, prices from Eurostat for both domestic and industrial are those that both exclude and include the environmental and social levies and taxes covering the Climate Change Levy, Renewable Obligation support costs, Capacity Market support costs, Contract for Difference support costs, Feed in Tariffs, EU ETS, Assistance for Areas with high Electricity Distribution Costs (AAHEDC) and Smart Meters and Better Billing costs. It is a new methodology which EU countries have to report to Eurostat the environmental and social levies incurred in their prices.

Annex B - Calorific Values and Conversion Factors

B1: Estimated average gross calorific values of fuels 2019

	GJ per tonne			GJ per tonne		Moisture content
	net	gross		net	gross	
Coal:			Renewable sources:			
All consumers (weighted average) (1)	25.6	26.9	Domestic wood (3)	14.7	16.3	20%
Power stations (2)	25.2	26.5	Industrial wood (4)	19.0	20.3	0%
Coke ovens (1)	30.2	31.8	Straw	13.5	15.8	15%
Low temperature carbonisation plants and manufactured fuel plants	26.9	28.4	Poultry litter (5)	7.6	9.5	20%
Collieries	27.4	28.9	Meat and bone	15.2	17.1	11%
Agriculture	28.1	29.5	General industrial waste	15.2	16.0	5%
Iron and steel	28.9	30.4	Hospital waste	13.3	14.0	5%
Other industries (weighted average)	25.4	26.7	Municipal solid waste (6)	6.9	9.9	30%
Non-ferrous metals	23.7	25.0	Refuse derived waste (6)	13.0	18.5	30%
Food, beverages and tobacco	27.9	29.3	Short rotation coppice (7)	12.6	14.2	30%
Chemicals	25.2	26.5	Tyres	30.4	32.0	5%
Textiles, clothing, leather etc.	28.0	29.4	Wood pellets	17.3	18.7	8%
Pulp, paper, printing etc.	23.0	24.2	Biodiesel	37.2	38.7	4%
Mineral products	26.2	27.6	Bioethanol	26.8	29.7	10%
Engineering (mechanical and electrical engineering and vehicles)	27.9	29.4	Petroleum:			
Other industries	30.9	32.5	Crude oil (weighted average)	43.4	45.7	
Domestic			Petroleum products (weighted average)	43.8	46.1	
House coal	25.1	26.5	Ethane	46.6	50.7	
Anthracite and dry steam coal	30.8	32.4	Butane and propane (LPG)	45.9	49.3	
Other consumers	25.1	26.4	Light distillate feedstock for gasworks	45.4	47.8	
Imported coal (weighted average)	26.9	28.4	Aviation spirit and wide cut gasoline	44.8	47.2	
Exports (weighted average)	26.6	28.0	Aviation turbine fuel	43.9	46.2	
Coke (including low temperature carbonisation cokes)	29.8	29.8	Motor spirit	44.6	47.0	
Coke breeze	29.8	29.8	Burning oil	43.9	46.2	
Other manufactured solid fuels	28.1	29.6	Gas/diesel oil	42.6	45.3	
			DERV	42.9	45.6	
			Fuel oil	40.8	43.4	
			Power station oil	40.8	43.4	
			Non-fuel products (notional value)	40.8	42.9	
			MJ per cubic metre			
			net	gross		
			Natural gas produced (8)	35.9	39.8	
			Natural gas consumed (9)	35.5	39.4	
			Coke oven gas	16.2	18.0	
			Blast furnace gas	3.0	3.0	
			Landfill gas (10)	19-23	21-25	
			Sewage gas (10)	19-23	21-25	
			Anaerobic Digestion - farm/food food (7)	19-24	21-26	

- 1) Applicable to UK consumption - based on calorific value for home produced coal plus imports and, for "All consumers" net of exports.
- (2) Home produced plus imports
- (3) On an "as received" basis; seasoned logs at 20% moisture content. On a "dry" basis 20.3 GJ per tonne.
- (4) Data reported on an oven dry basis of 20.3 GJ per tonne.
- (5) The calorific value of poultry litter typically ranges on a net basis from 5 GJ/tonne to 10 GJ/tonne depending upon the moisture content of the fuel. For poultry manure, much lower calorific values should be used.
- (6) Average figure based on survey returns.
- (7) On an "as received" basis; at 30% moisture content. On a "dry" basis 18.6 GJ per tonne.
- (8) The gross calorific value of natural gas can also be expressed as 11.126 kWh per cubic metre. This value represents the average calorific value seen for gas when extracted. At this point it contains not just methane, but also some other hydrocarbon gases (ethane, butane, propane). These gases are removed before the gas enters the National Transmission System for sale to final consumers.
- (9) UK produced and imported gas. This weighted average of calorific values will approximate the average for the year of gas entering the National Transmission System. It can also be expressed as 11.007 kWh per cubic metre.
- (10) Calorific value varies depending on the methane content of the gas.

Note: The above estimated average calorific values apply only to the year **2018**. For calorific values of fuels in earlier years see Tables A.2 and A.3 and previous issues of Digest of United Kingdom Energy Statistics (DUKES). See the notes in Chapter 1, paragraph 1.55 regarding net calorific values. The difference between the net and gross thermal content is the amount of energy necessary to evaporate the water present in the fuel or formed during the combustion process. The calorific values for coal other than imported coal are based on estimates provided by the main coal producers, but with some exceptions as noted on Table A.2. The calorific values for petroleum products have been calculated using the method described in Chapter 1, paragraph 1.31. Data reported in DUKES in 'thousand tonnes of oil equivalent' have been prepared on the basis of 1 tonne of oil equivalent having an energy content of 41.868 gigajoules (GJ), (1 GJ = 9.478 therms) - see notes in Chapter 1, paragraph 1.28.

B2: Estimated average gross calorific values of fuels 1980, 1990, 2000, 2010 and 2017 to 2019

	GJ per tonne (gross)						
	1980	1990	2000	2010	2017	2018	2019
Coal							
All consumers (1)(2)	25.6	25.5	26.2	25.8	25.9	25.9	25.9
All consumers - home produced plus imports minus exports (1)	..	..	27.0	27.1	26.8r	26.9r	26.9
Power stations (2)	23.8	24.8	25.6	24.9	26.5	26.5	26.5
Power stations - home produced plus imports (1)	..	..	26.0	25.8	26.5	26.5	26.5
Coke ovens (2)	30.5	30.2	31.2	30.5	31.8	31.8	31.8
Coke ovens - home produced plus imports (1)	..	..	30.4	30.5	31.8	31.8	31.8
Low temperature carbonisation plants and manufactured fuel plants	19.1	29.2	30.3	30.2	28.4	28.4	28.4
Collieries	27.0	28.6	29.6	29.3	28.9	28.9	28.9
Agriculture	30.1	28.9	29.2	28.0	29.5	29.5	29.5
Iron and steel industry (3)	29.1	28.9	30.7	30.4	30.4	30.4	30.4
Other industries (1)	27.1	27.8	26.7	27.7	26.7	26.7	26.7
Non-ferrous metals	..	23.1	25.1	25.4	25.0	25.0	25.0
Food, beverages and tobacco	28.6	28.1	29.5	28.6	29.3	29.3	29.3
Chemicals	25.8	27.3	28.7	26.7	26.5	26.5	26.5
Textiles, clothing, leather and footwear	27.5	27.7	30.4	29.5	29.4	29.4	29.4
Pulp, paper, printing, etc.	26.5	27.9	28.7	24.1	24.2	24.2	24.2
Mineral products (4)	..	28.2	27.0	27.6	27.6	27.6	27.6
Engineering (5)	27.7	28.3	29.3	29.5	29.4	29.4	29.4
Other industry (6)	28.4	28.5	30.2	32.6	32.5	32.5	32.5
Unclassified	..	27.1	..	..	..	..	..
Domestic							
House coal	30.1	30.2	30.9	29.8	27.0	26.5	26.5
Anthracite and dry steam coal	33.3	33.6	33.5	34.7	32.4	32.4	32.4
Other consumers	27.5	27.5	29.2	25.5	26.4	26.4	26.4
Transport - Rail	..	..	..	30.3	30.1	30.1	30.1
Imported coal (1)	..	28.3	28.0	27.9	28.5	28.4	28.4
of which							
Steam coal	..	..	26.6	26.5	26.5	26.5	26.5
Coking coal	..	..	30.4	32.1	31.8	31.8	31.8
Anthracite	..	..	31.2	31.0	31.5	31.5	31.5
Exports (1)	..	29.0	32.0	32.3	29.4	28.0	28.0
of which							
Steam coal	..	..	31.0	31.2	28.7	27.0	27.0
Anthracite	..	..	32.6	33.2	32.5	32.5	32.5
Coke (7)	28.1	28.1	29.8	29.8	29.8	29.8	29.8
Coke breeze	24.4	24.8	24.8	29.8	29.8	29.8	29.8
Other manufactured solid fuels (1)	27.6	27.6	30.8	32.6	29.6	29.6	29.6
Petroleum							
Crude oil (1)	45.2	45.6	45.7	45.7	45.7	45.7	45.7
Liquified petroleum gas	49.6	49.3	49.1	49.2	49.3	49.3	49.3
Ethane	52.3	50.6	50.7	50.7	50.7	50.7	50.7
LDF for gasworks/Naphtha	47.8	47.9	47.6	47.8	47.8	47.8	47.8
Aviation spirit and wide-cut gasoline (AVGAS and AVTAG)	47.2	47.3	47.3	47.4	47.4	47.3	47.2
Aviation turbine fuel (AVTUR)	46.4	46.2	46.2	46.2	46.2	46.2	46.2
Motor spirit	47.0	47.0	47.0	47.1	47.1	47.1	47.0
Burning oil	46.5	46.2	46.2	46.2	46.2	46.2	46.2
Vaporising oil	45.9	45.9	..	..	..	..	..
Gas/diesel oil (8)	45.5	45.4	45.6	45.3	45.3	45.3	45.3
DERV (8)	..	..	..	45.6	45.7	45.7	45.6
Fuel oil	42.8	43.2	43.1	43.3	43.3	43.3	43.4
Power station oil	42.8	43.2	43.1	43.3	43.3	43.3	43.4
Non-fuel products (notional value)	42.2	43.2	43.8	43.1	43.0	42.9	42.9
Petroleum coke (Power stations)	..	..	..	30.9	28.6	28.6	28.6
Petroleum coke (Other)	..	39.5	35.8	35.8	35.8	35.8	35.8
Natural Gas (9)	..	38.4	39.4	40.0	39.8	39.7	39.8
Renewable sources							
Domestic wood	..	..	10.0	13.9	16.3	16.3	16.3
Industrial wood	..	..	11.9	13.7	20.3	20.3	20.3
Straw	..	..	15.0	15.8	15.4	15.8	15.8
Poultry litter	..	..	8.8	9.1	9.9	9.5	9.5
Meat and bone	..	..	17.3	20.0	18.3	17.1	17.1
General industrial waste	..	..	16.0	16.0	16.0	16.0	16.0
Hospital waste	..	..	14.0	14.0	14.0	14.0	14.0
Municipal solid waste	..	..	9.5	9.5	9.3	10.0	9.9
Refuse derived waste	..	..	18.6	18.5	18.5	18.5	18.5
Short rotation coppice	..	..	10.6	11.1	14.2	14.2	14.2
Tyres	..	..	32.0	32.0	32.0	32.0	32.0
Wood pellets	..	..	..	17.2	18.3	18.3	18.7
Biodiesel	..	..	..	38.7	38.7	38.7	38.7
Bioethanol	..	..	..	29.7	29.7	29.7	29.7

(1) Weighted averages.

(2) Home produced coal only.

(3) From 2001 onwards almost entirely sourced from imports.

(4) Based on information provided by the British Cement Industry Association; almost all coal used by this sector in the latest 4 years was imported.

(5) Mechanical engineering and metal products, electrical and instrument engineering and vehicle manufacture.

(6) Includes construction.

(7) Since 1995 the source of these figures has been the ISSB.

(8) Derv included within gas/diesel oil until 2005.

(9) Natural Gas figures are shown in MJ per cubic metre.

B3: Standard conversion factors

1 tonne of oil equivalent (toe)	= 107 kilocalories
	= 396.83 therms
	= 41.868 GJ
	= 11,630 kWh

1 therm = 100,000 British thermal units (Btu)

The following prefixes are used for multiples of joules, watts and watt hours:

kilo (k)	= 1,000	or 10^3
mega (M)	= 1,000,000	or 10^6
giga (G)	= 1,000,000,000	or 10^9
tera (T)	= 1,000,000,000,000	or 10^{12}
peta (P)	= 1,000,000,000,000,000	or 10^{15}

Weight

1 kilogramme (kg)	= 2.2046 pounds (lb)
1 pound (lb)	= 0.4536 kg
1 tonne (t)	= 1,000 kg
	= 0.9842 long ton
	= 1.102 short ton
1 Statute or long ton	= 2,240 lb
	= 1.016 ton
	= 1.120 short ton
1 barrel	= 159.0 litres
	= 34.97 UK gal
	= 42 US gal

Volume

1 cubic metre (cu m)	= 35.31 cu ft
1 cubic foot (cu ft)	= 0.02832 cu m
1 litre	= 0.22 Imperial gallons
1 UK gallon	= 8 UK pints
	= 1.201 U.S. gallons
	= 4.54609 litres

Length

1 mile	= 1.6093 kilometres
1 kilometre (km)	= 0.62137 miles

Temperature

1 scale degree Celsius (C)	=	1.8 scale degrees Fahrenheit (F)
For conversion of temperatures: °C	=	$5/9 (°F - 32)$; $°F = 9/5 °C + 32$

B4: Average conversion factors for petroleum 2019

	Litres per tonne		Litres per tonne
Crude oil:		DERV fuel:	
Indigenous	1,199	0.005% or less sulphur	1,186
Imported	1,181		
Average of refining throughput	1,192	Gas /Marine diesel oil	1,171
Ethane	2,730	Fuel oil (1% or less sulphur)	
Propane	1,942	All grades:	1,017
Butane	1,738	Light	..
Naphtha	1,483	Medium	..
		Heavy	..
Aviation gasoline	1,370	Lubricating oils:	
Motor spirit:		White	1,157
All grades	1,348	Greases	..
Super1	1,370		
Premium1	1,348	Bitumen	980
Middle distillate feedstock	..	Petroleum coke	..
Kerosene:		Petroleum waxes	1,184
Aviation turbine fuel	1,250	Industrial spirit	1,247
Burning oil	1,246	White spirit	1,251

Please note: The above conversion factors, which for refined products have been compiled by BEIS using data from UK Petroleum Industry Association companies, apply to the year **2019**. The litres to tonnes conversions are made at a standard temperature of 15°C.

.. Denotes commercially sensitive as too few companies are producing this to be able to report it.

Annex C - Effective Rates of Duty on Principal Hydrocarbon Oils

Effective rates provided 1979 to 2020⁽¹⁾

Date from which duty effective		Motor spirit ⁽²⁾⁽³⁾					Pence per litre	
		Leaded	Lead replacement	Unleaded	Super unleaded	Ultra low sulphur	Regular	Ultra low sulphur
13 June	1979	8.100	..	..	..	..	9.200	..
26 March	1980	10.000	..	..	..	..	10.000	..
10 March	1981	13.820	..	..	..	..	13.820	..
2 Julv	1981		..	..	..	..	11.910	..
9 March	1982	15.540	..	..	..	..	13.250	..
15 March	1983	16.300	..	..	..	..	13.820	..
13 March	1984	17.160	..	..	..	..	14.480	..
19 March	1985	17.940	..	..	..	..	15.150	..
19 March	1986	19.380	..	..	..	..	16.390	..
17 March	1987		..	18.420	..	..		..
15 March	1988	20.440	..	..	..	..	17.290	..
14 March	1989		..	17.720	..	..		..
20 March	1990	22.480	..	19.490	..	..	19.020	..
19 March	1991	25.850	..	22.410	..	..	21.870	..
10 March	1992	27.790	..	23.420	..	..	22.850	..
16 March	1993	30.580	..	25.760	..	..	25.140	..
30 November	1993	33.140	..	28.320	..	..	27.700	..
29 November	1994	35.260	..	30.440	..	..	30.440	..
1 Januarv	1995	36.140	..	31.320	..	..	31.320	..
28 November	1995	39.120	..	34.300	..	..	34.300	..
15 Mav	1996		..		37.620	..		..
26 November	1996	41.680	..	36.860	40.180	..	36.860	..
2 Julv	1997	45.100	..	40.280	43.600	..	40.280	..
17 March	1998	49.260	..	43.990	48.760	..	44.990	42.990
9 March	1999	52.880	..	47.210	52.330	..	50.210	47.210
1 October	1999		49.210		49.210	..		
21 March	2000	54.680	50.890	48.820	50.890	..	51.820	48.820
1 October	2000					47.820		
7 March	2001		(4)	46.820	(4)	45.820		45.820
15 June	2001			48.820				
1 October	2003	56.200		50.190		47.100	53.270	47.100
	2004		(5)		(5)			
7 December	2006	57.680		51.520		48.350	54.680	48.350
1 October	2007	60.070		53.650		50.350	56.940	50.350
1 April	2008			(5)			(9)	
1 December 2008	2008	62.070				52.350		52.350
1 April	2009					54.190		54.190
1 Mav	2009	63.910						
1 September	2009	65.910				56.190		56.190
1 April	2010	66.910				57.190		57.190
1 October	2010	67.910				58.190		58.190
1 Januarv	2011	68.670				58.950		58.950
23 March	2011	67.670				57.950		57.950

(1) Duty rates remain the same unless otherwise stated.

(2) These fuels became liable to Value Added Tax (VAT) as follows:-

- (i) 10% with effect from 1 April 1974
- (ii) 8% with effect from 29 July 1974
- (iii) For motor spirit 25% with effect from 18 November 1974
- (iv) For motor spirit 12.5% with effect from 12 April 1976
- (v) 15% with effect from 18 June 1979
- (vi) 17.5% with effect from 1 April 1991
- (vi) 15% with effect from 1 December 2008
- (vii) 17.5% with effect from 1 January 2010
- (viii) 20% with effect from 4 January 2011 (Notes continued on following page)

(3) From 14 March 1989 until 20 March 1990, the rate of duty for 2-star and 3-star leaded motor spirit was 21.220 pence per litre.

(4) With the separate duty rate abolished, duty on these fuels is now charged at the rate appropriate to unleaded petrol or ultra low sulphur petrol, dependent upon the sulphur and aromatic content of the fuel.

Effective rates provided 1979 to 2020⁽¹⁾ (continued)

Date from which duty effective		Aviation gasoline ⁽²⁾	LPG for use as road fuel ⁽²⁾⁽⁸⁾	Fuel oil ⁽⁶⁾	Gas oil ⁽⁶⁾⁽⁷⁾	Pence per litre Kerosene ⁽⁶⁾
13 June	1979	8.100	4.050	0.660	0.660	
26 March	1980	10.000	5.000	0.770	0.770	
10 March	1981	13.820	6.910			
2 July	1981					
9 March	1982	7.770	7.770			
15 March	1983	8.150	8.150			
13 March	1984	8.580	8.580			zero
19 March	1985	8.970	8.970			
19 March	1986	9.690	9.690		1.100	
17 March	1987					
15 March	1988	10.220	10.220			
14 March	1989					
20 March	1990	11.240	11.240	0.830	1.180	
19 March	1991	12.930	12.930	0.910	1.290	
10 March	1992	13.900	13.900	0.950	1.350	
16 March	1993	15.290	15.290	1.050	1.490	
30 November	1993	16.570	16.570	1.160	1.640	
29 November	1994	17.630	33.140	1.660	2.140	
1 January	1995	18.070				
28 November	1995	19.560	28.170	1.810	2.330	
15 May	1996					
26 November	1996	20.840	21.130	1.940	2.500	
2 July	1997	22.550		2.000	2.580	
17 March	1998	24.630		2.180	2.820	
9 March	1999	26.440	15.000	2.650	3.030	
1 October	1999					
21 March	2000	27.340		2.740	3.130	
7 March	2001		9.000			
15 June	2001					
9 April	2003			3.820	4.220	
1 October	2003	28.100				
3 December 2004	2004			4.820	5.220	
6 December	2005			6.040	6.440	
7 December	2006	28.840	12.210	7.290	7.690	
1 October	2007	30.030	16.490	9.290	9.690	
1 December	2008	31.030	20.770	9.660	10.070	
1 April	2009		24.820	10.000	10.420	
1 May	2009	33.340				
1 September	2009	34.570	27.670	10.370	10.800	
1 April	2010	38.350	30.530	10.550	10.990	
1 October	2010		31.950	10.740	11.180	
1 January	2011		33.040	10.880	11.330	
23 March	2011	37.700	31.610	10.700	11.140	

(5) Duty now charged at the rate appropriate to ultra low sulphur petrol.

(6) For industrial and commercial consumers these fuels became liable to the standard rate of VAT on 1 July 1990 (see note 2), recoverable by the majority of such consumers. These fuels attracted VAT for domestic consumers from 1 April 1994 at an initial rate of 8%. This was reduced to 5% from 1 September 1997.

(7) AVTUR (aviation turbine fuel) attracted the gas oil rate until 18 March 1986 after which it was zero-rated.

(8) From 29 November 1994 this duty is priced in pence per kilogram as the relative calorific values of the different types of road fuel gases are very similar when related to mass (kilogram). The conversion rate for LPG is approx. 1kg = 2 litres.

(9) Duty now charged at the rate appropriate to ultra low sulphur diesel

Annex D - Further Sources of Information

Energy prices

A quarterly publication containing tables, charts and commentary covering energy prices to domestic and industrial consumers for all the major fuels as well as presenting comparisons of fuel prices in the European Union and G7 countries. Available at:

www.gov.uk/government/collections/quarterly-energy-prices

Fuel Poverty

The latest fuel poverty statistics report was published in April 2020 and includes statistics for the number of fuel poor households in 2018. This is published here:

www.gov.uk/government/collections/fuel-poverty-statistics

BEIS publications on energy

All titles can be found on the BEIS site here:

www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics

Statistical publications

Energy Trends

Energy Trends contains quarterly data on production and consumption of overall energy and of the individual fuels in the United Kingdom. Also includes data on foreign trade in fuels.

www.gov.uk/government/collections/energy-trends

Digest of UK Energy Statistics (DUKES)

DUKES contains annual data on production and consumption of overall energy and of the individual fuels in the United Kingdom. Also includes a commentary covering all the major aspects of energy and gives a comprehensive picture of energy production and use over the last five years with key series taken back to 1970.

www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

Energy Consumption in the UK

Energy consumption in the United Kingdom brings together statistics from a variety of sources to produce a comprehensive review of energy consumption and changes in efficiency, intensity and output since the 1970s, with a particular focus on trends since 1990. The information is presented in five sections covering overall energy consumption and energy consumption in the transport, domestic, industrial and service sectors. Available at:

www.gov.uk/government/collections/energy-consumption-in-the-uk

Energy Flow Chart

An annual publication illustrating the flow of primary fuels from home production and imports to their eventual final uses, in their original state and after being converted into different kinds of energy by the secondary fuel producers. Available at:

www.gov.uk/government/collections/energy-flow-charts

UK Energy in Brief

An annual publication summarising the latest statistics on energy production, consumption and prices in the United Kingdom. The figures are taken from the “Digest of UK Energy Statistics”.

Available at: www.gov.uk/government/collections/uk-energy-in-brief

Sub-National Energy Consumption Statistics

Sub-National data are produced by BEIS to emphasise the importance of local and regional decision making for energy policy in delivering several national energy policy objectives. Data is available from:

<https://www.gov.uk/government/publications/regional-energy-data-guidance-note>

National Energy Efficiency Data-framework (NEED)

BEIS has constructed a National Energy Efficiency Data-framework (NEED) to enable detailed statistical analysis of energy efficiency. The data framework matches the gas and electricity consumption data collected for BEIS sub-national energy consumption statistics and records of energy efficiency measures in the Home Energy Efficiency Database (HEED) run by the Energy Saving Trust (EST), as well as typographic data about dwellings and households.

www.gov.uk/government/collections/national-energy-efficiency-data-need-framework

Household Energy Efficiency

BEIS publishes a range of information relating to the Energy Company Obligation (ECO) and Green Deal (GD). The headline release presents monthly updates of ECO measures and quarterly updates of in-depth ECO statistics, carbon savings and the Green Deal schemes. The detailed report presents annual updates on in-depth Green Deal statistics and insulation levels.

Data is available at:

www.gov.uk/government/collections/household-energy-efficiency-national-statistics

UK Greenhouse Gas Emissions Statistics

Emissions data are produced by BEIS to show progress against the UK’s goals, both international and domestic, for reducing greenhouse gas emissions.

www.gov.uk/government/collections/uk-greenhouse-gas-emissions-statistics

UK Energy and CO2 emissions projections

The Updated Energy Projections (UEP) are published annually by BEIS. They provide updated projections and analysis of energy use and carbon dioxide emissions in the UK. The UEP exercise incorporates all firm environmental policy measures and is based on updated

assumptions consistent with the most recent UK Budget announcements. The latest report is available at: www.gov.uk/government/collections/energy-and-emissions-projections

Policy publications

The Department for Business, Energy and Industrial Strategy is responsible for business, industrial strategy, science, research & innovation, energy and clean growth and climate change. The policy that the department works on and the associated documentation can be found on the GOV.UK site [here](#).

The Energy White Paper

On 14 December 2020, the Energy White Paper was published, setting out how the UK will clean up its energy system and reach net zero emissions by 2050. This is available at: <https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future>

The energy statistics section is here:

www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics

Other Government websites

Ministry of Housing, Communities and Local Government	gov.uk/government/organisations/ministry-of-housing-communities-and-local-government
Department for Environment, Food and Rural Affairs	gov.uk/government/organisations/department-for-environment-food-rural-affairs
Department for Transport	gov.uk/government/organisations/department-for-transport
HM Government Online	gov.uk
HM Revenue & Customs	gov.uk/government/organisations/hm-revenue-customs
Northern Ireland Executive	northernireland.gov.uk
Ofgem (The Office of Gas and Electricity Markets)	ofgem.gov.uk
The Scottish Government	gov.scot
The Scottish Parliament	parliament.scot
UK Parliament	parliament.uk
UK Statistics Authority	statisticsauthority.gov.uk
Welsh Government	gov.wales

Other useful energy related websites

BP	bp.com
British Geological Survey	bgs.ac.uk
Building Research Establishment	bre.co.uk
The Coal Authority	gov.uk/government/organisations/the-coal-authority
Energy Institute	energyinst.org/home
Energy Networks Association	energynetworks.org
Energy UK	energy-uk.org.uk
Europa (European Union Online)	europa.eu
Eurostat	ec.europa.eu/eurostat
Interconnector	interconnector.com
International Energy Agency (IEA)	iea.org
International Steel Statistics Bureau (ISSB)	issb.co.uk
National Grid	nationalgrid.com
Oil & Gas UK	oilandgasuk.co.uk
Renewable UK	renewableuk.com
Ricardo	ee.ricardo.com
The Stationery Office	tso.co.uk
UK-AIR: Air Information Resource	uk-air.defra.gov.uk
UK Petroleum Industry Association	ukpia.com
United Nations Statistics Division	unstats.un.org/home
US Department of Energy	energy.gov
US Energy Information Administration	eia.gov



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