



QUARTERLY ENERGY PRICES

Quarter 4 2018

Published: 28 March 2019

This is a National Statistics publication

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- meet identified user needs
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- are managed impartially and objectively in the public interest

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

The continued designation of these statistics as National Statistics was confirmed in September 2018 following a <u>compliance check</u> by the Office for Statistics Regulation. The statistics last underwent a <u>full assessment</u> against the Code of Practice in June 2014.



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Contact

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

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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

Introduction

The **Quarterly Energy Prices** (QEP) publication and the detailed associated tables provide information related to the prices paid for energy and 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** (prices paid by industrial users of energy, commercial users and services).

International data are also collated and presented in the publication to provide comparisons in prices with the European Union (EU) member states and members of the International Energy Association (IEA), this issue focusing on comparisons with the 'EU15'.

The publication also provides a summary of national information on prices for **oil and petroleum products**. In particular; road fuels which are also collated published online both on a <u>weekly</u> and <u>monthly</u> basis.

Information about this release

This release (published 28 March 2019) covers final data for 2018 calendar year, with a focus on the fourth quarter of this year. The release additionally serves as an update to the provisional figures for 2018 published in December.

The main revision is to domestic energy bills. More details are provided in the commentary but as a reference for the scale of the changes, at the UK level, assuming a fixed but representative consumption, the average Gas bill was revised £1 up and the average Electricity bill revised £8 down.

Highlights and Headline Figures

Domestic Market Prices

Households in the UK predominantly use electricity from the national grid (though some households do use fuel-based generators) to provide energy for lighting, utilities and heating. A significant number of households (approximately 23 million) also use gas for heating and cooking in their homes.

This section details the average prices paid by households for their energy with updated and revised figures for 2018 replacing the estimates published in the December 2018 issue.

Based on the consumer price index data, the price paid for all domestic fuels (Electricity and Gas but also other solid and liquid fuels) has risen by **6.8 per cent** in real terms in the last quarter (October to December) of 2018 compared with the same quarter in 2017. (<u>Table 2.1.2</u>)

Between Q4 2017 and Q4 2018, the average real term price index presented in the consumer price index - including Value Added Tax (VAT) - for domestic **electricity increased by 7.4 per cent** and domestic **gas rose by 5.9 per cent**. (Table 2.1.2)

Most consumers get their electricity and gas from an energy company and pay a tariff or bill. Annual data for 2018 suggests that the domestic energy bills paid by households increased by **5.2 per cent** in current prices and by **3.2 per cent** in real terms. (<u>Tables 2.2.1 and 2.3.1</u>)

Assuming a fixed consumption level of electricity of 3,800 kWh per annum, household electricity bills **increased by £49** to £668. Given a fixed consumption levels of gas of 15,000 kWh per annum, gas bills for households **increased by £16** to £646. The combined average domestic energy bill **increased by £65** from £1,249 in 2017 to £1,314 in 2018. (Tables 2.2.1 and 2.3.1)



Average bills for those using prepayment meters **increased by £22 (1.7 per cent)** in current prices. This is following the revisions Ofgem made to its <u>price cap</u>, for customers who pay via the prepayment method, in 2018. Prepayment prices increased at a slower rate compared to the other payment methods. (<u>Tables 2.2.1 and 2.3.1</u>)

In order to increase competition in the energy market <u>Ofgem encourages consumers</u> to switch energy suppliers to get the best deal. The number of these transfers made within the domestic electricity market **increased by 3.9 per cent** between the last quarter of 2017 and the same quarter in 2018, with an estimated 1,411,000 electricity transfers being made in Q4 2018. Since Q4 2017, gas transfers have **increased by 2.4 per cent** to 1,189,000 transfers within Q4 2018. (<u>Table 2.7.1</u>)

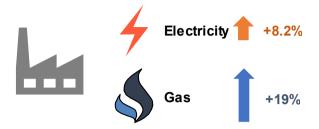
Total transfers¹ over 2018 were estimated to be 9.9 million which the highest number recorded since Ofgem (who provide the data to us for re-publication) began recording this information in 2003. It is higher than the previous peak in 2008 of an estimated 9.6 million transfers in year. (Table 2.7.1)

Industrial Sector

UK industry is reliant on energy and fuels (particularly Gas and Electricity) to operate and this section gives insight on the prices paid by the non-domestic sector. Whilst the fuels are the same it's not generally comparable with the domestic market given the different levies and taxes paid by industry compared to households and the considerably higher consumption levels that industry have over domestic users.

¹ Note that households that switched more than once within a year would be recorded each time they switch but doesn't include customers switching payment method or switching tariff with the same company.

The industrial sector in the UK is mainly dependant on electricity and gas. Between the last three months of 2017 and the same period in 2018, average industrial prices in real terms, though not seasonally adjusted and including the <u>Climate Change Levy</u> (CCL) - **rose by 19** per cent for gas and by 8.2 per cent for electricity. (<u>Table 3.3.2</u>)



Comparing the last quarter of 2017 with 2018, industrial prices for **coal fell by 1.9 per cent** but **heavy fuel oil** (not subject to CCL) **increased by 17 per cent**. (<u>Table 3.3.2</u>)

The 'major power producers' are part of industry and use fuels to generate electricity. In the electricity industry between Q4 2017 and Q4 2018, the price of gas used for electricity generation **increased by 31 per cent** in cash terms whilst that for the coal used by power producers **increased by 1.6 per cent**. This differs from industrial prices as it uses a different quality of source material compared to industry. (<u>Table 3.2.1</u>)

Oil and Petroleum Product Prices

Petrol and oil derivatives are used by all sectors whether it be individuals using it to refuel their car or a company fuelling its fleet of vehicles. This section presents average 'pump prices' for petrol and the wholesale prices for oil and it's derivatives.

The provisional price of petrol in March 2019 was **120.1** pence per litre which was **0.8** per cent higher than that of a year ago, whilst the provisional price of diesel at **130.6** pence per litre was **6.3** per cent higher compared to a year ago. (<u>Tables 4.1.1 and 4.1.2</u>)

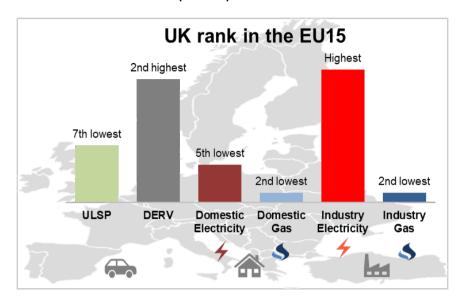


The petrol price in March 2019 was 22 pence (**15 per cent**) lower than the most recent peak in April 2012 whilst the diesel price was 17 pence (**12 per cent**) lower. (<u>Tables 4.1.1 and 4.1.2</u>)

The price of crude oil purchased by UK refineries, in £ Sterling terms, in February 2019 was **1.1 per cent higher** than that a year ago. The price of Brent crude (a benchmark standard for the quality of the oil) in February 2019 at just over \$63 per barrel was **7.1 per cent higher** than the previous month though remained considerably below the prices seen between February 2011 and August 2014 when prices were above \$100 per barrel.

International Comparisons

In this issue of the Quarterly Energy Prices we provide comparisons of the prices paid for fuels by consumers in the UK with the prices paid in the EU15.



In February 2019 the UK price for petrol at the pump was the **seventh lowest** in the EU15 at 118.9 pence per litre, whilst the UK price for diesel was the **second highest** in the EU15 at 128.9 pence per litre (<u>Tables 5.1.1 and 5.2.1</u>)

For January to June 2018, UK industrial electricity prices for medium consumers including taxes were the **highest in the EU15**, whilst industrial gas prices for medium consumers including taxes were the **second lowest in the EU15**. (<u>Tables 5.3.1 and 5.7.1</u>)

For January to June 2018, UK domestic electricity prices for medium consumers including taxes were the **fifth lowest in the EU15**, whilst domestic gas prices for medium consumers including taxes were the **second lowest in the EU15**. (<u>Tables 5.5.1 and 5.9.1</u>)

Background to the release

Release History

The Quarterly Energy Prices publication was first published in June 2001. The release includes tables that are available as Excel files at www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics.

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

Domestic energy prices
Industrial energy prices
International energy price comparisons
Road fuel prices

As well as the quarterly publication, there are some monthly updates to the **domestic energy price indices** and the **prices of petroleum products** that are published here, as are any tables affected by changes or updates to the GDP deflator.

Information about this issue

In this issue there are final 2018 gas and electricity bills and provisional Q4 2018 prices for industrial consumers and major power producers. The unleaded petrol and diesel prices are provisional for March 2019 and final for annual 2018, whilst the international unleaded petrol and diesel prices are for February 2019. The next issue of Quarterly Energy Prices (QEP) will be published on 27th June 2019.

This is publication includes information analysing the **impact of variable consumption** which previously was an article which was part of the Energy Trends publication and now will permanently be found only in the Domestic prices chapter. The previous article: 'Domestic energy bills in 2017: The impact of variable consumption' can be found <u>here</u>.

Changes in methodology

Please note we are intending to change the methodology of the representative rate of consumption for calculating tariffs paid by households in the domestic bills section of the release in 2019.

We are likely to adjust down the fixed annual consumption levels of 3,800kWh for standard electricity use and 15,000kWh for gas. We intend to use levels similar to the medium typical domestic consumption values Ofgem uses (which are 3,100kWh for electricity and 12,000kWh for gas).

The methodology notices will be updated accordingly, though if you have any input or questions please <u>contact us</u>. For information please find Ofgem's Typical Domestic Consumption Values here:

https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values

Data quality and notes

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 in June 2014.

Data presented in the tables are generally cash prices. However, when we present price comparisons we would refer to whether the movements in data are in real terms or not. Real terms data are prices 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 therefore is applicable consistently to domestic and industrial prices.

For most fuels there are differences in the prices paid by smaller consumers, typically households, and those paid by larger consumers, usually those in the industrial sector. With differences also in prices between large and small industrial users.

In a competitive energy market, larger consumers can negotiate lower prices. A household's energy demands may be more variable through the day and year (and therefore higher in peak price times) than those of industrial customers who use energy for continuous processes or can load manage.

For these reasons the tables show prices separately for domestic and industrial consumers. Although no prices are given for commercial consumers, prices for the domestic sector should be fairly close to those for smaller commercial consumers and industrial prices should provide a reasonable proxy for larger customers in the commercial sector.

Uses of the Data

The data associated with this release is used to help form policy decisions and is also used by industry and academia to monitor trends in the prices market. Currently the department has an obligation to provide processed data to the European Union (EU) and International Energy Association (IEA). The data within and associated with this publication are also used to answer Parliamentary questions and Freedom of Information requests.

Data Sources

Information in this publication is sourced from surveys of the energy industry conducted by the Energy Prices Analysis team within or on behalf of the Department for Business, Energy and Industrial Strategy (BEIS) unless otherwise stated. The bills information is collected as part of the Domestic Fuels Inquiry which surveys key energy suppliers to provide a representative sample of the market.

Further information on the data sources, processing methods, uses of and quality assurance of the data can be found in the associated Methodology documents, these are due for review and update in April 2019:

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

Domestic Market Prices

This section presents information on prices paid for fuels used by the domestic sector – essentially prices paid by the general public for energy.

The focus of this section is on the tariffs paid by households to power their homes including both electricity (for the United Kingdom) and gas (for Great Britain). Information on how the price varies based on the different payment types, types of contract individuals have with energy companies and region are presented.

Details on competition in the market is presented through the energy company switching statistics.

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

Highlights and Headline Figures

The price paid for all domestic fuels in real terms has risen by 6.8 per cent when we compare Q4 2018 with the same quarter in 2017.

Between Q4 2017 and Q4 2018, real terms prices including VAT for domestic electricity increased by 7.4 per cent and for domestic gas prices rose by 5.9 per cent.

Annual data for 2018 suggests that domestic energy bills increased by 5.2 per cent in current prices and by 3.2 per cent in real terms. In actual terms for fixed consumption levels of electricity of 3,800 kWh per annum, bills increased by £49 to £668; and for fixed consumption levels of gas of 15,000 kWh per annum, bills increased by £16 to £646.

The combined average domestic bill increased by £65 from £1,249 in 2017 to £1,314 in 2018. Average bills for those using prepayment meters increased by £22 (1.7 per cent) following the revisions of the price cap in 2018, a slower rate compared to the other payment methods.

The number of transfers made within the domestic electricity market increased by 3.9 per cent between Q4 2017 and Q4 2018, with an estimated 1,411,000 electricity transfers being made in Q4 2018. Since Q4 2017, gas transfers have increased by 2.4 per cent to 1,189,000 transfers in Q4 2018. These transfers represent around 5 per cent for both electricity and gas customers in the domestic market.

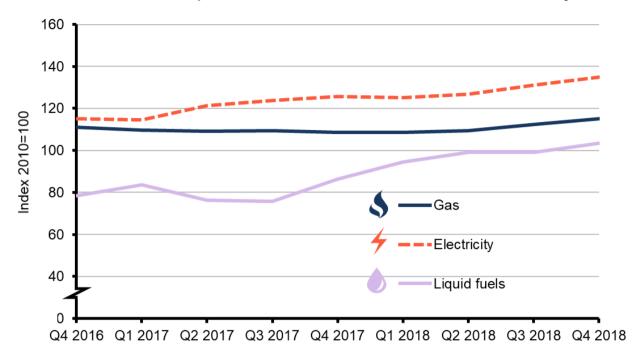
Notes

Pre-payment a method of paying for electricity and gas, consumers essentially are on a 'pay as you go' method - topping up an allowance and usage drawing down on the balance

Credit is a method of payment for household energy where customers are billed for the amount used each cycle dependant on their contract

Retail price of fuels for the domestic sector

Chart 2.1 Real terms fuel price indices in the domestic sector (1) - Quarterly



Source: ONS, Consumer prices index

(1) Data in real terms, adjusted for inflation using the GDP (market prices) deflator.

Chart 2.1 shows the quarterly changes in the price indices in real terms between Q4 2016 and Q4 2018 in the domestic sector.

In terms of the domestic fuel price indices, the price for all domestic fuels in real terms has risen by 6.8 per cent in Q4 2018 compared to Q4 2017.

Over the same period, in real terms, domestic electricity prices have increased by 7.4 per cent while gas prices have increased by 5.9 per cent.

Between Q4 2017 and Q4 2018, prices in real terms for liquid fuels have risen by 20 per cent. Although not shown above, data presented in the underlying tables show motor fuel and oil prices have increased by 6.3 per cent. The prices of solid fuels have increased slightly in real terms, by 0.5 per cent between Q4 2017 and Q4 2018.

Reference and link to tables:

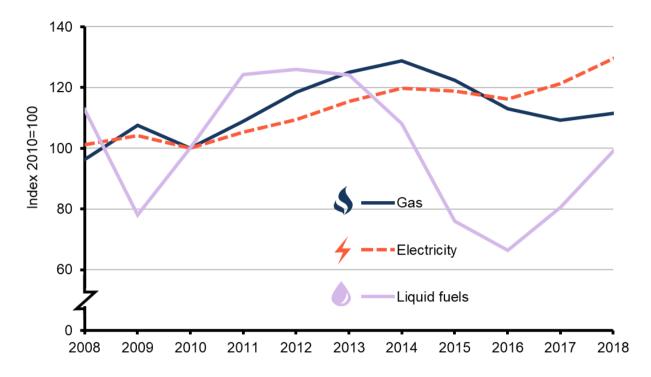
Table 2.1.1: Consumer prices index: fuel components in the UK

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 below shows the annual changes in the price indices in real terms for the years 2008 to 2018 in the domestic sector.

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



Source: ONS, Consumer prices index

(1) Data in real terms, adjusted for inflation using the GDP (market prices) deflator.

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

UK wholesale gas prices have been increasing since the early 2000's, due to upward pressure on prices in Europe and the decline in the UK Continental Shelf gas production, however wholesale gas prices have fallen back since the start of 2014 till into the second half of 2016 before rising again. In 2018 wholesale prices rose by 35 per cent (an increase of 4 percentage points on the previous year). Electricity prices have generally been on a rising trend. With gas an important part of the UK generation mix, and also as a result of higher coal prices, wholesale electricity prices have been rising from unsustainably low levels, and also due to the introduction of the EU Emissions Trading scheme in 2005.

Liquid fuel (heating oil) 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 have risen over the past two years and in 2018 were 23 per cent higher in real terms compared to the previous year. Motor fuel prices similarly follow crude oil prices, but vary according to changes in the duty payable on petrol and diesel, and to the rate of VAT.

Domestic electricity and gas bills

BEIS estimates for bills are based on fixed annual consumption levels of 15,000kWh for gas and 3,800kWh for electricity, to allow comparisons over time of the effects of actual price changes, whilst excluding any change in consumption. Actual average domestic consumption of both gas and electricity varies from year to year due to changes in weather and energy efficiency improvements.

From the March 2018 edition of Quarterly Energy Prices, BEIS introduced bills based on actual annual consumption and temperature adjusted consumption. See Tables 2.2.5 and 2.3.5².

The majority of the major six domestic energy suppliers announced increases to their gas prices in early to mid-2018. All the major six domestic energy suppliers announced price rises for electricity and gas customers between March 2018 and December 2018, with some of the suppliers announcing price increases twice within this period.

Table 1 – Change in average annual bills 2018(r) compared to 2017³

	2017	2018	Change	Percentage Change
Standard Electricity	£619	£668	£49	8.0%
Gas	£630	£646	£16	2.5%
Combined	£1,249	£1,314	£65	5.2%

The average energy bills in 2018 were higher than in 2017; this was mainly due to price increases for electricity and gas implemented between March and November 2018.

Helping to offset increases in energy prices was the implementation of the Prepayment Cap⁴; however average annual bills for prepayment customers increased by £22 from £1,250 in 2017 to £1,272 in 2018 following a revision of the prepayment cap.

Furthermore, the proportion of customers on a fixed tariff has increased between 2017 and 2018, with fixed tariffs offering the cheapest average energy bills compared to variable tariffs (a saving of around £141 – see Table 6).

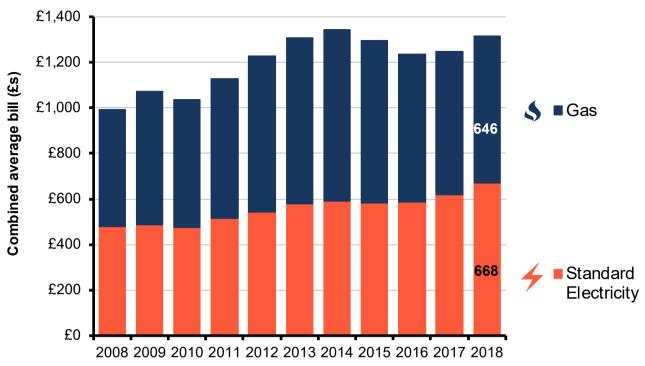
Chart 2.3 shows the average standard domestic energy bills, in cash terms. Combined gas and electricity bills have increased by £65 (5.2 per cent) between 2017 and 2018 (to £1,314). Average standard electricity bills in 2018 increased by £49 (to £668). Average gas bills increased by £16 (to £646) compared with 2017. With the exception of a 3.0 per cent fall in 2010, combined bills increased each year between 2002 and 2014. Between 2014 and 2016 combined bills decreased, however in 2017 they started to increase again and are now 2.2 per cent lower than their peak in 2014 in cash terms (8.4 per cent lower in real terms).

² https://www.gov.uk/government/collections/domestic-energy-prices

² Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures

⁴ For more information on the Prepayment Cap, see: https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/implementation-cma-remedies/prepayment-meterprice-cap





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

Domestic energy bills based on actual consumption

This information was previously published in an <u>Energy Trends</u> article in March 2018 as '<u>The impact of variable consumption</u>' using 2017 data. This is an update using 2018 data.

Elsewhere in the publication we base bills on a representative but static consumption level. However, there are other drivers affecting the average cost to consumers - not only the unit prices of energy itself but the amount of energy consumed.

Several factors influence consumption including increased energy efficiency through household insulation or more efficient appliances, but the most influential factor of gas consumption is the weather.

The figures presented below show adjusted figures that account for actual consumption and temperature adjusted consumption. More detailed tables can be found in Tables 2.2.5 and 2.3.5.

Table 2 – Average bills based on average actual consumption, 2018(p) and 2017⁵

	2017	2018	Change	Percentage Change
Standard Electricity	£566	£587	£21	3.7%
Gas	£546	£568	£22	4.0%
Combined	£1,112	£1,155	£43	3.9%

Table 3 – Average bills based on temperature adjusted consumption, 2018(p) and 20176

	2017	2018	Change	Percentage Change
Standard Electricity	£574	£588	£13	2.3%
Gas	£594	£593	-£1	-0.2%
Combined	£1,175	£1,168	£12	1.1%

Reference and link to tables:

Table 2.2.5: Average annual domestic electricity bills by various consumption levels Table 2.3.5: Average annual domestic gas bills by various consumption levels

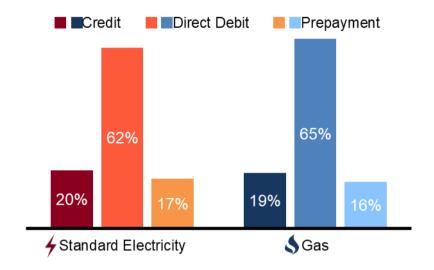
⁴ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures

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

Payment methods

This section presents data based on a fixed consumption level rather than the information in the previous chapter that explored variable consumption.

Chart 2.4: Proportion of customers on each payment type⁷



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 December 2018, most standard electricity customers in the United Kingdom (UK) and gas customers in Great Britain (GB) paid 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 increased whereas the percentage of customers who pay on receipt of their bill (credit) has decreased.

Table 4 – Average annual bills 2018(r) by payment method8

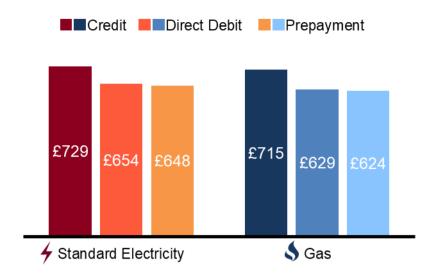
	Credit	Direct Debit	Prepayment	Overall
Standard Electricity	£729	£654	£648	£668
Gas	£715	£631	£624	£646
Combined	£1,444	£1,285	£1,272	£1,314

⁷ In line with our methodology document, Tables 2.4.2 and 2.5.2 do not include all energy suppliers in the market, but they do include an estimate for small suppliers. For a list of those suppliers included, see Section 4.2 'Customer numbers by payment method':

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

⁸ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

Chart 2.5: Average annual bills on each payment type, 2018(p)



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

In 2018 the average annual bill⁹ was cheapest for customers paying by prepayment, with an average bill of £648 for standard electricity customers in the UK and £624 for gas customers in GB, as shown in Chart 2.5.

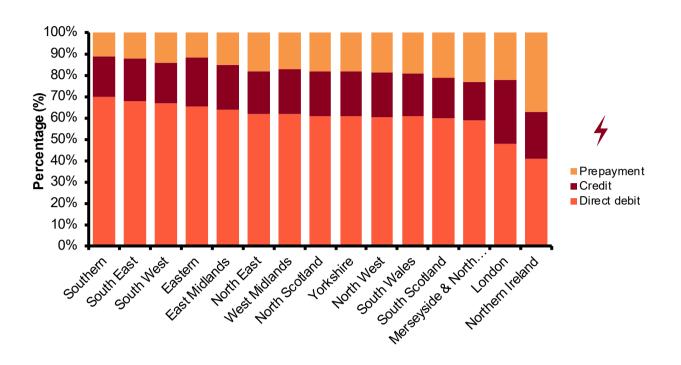
For combined bills, based on BEIS consumption levels, Credit remains the most expensive method of payment at £1,444 (an increase of £88 since last year).

Direct debit is now slightly more expensive (in 2018 average payments were £1,285) than prepayment. Direct debit was formerly the cheapest option but now prepayment is the cheapest method of payment with a combined bill of £1,272, £13 cheaper than direct debit. Though average prices paid on direct debit were still £159 cheaper than those on credit.

⁹ Based on a fixed consumption of 15,000kWh for gas and 3,800kWh for electricity

Regional variation of payment methods – Electricity

Chart 2.6 Regional payment methods for Standard electricity



Reference and link to tables:

Table 2.4.2: Regional variation of payment method for standard electricity

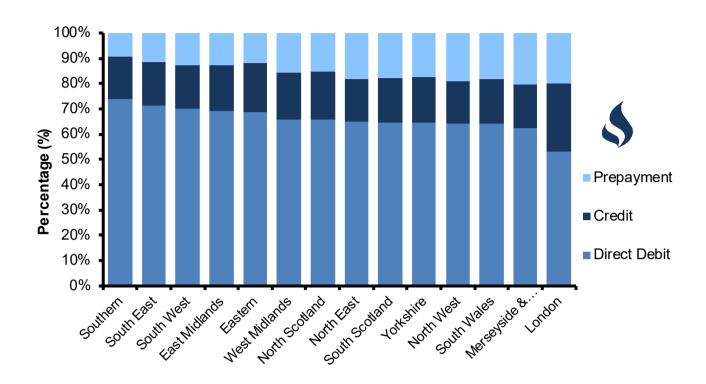
The proportion of customers by the different payment methods varies by region. In Q4 2018, for standard electricity, direct debit was the most popular payment method in all regions.

Northern Ireland, however, has a broadly similar proportion of customers who pay by prepayment, 37 per cent, as who pay by direct debit, 41 per cent.

As Chart 2.6 shows, the Southern region has the highest proportion of customers paying by direct debit, at 70 per cent. The London region has the highest percentage of credit customers, with 30 per cent using this payment method and just 48 per cent using direct debit, which was the second lowest rate in the UK.

Regional variation of payment methods - Gas

Chart 2.7 Regional payment methods for gas



Reference and link to tables:

Table 2.5.2: Regional variation of payment method for gas

Regional variation in payment method for gas is like that of standard electricity with direct debit used by most customers in all regions.

As shown in Chart 2.7, the Southern region of England has the highest proportion of gas customers paying by direct debit, at 74 per cent.

London has the lowest percentage of customers paying by direct debit, at 53 per cent and has the highest percentage of credit customers, at 27 per cent.

Merseyside & North Wales as well as London has the highest percentage of gas customers paying by prepayment at 20 per cent.

Domestic energy competition

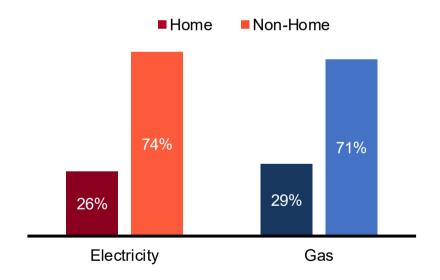
Prior to the privatisation of the GB energy market, all energy customers were supplied by their regional electricity and gas boards. With privatisation these boards became the commercial home suppliers for each region to which all customers in that region belonged before the market opened to competition.

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.

At the end of December 2018, BEIS estimates that 20.1 million (74 per cent) domestic electricity¹⁰ customers and 16.8 million (71 per cent) domestic gas customers in Great Britain¹¹ had transferred away from their original home supplier, the firm who had supplied that region before the energy market opened to competition (see chart 2.8).

Chart 2.8: Proportion of customers with their original home supplier for electricity and gas in GB.



Reference and link to tables:

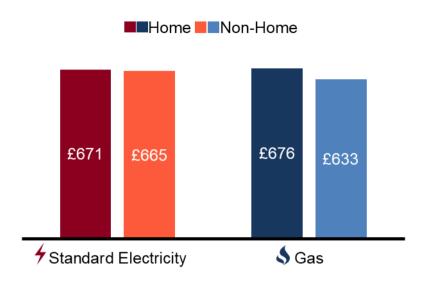
Table 2.4.1: Percentage of domestic electricity customers by region by supplier type Table 2.5.1: Percentage of domestic gas customers by region by supplier type

¹⁰ Includes both standard electricity and Economy 7 electricity.

¹¹ Competition is still limited in scope for domestic customers in Northern Ireland, and so this country has been excluded from this analysis.

Variation in energy competition between payment methods

Chart 2.9: Average annual Standard Electricity and Gas bills for home and non-home suppliers in GB, 2018



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

As can be seen in Table 5, the average annual bill based on fixed consumption 12 for gas and standard electricity is lower for customers with non-home suppliers, with the average bill for customers with home suppliers around £49 more expensive. As seen in Chart 2.9, of this £49, standard electricity contributes around £6 of the difference between home and non-home suppliers, with gas contributing around £43.

Table 5 – Average annual bills by payment method and supplier type for 2018¹³

	Credit		Direct Debit		Prepayment		Overall	
	Home	Non- Home	Home	Non- Home	Home	Non- Home	Home	Non- Home
Standard Electricity	£732	£722	£655	£650	£652	£647	£671	£665
Gas	£719	£711	£667	£620	£629	£621	£676	£633
Total	£1,451	£1,433	£1,322	£1,270	£1,281	£1,268	£1,347	£1,298

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

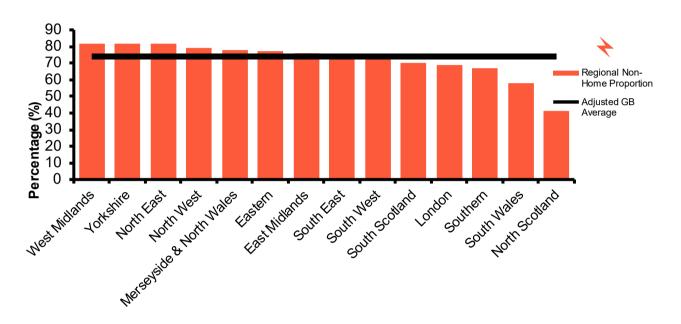
^{12 15,000}kWh for gas and 3,800kWh for electricity

¹³ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

Direct debit customers were most likely to have switched supplier, with 78 percent of electricity customers and 76 per cent of gas customers no longer with their home suppliers. Credit customers were the least likely to have switched, with 63 per cent of electricity customers and 56 per cent of gas customers supplied by a non-home supplier. To note, these figures account for BEIS' estimate for small suppliers in the market.

Regional competition - Electricity

Chart 2.10: Proportion of electricity customers with a non-home supplier



Reference and link to tables:

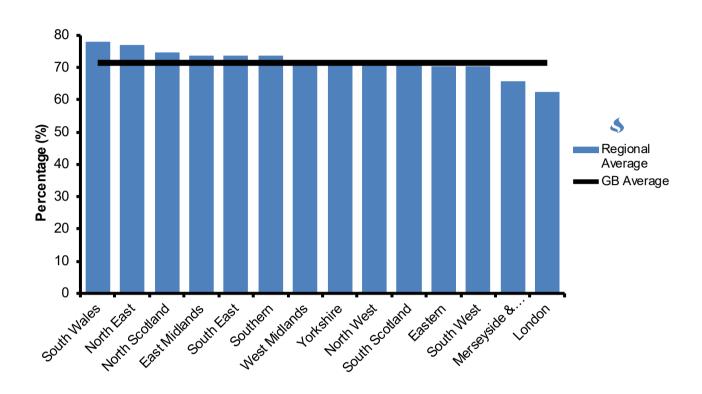
Table 2.4.1: Percentage of domestic electricity customers by region by supplier type

Since the March 2017 edition of QEP, BEIS has published adjusted figures for regional proportions with a non-home supplier. This is to account for the fact that BEIS' survey coverage is primarily of larger energy suppliers with a home region, so in the past have underestimated the proportion of customers who had moved away from their home supplier. Since March 2018, breakdowns by payment type are also adjusted to account for the smaller energy companies, which is a result of surveying a larger proportion of the energy market.

Overall, at the end of December 2018, customers in North Scotland were the least likely to have moved, with around 59 per cent still with their home supplier, whereas customers in the North East, Yorkshire and West Midlands were most likely to have moved with only around 18 per cent with their home supplier (see Chart 2.10).

Regional competition - Gas

Chart 2.11: Proportion of gas customers with a non-home supplier



Reference and link to tables:

Table 2.5.1: Percentage of domestic gas customers by region by supplier type

As with electricity, Chart 2.11 and Tables 2.5 contain estimated data for small suppliers.

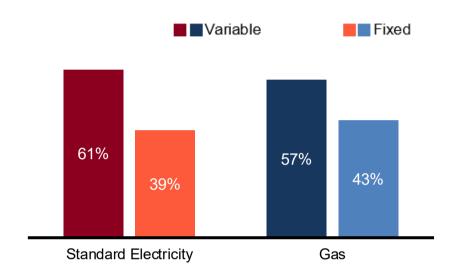
At the end of December 2018, customers in London were the least likely to have moved gas supplier, with around 38 per cent still with their home supplier, whereas customers in South Wales were the most likely to have moved with only around 22 per cent remaining with their home supplier.

Fixed Tariffs

Please note whether tariffs are fixed or variable have been derived by BEIS from the names of the tariffs provided to us by the energy companies. We continually are reviewing our methodology but these are currently classed as **Experimental Statistics** and are not as robust as the data presented elsewhere in the release.

A variable tariff is defined as one where the price is subject to change at any point. A fixed tariff¹⁴ is one where the price has been set for a defined period.

Chart 2.12: Proportion of customers on variable and fixed tariffs



Reference and link to tables:

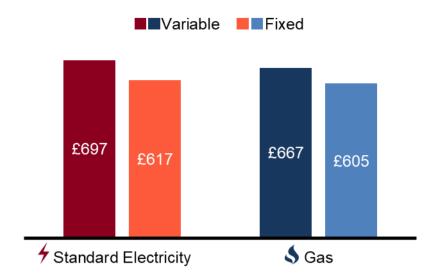
Table 2.4.2: Regional variation of payment method for standard electricity Table 2.5.2: Regional variation of payment method for gas

At the end of December 2018, the majority of standard electricity customers in the United Kingdom (UK) and gas customers in Great Britain (GB), on all payment methods were on variable tariffs, however the percentage of customers on fixed tariffs has increased greatly in recent years.

Around 40% of all standard electricity and gas customers were on fixed tariffs at the end of December 2018. Direct Debit customers are most likely to be on fixed tariffs with 54 per cent of these customers on a fixed deal for electricity and 57 per cent for gas.

¹⁴ 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.

Chart 2.13: Average standard electricity and gas bills for fixed and variable tariffs

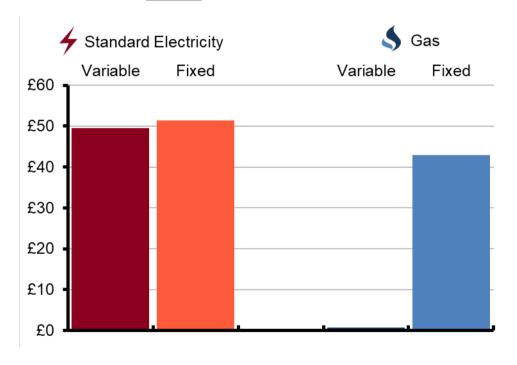


Reference and link to tables:

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

In 2018, annual domestic gas and standard electricity bills for customers on a fixed tariff were, on average, cheaper across all payment types compared to those on variable tariffs, as shown in Table 6, where combined bills were around £141 cheaper for those on a fixed tariff.

Chart 2.14: 2017 to 2018(p) change in average annual bills by 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

Between 2017 and 2018 standard electricity bills increased by a margin of £50 and £51 for variable and fixed tariffs respectively, while gas bills increased by £1 and £43.

Variation in tariff type between payment methods

Table 6 - Average annual bills by payment method and tariff type 15

		Credit	Direct Debit		Prep	ayment	Overall		
	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed	
Standard Electricity	£744	£664	£697	£612	£648	£599	£697	£617	
Gas	£725	£672	£660	£597	£624	£608	£667	£605	
Total	£1,469	£1,336	£1,357	£1,209	£1,272	£1,207	£1,363	£1,222	

Direct debit customers were far more likely to be on a fixed tariff than customers paying by other methods, with 54 per cent of standard electricity and 57 per cent of gas customers on a fixed tariff.

Credit customers were the second most likely to be on a fixed tariff, with 22 per cent and 25 per cent of standard electricity and gas customers on a fixed tariff.

Prepayment customers were the least likely to be on a fixed tariff, with only 1 per cent of standard electricity and 2 per cent of gas customers on a fixed tariff.

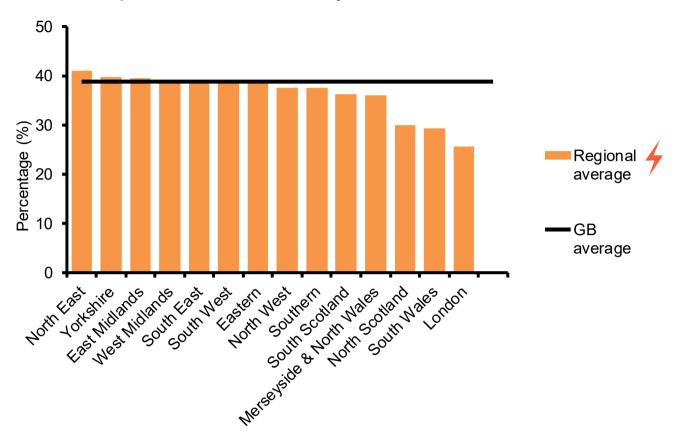
As can be seen in Table 6, average fixed tariff bills were cheaper than variable tariff bills across all payment types. The difference was greatest when paying by direct debit, with fixed tariff bills being £85 and £63 lower for standard electricity and gas, respectively. Equivalent savings for customers paying by credit were £80 and £53 for standard electricity and gas respectively. The difference between fixed and variable tariff bills was lower for prepayment customers by £49 for electricity and £16 for gas.

BEIS data suggest that for variable tariffs, prepayment customers were paying around £84 less than direct debit customers in 2018, whilst customers on fixed tariffs were paying around £2 less.

¹⁵ Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

Regional variation of fixed tariff proportions – Electricity

Chart 2.15 Proportion of standard electricity customers on a fixed tariff¹⁶



Reference and link to tables:

Table 2.4.2: Regional variation of payment method for standard electricity

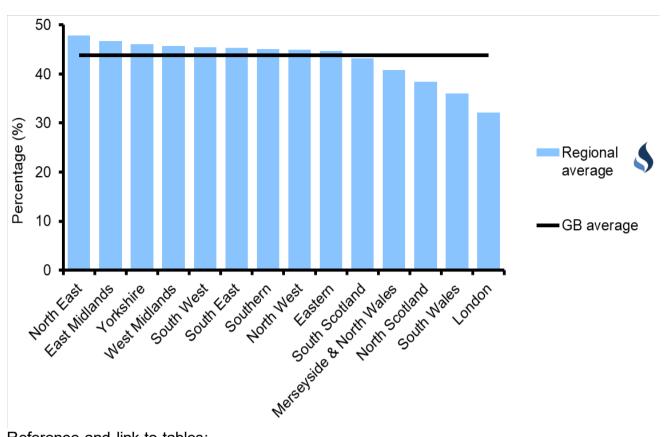
The proportion of customers on fixed tariffs, across all payment types, varies by region. The North East had the highest proportion of customers on fixed tariffs at 41 per cent. London had the lowest proportion of customers on fixed tariffs across all regions in Great Britain at 26 per cent.

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¹⁶ Northern Ireland has been excluded from this analysis as BEIS survey coverage of the region is not as comprehensive, and so the figures were potentially unrepresentative.

Regional variation of fixed tariff proportions - Gas

Chart 2.16 Proportion of gas customers on a fixed tariff



Reference and link to tables:

Table 2.5.2: Regional variation of payment method for gas

The proportions are comparable for gas, with North East having the highest proportion on fixed tariffs at 48 per cent. Again, London had the lowest proportion of customers on fixed tariffs in Great Britain, at 32 per cent.

Transfer statistics

Chart 2.17 Domestic gas and electricity transfers¹⁷



Source: Ofgem

Reference and link to tables:

Table 2.7.1: Transfer statistics in the domestic gas and electricity markets

The Office for Gas and Electricity Markets (Ofgem), provide BEIS with the number of domestic customers in Great Britain that have switched supplier for both electricity and gas. For electricity, this covers the whole domestic market. Formerly gas switching levels only covered the main six suppliers however from January 2014 Ofgem provided switching levels for the whole market. As a result of this, published gas transfers will be lower before Q1 2014 compared to more recent quarters.

The number of transfers made within the domestic electricity market increased by 3.9 per cent between Q4 2017 and Q4 2018, with an estimated 1,411,000 electricity transfers being made in Q4 2018 compared to 1,361,000 in the same period in 2017, as seen in Chart 2.17. Since Q4 2017, gas transfers increased by 2.4 per cent to 1,189,000 transfers in Q4 2018 compared with 1,162,000 transfers in the same period last year. These quarterly transfers represent around 5 per cent for both electricity and gas customers in the domestic market.

¹⁷ 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.

Household Expenditure on energy

The proportion of total expenditure spent on energy based on a fixed consumption level is higher for those in the lower income deciles. This can be seen in chart 18 below. Almost 8 per cent of expenditure was spent on energy for the lowest income decile compared to just 2.6 per cent for those in the highest income decile.

9.0% 8.0% 7.0% 6.0% 5.0% 4.0% 3.0% 2.0% 1.0% 0.0% 4th 5th 7th 1st 2nd 3rd 6th 8th 9th 10th Average decile Income Decile

Chart 18: Proportion of expenditure spent on fuel and power by income decile

Source: ONS Household Expenditure Survey

These trends differs for other household costs such as housing, and petrol and oil. Expenditure on food has a similar trend, although the difference between the lowest and highest income decile isn't as great.

Proportion of total expenditure spent on each area by income decile

2017/18	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Average
Fuel and											
power	8.0%	7.3%	5.9%	5.2%	4.5%	3.9%	3.5%	3.2%	3.0%	2.6%	3.9%
Housing	21.5%	19.6%	19.2%	17.8%	19.6%	18.8%	18.8%	16.7%	16.3%	14.9%	17.5%
Food	17.4%	18.5%	17.0%	16.1%	16.1%	15.2%	14.5%	15.2%	15.4%	12.7%	15.1%
Petrol and oil	2.3%	2.8%	3.5%	3.8%	3.8%	3.9%	4.1%	4.2%	4.4%	3.1%	3.7%

Reference and link to tables:

Table 2.6.2: Average expenditure each week on fuel per consuming household

Industrial Sector Prices

This section presents information on prices of the main fuels the manufacturing and industrial sector use to operate (such as Gas and Electricity), the prices paid for the fuels used by major power producers to generate electricity and prices of fuels used in the non-domestic sector. Non-domestic in this context essentially all prices paid by organisations other than households.

All the detailed underlying data and related publications can be found on GOV.UK here: www.gov.uk/government/collections/industrial-energy-prices

Highlights and Headline Figures

Average industrial prices (in real terms) including the <u>Climate Change Levy</u> (CCL), rose by 19 per cent for gas and by 8.2 per cent for electricity between the last quarter of 2017 and quarter 4 2018.

Over the same time period, prices for coal paid by industry fell by 1.9 per cent. Heavy fuel oil (which is not subject to the CCL) increased by 17 per cent.

Between Quarter 4 of 2017 and of 2018, the price of gas used for electricity generation increased by 31 per cent in cash terms while that for coal increased by 1.6 per cent.

Notes

Please note that the prices presented in this section vary depending on the sectoral coverage (e.g. manufacturing industry, all industry, or non-domestic consumers) and on consumption levels. Prices of fuels may move different amounts, or even in different directions, dependant on the sectors and/or consumption size bands being compared. 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.

Additionally, average prices in tables 3.1.1 to 3.1.4, which cover the manufacturing industry, tend to be weighted more towards the prices paid by large consumers, whereas as tables 3.4.1 and 3.4.2 cover all non-domestic consumers, average prices tend to be weighted more towards smaller consumers.

Larger consumers may be more dependent on wholesale spot prices, and therefore more vulnerable to price spikes, whereas smaller consumers tend to be on more stable contracts. These factors help to explain the variation in prices.

Price indices in table 3.3.1 aim to be reflective of all industrial users.

Heavy Fuel Oil a derivative from the oil refining process used to fuel furnaces and boilers, for heating, ships, locomotives and industrial power plants. Requires pre-heating before use.

Gas Oil (sometimes called Red Diesel for agricultural uses) a more refined oil from the process used as a fuel in off road vehicles like tractors, burned in central heating systems and in the chemical industry

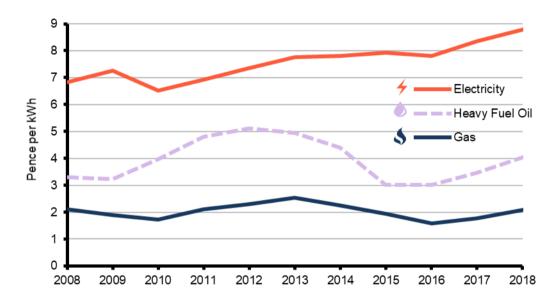
Energy prices in the manufacturing sector

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 we cover in this section are **Electricity**, **Gas** and **Heavy Fuel Oil**.

Associated tables with this release also present detail on the movements in the prices of **Coal** and **Gas Oil** used in the manufacturing sector.

These prices vary by consumption reflecting the bargaining position of the larger users and factors such as length of contracts and the relative impact of crude oil prices on fuel prices.

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



Reference and link to data table:

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

In the manufacturing sector, average annual fuel prices for electricity have been on a general upward trend since 2004, rising each year with the exception of falls in 2007, 2010 and in 2016 (chart 3.1).

With regard to gas, average prices have been more variable with a rising trend interspaced with falls in individual years. From the peak in 2013, average gas prices fell by 30 per cent in 2016. However, over the past two years, gas prices in the manufacturing sector have increased and in 2018 were 17 per cent higher than in the previous year. For heavy fuel oil and gas oil, with the exception of 2009, prices increased each year between 2005 and 2012. Since then, prices for both fuels have decreased with stronger falls in 2015. Over the past two years heavy fuel oil and gas oil prices have again increased. Coal prices generally increased each year between 2004 and 2013 before falling. In the past two years coal prices have again increased and in 2018 were 14 per cent higher than in the previous year.

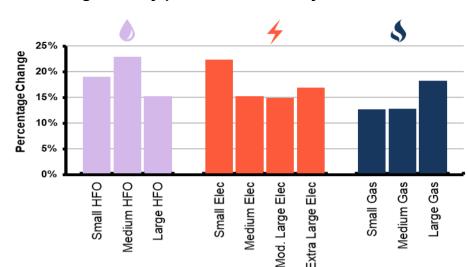


Chart 3.2 Manufacturing industry price movements by size of consumer(1)

(1) Percentage price movement between Q4 2017 and Q4 2018 for heavy fuel oil (HFO), electricity and gas, in cash terms excluding Climate Change Levy (CCL)

Data for 2018 show that over the past five years (2013 to 2018) average industrial electricity prices have risen by 13 per cent in cash terms (4.7 per cent in real terms) and compared to the previous year average industrial electricity prices have increased by 5.2 per cent (3.4 per cent in real terms). Over the same five-year period average industrial gas prices have decreased by 18 per cent in cash terms (24 per cent in real terms) but have increased by 17 per cent (15 per cent in real terms) over the previous year.

Recent price movements by size band are shown in Chart 3.2. Compared to the previous year, heavy fuel oil consumers in the manufacturing industry in Q4 2018 have seen average prices increase by 19 per cent in cash terms. Over the same period, average prices paid by electricity consumers in the manufacturing industry, in cash terms excluding CCL, rose by 16 per cent and the average prices for gas consumers, in cash terms excluding CCL, increased by 17 per cent.

References and links to data 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)

Average prices of fuels purchased by the major UK power producers

Average purchase costs of fuels used to generate electricity are presented in table 3.2.1. Generation costs are also affected by non-fuel costs such as transportation costs, and by the efficiency with which fuel is converted into electricity in different types of power station. Therefore comparing the fuel input costs in common units does not explain the full costs involved.

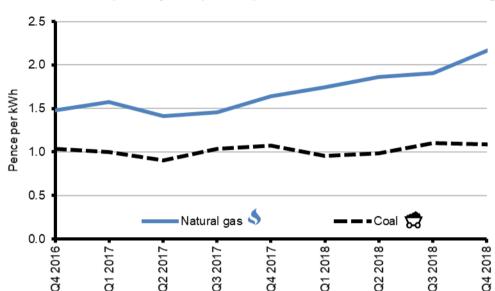


Chart 3.3 Price paid by UK power producers for coal and natural gas - quarterly

Reference and link to data table:

Table 3.2.1: Average price of fuels purchased by the major UK power producers

Gas wholesale prices have generally been higher and more volatile since 2008, in line with crude oil prices. Since the low of 0.96 pence per kWh in September 2016, prices have increased reaching 1.81 pence per kWh in January 2017 before falling sharply to 1.20 pence per kWh in June 2017. Apart from a slight dip in October 2017 and a much larger dip in January 2018, wholesale gas prices rose to a high of 2.46 pence per kWh in March 2018, the highest for over four years. This was due to the first two days of March 2018 when wholesale gas prices reached a record high of 12.71 pence per kWh on account of the cold weather.

Prices however then fell significantly to an average of 1.89 pence per kWh for the rest of the month. Following a sharp fall of 29 per cent in wholesale prices in April 2018, prices again rose steadily to a peak of 2.51 p/kWh in September 2018.

Compared to the previous year, in Q4 2018 wholesale gas prices were 25 per cent higher. The rise in wholesale gas prices was due to several factors including the rising prices of oil and carbon futures impacting on gas prices.

Between Q4 2017 and Q4 2018 the price of coal in cash terms for power stations increased by 1.6 per cent to 1.09 pence per kWh whilst the price of gas over the same period increased by 31 per cent to 2.16 pence per kWh. As shown in Chart 3.3, in Q4 2018 the

price of coal in pence per kWh was nearly half that of gas leading to a price gap in cash terms of 1.1 pence per kWh.

Compared to the previous year, in Q4 2018 less coal (down 40 per cent) and less gas (down 9.8 per cent) were used in electricity generation. These reductions were due to increased use of renewables in generation, in particular bioenergy and wind, though electricity demand in the quarter was down. In terms of share of generation, in Q4 2018 gas accounted for 38 per cent of the UK total generation (1.7 percentage points lower than in the previous year), while coal's share was 5.8 per cent (1.7 percentage points lower than in the previous year).

2.5 2.0 Pence per kWh 1.5 1.0 0.5 ■ Coal Natural gas 0.0 2009 2010 2011 2012 2013 2014 2016 2017 2018 2008 2015

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

Reference and link to data table:

Table 3.2.1: Average price of fuels purchased by the major UK power producers

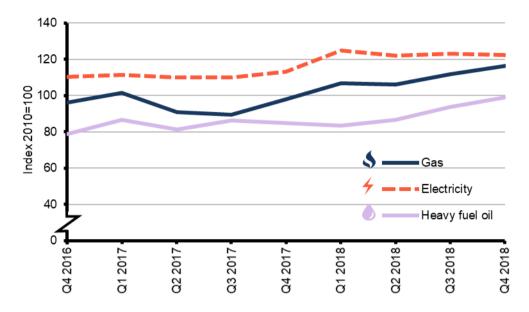
Prior to 2008, coal was the dominant fuel used in electricity generation. Between 2008 and 2011, gas overtook coal as the dominant fuel, but between 2012 and 2015 the relative prices of coal and gas meant that coal use increased once more at the expense of gas. In 2013, gas fuelled generation fell to 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 the recent two years, gas use in generation have fallen. Coal use has fallen in the last five years due to reduction in coal capacity, power station closures and increasing costs of generating from coal.

In 2018 coal prices for power generation, in cash terms, increased by 4.0 per cent over the previous year while gas prices increased by 26 per cent. Gas prices in 2018 were 16 per cent lower than the peak of 2.3 pence per kWh seen in 2013 (chart 3.4). Over the past 5 years, the annual average real terms prices of coal have increased by 15 per cent while natural gas used by the major power producers have decreased by around 23 per cent.

Fuel price indices for the 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).

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.

As shown in Chart 3.5 between Q4 2017 and Q4 2018 the average industrial gas prices including CCL rose by 19 per cent in real terms, whilst industrial electricity prices including CCL rose by 8.2 per cent. Over the same period the price of coal fell in real terms by 1.9 per cent while the price of heavy fuel oil (not subject to CCL) increased by 17 per cent.

The inclusion of CCL increased the average prices of coal by 5.5 per cent, electricity by 3.8 per cent and gas by 4.1 per cent in Q4 2018.

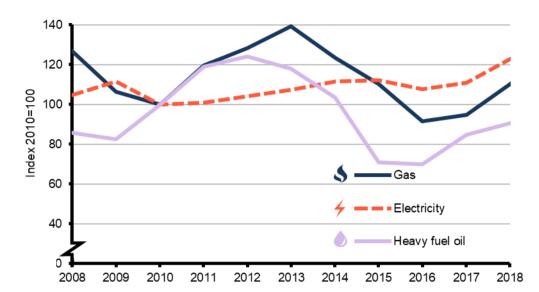


Chart 3.6 Industrial fuel price indices (2) - annual

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

References and links to data tables:

Table 3.3.1 and 3.3.2: Fuel price indices for the industrial sector

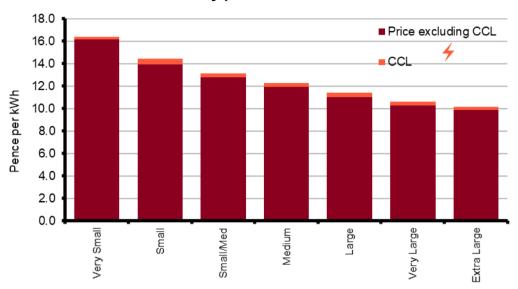
Prices in real terms (including CCL) for all fuels generally stayed below the 1990 levels until 2005. Since the low in 2003 total fuel prices have followed an upward trend reaching a peak in 2013 and with some of the largest annual increases occurring between 2005 and 2008. In most recent years, prices have again risen and in 2018 total fuel prices in real terms (including CCL) were 11 per cent higher than in the previous year, but only 0.6 per cent below the peak in 2013.

The average price of heavy fuel oil over the five years to 2018 decreased by 23 per cent in real terms but has increased by 7.1 per cent compared to the previous year. The annual average price of gas, including CCL, fell by 21 per cent in real terms over the past five years, but has increased by 16 per cent on the previous year. However, the average price of electricity, including CCL, has risen by 14 per cent in real terms over the past five years, and by 11 per cent on the previous year.

Gas and electricity prices for the non-domestic sector in the UK

This section presents data on the non-domestic sector which **excludes** prices paid by households and generally **comprises** all industrial (manufacturing, energy for example) and commercial sectors (services, retail for example)

Chart 3.7 UK non-domestic electricity prices Q4 2018



Reference and links to data tables:

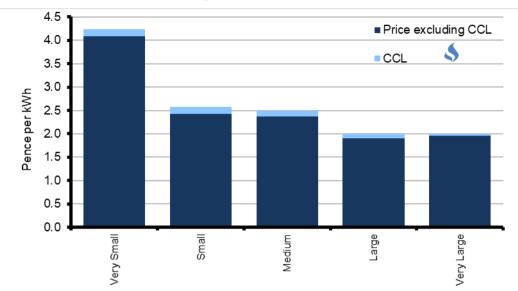
Table 3.4.1 and 3.4.2: Price of fuels purchased by non-domestic consumers in the UK excluding and including CCL

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.

Chart 3.7 shows the electricity prices in the non-domestic sector by size bands in Q4 2018. Between Q4 2017 and Q4 2018, average electricity prices in cash terms excluding CCL in the non-domestic sector rose by 9.6 per cent. Prices for all the consumer bands increased over the same period, with increases ranging from 0.9 per cent for the Very Large band to 16 per cent for the Small/Medium band.

Since the second quarter of 2011 electricity prices in the non-domestic sector have been on a general upward trend. In Q4 2018 the average prices of electricity including CCL in the non-domestic sector was 9.4 per cent higher than in the previous year. The inclusion of CCL in Q4 2018 increased the average price of electricity in the non-domestic sector by 3.2 per cent and by 1.6 per cent to 3.7 per cent for the various bands.





Reference and links to data tables:

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

Between Q4 2017 and Q4 2018, average gas prices in cash terms excluding CCL in the non-domestic sector rose by 22 per cent. Prices for all the consumer bands increased, ranging from 12 per cent for the Very Small band to 29 per cent for the Medium band.

Since the high in Q1 2014, average gas prices have been decreasing at a slow rate until Q4 2017. Prices have since been on the rise and in Q4 2018 average gas price was 3.2 per cent higher than in the previous quarter. Chart 3.8 shows the current gas prices in the non-domestic sector by size band in Q4 2018.

Average gas prices, including CCL, trended upwards from 2004 but downwards since the second quarter of 2014 to the fourth quarter of 2017 before rising again, with a slight seasonal decrease usually evident in the second and third quarter of each year. This seasonal decrease was not apparent in 2008 due to the consistently high wholesale gas prices and has also been less marked in recent years for the same reason. In Q4 2018, the inclusion of CCL increases the prices of gas in the non-domestic sector for all the consumer bands by between 3.0 and 5.5 per cent.

Crude Oil Prices and the Effect on Derivatives

Prices of most fuels broadly follow the trends in prices of crude oil. Because of the time it takes to refine this and produce the derivatives the effects are essentially 'lagged' by 1-2 months before they appear in the trends. Below is a timeline on the key events that effected crude prices over the past decade.

Timeline showing key events trends in crude oil prices

2011 - 2013	Prices stable though at the higher end on the trend Prices above \$100 per barrel
2012	Prices reach their most recent peak the highest in over a decade Price around \$112 per barrel
Q1 2016	Prices at their lowest in cash terms this was the lowest price since 2004 Price around \$44 per barrel
Q4 2016	OPEC announced cuts to supply in November Quarter 4 2016 prices rise 16 per cent compared to year earlier and 9.3 per cent compared to Q3
2017	Prices more erratic Crude prices rose 7.9 per cent in Q1 2017, fell 7.1 per cent in Q2 2017 before rising again Q3
Q4 2017	OPEC and Russia led group of oil producers extend production cut until end 2018 prices of crude oil increase 19 per cent on the previous quarter. Impacts also from outage of the Forties Pipeline System Price around \$54 per barrel
Q2 2018	OPEC and non-OPEC members (OPEC+) agreed to boost production
Q3 2018	Despite this announcement crude oil prices increased to a peak of \$75 an increase of 1.3 per cent but the highest level since Q4 2014 - 46 per cent higher compared to Q3 2017
Q4 2018	OPEC+ announced a cut in supply from January 2019 despite this, crude prices were down by 10 per cent on Q3 though still 10 per cent higher on the previous year
2018	Geopolitical tensions lead to crude oil prices an increase of 31 per cent on 2017 Prices above \$71 per barrel

Oil and Petroleum Product Prices

This section presents information on United Kingdom price data for oil and other petroleum products derived from it. This is not specifically domestic or industrial use but generally the 'forecourt' or 'pump' price for petrol and the wholesale price for oil and it's products.

It includes the prices paid for crude oil by UK refineries to produce these products and background on the average retail 'pump' prices for road fuel (unleaded and diesel) and other heating and fuel oils. We also explore the components of this price - including the proportion of the price paid that is tax and duties.

All the underlying data and related publications can be found on GOV.UK here: www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices

In addition to this summary data, road fuels data is also published as a UK average on a weekly basis in the **Weekly Road Fuel Prices** publication which is available here: www.gov.uk/government/statistical-data-sets/oil-and-petroleum-products-weekly-statistics

Highlights and Headline Figures

The price of petrol in March 2019 was 120.1 pence per litre which was 0.8 per cent higher than that of a year ago, whilst the diesel price at 130.6 pence per litre was 6.3 per cent higher compared to a year ago. The petrol price in March 2019 was 22 pence (15 per cent) lower than the peak in April 2012, whilst the diesel price was 17 pence (12 per cent) lower.

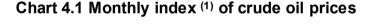
The price of crude oil purchased by UK refineries, in £ Sterling terms, in February 2019 was 1.1 per cent higher than a year ago, 31 per cent higher than the low seen in June 2017 and 5.3 per cent higher than the previous month.

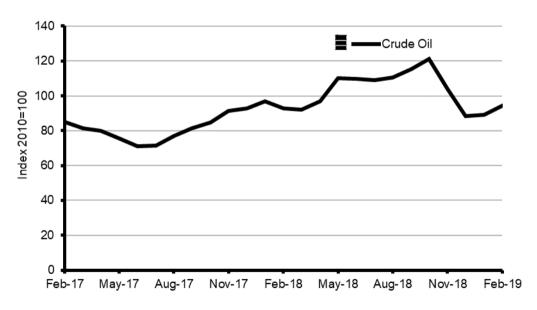
Crude oil prices

Movements in the price of crude oil affect the prices of various domestic and industrial fuels, as well as petroleum products. A price index for crude oil is available in Tables 4.1.1 and 4.1.2 for comparison against the prices of petroleum products. Over the years, prices of crude oil have changed for a variety of reasons, such as: oil shortages (1973); over-supply and weak demand (1998); hurricanes (2005); the global recession (2008-9); and geopolitical tensions (2008 onwards).

At their meeting on 22nd June 2018 (174th) in Vienna OPEC and non-OPEC countries agreed to increase production by a recommended 1m barrels per day (bpd). The announcement had had very little impact on crude oil prices which by August 2018 were down by only 2.2 per cent on the June prices of 75 \$/barrel. Geopolitical tensions and threats of new sanctions on Iran by the US saw prices increase by 10 per cent between August and October 2018. In November 2018 however, crude oil prices were down 17 per cent on the previous month. This fall was likely due to reports of a build-up in global supply, together with demand uncertainties that raised concerns on global economic growth.

OPEC and Non-OPEC members met on 7th December 2018 in Vienna (175th meeting) and agreed to cut production by 1.2m bpd from January 2019. The larger share of the cut will be from the OPEC group (excluding Iran, Venezuela and Libya) while the rest will be from the Non-OPEC group including Russia. The reduction will be for an initial period of six months though it will be reviewed in April 2019. Crude oil prices in December 2018 were down by a further 13 per cent on the previous month and compared to the previous year prices were down by 12 per cent.





(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 data table:

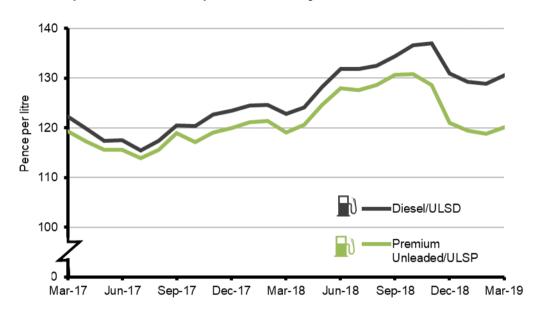
Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index

Chart 4.5 shows the price index of crude oil acquired by UK refineries. In February 2019 the price index was 1.1 per cent higher than that of a year ago but 39 per cent below that in March 2012, which was the highest level since our record began in 1991.

The annual price index for 2018 was 28 per cent higher than 2017 and 24 per cent lower than the high of 2012. Over the past five years (February 2014 to February 2019) the average index price of crude oil acquired by refineries has decreased by 27 per cent.

Retail prices of petroleum products

Chart 4.2 Retail prices of motor spirits - Monthly



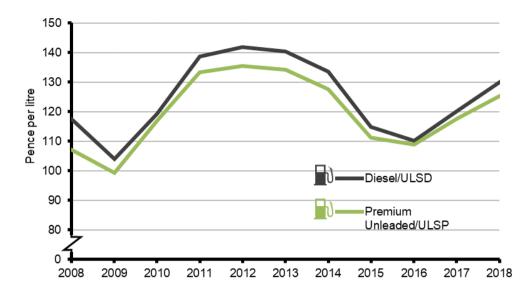
Reference and link to data table:

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. Prices of unleaded petrol (ULSP) and diesel (ULSD) reached new highs in April 2012, mainly due to the cost of crude oil. Relative to those peaks, the petrol price in March 2019 was 22 pence lower whilst the diesel price was 17 pence lower. 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 4.1 shows that, in March 2019, a litre of ULSP was on average 120.1 pence. This was 1.2 pence per litre lower than the previous month and 1.0 pence per litre (0.8 per cent) higher than a year ago. The diesel price was 130.6 pence per litre which was 1.7 pence per litre higher than the previous month, and 7.8 pence per litre (6.3 per cent) higher than a year ago.

Chart 4.3 Retail prices of motor spirits - annual



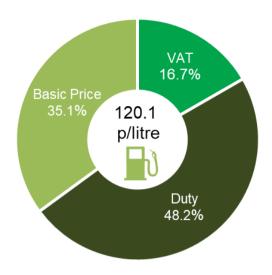
Reference and link to data table:

Table 4.1.2: Typical monthly retail prices of petroleum products and a crude oil index

Annual 2018 prices of ULSP and ULSD were lower than the record highs of 2012 by 7.5 per cent and 4.0 per cent respectively, as shown in Chart 4.2. The differential between ULSP and ULSD in 2018 was 4.8 pence per litre, a rise of 2.2 pence per litre on 2017.

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 strongly in 2008, falling back in 2009, and then increasing strongly once more in 2010 and 2011 before broadly levelling off in 2012 and 2013. Prices fell in 2014 and more sharply in 2015 though less so in 2016 but over the last two years prices have risen along with the prices of crude acquired at refineries.

Chart 4.4 Component price of unleaded petrol, March 2019



(1) Basic price is the price excluding VAT and duty

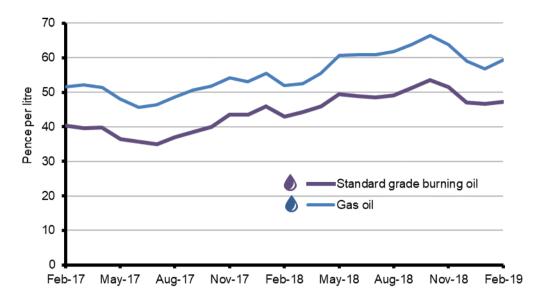
Reference and link to data table:

Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index

Relative to the peak in April 2012, the price of unleaded petrol, excluding tax and duty, in March 2019 is 30 per cent lower and the price of diesel, excluding tax and duty, is 22 per cent lower. Chart 4.3 shows the components of the retail price of petrol in March 2019 when the basic price was 42.14 pence per litre, duty at 57.95 pence per litre, and VAT at 20 per cent (20.02 pence per litre).

Comparisons on how the UK petrol and diesel prices fare with the other European countries can be found in Chapter 5.





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

References and link to data 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 February 2019 was 27 per cent lower than the peak in February 2013. The price of gas oil in February 2019 was 20 per cent lower than in April 2012, which was the highest level on record which started in 1989. In February 2019 the price of SGBO was 10 per cent higher than a year ago (Chart 4.4) while that of gas oil was 14 per cent higher.

International Comparisons

This section compares price data for the United Kingdom with the European Union and the International Energy Association (IEA). The Department provides both organisations with data throughout the year and we use the data from other countries to make definitionally consistent comparisons highlighting relative competitiveness and the levels of taxes and duties paid.

All the underlying data and related publications can be found on GOV.UK here: www.gov.uk/government/collections/international-energy-price-comparisons

Highlights and Headline Figures

In February 2019 the average UK prices for petrol at the pump were the seventh lowest in the EU15 at 118.9 pence per litre, whilst the average UK prices for diesel were the second highest in the EU15 at 128.9 pence per litre.

For January to June 2018, UK industrial electricity prices for medium consumers including taxes were the highest in the EU15, whilst industrial gas prices for medium consumers including taxes were the second lowest in the EU15.

For January to June 2018, UK domestic electricity prices for medium consumers including taxes were the fifth lowest in the EU15, whilst domestic gas prices for medium consumers including taxes were the second lowest in the EU15.

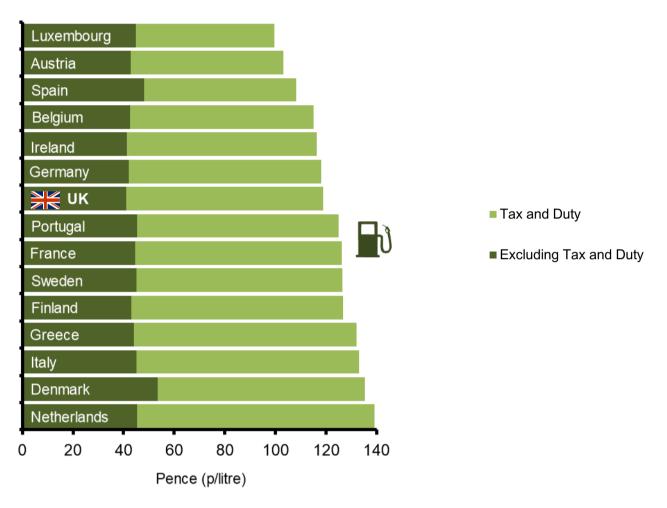
Notes

International prices vary for many reasons including differences in indigenous resources and market structures, varying exchange rates and inflation rates (for instance, there was an appreciation of 0.3 per cent in the pound against the euro between the second half of 2017 and the second half of 2018).

Unleaded petrol and Diesel prices

Premium unleaded petrol prices

Chart 5.1 Premium unleaded petrol prices, February 2019



Source: European Commission Oil Bulletin

Reference and link to tables:

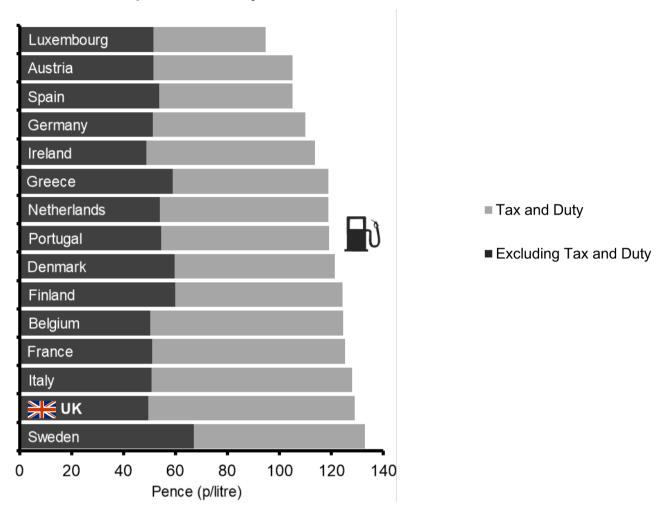
Table 5.1.1 and 5.2.1: Premium unleaded petrol prices in the EU

Chart 5.1 shows that the average UK unleaded petrol prices, including taxes, in February 2019 were the seventh lowest in the EU15 at 118.9 pence per litre. When presented in a common currency basis, the lowest price was in Luxembourg at 99.7 pence per litre while the highest price was in the Netherlands at 139.2 pence per litre.

Average UK petrol prices, excluding taxes, in February 2019 were the lowest in the EU15 at 41.1 pence per litre. The highest price in the EU15 was in Denmark at 53.4 pence per litre.

Diesel prices

Chart 5.2 Diesel prices, February 2019



Source: European Commission Oil

Reference and link to tables:

Table 5.1.1 and 5.2.1: Premium unleaded petrol prices in the EU

Chart 5.2 shows that average UK diesel prices, including taxes, in February were the second highest within the EU15 at 128.9 pence per litre. When presented in a common currency basis, the lowest price was in Luxembourg at 94.6 pence per litre, while the highest price was in the Sweden at 133.1 pence per litre.

The high UK diesel prices are partly due to the taxes levied, which accounted for 62 per cent of the total price in February 2019, compared to the lowest tax proportion of 46 per cent in Luxembourg. Average UK diesel prices, excluding taxes, in February 2019 were the second lowest in the EU15 at 49.5 pence per litre. The highest price was that in Sweden at around 67.0 pence per litre.

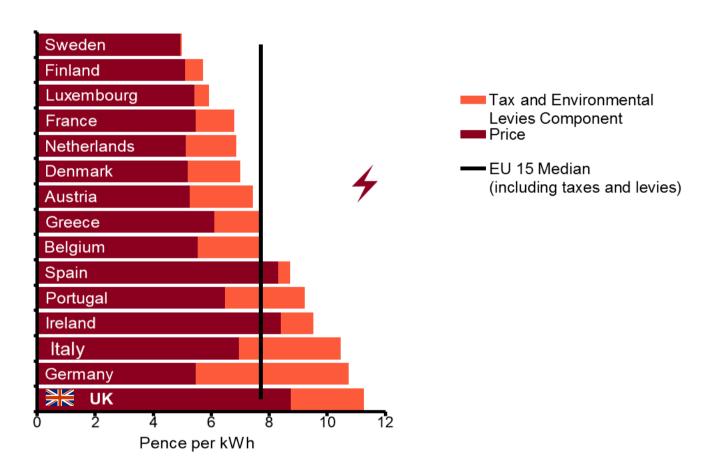
Industrial gas and electricity prices

Prices for gas and electricity in this section will vary depending on the periodicity (6-monthly or annual) and consumption (by band size or an overall average) of the tables. In general, the 6-monthly Eurostat EU 28 tables have more timely data and reflect changes on a shorter timescale; however, for comparisons including non-EU countries the annual IEA tables are more suitable.

Rankings may differ between the IEA and Eurostat tables. The charts (shown in colour) include actual data available at the time of publication. The black line on the charts represents the EU15 median produced using the data from all available countries.

Industrial electricity prices

Chart 5.3 Industrial electricity prices



Prices are for medium consumers in the EU15 for January – June 2018.

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/data/data/base

Average UK industrial electricity prices including taxes for medium consumers for the period January to June 2018 were the highest in the EU15 and were 46 per cent above the EU15 median of 7.7 pence per kWh. The UK prices for medium consumers excluding taxes and levies were the highest in the EU15 and were 60 per cent above the estimated median price of 5.5 pence per kWh. Chart 5.3 shows the prices for the EU15 nations for the period January to June 2018.

The average industrial electricity prices including taxes for medium consumers rose in more than half of the EU15 countries on the same period in 2017. The average increase in the EU15 was 2.4 per cent. The largest increase was in Spain, by 15 per cent. The price increase in the UK was 8.4 per cent.

Reference and link to tables:

Table 5.4.1: Industrial electricity prices in the EU

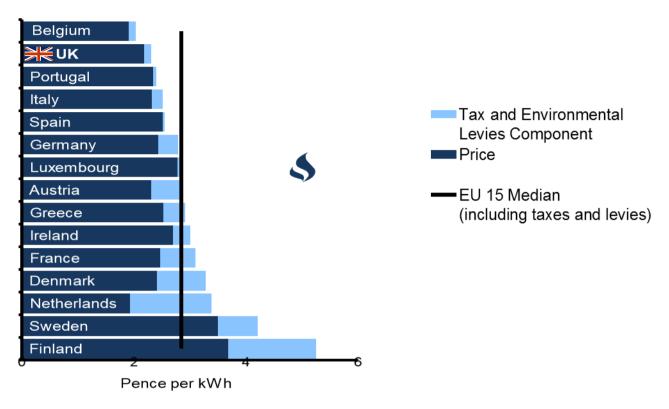
In 2017, average UK industrial electricity prices, including taxes, were the sixth highest in the IEA, mid-ranked in the G7, and was 28 per cent above the IEA median price. UK industrial electricity prices were 82 per cent higher than in the US. The UK price increased by 5.5 per cent between 2016 and 2017.

Reference and link to table:

Table 5.3.1: Industrial electricity prices in the IEA including and excluding taxes

Industrial gas prices

Chart 5.4 Industrial gas prices



Average UK industrial gas prices for the period January to June 2018, including taxes, for medium consumers were the second lowest in the EU15 and were 19 per cent below the median price of 2.9 pence per kWh. The UK prices excluding taxes and levies for the medium consumers were 2.2 pence per kWh; which were 10 per cent below EU15 median. Chart 5.4 shows the prices for EU15 nations for the period January to June 2018.

The average industrial gas prices including taxes in the UK for medium consumers rose by 8.0 per cent on the same period in 2017. Price changes in the rest of the EU ranged between -3.2 and +32 per cent.

Reference and link to table:

Table 5.8.1: Average industrial gas prices in the EU

In 2017, average UK industrial gas prices, including taxes where not refunded, were the fifth lowest in the IEA, third lowest in the G7, and were 14 per cent below the IEA median. UK industrial gas prices were 84 per cent higher than in the US.

Reference and link to table:

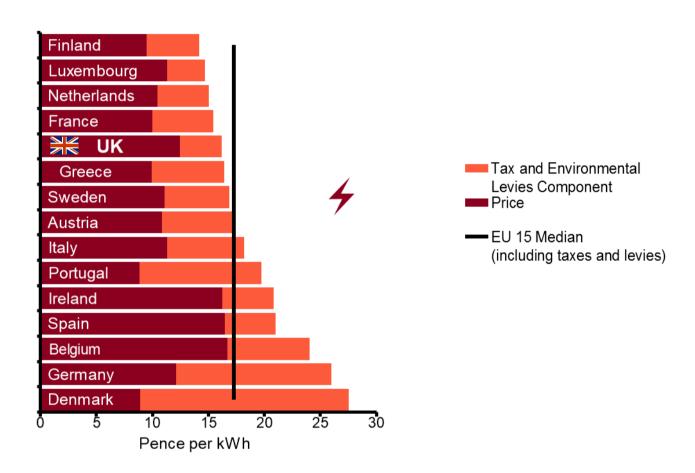
Table 5.7.1: Industrial gas prices in the IEA including and excluding taxes

Domestic electricity and gas prices

Domestic electricity prices

The average UK domestic electricity prices including taxes for medium consumers for January to June 2018 were the fifth lowest in the EU15 and was 6.5 per cent below the EU15 median price of 17.3 pence per kWh. The UK prices excluding taxes and levies were the fourth highest in the EU15 and were 12 per cent above the median level of 11.1 pence per kWh. Chart 5.5 shows the prices for EU15 nations for the period January to June 2018.

Chart 5.5 Domestic electricity prices



The average domestic electricity prices including taxes in the UK for medium consumers have risen by 6.4 per cent for the period January to June 2018 compared to the same period in 2017, while changes in the other EU15 countries ranged between -1.5 and 12 per cent.

Reference and link to table:

Table 5.6.1: Average domestic electricity prices in the EU

In 2017, average UK domestic electricity prices, including taxes, were the twelfth highest in the IEA, mid-ranked in the G7 and were 6.1 per cent higher than the IEA median. Compared to the USA, the UK domestic electricity prices were 59 per cent higher.

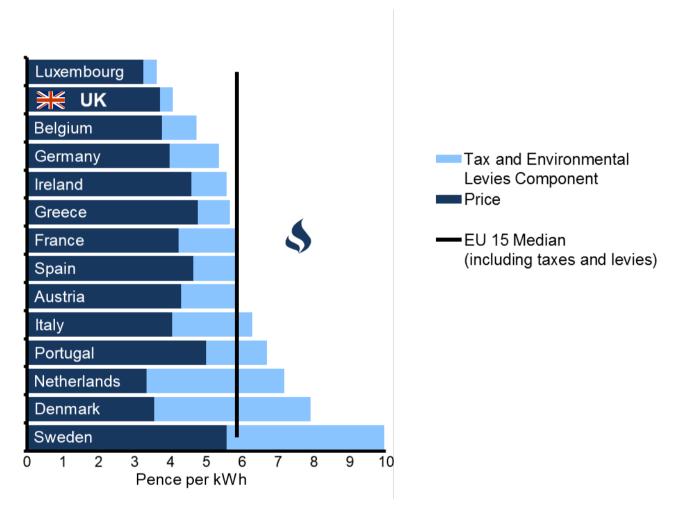
Reference and link to table:

Table 5.5.1: Domestic electricity prices in the IEA including and excluding taxes.

Domestic gas prices

Average UK domestic gas prices for the period January to June 2018, including taxes, for medium consumers were the second lowest in the EU15 and were 31 per cent below the median of 5.9 pence per kWh. The UK prices excluding taxes were the fourth lowest in the EU15 and were 10 per cent lower than the median price of 4.1 pence per kWh. Chart 5.6 shows the prices for the EU15 nations (where data are available) for the period January to June 2018.

Chart 5.6 Domestic gas prices



Prices are for medium consumers in the EU15 for January - June 2018.

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

The average domestic gas price including taxes in the UK for medium consumers rose by 0.7 per cent on the same period in 2017. Prices in the rest of the EU15 increased, with an average increase of 3.2 per cent except in Sweden where prices all fell by 4.7 per cent.

Reference and link to table:

Table 5.10.1: Average domestic gas prices in the EU

In 2017, average UK domestic gas prices, including taxes where not refunded, were the eighth lowest in the IEA, third lowest in the G7, and were 29 per cent below the IEA median. Compared to the USA, the UK domestic gas prices were 53 per cent higher.

Reference and link to table:

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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 full publication (which are published March, June, September and December each year).

Domestic Tables

Tables for the Domestic energy prices area:

	,3 101 ti	ic <u>b</u> c		estic energy prices area:												
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	nergy	Monthly	2.1.1	Consumer prices index fuel components												
	Domestic energy price indices	Monthly	2.1.2	Consumer prices index fuel components, relative to GDP deflator												
	Domo	Monthly	2.1.3	Consumer prices index fuel components, monthly figures												
	S	Annual	2.2.1	Average annual domestic electricity bills by home and non-home supplier			R									
	rgy Bil ty	Annual	2.2.2	Average annual domestic electricity bills for UK countries			R									
	ic Ene lectrici	Annual	2.2.3	Average annual domestic standard electricity bills in 2017 for UK regions with average unit costs			R									
	Domestic Energy Bills Electricity	Annual	2.2.4	Average variable unit costs and fixed costs for electricity for UK regions			R									
Se	۵	Annual	2.2.5	Average annual domestic electricity bills by various consumption levels							R					
Domestic Energy Prices	<u>s</u>	Annual	2.3.1	Average annual domestic gas bills by home and non- home supplier			R									
rgy	Domestic Energy Bills Gas	Annual	2.3.2	Average annual domestic gas bills for GB countries			R									
Ene		Annual	2.3.3	Average annual domestic gas bills for GB regions with average unit costs			R									
stic		Annual	2.3.4	Average variable unit costs and fixed costs for gas for GB regions			R									
эшс		Annual	2.3.5	Average annual domestic gas bills by various consumption levels							R					
Ď	er s ity	Quarterly	2.4.1	Percentage of domestic electricity customers by region and supplier type												
	Customer numbers Electricity	Quarterly	2.4.2	Regional variation of payment method for standard electricity												
	0.1	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												
	Cust num G	Quarterly	2.5.2	Regional variation of payment method for gas												
	Household Data	Annual	2.6.1	Total household expenditure on energy												
	Hous D?	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
	ustry	Quarterly	3.1.1	Prices of fuels purchased by manufacturing industry in Great Britain (original units)												
es	ing ind	Quarterly	3.1.2	Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)												
Price	Manufacturing industry	Annual	3.1.3	Annual Prices of fuels purchased by manufacturing industry in Great Britain (original units)						R						
nergy l	_	Annual	3.1.4	Annual Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)						R						
Enel	Producer Quarterly 3.2.1		3.2.1	Average prices of fuels purchased by the major UK power producers												
	Industrial indices	Quarterly	3.3.1	Fuel price indices for the industrial sector in current terms excluding the Climate Change Levy												
Industrial	Indu: energi indi	Quarterly	3.3.2	Fuel price indices for the industrial sector in current terms including the Climate Change Levy												
ت	Industrial Energy Bills	Quarterly		Prices of fuels purchased by non-domestic consumers in the UK excluding the Climate Change												
	Indu: Energ	Quarterly	3.4.2	Prices or ruers purchased by non-domestic consumers in the UK including the Climate Change												

Fuel Tables

Tables for the Road fuel prices area:

Тор	ic	Area	Freq.	No.	Name		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	S	and m s	Monthly	411	Typical retail prices of petroleum products and a crude oil price index												
Fue	rice	d Fuels etroleu roduct	Annual		Average annual retail prices of petroleum products and a crude oil price index	R											
_ (ı	Roac P.	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
	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	Quarterly	5.3.1	Industrial electricity prices in the IEA												
	D:	Biannual	5.4.1	Industrial electricity prices in the EU for small consumers (both excluding and including tax)												
	Industrial Prices EU Electricity	Biannual	5.4.2	Industrial electricity prices in the EU for medium consumers (both excluding and including tax)												
	ustrial I	Biannual	5.4.3	Industrial electricity prices in the EU for large consumers (both excluding and including tax)												
	Ind	Biannual	5.4.4	Industrial electricity prices in the EU for extra-large consumers (both excluding and including tax)												
sea	Dom. IEA Elec	Quarterly	5.5.1	Domestic electricity prices in the IEA												
International Prices	Domestic Prices EU Electricity	Biannual	5.6.1	Domestic electricity prices in the EU for small consumers (both excluding and including tax)												
iona		Biannual	5.6.2	Domestic electricity prices in the EU for medium consumers (both excluding and including tax)												
rnat	Dom	Biannual	5.6.3	Domestic electricity prices in the EU for large consumers (both excluding and including tax)												
Inte	Ind. IEA Gas	Quarterly	5.7.1	Industrial gas prices in the IEA												
	ices	Biannual	5.8.1	Industrial gas prices in the EU for small consumers (both excluding and including tax)												
	Industrial Prices EU Gas	Biannual	5.8.2	Industrial gas prices in the EU for medium consumers (both excluding and including tax)												
	Indus	Biannual	5.8.3	Industrial gas prices in the EU for large consumers (both excluding and including tax)												
	Dom IEA Gas	Quarterly	5.9.1	Domestic gas prices in the IEA												
	rices	Biannual	5.10.1	Domestic gas prices in the EU for small consumers (both excluding and including tax)												
	Domestic Prices EU Gas	Biannual	5.10.2	Domestic gas prices in the EU for medium consumers (both excluding and including tax)												
	Dom	Biannual	5.10.3	Domestic gas prices in the EU for large consumers (both excluding and including tax)												

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 pri	ce index, fu	iel comp	onent v	veights		
	All items	Domestic fuels	Solid fuels	Gas	Electricity	Liquid fuels	Motor fuels and oil
1996 2000	1.000 1,000	45 33	2	20 13	22 17	1 2	40 38
2005	1,000	28	1	12	14	1	27
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

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.

The following notes apply to 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 https://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 (3,800 kWh for electricity, 15,000 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									
Table AZ: Towns an	•								
	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							
lpswich	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 3,800 kWh is used for electricity and 15,000 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 15,000 kWh of gas consumed per annum (see A8), 6,000 kWh are consumed in the first quarter, 3,000 kWh in the second quarter, 1,500 kWh in the third quarter and 4,500 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 6,000 kWh, off-peak consumption has been considered as 3,000 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	Table A3: Range of annual purchases for the Quarterly Fuels Inquiry										
	Large	Of w	hich:	Medium	Small						
		Extra large	Moderately large	_							
Fuel	Greater than	Greater than			Less 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						
⊟ectricity (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:	Table A4: Climate Change Levy rates from April 2001										
	Coal	Electricity	Gas	LPG							
Apr-2001	£11.70/tonne	0.430 p/kWh	0.150 p/kWh	£9.60/tonne							
Apr-2007	£12.01/tonne	0.441 p/kWh	0.154 p/kWh	£9.85/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							

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

Table A6: Eurostat size bands Cont'd

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. The relative strength of the pound in 1997, 1998 and 1999 (e.g. as sterling appreciated by 21 per cent against the German Mark between 1996 and 1999) to some extent will have had an adverse effect on comparisons of UK data with other 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 2017

	GJ per tonne			GJ per tonne		Moisture
	net [']	gross		net [']	gross	content
Coal:			Renewable sources:			
All consumers (weighted average) (1)	25.9	27.3	Domestic wood (3)	14.7	16.3	20%
Power stations (2)	25.3	26.7	Industrial wood (4)	19.0	20.3	0%
Coke ovens (1)	30.2	31.8	Straw	13.1	15.4	15%
Low temperature carbonisation plants			Poultry litter (5)	7.9	9.9	20%
and manufactured fuel plants	26.9	28.4	Meat and bone	16.2	18.3	11%
Collieries	27.4	28.9	General industrial waste	15.2	16.0	5%
Agriculture	28.1	29.5	Hospital waste	13.3	14.0	5%
Iron and steel	28.9	30.4	Municipal solid waste (6)	6.5	9.3	30%
Other industries (weighted average)	25.4	26.7	Refuse derived waste (6)	13.0	18.5	30%
Non-ferrous metals	23.7	25.0	Short rotation coppice (7)	12.6	14.2	30%
Food, beverages and tobacco	27.9	29.3	Tyres	30.4	32.0	5%
Chemicals	25.2	26.5	Wood pellets	16.9	18.3	10%
Textiles, clothing, leather etc.	28.0	29.4	Biodiesel	37.2	38.7	4%
Pulp, paper, printing etc.	23.0	24.2	Bioethanol	26.8	29.7	10%
Mineral products	26.2	27.6	Petroleum:			
Engineering (mechanical and			Crude oil (weighted average)	43.4	45.7	
electrical engineering and			Petroleum products (weighted average)	43.9	46.2	
vehicles)	27.9	29.4	Ethane	46.6	50.7	
Other industries	30.9	32.5	Butane and propane (LPG)	45.9	49.3	
			Light distillate feedstock for gasworks	45.4	47.8	
Domestic			Aviation spirit and wide cut gasoline	45.0	47.4	
House coal	27.2	28.7	Aviation turbine fuel	43.9	46.2	
Anthracite and drysteam coal	32.4	34.1	Motor spirit	44.7	47.1	
Other consumers	25.1	26.4	Burning oil	43.9	46.2	
Imported coal (weighted average)	26.2	27.6	Gas/diesel oil	42.6	45.3	
Exports (weighted average)	30.6	32.2	DERV	42.9	45.7	
, , ,			Fuel oil	40.7	43.3	
Coke (including low temperature			Power station oil	40.7	43.3	
carbonisation cokes)	29.8	29.8	Non-fuel products (notional value)	40.8	43.0	
Coke breeze	29.8	29.8	,	MJ per c	ubic metre	
Other manufactured solid fuels	31.1	32.7		net	gross	
			Natural gas produced (8)	35.8	39.8	
			Natural gas consumed (9)	35.6	39.5	
			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 2016. For calorific values of fuels in earlier years see. Tables A.2 and A.3 and previous issues of this Digest. 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 this Digest 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 2014 to 2017

B2: Estimated average gross calorific values of fuels 1980,1990,2000,2010 and 2015 to 2017

Coal 1980 1990 2000 2010 2015 Coal Coal 25.6 25.5 26.2 25.8 26.0 All consumers - home produced plus imports minus exports (1) 27.0 27.1 27.0 Power stations (2) 23.8 24.8 25.6 24.9 25.1 Power stations - home produced plus imports (1) 26.0 25.8 26.2 Coke ovens - home produced plus imports (1) 30.2 31.2 30.5 31.8 Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals 23.1 25.4 25.1 25.4 25.1 25.4 25.1 </th <th>26.0 25 27.2 27 25.2 25 26.2 26 31.8 31 31.8 31 28.4 28 29.0 28</th> <th>25 27 25 26</th>	26.0 25 27.2 27 25.2 25 26.2 26 31.8 31 31.8 31 28.4 28 29.0 28	25 27 25 26
All consumers (1)(2) 25.6 25.5 26.2 25.8 26.0 21.0 All consumers - home produced plus imports minus exports (1) 2.0 27.0 27.0 27.0 27.0 27.0 27.0 27.0	27.2 27 25.2 25 26.2 26 31.8 31 31.8 31 28.4 28 29.0 28	27 25 26
All consumers - home produced plus imports minus exports (1)	27.2 27 25.2 25 26.2 26 31.8 31 31.8 31 28.4 28 29.0 28	27 25 26
Power stations (2) 23.8 24.8 25.6 24.9 25.1 Power stations - home produced plus imports (1) 30.5 30.2 31.2 30.5 31.8 Coke ovens (2) 30.5 30.2 31.2 30.5 31.8 Coke ovens - home produced plus imports (1) 30.5 31.8 Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 20.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 Other industries (1) 27.1 27.8 26.7 27.7 28.6 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.1 29.2 28.6 29.3 29.2 29.3 29.5 29.3 29.5 29.4 29.5 29.5 29.5 29.6 29.7 29.6 29.7 29.8 29.7 29.8 29.9 29.8 29.9 29.9 29.8 29.9 29.9 29.8 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9 29.9	25.2 25 26.2 26 31.8 31 31.8 31 28.4 28 29.0 28	25 26
Power stations - home produced plus imports (1) 3 3 26.0 25.8 26.2 Coke ovens (2) 30.5 30.2 31.2 30.5 31.8 Coke ovens - home produced plus imports (1) 3 3 3 3 Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 Other industries (1) 27.1 28.8 30.7 27.7 26.8 Non-ferrous metals 28.6 28.1 29.5 28.6 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.8 29.8 29.8 29.8 29.8 29.8 29.8 29.8	26.2 26 31.8 31 31.8 31 28.4 28 29.0 28	26
Coke ovens (2) 30.5 30.2 31.2 30.5 31.8 Coke ovens - home produced plus imports (1) n. n. 30.4 30.5 31.8 Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals n. 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.8	31.8 31 31.8 31 28.4 28 29.0 28	
Coke ovens - home produced plus imports (1) n. n. 30.4 30.5 31.8 Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals n. 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	31.8 31 28.4 28 29.0 28	
Low temperature carbonisation plants and manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 27.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	28.4 28 29.0 28	
manufactured fuel plants 19.1 29.2 30.3 30.2 28.5 Collieries 27.0 28.6 29.6 29.3 29.0 Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 28.9 30.4 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27. 26.8 Non-ferrous metals 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	29.0 28	01
Agriculture 30.1 28.9 29.2 28.0 29.5 Iron and steel industry (3) 29.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals 28.0 28.1 29.5 28.6 29.4 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4		28
Iron and steel industry (3) 29.1 28.9 30.7 30.4 30.4 Other industries (1) 27.1 27.8 26.7 27.7 26.8 Non-ferrous metals 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	20.5 20	28
Other industries (1) 27.1 27.8 26.7 27.8 26.8 Non-ferrous metals 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	20.0 20	29
Non-ferrous metals 23.1 25.1 25.4 25.1 Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	30.4 30	30
Food, beverages and tobacco 28.6 28.1 29.5 28.6 29.4	26.7 26	26
		25
		29
Chemicals 25.8 27.3 28.7 26.7 26.5		26
Textiles, clothing, leather and footwear 27.5 27.7 30.4 29.5 29.5		29
Pulp, paper, printing, etc. 26.5 27.9 28.7 24.1 24.2 Minoral products (4)		24
Mineral products (4) 28.2 27.0 27.6 27.9 Engineering (5) 27.7 28.3 29.3 29.5 29.5		27 29
Other industry (6) 28.4 28.5 30.2 32.6 32.6		32
Unclassified 27.1		-
Domestic		
House coal 30.1 30.2 30.9 29.8 30.1	28.9r 28	28
Anthracite and dry steam coal 33.3 33.6 33.5 34.7 34.3	34.4 34	34
Other consumers 27.5 27.5 29.2 25.5 26.4		26
Transport - Rail 30.3 30.2		30
Imported coal (1) 28.3 28.0 27.9 27.4		27
of which Steam coal 26.6 26.5 26.5		27
Coking coal 30.4 32.1 31.8 Anthracite 31.2 31.0 31.5		31 31
Figure (1)		32
Exports (1) 29.0 32.0 32.3 32.2 of which Steam coal 31.0 31.2 31.2		31
Anthracite 32.6 33.2 32.5		32
Coke (7) 28.1 28.1 29.8 29.8 29.8		29
Coke breeze 24.4 24.8 24.8 29.8 29.8		29
Other manufactured solid fuels (1) 27.6 27.6 30.8 32.6 32.7	32.7 32	32
Petroleum		
Crude oil (1) 45.2 45.6 45.7 45.7 45.7	45.7 45	45
Liquified petroleum gas 49.6 49.3 49.1 49.2 49.3	49.3 49	49
Ethane 52.3 50.6 50.7 50.7 50.7	50.7 50	50
LDF for gasworks/Naphtha 47.8 47.9 47.6 47.8 47.8		47
Aviation spirit and wide-cut gasoline (AVGAS and AVTAG) 47.2 47.3 47.4 47.4		47
Aviation turbine fuel (AVTUR) 46.4 46.2 46.2 46.2 46.2 46.2 46.2 46.2		46
Motor spirit 47.0 47.0 47.0 47.1 47.2		47
Burning oil 46.5 46.2 46.2 46.2 46.2 Vaporising oil 45.9 45.9		46
Vaponsing oil 45.9 45.9	45.3 45	45
DERV (8) 45.6 45.7		45
Fuel oil 42.8 43.2 43.1 43.3 43.4		43
Power station oil 42.8 43.2 43.1 43.3 43.4	43.3 43	43
Non-fuel products (notional value) 42.2 43.2 43.8 43.1 42.8	42.8 43	43
Petroleum coke (Power stations) 30.9 28.6	28.6 28	28
Petroleum coke (Other) 39.5 35.8 35.8 35.8	35.8 35	35
Natural Gas (9) 38.4 39.4 40.0 40.2	40.1r 39	39
Renewable sources		
Domestic wood 10.0 13.9 16.3		16
Industrial wood 11.9 13.7 20.3		20
Straw 15.0 15.8 15.8		15
Poultry litter 8.8 9.1 9.1		9
Meat and bone 17.3 20.0 20.0		18
General industrial waste 16.0 16.0 16.0 Hospital waste 14.0 14.0 14.0		16
Municipal callidariate		14 9
Municipal solid waste 9.5 9.5 9.6		18
·		14
Refuse derived waste 18.6 18.5 18.5		32
Refuse derived waste 18.5 18.5 Short rotation coppice 10.6 11.1 14.2		
Refuse derived waste 18.6 18.5 18.5 Short rotation coppice 10.6 11.1 14.2	32.0 32	18
Refuse derived waste 18.6 18.5 18.5 Short rotation coppice 10.6 11.1 14.2 Tyres 32.0 32.0 32.0	32.0 32 18.3 18	18 38

⁽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.

Effective rates of duty

- (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	or	10 ¹⁵

Weight

- = 2.2046 pounds (lb) 1 kilogramme (kg)
- = 0.4536 kg1 pound (lb)
- 1 tonne (t) = 1,000 kg
 - = 0.9842 long ton= 1.102 short ton
- = 2.240 lb1 Statute or long ton
 - = 1.016 ton
 - = 1.120 short ton
- 1 barrel = 159.0 litres
 - = 34.97 UK gal
 - = 42 US gal

Volume

- = 35.31 cu ft1 cubic metre (cu m) 1 cubic foot (cu ft) = 0.02832 cu m
- 1 litre = 0.22 Imperial gallons
- = 8 UK pints 1 UK gallon
 - = 1.201 U.S. gallons
 - = 4.54609 litres

Length

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

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 2017

	Litres per tonne		Litres per tonne
Crude oil:		DERV fuel:	
Indigenous	1,199	0.005% or less sulphur	1,194
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	1,944	All grades:	1,016
Butane	1,737	Light	
Naphtha	1,488	Medium	
		Heavy	
Aviation gasoline	1,406		
		Lubricating oils:	
Motor spirit:		White	1,150
All grades	1,368	Greases	
Super1	1,359		
Premium1	1,370	Bitumen	977
Middle distillate feedstock		Petroleum coke	
		Petroleum waxes	1,184
Kerosene:		Industrial spirit	1,247
Aviation turbine fuel	1,253	White spirit	1,251
Burning oil	1,248		

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 2015. The litres to tonnes conversions are made at a standard temperature of 15oC.

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 2018⁽¹⁾

								ce per litre
Date from which	ı duty		Mo	otor spirit ⁽²⁾⁽³⁾			Diese	el ⁽²⁾
effective		Leaded	Lead replacement	Unleaded	Super unleaded	Ultra low sulphur	Regular	Ultra low sulphui
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 Nov ember	1993	33.140		28.320			27.700	
29 Nov ember	1994	35.260		30.440			30.440	
1 January	1995	36.140		31.320			31.320	
28 Nov ember	1995	39.120		34.300			34.300	
15 Mav	1996	551.25		0000	37.620		01.000	
26 Nov ember	1996	41.680		36.860	40.180		36.860	
2 July	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	02.000	49.210	47.210	49.210		00.210	77.210
21 March	2000	54.680	50.890	48.820	50.890		51.820	48.820
1 October	2000	0.1.000	00.000	.0.020	00.000	47.820	01.020	.0.020
7 March	2001		(4)	46.820	(4)	45.820		45.820
15 June	2001			48.820		.0.020		.0.020
1 October	2003	56.200		50.190		47.100	53.270	47.100
1 COLOBEI	2004	50.200	(5)	50.150	(5)	47.100	00.270	47.100
7 December	2004	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	55.576		(5)		55.550	(9)	30.000
1 December 2008	2008	62.070				52.350		52.350
1 April	2009	52.070				54.190		54.190
1 May	2009	63.910				54.100		04.100
1 September	2009	65.910				56.190		56.190
1 April	2009	66.910				57.190		57.190
1 October	2010	67.910				58.190		58.190
1 January	2010	68.670			+	58.190		58.190
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

 - 8% with effect from 29 July 1974
 - For motor spirit 25% with effect from 18 November 1974 For motor spirit 12.5% with effect from 12 April 1976
 - (iv)
 - 15% with effect from 18 June 1979
 - 17.5% with effect from 1 April 1991 15% with effect from 1 December 2008
- (vi) 17.5% with effect from 1 January 2010
 (vii) 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 2018⁽¹⁾ (continued)

Date from which	duty						Pence per litre
effective		Av iati gasoline	on LPG fo e ⁽²⁾ as road fu	r use	Fuel oil ⁽⁶⁾	Gas oil ⁽⁶⁾⁽⁷⁾	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 Nov ember	1993	16.570	16.570	1.160	1.640		
29 Nov ember	1994	17.630	33.140	1.660	2.140		
1 January	1995	18.070					
28 Nov ember	1995	19.560	28.170	1.810	2.330		
15 May	1996						
26 Nov ember	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	1	31.950	10.740	11.180		
1 January	2011	1	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

D1 Energy prices

Energy prices (annual); Statistical Office of the European Communities summarises price information published in the European Commission's Weekly Oil Bulletin, and half-yearly Statistics in Focus on Gas and Electricity prices

- Energy Prices & Taxes (quarterly); OECD International Energy Agency
- Electricity prices; Eurostat (annual)
- Gas prices; Eurostat (annual)

D2 Fuel Poverty

The 2016 fuel poverty statistics report was published in June 2016 and includes statistics for the number of fuel poor households in 2014. This is published here: https://www.gov.uk/government/collections/fuel-poverty-statistics

D3 Department for Business, Energy and Industrial Strategy publications on energy

All titles can be found on the BEIS site here:

https://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) 2015

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

Energy Consumption in the UK

This booklet brings together statistics from a variety of sources to produce a comprehensive review of energy consumption in the UK since the 1970s. It describes the key trends in energy consumption in the UK since 1970 with a particular focus on trends since 1990. It includes an analysis of the factors driving the changes in energy consumption, the impact of increasing activity, increased efficiency, and structural change in the economy, while detailed tables can be found on the internet. The information is presented in five sections covering firstly overall energy consumption, then energy consumption in the transport, domestic, industrial and service sectors.

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. They are shown in their original state and after being converted into different kinds of energy by the secondary fuel producers.

<u>www.gov.uk/government/collections/energy-flow-charts</u>, also available from the BEIS publication order line: tel: 0845 504 9188 e-mail: <u>beisteam@beis.ecgroup.net</u>

UK Energy in Brief

An annual publication summarising the latest statistics on energy production, consumption and prices in the UK.

www.gov.uk/government/collections/uk-energy-in-brief, also available from the BEIS publication order line: tel: 0845 504 9188 e-mail: beisteam@beis.ecgroup.net

Sub-National Energy Consumption Statistics

Sub-National data are published by BEIS to emphasise the importance of local and regional decision making for energy policy in delivering a number of national energy policy objectives. 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. https://www.gov.uk/government/collections/national-energy-efficiency-data-need-framework

Green Deal and Energy Company Obligation Statistics

BEIS publishes a range of information relating to the rollout of the Green Deal and ECO policy. This includes number of GD Assessments, number of GD Plans, number of energy efficiency measures installed, data on the amount of GD cashback vouchers issued, data on ECO brokerage, and information on the supply chain. BEIS also publishes quarterly statistics on the levels of wall and loft insulation in Great Britain, along with information on the remaining potential for insulation measures. Data can be found here:

www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-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. www.gov.uk/government/collections/energy-and-emissions-projections

Policy publications

Annual Energy Statement

The Annual Energy Statement fulfils the commitment in the Coalition Programme for the Government to present an annual statement of energy policy to Parliament. The first statement was delivered to Parliament on 27 June 2010, with subsequent statements delivered on 23 November 2011, 29 November 2012, and 31 October 2013. The latest statement, delivered on 6 November 2014, is available here:

www.gov.uk/government/publications/annual-energy-statement-2014

Energy Act 2013

The Energy Act 2013 was given Royal Assent on 18 December 2013. The Act is available here: www.legislation.gov.uk/ukpga/2013/32/contents

Energy Act 2011

The Energy Act 2011 was given Royal Assent on 18 October 2011. The Act is available here: www.legislation.gov.uk/ukpga/2011/16/contents

Electricity Market Reform (EMR) White Paper

On 12 July 2011 the Government published 'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity'. The White Paper sets out key measures to attract investment, reduce the impact on consumer bills, and create a secure mix of electricity sources including gas, new nuclear, renewables, and carbon capture and storage. The White Paper is available here: https://www.gov.uk/government/publications/planning-our-electric-future-a-white-paper-for-secure-affordable-and-low-carbon-energy

Energy Act 2010

The Energy Act 2010 was given Royal Assent on 8 April 2010. The Act is available here: http://www.legislation.gov.uk/ukpga/2010/27/contents

The UK Low Carbon Transition Plan

The UK Low Carbon Transition Plan was published on 15 July 2009. The Plan is available here: https://www.gov.uk/government/publications/the-uk-low-carbon-transition-plan-national-strategy-for-climate-and-energy

Energy Act 2008

The Energy Act 2008 was granted Royal Assent on 26 November 2008. The Act is available here: www.legislation.gov.uk/ukpga/2008/32/contents

Climate Change Act 2008

The Climate Change Act 2008 was granted Royal Assent on 26 November 2008. The Act is available here: www.legislation.gov.uk/ukpga/2008/27/contents

D4 Energy related websites

The BEIS section of the GOV.UK website can be found here: www.gov.uk/government/organisations/department-of-energy-climate-change

The energy information and statistics section is here: www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics

Other Government websites

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

Other useful energy related web sites

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

