



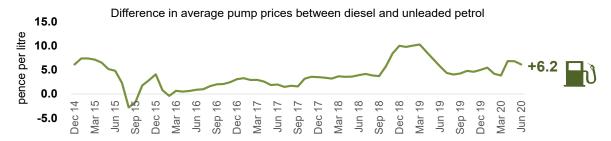
# **Quarterly Energy Prices**

United Kingdom, Quarter 1 (January - March) 2020

25 June 2020 National Statistics

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

- Between Quarter 1 2019 and Quarter 1 2020, in real terms prices (including VAT) there
  has been an increase of 6.8 per cent for electricity and a decrease of 1.9 per cent for
  gas.
- Households are encouraged to change energy supplier to get a competitive price for their bills. Based on data provided by Ofgem, an average of 479,000 households per month switched their electricity supplier and 401,000 households per month switched their gas supplier between January and March 2020, both higher than the number of switches over the same period in 2019.
- Average prices paid for electricity in the industrial sector rose by only 0.8 per cent but fell by 6.4 per cent for gas in January to March 2020 compared with the price paid in the same quarter in 2019.
   (prices in real terms, not seasonally adjusted and including the Climate Change Levy)
- In June 2020 unleaded petrol was on average **106.4 pence per litre**, **17 per cent lower** than June 2019 and the average diesel price was **112.5 pence per litre**, **16 per cent lower**.
- Diesel is generally more expensive than unleaded petrol and has remained so over the
  past 3 years. In June 2020 it was 6.2 pence per litre more than unleaded petrol after
  reaching a difference of 10.3 pence per litre in March 2019, the largest difference in 10
  years.



Households paid on average £610 for gas and £679 for electricity in 2019, a combined energy bill of £1,289.
 (Estimates are based on fixed consumption of 13,600 kWh of Gas and 3,600 kWh of Electricity)

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

Responsible statistician: William Nye Email: energyprices.stats@beis.gov.uk

Media enquiries: 020 7215 1000 Public enquiries: 0207 215 5073 Next publication: 24 September 2020

# Contents

Contents	2
Introduction	4
Information about this release	4
Notes about the data	
Background to the release series	
Domestic Market Prices	6
Notes about the data	6
Highlights and Headline Figures	
Retail Price of Fuels for the Domestic Sector	8
Domestic electricity and gas bills	10
Payment methods	12
Regional variation of payment methods – Electricity	14
Regional variation of payment methods - Gas	15
Domestic energy competition	16
Variation in energy competition between payment methods	18
Regional competition - Electricity	19
Regional competition - Gas	20
Transfer statistics	21
Fixed and Variable Tariffs	22
Variation in bills by tariff type and payment methods	
Regional variation of fixed tariff proportions – Electricity	25
Regional variation of fixed tariff proportions – Gas	26
Non-Domestic Sector Prices	27
Highlights and Headline Figures	27
Notes about the data	28
Energy prices in the manufacturing sector	29
Average prices of fuels purchased by the major UK power producers	32
Fuel price indices for the industrial sector	36
Electricity and gas prices for the non-domestic sector in the UK	38
Oil and Petroleum Product Prices	40
Highlights and Headline Figures	41
Crude oil prices	42
Retail prices of petroleum products	
International Comparisons	49

Highlights and Headline Figures	49
Notes	
Unleaded petrol and diesel prices	
Premium unleaded petrol prices	50
Diesel prices	51
Industrial electricity and gas prices	
Industrial electricity prices	52
Industrial gas prices	54
Domestic electricity and gas prices	55
Domestic electricity prices	55
Domestic gas prices	
List of Charts	58
Accompanying tables	59
Technical information	63
Further information	64
Future updates to these statistics	64
Related statistics	
Revisions policy	64
Uses of these statistics	64
User engagement	
National Statistics designation	65
Pre-release access to statistics	65
Contact	66
Other Useful Websites	66
Annex A - Technical Notes	67
Annex B - Calorific Values and Conversion Factors	77
Annex C - Effective Rates of Duty on Principal Hydrocarbon Oils	81
Annox D. Further Sources of Information	02

# Introduction

The **Quarterly Energy Prices** (QEP) publication and the associated tables provide information on 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**.

Domestic market metrics presented include the consumer price index for fuels used in households, average gas & electricity bills for UK households, information on how customers pay for their electricity and statistics on competition in the market.

# **Domestic Market Prices**



Data are presented on the **non-domestic sector** (anything that is not a household) and subcategories within this population. It outlines prices paid for fuels in the **industrial sector**, by **manufacturing companies** within this sector and by electricity generating companies (**major power producers**).

# Non-Domestic Sector Prices



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

# Oil and Petroleum Prices



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

# International Comparisons



### Information about this release

This release, published on **25 June 2020**, provides UK energy data for the first calendar year quarter of 2020 (**Quarter 1 2020**).

Household bills information presented in the Domestic Market Prices section of this release are for the 2019 calendar year and unchanged from the figures presented in the March 2020 release

Provisional 2020 household bills data will be published in the December 2020 issue and the finalised figures in the March 2021 issue.

#### Notes about the data

When a 'quarter' is referred to in this release it is a quarter (3 months) in the context of a calendar year, so 'Quarter 1' refers to 1 January to 31 March unless otherwise stated.

## Background to the release series

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

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

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

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

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

# **Domestic Market Prices**

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

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

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

**Household gas and electricity bill data** for 2019 are repeated here from the previous release in March 2020.

Provisional figures for 2020 will be published in December 2020 and finalised figures for 2020 will be published in the March 2021 issue.

#### **Domestic Data**

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

#### Notes about the data

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

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

**3,600 kWh** for Standard Electricity **5,100 kWh** for Economy 7 Electricity **13,600 kWh** for Gas

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

For information on the derivation of these figures and the process for reviewing these please see the review document on the domestic methodology page here: https://www.gov.uk/government/publications/domestic-energy-prices-data-sources-and-methodology

# Highlights and Headline Figures

#### **Key Points for January to March 2020 (Quarter 1 2020)**

The price paid for all domestic fuels in **real terms** has **increased by 2.7 per cent** in Quarter 1 (January to March) 2020 compared with the same quarter in 2019. (Tables 2.1.1 - 2.1.2)

Between Quarter 1 2019 and Quarter 1 2020, in **real terms** prices (including VAT) there has been an **increase of 6.8 per cent** for electricity but a **decrease of 1.9 per cent** for gas. (Tables 2.1.1 - 2.1.2)

Average prices paid by consumers are influenced by a range of factors such as wholesale costs, operating, network and policy costs. Type of contract, payment method and more recently price caps introduced by the regulator, the Office of Gas and Electricity Markets (Ofgem), can also affect the prices paid by individual households.

In order to strengthen competition in the energy market Ofgem encourages consumers to switch energy suppliers to get the best deal.

- The number of these transfers made within the domestic electricity market increased by 4.0 per cent between the first quarter of 2019 and the same quarter in 2020, with an estimated 1,437,000 electricity transfers. (Table 2.7.1)
- Meanwhile transfers in the gas market increased by 6.6 per cent over the same time period with an estimated 1,203,000 gas transfers being made in Q1 2020. (Table 2.7.1)

#### **Domestic Bills 2019**

Combined domestic energy bills in 2019 were estimated to have increased by 4.4 per cent in current prices. This is an average bill increase of £55 (from £1,235 in 2018) to £1,289 in 2019 (which is equivalent to 2.6 per cent in real terms).

Electricity bills increased by £39 to £679 in 2019 compared to 2018 (assuming a standard consumption level of 3,600 kWh per annum).

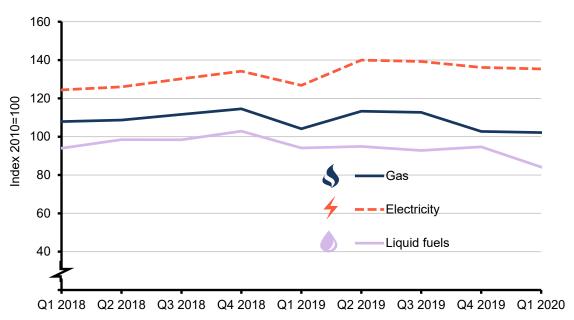
Gas bills increased by £16 to £610 in 2019 compared to 2018 (using a consumption level of gas of 13,600 kWh per annum).

### Retail Price of Fuels for the Domestic Sector

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

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

### Chart 2.1 Real terms fuel price indices in the domestic sector<sup>(1)</sup>, quarterly, UK



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

#### Reference and link to tables:

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

Table 2.1.2: Consumer prices index: fuel components in the UK relative to GDP deflator

Table 2.1.3: Consumer prices index: fuel components, monthly figures

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

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

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

In terms of the domestic fuel price indices, the price for all domestic fuels (solid fuel, liquid fuel, gas and electricity combined) in **real terms** has **increased by 2.7 per cent** in quarter 1 2020 compared to quarter 1 2019.

Compared to Q1 2019, in Q1 2020, in real terms:

- domestic electricity prices have increased by 6.8 per cent
- gas prices have decreased by 1.9 per cent
- prices for liquid fuels have decreased by 11 per cent

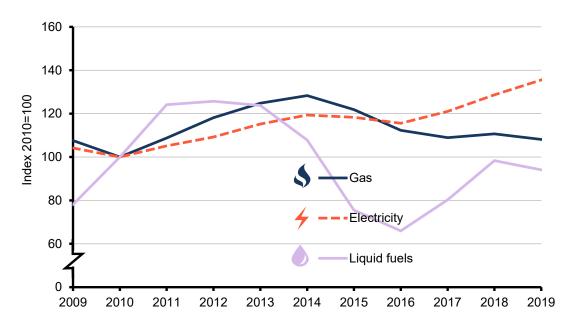
The prices of liquid fuels are based on retail market prices so vary depending on the location sold and more prone to effects by factors such as the weather and delivery costs.

When comparing domestic fuels with the previous quarter (Q4 2019), in real terms:

- domestic electricity prices have decreased slightly by 0.6 per cent
- gas prices have also decreased slightly by 0.6 per cent
- prices for liquid fuels however have decreased by 11 per cent

Although not illustrated above, motor fuel and motor oil (e.g. engine oil and lubricants) prices have remained broadly the same while prices of solid fuels have **increased by 2.0 per cent** in real terms between Q1 2019 and Q1 2020.

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



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

#### Reference and link to tables:

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

Table 2.1.2: Consumer prices index: fuel components in the UK relative to GDP deflator

Table 2.1.3: Consumer prices index: fuel components, monthly figures

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

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

Since 2013 prices have fallen but more so between 2014 and 2016. Liquid fuel prices rose in 2017 and 2018 but fell by 4.3 per cent in real terms in 2019.

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

## Domestic electricity and gas bills

Domestic bills data are published provisionally in every December issue and revised estimates are published in the March issue the following year.

Annual estimates presented in this release are the 2019 household bills figures that are unchanged from the figures published in March 2020.

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

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

#### **Price Caps**

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

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

Table 1 Default tariff cap announcement and cap levels<sup>2</sup> covering 2019-2020

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

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

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

A separate price cap applies to customers on prepayment meter tariffs which is now implemented alongside the default tariff cap. The prepayment cap was introduced in April 2017 and due to end in 2020<sup>3</sup>.

**Please note** that the method we use to calculate average bills can produce average figures higher than the cap. We take an average of prices provided to us from energy companies each quarter.

<sup>&</sup>lt;sup>1</sup> For more information on the default tariff cap, see: <a href="https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/default-tariff-cap">https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/default-tariff-cap</a>

<sup>&</sup>lt;sup>2</sup> Based on a typical customer using typical consumptions for dual fuel and paying by direct debit. For further information, see <a href="https://www.ofgem.gov.uk/energy-price-caps/about-energy-price-caps/">https://www.ofgem.gov.uk/energy-price-caps/about-energy-price-caps</a>

<sup>&</sup>lt;sup>3</sup>Prepayment cap is expected to end in 2020 as smart meter rollout is expected to be completed then <a href="https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/implementation-cma-remedies/prepayment-meter-price-cap">https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/implementation-cma-remedies/prepayment-meter-price-cap</a>

As we request all active tariffs at that point in time, this includes fixed tariffs offered in previous years that could be charging more than new tariffs offered at the time of request.

Table 2 - Average annual bills 2019 (current prices) compared to 2018

	2018	2019	Change	% Change
Standard Electricity	£641	£679	£39	6.0%
Gas	£594	£610	£16	2.7%
Combined	£1,235	£1,289	£55	4.4%

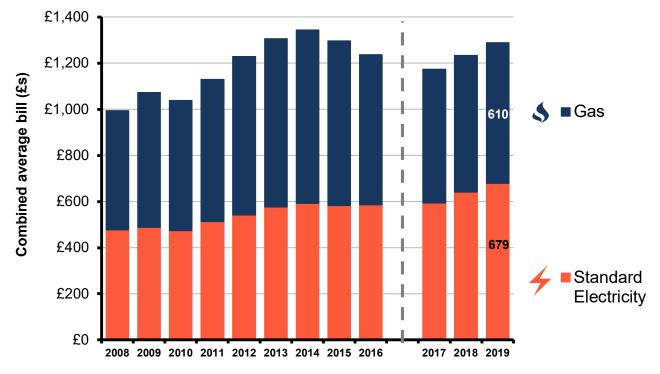
Average energy bills in 2019 were **4.4 per cent higher** than in 2018, with Standard Electricity increasing **6.0 per cent** and Gas increasing **2.7 per cent**.

The increases differ depending on payment type and the type of contract that customers are on. The increase is lower than observed between 2017 and 2018 when prices increased by 5.1 per cent (see Table 3 below).

Chart 2.3 shows the average standard domestic energy bills, in cash terms. Combined gas and electricity bills **increased by £55** between 2018 and 2019 (to £1,289).

- Average Standard Electricity bills in 2019 increased by £39 (to £679) since 2018.
- Average Gas bills increased by £16 (to £610) compared with 2018.

Chart 2.3: Average standard electricity and gas bills (cash terms)



#### 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

# Payment methods

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

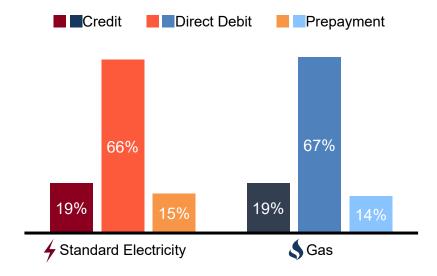
#### These are:

- Prepayment
- Standard Credit
- Direct Debit

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

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

Chart 2.4: Proportion of households by payment type



#### Reference and link to tables:

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

At the end of March 2020, most standard electricity customers in the United Kingdom (UK) and gas customers in Great Britain (GB<sup>4</sup>) were paying their bills via by **Direct Debit**.

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

<sup>&</sup>lt;sup>4</sup> Gas is not yet widely available in Northern Ireland, and so this country has not been included in this table

Table 4 – Average annual bills, in current prices, by payment method⁵, 2019

	Credit	Direct Debit	Prepayment	Overall
Standard Electricity	£740	£674	£631	£679
Gas	£659	£591	£634	£610
Combined	£1,399	£1,265	£1,265	£1,289

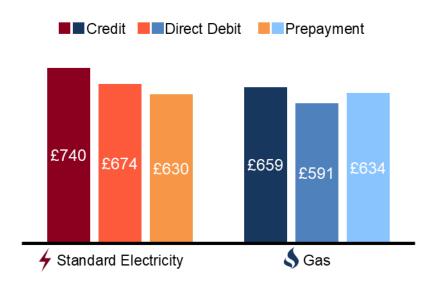
For combined bills, based on BEIS consumption levels, Standard Credit remained the most expensive method of payment at £1,399 (an **increase of £46** since 2018).

Direct Debit was slightly more expensive than prepayment for combined bills and at £1,265 were £57 higher than in 2018. However, Direct Debit remained the cheapest option for Gas.

Average prices paid on Direct Debit (on the assumption both fuels are paid for by this method) were still **£135 cheaper** than those on Standard Credit in 2019.

Prepayment with a combined bill of £1,265 were broadly the same as Direct Debit in 2019.

Chart 2.5: Average annual bills on each payment type, 2019



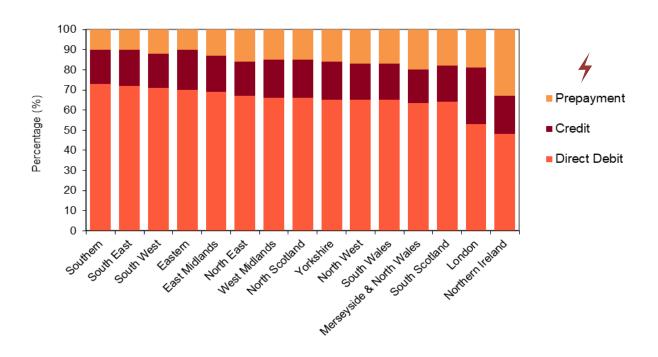
#### Reference and link to tables:

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

<sup>&</sup>lt;sup>5</sup> 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 payment methods – Electricity

Chart 2.6: Regional Variation of Payment Methods for Electricity, United Kingdom, January to March 2020



#### Reference and link to tables:

Table 2.4.2: Regional variation of payment method for standard electricity

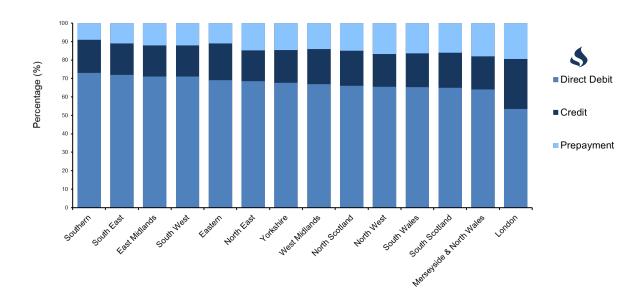
The proportion of customers by the different payment methods varies by region however for standard electricity, direct debit was the most popular payment method in all regions in the first quarter of 2020.

The Southern region shows the highest proportion of households paying by direct debit at **73 per cent** for the quarter ending 31 March 2020.

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

### Regional variation of payment methods - Gas

Chart 2.7 Regional Variation of Payment Methods for Gas, Great Britain, January to March 2020



#### Reference and link to tables:

Table 2.5.2: Regional variation of payment method for gas

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

The Southern region shows the highest proportion of households paying by direct debit at **73 per cent** for the quarter ending March 2020.

London has the lowest percentage of customers paying by direct debit, at **53 per cent** but the highest percentage of credit customers at **27 per cent**. London has also the highest percentage of gas customers paying by prepayment at **19 per cent**, as illustrated in Chart 2.7.

## Domestic energy competition

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

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

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

#### Recent trends in customers with original home supplier

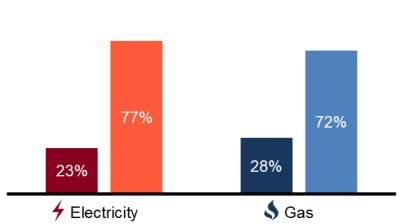
At the end of March 2020, BEIS estimated that over **22 million** (**77 per cent**) domestic electricity<sup>6</sup> customers and over **17 million** (**72 per cent**) domestic gas customers in Great Britain<sup>7</sup> were no longer with their original home supplier - which was the firm who had supplied that region before the energy market opened to competition (see chart 2.8).

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

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

Chart 2.8: Proportion of customers with their original home supplier

Home Non-Home



<sup>&</sup>lt;sup>6</sup> Includes both standard electricity and Economy 7 electricity.

<sup>&</sup>lt;sup>7</sup> Competition is still limited in scope for domestic customers in Northern Ireland, and so this country has been excluded from this analysis.

#### 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

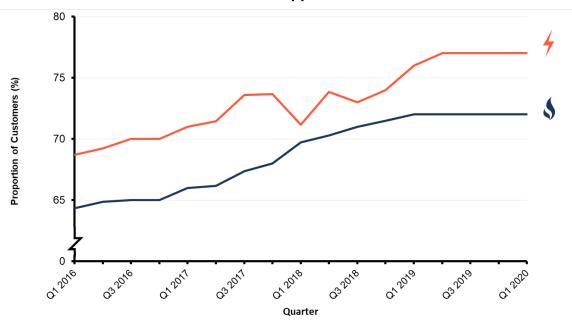
**Direct debit customers** were most likely to have changed from home suppliers, with **81 per cent** of electricity customers and **77 per cent** of gas customers no longer with their home suppliers.

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

#### Long term trends in customers with original home supplier

The proportion of electricity and gas customers with a 'non-home supplier' has been increasing year on year.

#### Proportion of customers with 'Non-Home' suppliers since Quarter 1 2016



#### Reference and link to tables:

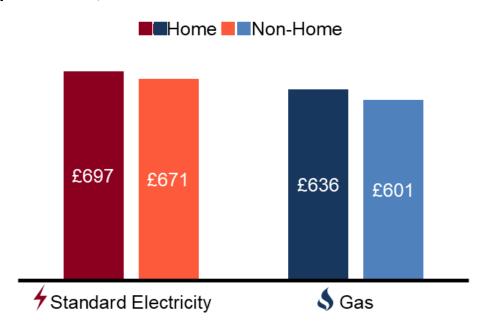
Tables 2.4.1 – 2.5.2

The number of gas customers at the end of March 2020 now with non-home suppliers are similar levels to last quarter but **up 7 percentage points** since the end of June 2016<sup>8</sup>. The trend is similar for electricity - the proportion of customers with a non-home supplier is now at **77 per cent** but up 8 percentage points since June 2016.

<sup>&</sup>lt;sup>8</sup> Before 2016, home and non-home customers numbers proportions were not adjusted as figures were primarily based on data from large suppliers. Since 2016, this has now been adjusted to be representative of Great Britain. This change means that figures before 2016 are not directly comparable with future years.

# Variation in energy competition between payment methods

Chart 2.9: Average annual Standard Electricity and Gas bills for home and non-home suppliers in GB, 2019



#### 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

The average annual bill based on fixed consumption<sup>9</sup> for Gas and Standard Electricity in 2019 was lower for customers with Non-Home suppliers, with the average bill for customers with Home suppliers around **£61 more expensive**.

Table 3 – Average annual bills<sup>(r)</sup> by payment method and supplier type for 2019<sup>10</sup>

	Credit		Direct Debit		Prepayment		Overall	
	Home	Non- Home	Home	Non- Home	Home	Non- Home	Home	Non- Home
Standard								
Electricity	£741	£739	£693	£667	£630	£630	£697	£671
Gas	£666	£655	£619	£584	£638	£632	£636	£601
Total	£1,407	£1,394	£1,312	£1,251	£1,268	£1,262	£1,333	£1,272

#### Link to tables:

Table 2.2.1: Average annual domestic electricity bills, by home and non-home supplier

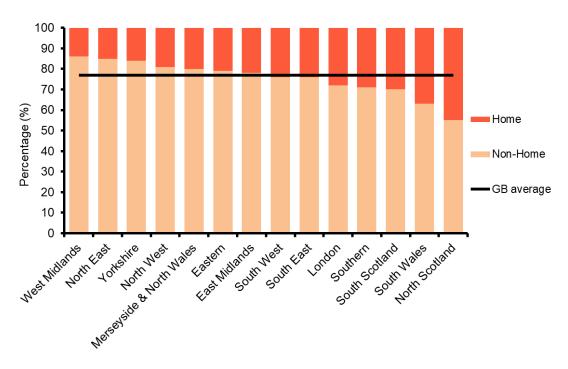
Table 2.3.1: Average annual domestic gas bills, by home and non-home supplier

<sup>&</sup>lt;sup>9</sup> 15,000kWh for gas and 3,800kWh for electricity

<sup>&</sup>lt;sup>10</sup> Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

### Regional competition - Electricity

Chart 2.10: Percentage electricity customers with a non-home supplier, March 2020



#### Reference and link to tables:

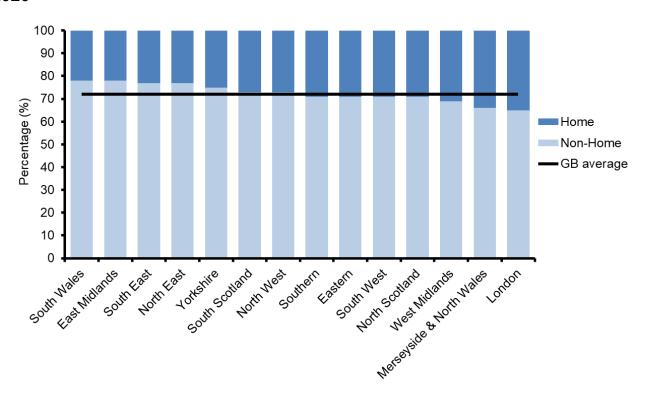
Table 2.4.1: Percentage of domestic electricity customers by region by supplier type

The West Midlands region has the **lowest** proportion of electricity customers with a home supplier at **14 per cent**.

Overall, at the end of March 2020, customers in North Scotland were the least likely to have moved, with around **45 per cent** still with their home supplier, **nearly double** the national average at **23 per cent** (see Chart 2.10).

### Regional competition - Gas

Chart 2.11: Percentage of gas customers with a non-home supplier, March 2020



#### Reference and link to tables:

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

South Wales and the East Midlands show the **lowest** proportion of households remaining with their gas home supplier at **22 per cent**.

At the end of March 2020, customers in London were the least likely to have moved gas supplier, with around **35 per cent** still with their home supplier, which is 7 **per cent higher** than the national average of customers at **28 per cent**.

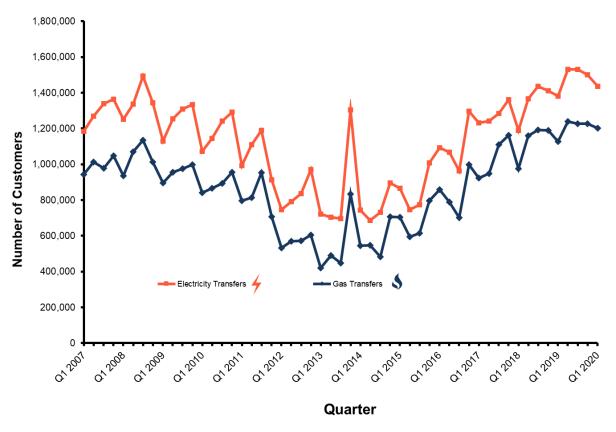
### Transfer statistics

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

More can be found on Ofgem's website here:

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

Chart 2.12 Domestic gas and electricity transfers<sup>11</sup>



Source: Ofgem

Reference and link to tables:

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

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

There were an estimated 1,437,000 electricity transfers in Q1 2020 compared to 1,382,000 in the same period in 2019, and 1,203,000 gas transfers in Q1 2020 compared with 1,128,000 in the same period in the previous year. This continued upward trend can be seen in Chart 2.17.

These quarterly transfers represent around **5.0 per cent** for Electricity customers and **5.1 per cent** for Gas customers in the domestic market.

<sup>&</sup>lt;sup>11</sup> Since April 2016 data supplied to BEIS has included additional filtering to remove non-domestic customers. This data is sourced from network operators and filtered by the active suppliers in the market, who to the best of Ofgem's knowledge are operating in the domestic and non-domestic segments of the energy market. For this reason the data supplied from April 2016 onwards may be more accurate but lower than levels before this time.

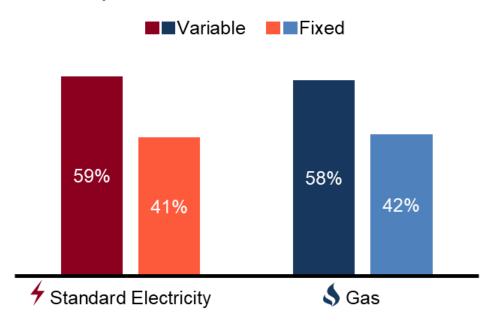
### Fixed and Variable Tariffs

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

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

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

Chart 2.13: Proportion of customers on fixed tariffs for both electricity and gas unchanged from last quarter



#### 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 March 2020, more Standard Electricity customers in the United Kingdom (UK) and Gas customers in Great Britain (GB) were on variable tariffs than on fixed tariffs.

Around **41 per cent** of all Standard Electricity and **42 per cent** of all Gas customers were on fixed tariffs at the end of March 2020.

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

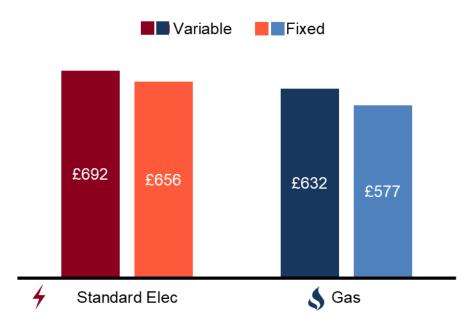
**Direct Debit** customers are most likely to be on fixed tariffs with around **57 per cent** of these customers on a fixed deal for Electricity and **56 per cent** for Gas.

<sup>&</sup>lt;sup>12</sup> 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.

Standard Credit customers were the second most likely to be on a fixed tariff, with 16 per cent of Standard Electricity customers and 18 per cent of Gas customers on a fixed tariff.

**Prepayment** customers were the least likely to be on a fixed tariff, with **2 per cent** of Standard Electricity and **3 per cent** of Gas customers on a fixed tariff.

Chart 2.14: 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

# Variation in bills by tariff type and payment methods

Table 3 – Average annual bills by payment method and tariff type, 2019<sup>13</sup>

	Cre	dit	Direct Debit		Prepayment		Overall	
	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed
Standard Electricity	£743	£722	£697	£651	£630	£653	£692	£656
Gas	£661	£653	£617	£570	£634	£598	£632	£577
Combined	£1,404	£1,375	£1,314	£1,221	£1,264	£1,251	£1,324	£1,233

In 2019, annual domestic Gas and Standard Electricity bills for customers on a fixed tariff were cheaper overall compared to those on variable tariffs, as shown in Table 3. Combined bills were around **£91 cheaper** for those on a fixed tariff.

<sup>&</sup>lt;sup>13</sup> Standard electricity and gas bills may not add up exactly to the combined bill as they have been calculated on non-rounded figures.

As can be seen in Table 3, average fixed tariff bills in 2019 were cheaper than variable tariff bills across all payment types.

The difference was greatest when paying by **Direct Debit**, with fixed tariff bills being **£46** and **£47 lower** for Standard Electricity and Gas respectively.

For **Credit** customers however, there was a saving of £8 for those on a fixed tariff for Gas and a **£21 saving** for Electricity.

Prepayment customers saw on average a **saving of £13** by being on a fixed contract assuming fixed and prepayment for both Electricity and Gas.

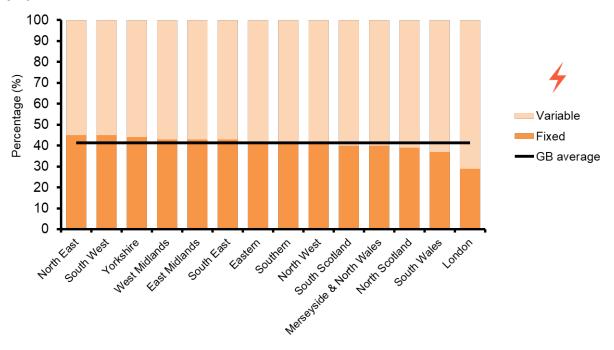
However, for Standard Electricity, customers on prepayment tariffs saw cheaper variable tariffs than fixed tariffs on average, with fixed being £23 more expensive.

We calculate average bills based on an average of prices provided to us from energy companies of **all active tariffs** each quarter (not the prices they would offer on that day). This includes fixed tariffs offered in previous years that could be charging more, or less, than new tariffs offered in the period requested.

Prepayment customers on variable contracts were also paying around £50 less than Direct Debit customers in 2019 and customers on fixed Prepayment tariffs were paying around £30 more than Direct Debit customers on fixed contracts.

### Regional variation of fixed tariff proportions – Electricity

Chart 2.15: Proportion of standard electricity customers on a fixed tariff, March 2020



#### Reference and link to tables:

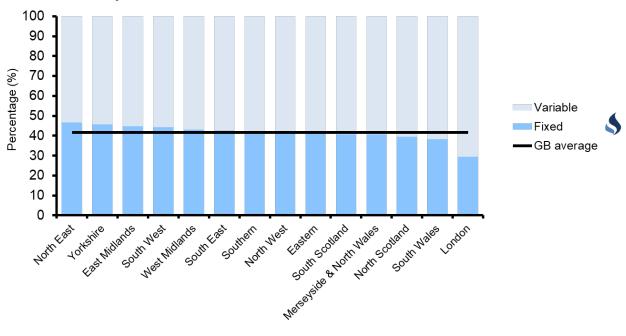
Table 2.4.2: Regional variation of payment method for standard electricity

The proportions of customers on Standard Electricity fixed tariffs, across all payment types, vary region to region. The North East and South West regions show the highest proportion of households on standard electricity on a fixed tariff at **45 per cent**.

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

### Regional variation of fixed tariff proportions - Gas

Chart 2.16: Proportion of Gas customers on a fixed tariff, March 2020



#### Reference and link to tables:

Table 2.5.2: Regional variation of payment method for gas

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

London also has the lowest proportion of customers on fixed Gas tariffs in Great Britain, at **29 per cent**.

# Non-Domestic Sector Prices

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

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

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

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

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

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

## Highlights and Headline Figures

The industrial sector in the UK is mainly dependant on electricity and gas. Compared to the same quarter in the previous year, the average industrial prices in real terms, not seasonally adjusted and including the Climate Change Levy (CCL) in Q1 2020 (1 January to 31 March 2020) rose slightly by 0.8 per cent for electricity but fell by 6.4 per cent for gas (Table 3.3.2).



Compared to the same quarter in the previous year, in Q1 2020 industrial prices for **coal fell by 7.7 per cent** and **heavy fuel oil** (which is not subject to CCL) **fell by 14 per cent** (Table 3.3.2).

The 'major power producers' are part of the power sector and have been using gas and coal mainly as part of their fossil fuel mix to generate electricity. However, the fuel mix is changing with coal use decreasing and with a shift towards renewables. Between Q1 2019 and Q1 2020, the price of coal used for electricity generation by major power producers in the UK **fell by 19 per cent** and the price of gas **fell by 18 per cent** in current pence per kWh terms (Table 3.2.1).

Wholesale gas prices in Q1 2020 were **23 per cent lower** on the previous quarter, **48 per cent lower** on the previous year and were the lowest for over five years. The fall was largely due to an oversupply of LNG, mild weather, and the lockdown measure as a result of the Coronavirus pandemic which came into effect on the 23<sup>rd</sup> March 2020 affecting demand.

#### Notes about the data

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

#### Populations presented in these statistics

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

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

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

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

#### Variations in prices across populations

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

There are differences in the prices of fuels paid between different category of users of fuels dependant on how much they use.

For example, those who use a large amount are likely to pay less for their fuels given they can set up more competitive contracts over smaller companies that use less fuels or on a more ad-hoc basis.

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

## Energy prices in the manufacturing sector

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

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

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

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

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

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



Reference and link to data table:

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

#### Long term trends in manufacturing industry prices by fuel type

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

Average **gas** prices in the manufacturing sector have been more variable. In 2016 average gas prices were 37 per cent lower than the peak in 2013. Gas prices in the manufacturing sector increased over the next two years but fell in 2019 by 9.5 per cent on the previous

year as demand in industries fell and wholesale gas price fell 42 per cent to 1.20 p/kWh. As the prices are low, small changes in actual price cause very large percentage changes.

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

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

#### Long term trends in average manufacturing industry prices

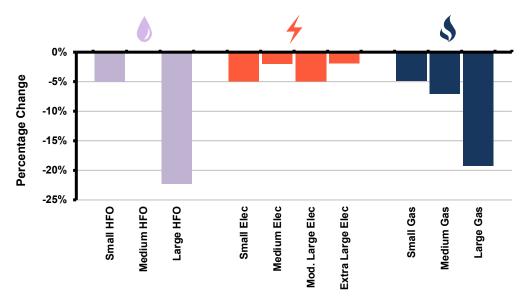
Data for 2019 show that over the past five years (2014 to 2019) the **average industrial electricity** price has risen by **26 per cent** in cash terms (**16 per cent** in real terms), and compared to the previous year average industrial electricity prices has increased by **5.7 per cent** (**3.8 per cent** in real terms).

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

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

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

Chart 3.2 Manufacturing industry price change between Q1 2019 and Q1 2020 by size of consumer (1)



1. Percentage price movement between Q1 2019 and Q1 2020 for heavy fuel oil (HFO), electricity and gas, in cash terms excluding Climate Change Levy (CCL)

#### 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)

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

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

1. Large is 'Moderately Large' for Electricity

Compared to the previous year, **heavy fuel oil** consumers in the manufacturing industry in Q1 2020 have seen an average price **fall of 12 per cent** in cash terms.

Over the same period, average price paid by **electricity** consumers in the manufacturing industry, in cash terms excluding CCL, has **decreased by 3.4 per cent**. All the consumer bands in Q1 2020 have seen fall in prices over the previous year with fall of **5.0 per cent** in the Small band, **2.0 per cent** in the Medium band and **4.0 per cent** in the Large Band.

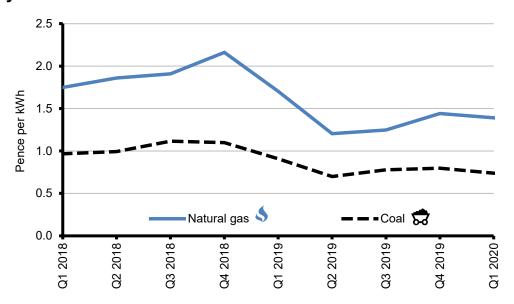
Compared to the previous year, in Q1 2020 the average price for **gas** consumers in the manufacturing industry, in cash terms excluding CCL, **decreased by 17 per cent**. Over the same period prices for all the consumer bands have also decreased. The larger consumers saw a much greater decrease in their average price of gas (nearly **19 per cent**) compared to a **7.1 per cent decrease** in the medium consumer price and a decrease of **4.9 per cent** in the small consumer price over the same period.

# Average prices of fuels purchased by the major UK power producers

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

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

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



Reference and link to data table:

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

#### Recent trends in wholesale gas prices

March 2018	Wholesale prices rose to a <b>high of 2.46 pence per kWh</b> , the <b>highest for over four years</b> . Due to prices on the first two days of the month where wholesale gas price <b>reached a record high of 12.71 pence per kWh</b> on account of cold weather. Prices then fell significantly to an average of 1.89 pence per kWh for the rest of the month
April 2018	Wholesale gas prices see a <b>fall of 29 per cent</b> in comparison to the high prices seen in the previous month
September 2018	Prices continue to steadily rise throughout the year with prices in September reach a peak of 2.51 pence per kWh
September 2019	Wholesale gas prices then continued a steady downward trend throughout the year and by September 2019 were down to an average of <b>0.87 pence per kWh</b> , the lowest for over five years.
Q1 2020	The average wholesale gas prices in Q1 2020 at <b>0.86 pence per kWh was 23 per cent lower than in the previous quarter</b> , <b>48 per cent lower than in the previous year</b> and was the lowest for over five years. During the quarter prices were mainly affected by an oversupply of LNG and the lockdown measures due to the Coronavirus pandemic later in the month of March impacting on demand.

Compared to the previous year, in Q1 2020 **wholesale gas** prices<sup>1</sup> were **48 per cent lower**. Over the same period, in volume terms<sup>2</sup>, there were a 51 per cent increase in LNG imports despite a fall of 4.7 per cent in supply of gas in the quarter. Demand for gas in generation was down by 24 per cent while renewables use increased by 21 per cent.

#### Recent trends in fuels purchased by the major UK power producers

Between Q1 2019 and Q1 2020 the price of **coal** in cash terms for power stations **fell by 19 per cent** to 0.74 pence per kWh.

The price of **gas** over the same period **fell by 18 per cent** to 1.39 pence per kWh. As shown in Chart 3.3, in Q1 2020 the price of coal, in pence per kWh, was slightly more than half that of gas leading to a price gap in cash terms of 0.7 pence per kWh.

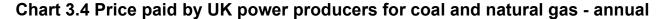
#### Recent trends in fuels used by the major UK power producers

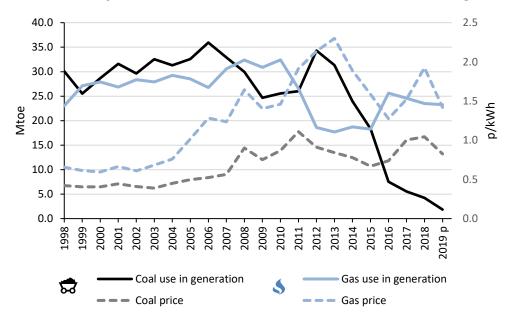
Compared to the previous year, in Q1 2020 more coal (up 9.6 per cent) due to Fiddler's Ferry power station clearing its stock in advance of closure at the end of the quarter and less gas (down 25 per cent) due to lower demand were used in electricity generation.

Nuclear input was down by 5.8 per cent as a result of outages at nuclear plants. Renewable sources in generation however in Q1 2020 increased by 21 per cent. With fall in electricity demand on the same quarter in the previous year, generation also fell slightly. The fall in demand were due to the lockdown measure which became effective at the end of March 2020 as a result of the Coronavirus spread, bringing all sectors (industries, transport, commercial and services) to a halt.

In terms of share of generation, in Q1 2020 gas accounted for 31 per cent of the UK total electricity generation (10 percentage points lower than in the previous year), while coal's share was 3.8 per cent (broadly similar to the previous year). Share of generation from renewables in Q1 2020 accounted for 47 per cent of the total generation (an increase of 11 percentage points on the previous year)

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





Reference and link to data table:

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

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

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

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

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

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

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

### Long term trends in fuels purchased by the major UK power producers

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

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

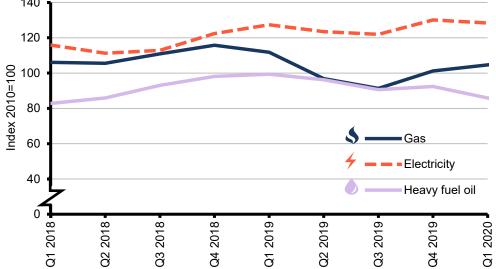
Over the past 5 years, the annual average **real** terms prices of **coal** have **decreased by 1.6 per cent** while natural **gas** used by the major power producers have **decreased by around 31 per cent**.

# Fuel price indices for the industrial sector

Chart 3.5 Industrial fuel price indices (1) - quarterly

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





1. 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

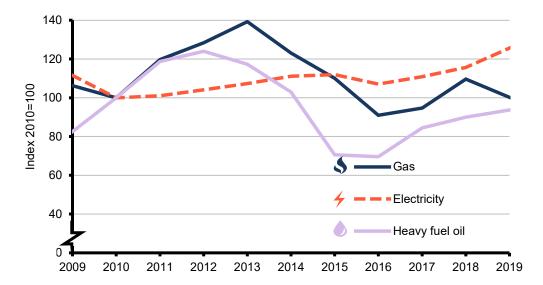
#### Recent trends in industrial fuel price indices by fuel type

As shown in Chart 3.5 between Q1 2019 and Q1 2020 the average industrial electricity prices including CCL were only 0.8 per cent higher in real terms, whilst industrial gas prices including CCL were 6.4 per cent lower.

Over the same period the price of coal saw a real term decrease of 7.7 per cent while the price of heavy fuel oil (not subject to CCL) decreased by 14 per cent.

The inclusion of Climate Change Levy increases the average prices for coal by 5.4 per cent, electricity by 5.5 per cent and gas by 7.1 per cent in Q1 2020 compared to the same quarter a year ago.

Chart 3.6 Industrial fuel price indices (1) - annual



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

References and links to data tables:

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

## Long term trends in industrial fuel price indices by fuel type

In most recent years, fuel prices in the industrial sector, in real term, have risen and in 2019 **total fuel** prices (including CCL) were **4.8 per cent higher** than in the previous year and was the highest for over a decade.

The annual average price of **heavy fuel oil** over the five years to 2019 has decreased by 8.9 per cent in real terms. But in 2019 the average price of heavy fuel oil has increased by 4.1 per cent compared to the previous year.

The annual average price of **gas**, including CCL, fell by 19 per cent in real terms over the past five years, and decreased by 8.6 per cent on the previous year.

However, the annual average price of **electricity**, including CCL, has risen by 13 per cent in real terms over the past five years and by 8.6 per cent on the previous year.

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

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

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

18.0 ■ Price excluding CCL 16.0 CCL 14.0 12.0 Pence per kWh 10.0 8.0 6.0 4.0 2.0 0.0 Small Medium Very Small Extra Large

Chart 3.7 UK non-domestic electricity prices Q1 2020

#### 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

Chart 3.7 shows the **electricity** prices in the non-domestic sector by size bands in Q1 2020. Between Q1 2019 and Q1 2020, average electricity prices in cash terms **excluding CCL** in the non-domestic sector **rose by 6.8 per cent**.

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

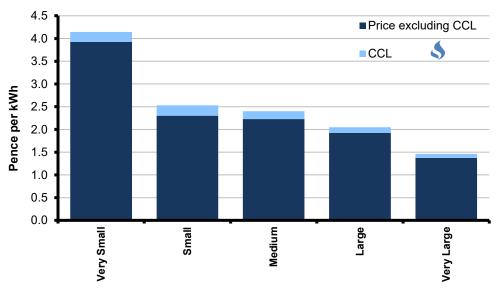
Consumption Band	Consumption	ı (iı	n MWh)
Very Small	0	-	20
Small	20	-	499
Small/Medium	500	-	1,999
Medium	2,000	-	19,999
Large	20,000	-	69,999
Very Large	70,000	-	150,000
Extra Large		>	150,000

Prices for all the other consumer bands increased over the same period, with increases ranging from 3.9 per cent in the Very Small band to 9.1 per cent in the Large band.

Since the second quarter of 2011 average electricity prices in the non-domestic sector, **including CCL**, have been on a general upward trend. In Q1 2020 the average price of **electricity** including CCL in the non-domestic sector was **8.0 per cent higher** than in the

previous year. In Q1 2020, the inclusion of CCL increased the average price of electricity in the non-domestic sector by 5.1 per cent and by between 3.6 per cent to 5.7 per cent for the various consumer 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

Chart 3.8 shows the gas prices in the non-domestic sector by size band in Q1 2020. Between Q1 2019 and Q1 2020, average **gas** prices in cash terms **excluding CCL** in the non-domestic sector **fell by 4.9 per cent**.

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

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

Apart from the Large band, prices for all the consumer bands fell between Q1 2019 and Q1 2020, with a fall of 0.7 per cent in the Very Small band to a fall 27 per cent in the Very Large band.

Average gas prices, including CCL, fell at a steady pace from the high reached in Q1 2014 to a low of 2.07 pence per kWh in Q4 2017 before rising again at a slow steady pace.

The average **gas** prices **including** the climate change levy **fell by 2.8 per cent** between Q1 2019 and Q1 2020. In Q1 2020, the inclusion of CCL increases the average price of gas in the non-domestic sector by 7.1 per cent and by between 5.6 to 9.8 per cent for the various consumer bands.

# Oil and Petroleum Product Prices

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

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

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

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

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

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

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

**Oil and Petroleum Data:** all underlying petroleum and oil data and other related publications can be found on GOV.UK here:

www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices

In addition to the summary in this publication, average road fuel prices are also published in the **Weekly Road Fuel Prices** publication which is available at: www.gov.uk/government/statistical-data-sets/oil-and-petroleum-products-weekly-statistics

# Highlights and Headline Figures

The price of crude oil purchased by UK refineries, in pound sterling (£) terms, in May 2020 was **65 per cent lower** than a year ago, **57 per cent lower** than the previous low seen in December 2018 and only **0.4 per cent higher** than the previous month.

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

The provisional average retail (pump) price of petrol in Mid-June 2020 was **106.4 pence per litre** which was **17 per cent lower** than that a year ago and the average retail diesel price at **112.5 pence per litre** was **16 per cent lower** compared to June 2019. (Tables 4.1.1 and 4.1.2)



The average price for unleaded petrol in Mid-June 2020 was **35 pence** (**25 per cent**) **lower** than its peak in April 2012 and average diesel price was also **35 pence** (**24 per cent**) **lower** than its peak in April 2012. (Tables 4.1.1 and 4.1.2)

# Crude oil prices

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

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

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

#### **Recent trends in Crude Oil Prices**

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

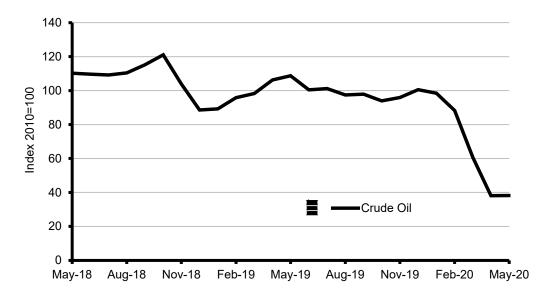
The OPEC+ group production cuts of 1.2 million barrels per day (bpd), agreed at their 175<sup>th</sup> meeting in December 2018, came into effect in January 2019. The larger share of the cut came from the OPEC group (excluding Iran, Venezuela and Libya) with the rest from the Non-OPEC group including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

The reduction was set for an initial period of six months but following a review at the 176<sup>th</sup> OPEC meeting on the 1<sup>st</sup> of July 2019, cuts to supply were extended till 2020. At their 177<sup>th</sup> meeting on December 5<sup>th</sup> 2019 in Vienna, the OPEC+ group agreed to cut their output production by a further half a million barrel per day from early 2020.

At their meeting in Vienna at the beginning of March 2020 OPEC failed to convince Russia to agree to an extension to output cuts by another 1.5 million barrels per day to offset the economic impact of the Coronavirus pandemic. Further as a result of geopolitical tension in the Middle East and the spread of the Coronavirus pandemic worldwide, crude oil prices were 19 per cent lower on the previous quarter in Q1 2020 and were 20 per cent lower on the previous year.

Brent prices (in dollar terms) increased steadily between January and April 2019 but fell at a slow pace until August, remaining broadly level around an average of \$61 per barrel till November before rising to just below an average of \$66 in December 2019. Prices have since fallen with a much larger fall in March 2020 when at \$33 per barrel, Brent prices were 40 per cent lower on the previous month and 50 per cent lower on the previous year.

Chart 4.1 Monthly index<sup>(1)</sup> of crude oil prices acquired at refineries



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

#### Reference and link to data table:

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

Chart 4.1 shows the price indices of crude oil acquired by UK refineries over the past two years. The last available crude oil price index is for May 2020 when the price index was 65 per cent lower than that of a year ago, the lowest since December 2004 and 75 per cent below that in March 2012, which was the highest level since our record began in 1991. The fall in May 2020 was largely due to the impact of the coronavirus outbreak on demand. This release does not provide comments on the most recent events on oil and on price changes for this month.

## Long term trends in Crude Oil Prices

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

## Timeline showing key events and trends in crude oil prices

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

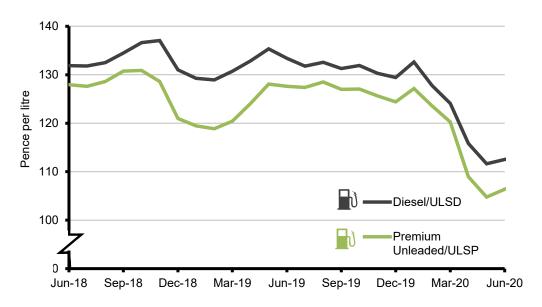
2012	Prices reach their most recent peak the highest in over a decade Prices around \$112 per barrel
Q2 2017	OPEC agreed to extend cuts till March 2018
Q4 2017	OPEC and Russia led group of oil producers extend production cut until end 2018 prices of crude oil increase 19 per cent on the previous quarter. Impacts also from outage of the Forties Pipeline System  Price around \$61 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 (the highest since Q4 2014) - an increase of 1.3 per cent on the previous quarter and 46 per cent higher compared to Q3 2017
Q4 2018	<b>OPEC+ announced cut to supply from January 2019</b> despite this, crude prices were down by 10 per cent on Q3 though still 10 per cent higher on the previous year. US sanctions on Iran came into effect
2018	Geopolitical tensions lead to increases in crude oil prices, up 31 per cent on 2017 Prices at just above \$71 per barrel
Q1 2019	OPEC+ output cut by 1.2m barrels per day came into effect in January 2019. US imposing sanctions on Venezuela oil.
Q2 2019	Increased tensions in the Middle East. Oil tankers attacked in the Gulf of Oman. Oil prices up 8.5 per cent on the previous quarter
Q3 2019	Further tensions in the Middle East (e.g. Iran seized British tanker, drone attacks on Saudi Arabia oil facilities in September 2019 temporarily reducing global output by 5 per cent, Iran threats in the Strait of Hormuz). OPEC+ group at their meeting in July 2019 agreed to extend cuts to supply till 2020.
Q4 2019	US-China trade war generally affecting oil prices. At their meeting in December 2019 OPEC+ agreed to extend output cuts by a further half a million barrels per day from early 2020. Oil prices up 1.2 per cent on the previous quarter but down 7.6 per cent on the previous year.
2019	Oil prices fell 10 per cent to around \$64 per barrel despite sanctions, supply cuts and geopolitical tensions in the Middle East
Q1 2020	From the start of the year Coronavirus began to spread worldwide affecting oil demand and oil prices. As the world went into lockdown In March 2020, crude oil prices fell significantly by 40 per cent on the previous month to \$33 a barrel. In the UK the lockdown measure became effective on the 23 <sup>rd</sup> March 2020.

# Retail prices of petroleum products

Prices of unleaded petrol (ULSP) and diesel (ULSD) peaked in April 2012, mainly due to the cost of crude oil. Relative to those peaks, the petrol price in June 2020 was **35 pence** lower and the diesel price was also lower by **35 pence**.

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

Chart 4.2 Retail prices of motor spirits - Monthly



Reference and link to 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.

Chart 4.2 shows that, in Mid-June 2020, a litre of ULSP was on average **106.4 pence per litre**. This was 1.6 pence per litre higher than the previous month but 21 pence per litre (17 per cent) lower than a year ago.

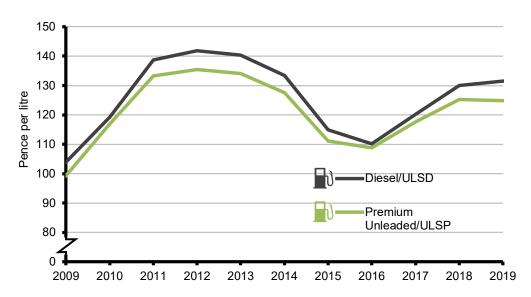
The **ULSD** price was **112.5** pence per litre which was 0.9 pence per litre higher than the previous month, but 21 pence per litre (16 per cent) lower than a year ago.

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

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

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

Chart 4.3 Retail prices of motor spirits - annual



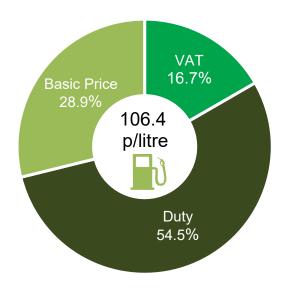
Reference and link to data table:

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

Annual 2019 prices of ULSP and ULSD were lower than the record highs of 2012 by **7.8 per cent** and **7.3 per cent** respectively, as shown in Chart 4.3.

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

Chart 4.4 Component price of unleaded petrol, June 2020



1. Basic price is the price excluding VAT and duty

#### Reference and link to data table:

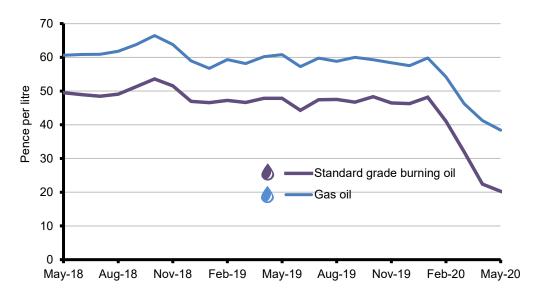
Table 4.1.1: Typical monthly retail prices of petroleum products and a crude oil index

Chart 4.4 shows the components of the retail price of petrol in June 2020 when the basic price was **30.70 pence per litre**, duty at **57.95 pence per litre**, and VAT at 20 per cent of basic price plus duty (**17.73 pence per litre**).

Relative to the peak in April 2012, the price of unleaded petrol, excluding tax and duty, in June 2020 was **49 per cent lower** and the price of diesel, excluding tax and duty, was also **45 per cent lower**.

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

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



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

#### 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 May 2020 was **69 per cent lower** than the peak in February 2013 and was the lowest since June 2004.

The price of **gas oil** in May 2020 was the lowest since March 2016 and was **49 per cent lower** than the price in April 2012, which was the highest level on record which started in 1989.

In May 2020 the price of **SGBO** was **58 per cent lower** than a year ago while that of **gas oil** was **37 per cent lower** (Chart 4.5).

# **International Comparisons**

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

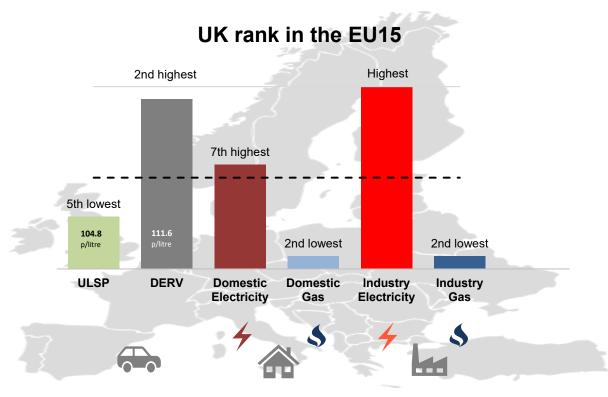
The Department provides both organisations with UK data throughout the year and data from other countries are used in this report to make consistent comparisons to highlight relative competitiveness.

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

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

# Highlights and Headline Figures

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



ULSP and DERV – May 2020 Domestic electricity and gas – July to December 2019 Industry electricity and gas – July to December 2019

#### **Notes**

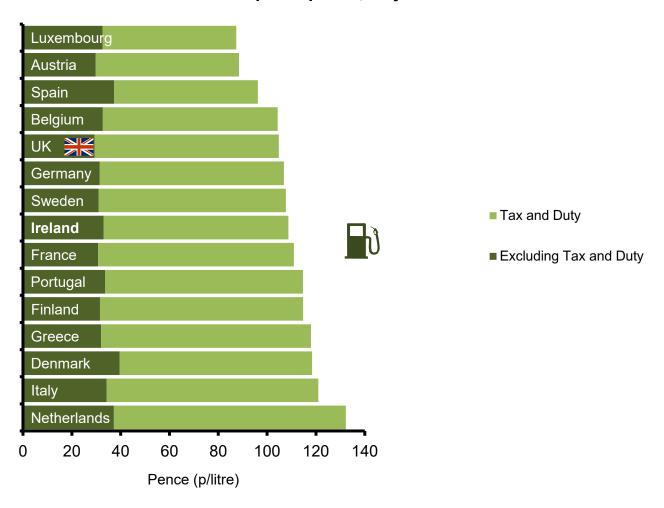
International prices vary due to many reasons including differences in indigenous resources and market structures, global issues, varying exchange rates and inflation rates.

# Unleaded petrol and diesel prices

## Premium unleaded petrol prices

Chart 5.1 shows that in May 2020 the **average UK unleaded petrol price**, including tax and duty, was **5**<sup>th</sup> **lowest** in the EU15 at **104.8 pence per litre**.

Chart 5.1 Premium unleaded petrol prices, May 2020



Source: European Commission Oil Bulletin

Reference and link to tables:

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

When presented in a common currency basis the lowest price was in Luxembourg at 87.4 pence per litre while the highest price was in the Netherlands at 132.2 pence per litre.

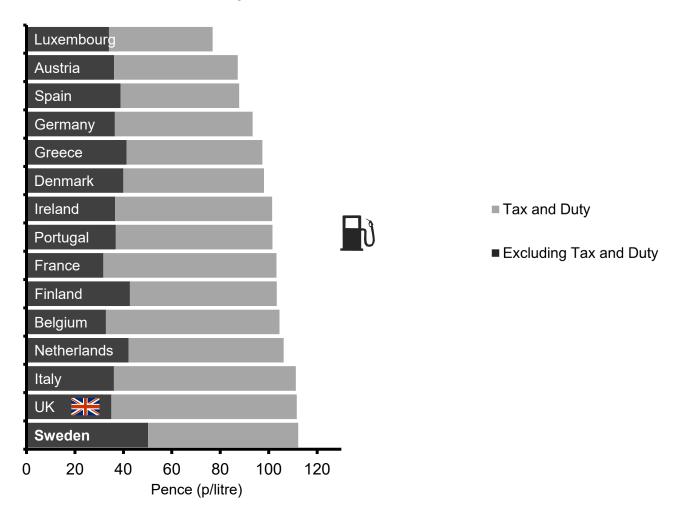
Excluding tax and duty, the average UK unleaded price was the **lowest** in the EU15 at **29.4 pence per litre**. The highest price was in Denmark at 39.5 pence per litre.

# Diesel prices

Chart 5.2 shows that in May 2020 the **average UK diesel price**, including tax and duty was the second highest in the EU15 at 111.6 pence per litre.

The lowest price was in Luxembourg at 76.9 pence per litre while the highest was in Sweden at 112.2 pence per litre.

Chart 5.2 Diesel prices, May 2020



Source: European Commission Oil Bulletin

Reference and link to tables:

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

The high UK diesel prices are partly due to the taxes levied, which accounted for 69 per cent of the total price in May 2020. Sweden had the lowest proportion of total price as taxes and duties at 55 per cent.

Excluding tax and duty, the average UK diesel price was the **fourth lowest** in the EU15 at 35.1 pence per litre. The lowest was in France at 31.7 pence per litre while the highest price was in Sweden at 50.2 pence per litre.

# Industrial electricity and gas prices

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

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

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

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

## Industrial electricity prices

### **Comparisons with EU Countries**

Chart 5.3 shows the industrial electricity prices for the EU15 nations for the period July to December 2019.

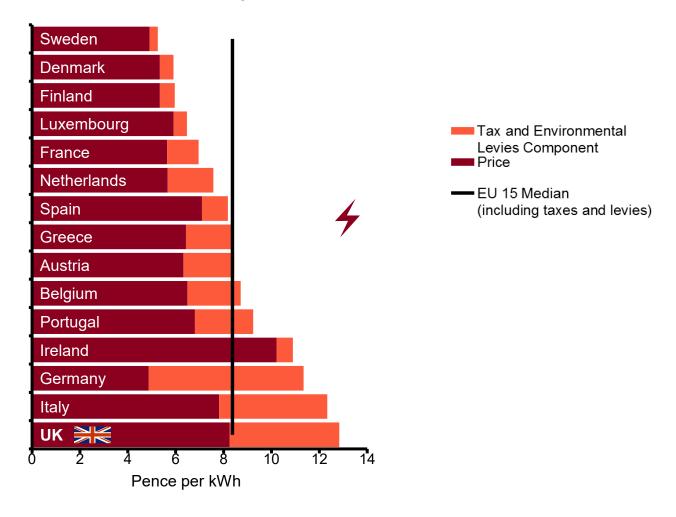
Average industrial electricity prices **including taxes** in the UK for medium consumers for the period July to December 2019 were the highest in the EU15 and were 53 per cent above the EU15 median of 8.4 pence per kWh.

The average industrial electricity prices **including taxes** rose in the UK and in most of the EU15 countries on the same period in 2018 for the medium consumers.

The UK price rose by 8.0 per cent, while the average price increase across the rest of the EU15 was 3.2 per cent. The largest increase was in Italy by 14 per cent and the largest fall was in Denmark by just under 14 per cent.

The UK prices for medium consumers **excluding taxes** and levies were the second highest in the EU15 and were 31 per cent above the estimated median price of 6.3 pence per kWh.

**Chart 5.3 Industrial electricity prices** 



Prices are for medium consumers in the EU15 for July – December 2019.

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: <a href="http://ec.europa.eu/eurostat/data/database">http://ec.europa.eu/eurostat/data/database</a>

#### Reference and link to tables:

Table 5.4.1: Industrial electricity prices in the EU

# **Comparisons with other IEA Countries**

In 2018, average UK industrial electricity prices, including taxes, were the fifth highest in the IEA, mid-ranked in the G7, and was 39 per cent above the IEA median price. UK industrial electricity prices were twice that in the US. The UK price increased by 6.5 per cent between 2017 and 2018.

#### Reference and link to table:

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

## Industrial gas prices

## **Comparisons with EU Countries**

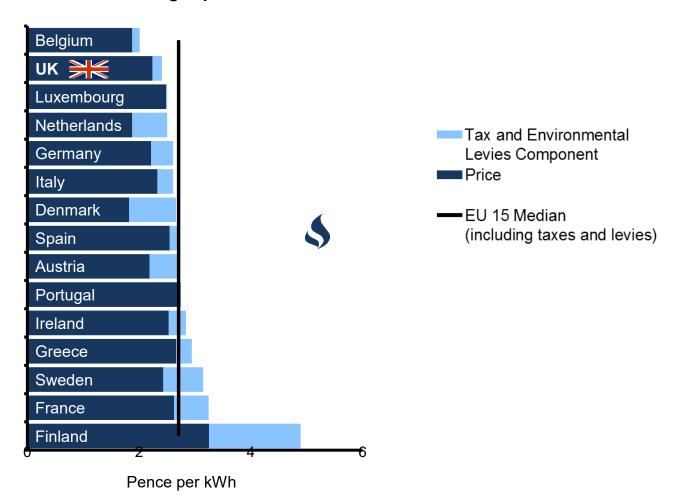
Chart 5.4 shows the average industrial gas prices for the EU15 nations for the period July to December 2019.

Average industrial gas prices for the period July to December 2019, **including taxes**, in the UK for medium consumers were the second lowest in the EU15 and were 11 per cent below the median price of 2.7 pence per kWh.

The average industrial gas price **including taxes** in the UK for medium consumers fell by 3.0 per cent on the same period in 2018. Across the rest of the EU15 the average price fall was 9.5 per cent. Industrial gas prices fell in most of the EU15 with price changes ranging from -26 per cent in Sweden to +4.8 per cent in Portugal.

Prices **excluding taxes** for medium consumers in the UK were the sixth lowest in the EU15 and were 8.0 per cent below the median price.

## **Chart 5.4 Industrial gas prices**



Prices are for medium consumers in the EU15 for July – December 2019.

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

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

#### Reference and link to table:

Table 5.8.1: Average industrial gas prices in the EU

## **Comparisons with other IEA Countries**

In 2018, average UK industrial gas prices, including taxes where not refunded, were the eight lowest in the IEA, third lowest in the G7, and were 8.6 per cent below the IEA median. UK industrial gas prices were just over twice that 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

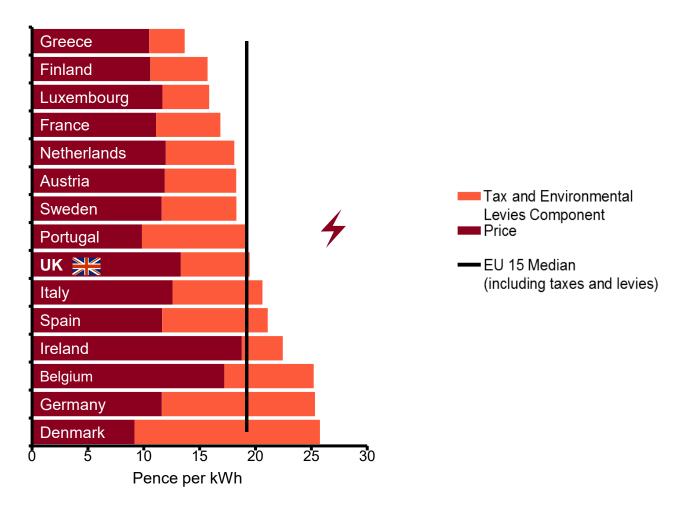
### **Comparisons with EU Countries**

Chart 5.5 shows the domestic electricity prices for the EU15 nations for the period July to December 2019. The average domestic electricity price **including taxes** in the UK for medium consumers for the period July to December 2019 was seventh highest in the EU15 and was 1.3 per cent above the median price of 19.2 pence per kWh

The average domestic electricity prices **including taxes** rose in half of the EU15 countries on the same period in 2018 with the largest increase in Italy by 7.4 per cent and the largest fall in Denmark by 7.2 per cent. The UK price rose by 8.2 per cent, whilst the average price across the rest of the EU15 was broadly similar.

The average UK price **excluding taxes** for medium consumers for the period July to December 2019 was the third highest in the EU15 and was 14.5 per cent above the median price of 11.6 pence per kWh.

**Chart 5.5 Domestic electricity prices** 



Prices are for medium consumers in the EU15 for July to December 2019.

Medium consumers are defined as having an annual consumption of 2,500 - 4,999 kWh per annum.

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

#### Reference and link to table:

Table 5.6.1: Average domestic electricity prices in the EU

## **Comparisons with other IEA Countries**

In **2018**, average UK domestic electricity prices, including taxes, were the eleventh highest in the IEA, mid-ranked in the G7 and were 14 per cent higher than the IEA median. Compared to the USA, the UK domestic electricity prices were 78 per cent higher.

#### Reference and link to table:

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

## Domestic gas prices

#### **Comparisons with EU Countries**

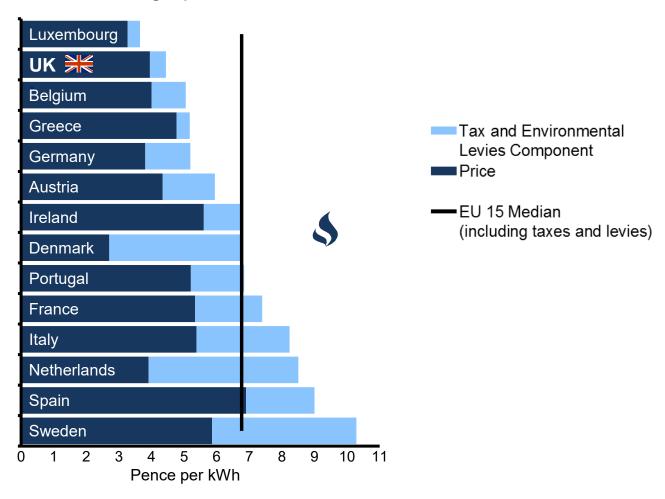
Chart 5.6 shows the domestic gas prices for the EU15 nations (with the exception of Finland where data are not available) for the period July to December 2019.

Average domestic gas prices, **including taxes**, in the UK for medium consumers for the period July to December 2019 were the second lowest in the EU15 and were 34 per cent lower than the median price of 6.8 pence per kWh.

The average domestic gas price **including taxes** in the UK for medium consumers fell by 3.6 per cent on the same period in 2019 and for the rest of the EU15 countries prices fell by an average of 1.6 per cent. Prices fell in most of the other EU15 countries except for France, Netherlands and Spain.

The UK price **excluding taxes** was the fifth lowest in the EU15 and was 13 per cent lower than the median price of 4.6 pence per kWh.

**Chart 5.6 Domestic gas prices** 



Prices are for medium consumers in the EU15 for July to December 2019.

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: <a href="http://ec.europa.eu/eurostat/data/database">http://ec.europa.eu/eurostat/data/database</a>

#### Reference and link to table:

Table 5.10.1: Average domestic gas prices in the EU

#### **Comparisons with other IEA Countries**

In **2018**, average UK domestic gas prices, including taxes where not refunded, were the ninth lowest in the IEA, third lowest in the G7, and were 24 per cent below the IEA median. Compared to the USA, the UK domestic gas prices were 69 per cent higher.

#### Reference and link to table:

Table 5.9.1: Domestic gas prices in the EU15 and G7 countries including and excluding taxes

# **List of Charts**

Chart 2.1	Fuel price indices in the domestic sector in real terms – quarterly
Chart 2.2	Fuel price indices in the domestic sector in real terms – annual
Chart 2.3	Average standard electricity and gas bills
Chart 2.4	Proportion of customers on each payment type
Chart 2.5	Average bills on each payment type
Chart 2.6	Regional payment methods for standard electricity
Chart 2.7	Regional payment methods for gas
Chart 2.8	Proportion of customers with their original home supplier for electricity and gas in GB
Chart 2.9	Average standard electricity and gas bills for home, non-home and all suppliers in GB
Chart 2.10	Proportion of electricity customers with a non-home supplier
Chart 2.11	Proportion of gas customers with a non-home supplier
Chart 2.12	Domestic gas and electricity transfers
Chart 2.13	Proportion of customers on variable and fixed tariffs
Chart 2.14	Average standard electricity and gas bills for fixed and variable tariffs
Chart 2.15	Proportion of standard electricity customers on a fixed tariff
Chart 2.16	Proportion of gas customers on a fixed tariff
Chart 3.1	Average annual prices of fuels purchased by manufacturing industry
Chart 3.2	Manufacturing industry price movements by size of consumer
Chart 3.3	Price paid by UK power producers for coal and natural gas - quarterly
Chart 3.4	Price paid by UK power producers for coal and natural gas - annual
Chart 3.5	Industrial fuel price indices – quarterly
Chart 3.6	Industrial fuel price indices - annual
Chart 3.7	UK non-domestic electricity prices
Chart 3.8	UK non-domestic gas prices
Chart 4.1	Index of crude oil prices
Chart 4.2	Retail prices of motor spirits - quarterly
Chart 4.3	Retail prices of motor spirits - annual
Chart 4.4	Component price of unleaded petrol
Chart 4.5	Retail prices of heating oil
Chart 5.1	Premium unleaded petrol prices
Chart 5.2	Diesel prices
Chart 5.3	Industrial electricity prices
Chart 5.4	Industrial gas prices
Chart 5.5	Domestic electricity prices
Chart 5.6	Domestic gas prices

# Accompanying tables

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

#### **Domestic**

Table 2.1.1:	Consumer prices index UK: fuel components	
Table 2.1.2	Consumer prices index LIK: fuel components	relative to GDP de

- Table 2.1.2: Consumer prices index UK: fuel components, relative to GDP deflator
- Table 2.1.3: Consumer prices index UK: fuel components, monthly figures
- Table 2.2.1: Average annual domestic electricity bills by home and non-home supplier
- Table 2.2.2: Average annual domestic electricity bills for UK countries
- Table 2.2.3: Average annual domestic standard electricity bills for UK regions with average unit costs
- Table 2.2.4: Average variable unit costs and fixed costs for electricity for UK regions
- Table 2.2.5: Average annual domestic standard electricity bills by various consumption levels
- Table 2.3.1: Average annual domestic gas bills by home and non-home supplier
- Table 2.3.2: Average annual domestic gas bills for GB countries
- Table 2.3.3: Average annual domestic gas bills for GB regions with average unit costs
- Table 2.3.4: Average variable unit costs and fixed costs for gas for GB regions
- Table 2.3.5: Average annual domestic gas bills by payment type based on various consumption levels
- Table 2.4.1: Percentage of domestic electricity customers by region by supplier type
- Table 2.4.2: Regional variation of payment method for standard electricity
- Table 2.4.3: Regional variation of payment method for economy 7 customers
- Table 2.5.1: Percentage of domestic gas customers by region by supplier type
- Table 2.5.2: Regional variation of payment method for gas
- Table 2.6.1: Total household expenditure on energy in the UK
- Table 2.6.2: Average expenditure each week on fuel per consuming household in the UK
- Table 2.7.1: Transfer statistics in the domestic gas and electricity markets in GB

#### Industrial

- Table 3.1.1: Prices of fuels purchased by manufacturing industry in Great Britain
- Table 3.1.2: Prices of fuels purchased by manufacturing industry in Great Britain (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)
- Table 3.2.1: Average prices of fuels purchased by the major UK power producers
- Table 3.3.1: Fuel price indices for the industrial sector in current terms excluding CCL
- Table 3.3.1: Fuel price indices for the industrial sector in real terms excluding CCL
- Table 3.3.2: Fuel price indices for the industrial sector in current terms including CCL
- Table 3.3.2: Fuel price indices for the industrial sector in real terms including CCL
- Table 3.4.1: Prices of fuels purchased by non-domestic consumers in the UK excl.CCL
- Table 3.4.2: Prices of fuels purchased by non-domestic consumers in the UK inc. CCL

#### **Oil and Petroleum Products**

- Table 4.1.1: Typical retail prices of petroleum products and a crude oil price index
- Table 4.1.2: Average annual retail prices of petroleum products and crude oil price index
- Table 4.1.3: Typical January retail prices of petroleum products

#### International

- Table 5.1.1: Premium unleaded petrol prices in the EU
- Table 5.2.1: Diesel prices in the EU
- Table 5.3.1: Industrial electricity prices in the IEA
- Table 5.4.1: Industrial electricity prices in the EU for small consumers, excluding tax
- Table 5.4.1: Industrial electricity prices in the EU for small consumers, including tax
- Table 5.4.2: Industrial electricity prices in the EU for medium consumers, excluding tax
- Table 5.4.2: Industrial electricity prices in the EU for medium consumers, including tax
- Table 5.4.3: Industrial electricity prices in the EU for large consumers, excluding tax
- Table 5.4.3: Industrial electricity prices in the EU for large consumers, including tax
- Table 5.4.4: Industrial electricity prices in the EU for extra large consumers, excluding tax
- Table 5.4.4: Industrial electricity prices in the EU for extra large consumers, including tax
- Table 5.5.1: Domestic electricity prices in the IEA
- Table 5.6.1: Domestic electricity prices in the EU for small consumers, excluding tax
- Table 5.6.1: Domestic electricity prices in the EU for small consumers, including tax
- Table 5.6.2: Domestic electricity prices in the EU for medium consumers, excluding tax
- Table 5.6.2: Domestic electricity prices in the EU for medium consumers, including tax
- Table 5.6.3: Domestic electricity prices in the EU for large consumers, excluding tax
- Table 5.6.3: Domestic electricity prices in the EU for large consumers, including tax
- Table 5.7.1: Industrial gas prices in the IEA
- Table 5.8.1: Industrial gas prices in the EU for small consumers, excluding tax
- Table 5.8.1: Industrial gas prices in the EU for small consumers, including tax
- Table 5.8.2: Industrial gas prices in the EU for medium consumers, excluding tax
- Table 5.8.2: Industrial gas prices in the EU for medium consumers, including tax
- Table 5.8.3. Industrial gas prices in the EU for large consumers, excluding tax
- Table 5.8.3: Industrial gas prices in the EU for large consumers, including tax
- Table 5.9.1: Domestic gas prices in the IEA
- Table 5.10.1: Domestic gas prices in the EU for small consumers, excluding tax
- Table 5.10.1: Domestic gas prices in the EU for small consumers, including tax
- Table 5.10.2: Domestic gas prices in the EU for medium consumers, excluding tax
- Table 5.10.2: Domestic gas prices in the EU for medium consumers, including tax
- Table 5.10.3: Domestic gas prices in the EU for large consumers, excluding tax
- Table 5.10.3: Domestic gas prices in the EU for large consumers, including tax

# **Update Timetable**

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

#### **Domestic Tables**

Tables for the Domestic energy prices area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	nergy ces	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												
	Dome	Monthly	2.1.3	Consumer prices index: fuel components, monthly figures												
	<u>s</u>	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									
S	О	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	rgy Bil	Annual	2.3.2	Average annual domestic gas bills for GB countries			R									
Ene	Domestic Energy Bills Gas	Annual	2.3.3	Average annual domestic gas bills for GB regions with average unit costs			R									
stic	omest	Annual	2.3.4	Average variable unit costs and fixed costs for gas for GB regions			R									
ome		Annual	2.3.5	Average annual domestic gas bills by various consumption levels							R					
Ď	er 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 nurr G	Quarterly	2.5.2	Regional variation of payment method for gas												
	Household Data	Annual	2.6.1	Total household expenditure on energy												
	Hous	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)												
S	Manufacturing industry	Quarterly	3.1.2	Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)												
Price	ufactur	Annual	3.1.3	Annual Prices of fuels purchased by manufacturing industry in Great Britain (original units)						R						
nergy F		Annual	3.1.4	Annual Prices of fuels purchased by manufacturing industry in Great Britain (p/kWh)						R						
Enei	Power	Quarterly	3.2.1	Average prices of fuels purchased by the major UK power producers												
	Industrial energy price indices	Quarterly	3.3.1	Fuel price indices for the industrial sector in current terms excluding the Climate Change Levy												
Industrial	Indu: energ; indi	Quarterly	3.3.2	terms including the Climate Change Levy												
ت	Industrial Energy Bills	Quarterly	3.4.1	Prices of fuels purchased by non-domestic consumers in the UK excluding the Climate Change												
	Indus Energ;	Quarterly	3.4.2	Prices of fuels purchased by non-domestic consumers in the UK including the Climate Change												

## **Fuel Tables**

Tables for the Road fuel prices area:

Topic	Area	Freq.	No.	Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	and m s	Monthly	4.1.1	Typical retail prices of petroleum products and a crude oil price index												
Fue	d Fuels etroleu roduct	Annual	417	Average annual retail prices of petroleum products and a crude oil price index	R											
	Road P.	Annual	4.1.3	January prices of road fuels and petroleum products		R										

## **International Tables**

Tables for the International energy price comparisons area:

Table	55 IOI t		ILOI	national energy price cor	HPC	11130	110 0	<u> </u>	•				
	ULSP EU	Monthly	5.1.1	International road fuel prices Premium unleaded petrol prices in the EU	<u>link</u>								
	ULSD EU	Monthly	5.2.1	International road fuel prices Diesel prices in the EU	link								
	Ind. IEA Elec	Biannual	5.3.1	Industrial electricity prices in the IEA	link								
	EU	Biannual	5.4.1	Industrial electricity prices in the EU for small consumers (both excluding and including tax)	link								
	trial Prices Electricity	Biannual	5.4.2	Industrial electricity prices in the EU for medium consumers (both excluding and including tax)	link								
	Industrial Prices EU Electricity	Biannual	5.4.3	Industrial electricity prices in the EU for large consumers (both excluding and including tax)	link								
	pul	Biannual	5.4.4	Industrial electricity prices in the EU for extra-large consumers (both excluding and including tax)	link								
seo	Dom. IEA Elec	Biannual	5.5.1	Domestic electricity prices in the IEA	link								
International Prices	rices icity	Biannual	5.6.1	Domestic electricity prices in the EU for small consumers (both excluding and including tax)	<u>link</u>								
iona	Domestic Prices EU Electricity	Biannual	5.6.2	Domestic electricity prices in the EU for medium consumers (both excluding and including tax)	<u>link</u>								
rnat	Dom	Biannual	5.6.3	Domestic electricity prices in the EU for large consumers (both excluding and including tax)	link								
Inte	Ind. IEA Gas	Biannual	5.7.1	Industrial gas prices in the IEA	<u>link</u>								
	rices	Biannual	5.8.1	Industrial gas prices in the EU for small consumers (both excluding and including tax)	<u>link</u>								
	Industrial Prices EU Gas	Biannual	5.8.2	Industrial gas prices in the EU for medium consumers (both excluding and including tax)	link								
	npul	Biannual	5.8.3	Industrial gas prices in the EU for large consumers (both excluding and including tax)	<u>link</u>								
	Dom IEA Gas	Biannual	5.9.1	Domestic gas prices in the IEA	<u>link</u>								
	ices	Biannual	5.10.1	Domestic gas prices in the EU for small consumers (both excluding and including tax)	link								
	Domestic Prices EU Gas	Biannual	5.10.2	Domestic gas prices in the EU for medium consumers (both excluding and including tax)	<u>link</u>								
	Dom	Biannual	5.10.3	Domestic gas prices in the EU for large consumers (both excluding and including tax)	link								

#### Key:

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

	Annual
	Biannual
	Quarterly
	Monthly
R	Revised

# **Technical information**

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

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

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

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

Domestic energy prices: data sources and methodology Industrial price statistics: data sources and methodologies International comparisons: data sources and methodologies Road fuel price statistics: data sources and methodologies

## Changes to methodology

**Please note:** Bills data has been presented with fixed annual consumption levels of 15,000kWh for gas and 3,800kWh for electricity (unless noted otherwise) to allow comparisons over time of **actual price** changes, keeping change in consumption constant.

We have reviewed these consumption levels to ensure they're still appropriate. The proposed new values are:

**3,600 kWh** for Standard Electricity **5,100 kWh** for Economy 7 Electricity **13,600 kWh** for Gas

These were calculated using the same methodology as previously used in 2014 to obtain the current values. This takes weather adjusted consumption data for the United Kingdom from the Digest of UK Energy Statistics (DUKES) and calculates an average from this using customer numbers from the Energy Consumption in the UK (ECUK) publication.

Estimated bills, along with a consistent time series, using the finalised consumption figures will be published in the March 2020 release (which presents final bills data for 2019).

If you have any queries, concerns or input to this change please contact: energyprices.stats@beis.gov.uk

# **Further information**

# Future updates to these statistics

On Thursday 25 June 2020 the next issue of the Quarterly Energy Prices will be released. This will include data on estimates for the first quarter of 2020. Underlying data tables will be released to the schedule outlined in the Accompanying Tables section.

## Related statistics

#### **Energy Trends**

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

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

#### **Digest of UK Energy Statistics (DUKES)**

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

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

#### **UK Energy in Brief**

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

#### **Fuel Poverty Statistics**

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

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

# Revisions policy

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

# Uses of these statistics

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

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

# User engagement

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

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

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

# National Statistics designation

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

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

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

# Pre-release access to statistics

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

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

# Contact

Responsible statistician: William Nye

Email: William.Nye@beis.gov.uk

Media enquiries: 020 7215 1000
 Public enquiries: 0207 215 5073

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

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

### Responsible Statistician for this release

William Nye

Tel: 0207 215 5073

Email: William.Nye@beis.gov.uk.

#### **Household Energy Prices Team**

Tom Fitzpatrick Tel: 020 7215 6353

Email: thomas.fitzpatrick@beis.gov.uk

#### Industrial Energy Prices, Petrol Prices and International Energy Prices Team

Anwar Annut Tel: 0300 068 5060

Tel: 0300 068 5060

Email: Anwar.Annut@beis.gov.uk

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

# Other Useful Websites

Ofgem ofgem.gov.uk

**HM Revenue and Customs** gov.uk/government/organisations/hm-revenue-customs

Office for National Statistics ons.gov.uk International Energy Agency iea.org

**Eurostat** ec.europa.eu/eurostat

UK Petroleum Industry Assoc. ukpia.com

DEFRA gov.uk/government/organisations/department-

for-environment-food-rural-affairs

# Annex A - Technical Notes

#### **Tables 2.1.1 to 2.1.3**

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

Table A1:	Retail pri	ce index, fu	iel com	ponent v	veights		
	All items	Domestic fuels	Solid fuels	Gas	Electricity	Liquid fuels	Motor fuels and oil
2000 2010 2011 2012 2013 2014	1.000 1,000 1,000 1,000 1,000 1,000	33 47 44 56 48 45	1 1 1 1 1	13 25 22 32 26 21	17 19 19 20 19 21	2 2 2 3 2 2	38 41 43 46 40 35
2015 2016 2017 2018 2019 2020	1,000 1,000 1,000 1,000 1,000 1,000	42 35 34 34 31 32	1 1 1 1 1	20 16 15 15 12 12	20 17 17 17 17 17	1 1 1 1 1	34 32 33 31 30 31

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

#### **Table 2.1.1**

- A3. Solid fuels Retail prices for the standard grade of household coal and for the smokeless fuel type grade for a boiler/room heater, obtained from local retailers in up to 146 areas throughout the United Kingdom.
- A4. Gas average of the major gas companies' tariffs, plus butane gas.
- A5. Electricity average of the major electricity companies' tariffs.
- A6. Liquid fuels Retail prices of domestic kerosene heating oil provided by retailers in up to 146 areas throughout the United Kingdom.
- A7. Motor fuel and oil Ultra-low sulphur petrol (ULSP), ultra-low sulphur diesel (ULSD) and motor oil Retail prices of the different grades of motor spirit and engine oil obtained weekly from oil companies and supermarkets throughout the United Kingdom, with the weekly data averaged to produce a monthly figure.

#### **Tables 2.2.1 to 2.5.2**

- A8. Tables 2.2.1 and 2.3.1 show the average annual bills split by fixed and variable tariffs and are experimental statistics. Fixed tariff as the name implies is the price of a tariff kept fixed for a set period of time. Variable tariffs, on the other hand, are tariffs that are not defined as fixed and include the 'standard' variable tariff as well as any other variable tariffs.
- A9. Tables 2.2.4 and 2.3.4 are experimental statistics. They are used in the energy consumption model to calculate household notional energy bills for modelling fuel poverty level in England. These data are not suitable for calculating the average bills of low use consumers. The data reported are an average of the fixed and variable costs across the four quarters in the year. In the calculation, more weights are given to costs in Q1 and Q4, when it is assumed that more electricity and gas are consumed (and hence the price at this time should contribute more to the average). As a result these values should not be used to determine current average bills. For more information see the Fuel Poverty Methodology Handbook on the BEIS website at <a href="https://www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook">www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook</a>
- 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 an	d PES area
	Gas LDZ	Electricity PES area
Aberdeen	Scotland	Northern Scotland
Belfast	n/a	Northern Ireland
Birmingham	West Midlands	West Midlands
Canterbury	South East	South East
Cardiff	Wales	South Wales
Edinburgh	Scotland	Southern Scotland
Ipswich	Eastern	Eastern
Leeds	North East	Yorkshire
Liverpool	North West	Merseyside & North Wales
London	London	London
Manchester	North West	North West
Newcastle	Northern	North East
Nottingham	East Midlands	East Midlands
Plymouth	South West	South West
Southampton	Southern	Southern

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

- A12. Bills and unit costs are based on published prices and include standing charges where applicable. No allowances are made for introductory offers or non-cash benefits that may be available from new suppliers. Both electricity and gas bills and costs reflect the prices of all the suppliers in the survey. This basis is used for all the domestic bills and costs data in Tables 2.2.1 to 2.3.3. The bills shown relate to the total bill including VAT in cash terms received during the calendar year, for the tariff type shown, including all tariff changes and rebates. Averages are weighted by the number of domestic customers. An annual consumption of 3,800 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 annual purchases for the Quarterly Fuels Inquiry					
	Large	Of which:		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
Electricity (thousand kWh)	8,800	150,000	8,800 to 150,000	880 to 8,800	880
Gas(1) (thousand kWh)	8,800			1,500 to 8,800	1,500

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

#### **Table 3.2.1**

- A30. The prices for fuels used in electricity generation are collected via a quarterly survey of electricity generators in the United Kingdom which covers companies that produce electricity from nuclear sources plus all companies whose prime purpose is the generation of electricity. The companies are: AES Electric Ltd., Centrica plc., Coryton Energy Company Ltd., Eggborough Power Ltd., E.On UK plc., Fellside Heat and Power Ltd., Fibrogen Ltd., Fibropower Ltd., Fibrothetford Ltd., International Power, Premier Power Ltd., Rocksavage Power Company Ltd., RWE Npower plc., Scottish Power plc., Scottish and Southern Energy plc., SELCHP Ltd., Spalding Energy Company Ltd.
- A31. The data reported are the value and volume of fuel purchased during the quarter and may not always reflect the fuel actually used (i.e. there can be stocking and destocking, especially for coal). The prices reported are typically for long-term contracts, with price escalator factors, some of which may have already been implemented. As such, the prices can be higher than those paid by large industrial users who typically negotiate contracts each year.
- A32. Provisional quarterly data is published three months in arrears, with final data published six months in arrears. Any revised data are marked with an "r". Provisional annual data for the most recent year is published in the March edition of QEP, with final data published in June.

#### Tables 3.3.1 and 3.3.2

- A33. Data for these indices are taken from a number of sources: electricity data are taken from a monthly survey run by BEIS; gas data are taken from the monthly Producer Price Index (PPI) gas series created by BEIS; coal and heavy fuel oil data are taken from the Quarterly Fuels Inquiry (QFI) survey used to create Tables 3.1.1 3.1.4.
- A34. Provisional quarterly data is published three months in arrears, with final data being published six months in arrears. Any revised data is marked with an "r". Provisional annual data is published in the March edition of QEP, with final data being published in June. The entire year's quarterly data for coal and HFO is reviewed in June to ensure that each of the contributors who supply data to the Quarterly Fuels Inquiry have been placed in the correct

size band based upon their annual consumption. This means that there can be revisions made to data from Q1 to Q4 at that time.

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

Table A4: Climate Change Levy rates from April 2001						
	Coal	Electricity	Gas	LPG		
Apr-2001	£11.70/tonne	0.430 p/kWh	0.150 p/kWh	£9.60/tonne		
Apr-2008	£12.42/tonne	0.456 p/kWh	0.159 p/kWh	£10.18/tonne		
Apr-2009	£12.81/tonne	0.470 p/kWh	0.164 p/kWh	£10.50/tonne		
Apr-2011	£13.21/tonne	0.485 p/kWh	0.169 p/kWh	£10.83/tonne		
Apr-2012	£13.87/tonne	0.509 p/kWh	0.177 p/kWh	£11.37/tonne		
Apr-2013	£14.29/tonne	0.524 p/kWh	0.182 p/kWh	£11.72/tonne		
Apr-2014	£14.76/tonne	0.541 p/kWh	0.188 p/kWh	£12.10/tonne		
Apr-2015	£15.12/tonne	0.554 p/kWh	0.193 p/kWh	£12.40/tonne		
Apr-2016	£15.26/tonne	0.559 p/kWh	0.195 p/kWh	£12.51/tonne		
Apr-2017	£15.51/tonne	0.568 p/kWh	0.198 p/kWh	£12.72/tonne		
Apr-2018	£15.91/tonne	0.583 p/kWh	0.203 p/kWh	£13.04/tonne		
Apr-2019	£26.53/tonne	0.847 p/kWh	0.339 p/kWh	£21.75/tonne		

#### **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.
- 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 2018

	GJ per t	onne		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)	25.2	26.5	Industrial wood (4)	19.0	20.3	0%
Coke ovens (1)	30.2	31.8	Straw	13.5	15.8	15%
Low temperature carbonisation plants			Poultry litter (5)	7.6	9.5	20%
and manufactured fuel plants	26.9	28.4	Meat and bone	15.2	17.1	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)	7.0	10.0	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				
Engineering (mechanical and			Petroleum:			
electrical engineering and			Crude oil (weighted average)	43.4	45.7	
vehicles)	27.9	29.4	Petroleum products (weighted average)	43.9	46.2	
Other industries	30.9	32.5	Ethane	46.6	50.7	
			Butane and propane (LPG)	45.9	49.3	
Domestic			Light distillate feedstock for gasworks	45.4	47.8	
House coal	25.1	26.5	Aviation spirit and wide cut gasoline	44.9	47.3	
Anthracite and dry steam coal	30.8	32.4	Aviation turbine fuel	43.9	46.2	
Other consumers	25.1	26.4	Motor spirit	44.7	47.1	
Imported coal (weighted average)	26.9	28.4	Burning oil	43.9	46.2	
Exports (weighted average)	26.6	28.0	Gas/diesel oil	42.6	45.3	
			DERV	42.9	45.7	
Coke (including low temperature			Fuel oil	40.7	43.3	
carbonisation cokes)	29.8	29.8	Power station oil	40.7	43.3	
Coke breeze	29.8	29.8	Non-fuel products (notional value)	40.8	42.9	
Other manufactured solid fuels	28.1	29.6	,			
				MJ per cub	ic metre	
				net	gross	
			Natural gas produced (8)	35.7	39.7	
			Natural gas consumed (9)	35.5	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 **2018**. For calorific values of fuels in earlier years see Tables A.2 and A.3 and previous issues of Digest of United Kingdom Energy Statistics (DUKES). See the notes in Chapter 1, paragraph 1.55 regarding net calorific values. The difference between the net and gross thermal content is the amount of energy necessary to evaporate the water present in the fuel or formed during the combustion process. The calorific values for coal other than imported coal are based on estimates provided by the main coal producers, but with some exceptions as noted on Table A.2. The calorific values for petroleum products have been calculated using the method described in Chapter 1, paragraph 1.31. Data reported in DUKES in 'thousand tonnes of oil equivalent' have been prepared on the basis of 1 tonne of oil equivalent having an energy content of 41.868 gigajoules (GJ), (1 GJ = 9.478 therms) - see notes in Chapter 1, paragraph 1.28.

#### B2: Estimated average gross calorific values of fuels 1980,1990,2000,2010 and 2015 to 2018

						r tonne (	
Coal	1980	1990	2000	2010	2016	2017	2018
All consumers (1)(2)	25.6	25.5	26.2	25.8	26.0	25.9	25.9
All consumers - home produced plus imports minus exports (1)			27.0	27.1	27.2	27.3	27.3
Power stations (2)	23.8	24.8	25.6	24.9	26.5r	26.5r	26.5
Power stations - home produced plus imports (1)			26.0	25.8	26.5r	26.5r	26.5
Coke ovens (2)	30.5	30.2	31.2	30.5	31.8	31.8	31.8
Coke ovens - home produced plus imports (1)			30.4	30.5	31.8	31.8	31.8
Low temperature carbonisation plants and							
manufactured fuel plants	19.1	29.2	30.3	30.2	28.4	28.4	28.4
Collieries	27.0	28.6	29.6	29.3	29.0	28.9	28.9
Agriculture	30.1	28.9	29.2	28.0	29.5	29.5	29.5
Iron and steel industry (3) Other industries (1)	29.1 27.1	28.9 27.8	30.7 26.7	30.4 27.7	30.4 26.7	30.4 26.7	30.4 26.7
Non-ferrous metals	27.1	23.1	25.1	25.4	25.1	25.0	25.0
Food, beverages and tobacco	28.6	28.1	29.5	28.6	29.4	29.3	29.3
Chemicals	25.8	27.3	28.7	26.7	26.5	26.5	26.5
Textiles, clothing, leather and footwear	27.5	27.7	30.4	29.5	29.5	29.4	29.4
Pulp, paper, printing, etc.	26.5	27.9	28.7	24.1	24.2	24.2	24.2
Mineral products (4)		28.2	27.0	27.6	27.9	27.6	27.6
Engineering (5)	27.7	28.3	29.3	29.5	29.5	29.4	29.4
Other industry (6)	28.4	28.5	30.2	32.6	32.8	32.5	32.5
Unclassified		27.1					
Domestic							
House coal	30.1	30.2	30.9	29.8	28.6r	27.0r	26.5
Anthracite and dry steam coal	33.3	33.6	33.5	34.7	34.4	32.4r	32.4
Other consumers	27.5	27.5	29.2	25.5	26.4	26.4	26.4
Transport - Rail				30.3	30.2	30.1	30.1
Imported coal (1)	••	28.3	28.0	27.9	28.8r	28.5r	28.4
of which Steam coal			26.6	26.5	26.5r	26.5r	26.5
Coking coal			30.4	32.1	31.8	31.8	31.8
Anthracite	••		31.2	31.0	31.6	31.5	31.5
Exports (1)		29.0	32.0	32.3	30.4r	29.4r	28.0
of which Steam coal			31.0	31.2	29.9r	28.7r	27.0 32.5
Anthracite			32.6	33.2	32.5	32.5	
Coke (7) Coke breeze	28.1 24.4	28.1 24.8	29.8 24.8	29.8 29.8	29.8 29.8	29.8 29.8	29.8 29.8
Other manufactured solid fuels (1)	27.6	27.6	30.8	32.6	29.6r	29.6r	29.6
Petroleum							
Crude oil (1)	45.2	45.6	45.7	45.7	45.7	45.7	45.7
Liquified petroleum gas	49.6	49.3	49.1	49.2	49.3	49.3	49.3
Ethane	52.3	50.6	50.7	50.7	50.7	50.7	50.7
LDF for gasworks/Naphtha	47.8	47.9	47.6	47.8	47.9	47.8	47.8
Aviation spirit and wide-cut gasoline (AVGAS and AVTAG)	47.2	47.3	47.3	47.4	47.4	47.4	47.3
Aviation turbine fuel (AVTUR)	46.4	46.2	46.2	46.2	46.2	46.2	46.2
Motor spirit	47.0	47.0	47.0	47.1	47.1	47.1	47.1
Burning oil	46.5	46.2	46.2	46.2	46.2	46.2	46.2
Vaporising oil	45.9	45.9					
Gas/diesel oil (8)	45.5	45.4	45.6	45.3	45.3	45.3	45.3
DERV (8)	**			45.6	45.7	45.7	45.7
Fuel oil	42.8	43.2	43.1	43.3	43.3	43.3	43.3
Power station oil	42.8	43.2	43.1	43.3	43.3	43.3	43.3
Non-fuel products (notional value)	42.2	43.2	43.8	43.1	42.8	43.0	42.9
Petroleum coke (Power stations)		 20 F		30.9	28.6	28.6	28.6
Petroleum coke (Other)  Natural Gas (9)		39.5 38.4	35.8 39.4	35.8 40.0	35.8 40.0r	35.8 39.8	35.8 39.7
.,							
Renewable sources  Domestic wood			10.0	13.9	16.3	16.3	16.3
Industrial wood			11.9	13.7	20.3	20.3	20.3
Straw			15.0	15.8	15.7	15.4	15.8
Poultry litter			8.8	9.1	9.5	9.9	9.5
Meat and bone			17.3	20.0	19.0	18.3	17.1
General industrial waste			16.0	16.0	16.0	16.0	16.0
Hospital waste			14.0	14.0	14.0	14.0	14.0
Municipal solid waste			9.5	9.5	9.8	9.3	10.0
Refuse derived waste			18.6	18.5	18.5	18.5	18.5
Short rotation coppice			10.6	11.1	14.2	14.2	14.2
Tyres			32.0	32.0	32.0	32.0	32.0
Wood pellets				17.2	18.3	18.3	18.3
Biodiesel				38.7	38.7	38.7	38.7
Bioethanol				29.7	29.7	29.7	29.7

- (1) Weighted averages.
- (2) Home produced coal only.(3) From 2001 onwards almost entirely sourced from imports.
- (4) Based on information provided by the British Cement Industry Association; almost all coal used by this sector in the latest 4 years was imported.
  (5) Mechanical engineering and metal products, electrical and instrument engineering and vehicle manufacture.
- (6) Includes construction.
- (7) Since 1995 the source of these figures has been the ISSB.(8) DERV included within gas/diesel oil until 2005.
- (9) Natural Gas figures are shown in MJ per cubic metre.

#### **B3: Standard conversion factors**

1 tonne of oil equivalent (toe) = 107 kilocalories

= 396.83 therms = 41.868 GJ = 11,630 kWh

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

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

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

#### Weight

1 kilogramme (kg) = 2.2046 pounds (lb)

1 pound (lb) = 0.4536 kg 1 tonne (t) = 1,000 kg

> = 0.9842 long ton = 1.102 short ton

1 Statute or long ton = 2,240 lb

= 1.016 ton

= 1.120 short ton

1 barrel = 159.0 litres

= 34.97 UK gal = 42 US gal

#### Volume

1 cubic metre (cu m) = 35.31 cu ft 1 cubic foot (cu ft ) = 0.02832 cu m

1 litre = 0.22 Imperial gallons

1 UK gallon = 8 UK pints

= 1.201 U.S. gallons = 4.54609 litres

#### Length

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

#### **Temperature**

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

#### **B4: Average conversion factors for petroleum 2018**

	Litres per tonne		Litres per tonne
Crude oil:		DERV fuel:	
Indigenous	1,199	0.005% or less sulphur	1,193
Imported	1,181		
Average of refining throughput	1,192	Gas /Marine diesel oil	1,172
Ethane	2,730	Fuel oil (1% or less sulphur)	
Propane	1,944	All grades:	1,015
Butane	1,733	Light	
Naphtha	1,482	Medium	
		Heavy	
Aviation gasoline	1,386		
		Lubricating oils:	
Motor spirit:		White	1,157
All grades	1,355	Greases	
Super1	1,359		
Premium1	1,370	Bitumen	980
Middle distillate feedstock		Petroleum coke	
		Petroleum waxes	1,184
Kerosene:		Industrial spirit	1,247
Aviation turbine fuel	1,250	White spirit	1,251
Burning oil	1,248		

**Please note:** The above conversion factors, which for refined products have been compiled by BEIS using data from UK Petroleum Industry Association companies, apply to the year **2018**. The litres to tonnes conversions are made at a standard temperature of 15°C.

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

## Annex C - Effective Rates of Duty on Principal Hydrocarbon Oils

#### Effective rates provided 1979 to 2020<sup>(1)</sup>

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

- (1) Duty rates remain the same unless otherwise stated.
- (2) These fuels became liable to Value Added Tax (VAT) as follows:-

  - 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 15% with effect from 18 June 1979 17.5% with effect from 1 April 1991
- 15% with effect from 1 December 2008 17.5% with effect from 1 January 2010 20% with effect from 4 January 2011 (Notes continued on following page)
- (3) From 14 March 1989 until 20 March 1990, the rate of duty for 2-star and 3-star leaded motor spirit was 21.220 pence per litre.
  (4) With the separate duty rate abolished, duty on these fuels is now charged at the rate appropriate to unleaded petrol or ultra low sulphur petrol, dependent upon the sulphur and aromatic content of the fuel.

### Effective rates provided 1979 to 2020<sup>(1)</sup> (continued)

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

<sup>(5)</sup> Duty now charged at the rate appropriate to ultra low sulphur petrol.
(6) For industrial and commercial consumers these fuels became liable to the standard rate of VAT on 1 July 1990 (see note 2), recoverable by the majority of such consumers. These fuels attracted VAT for domestic consumers from 1 April 1994 at an initial rate of 8%. This was reduced to 5% from 1 September 1997.
(7) AVTUR (aviation turbine fuel) attracted the gas oil rate until 18 March 1986 after which it was zero-rated.
(8) From 29 November 1994 this duty is priced in pence per kilogram as the relative calorific values of the different types of road fuel gases are very similar when related to mass (kilogram). The conversion rate for LPG is approx. 1kg = 2 litres.
(9) Duty now charged at the rate appropriate to ultra low sulphur diesel

## Annex D - Further Sources of Information

#### **Energy prices**

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

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

#### **Fuel Poverty**

The 2019 fuel poverty statistics report was published in June 2019 and includes statistics for the number of fuel poor households in 2017. This is published here:

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

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

All titles can be found on the BEIS site here:

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

#### Statistical publications

#### **Energy Trends**

Energy Trends contains quarterly data on production and consumption of overall energy and of the individual fuels in the United Kingdom. Also includes data on foreign trade in fuels. www.gov.uk/government/collections/energy-trends

#### Digest of UK Energy Statistics (DUKES)

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**

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

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

#### **Energy Flow Chart**

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

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

#### **UK Energy in Brief**

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

#### **Sub-National Energy Consumption Statistics**

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

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

#### National Energy Efficiency Data-framework (NEED)

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

#### **Household Energy Efficiency**

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

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

#### **UK Greenhouse Gas Emissions Statistics**

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

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

#### **UK Energy and CO2 emissions projections**

The Updated Energy Projections (UEP) are published annually by BEIS. They provide updated projections and analysis of energy use and carbon dioxide emissions in the UK. The UEP exercise incorporates all firm environmental policy measures and is based on updated assumptions consistent with the most recent UK Budget announcements. The latest report is available at: www.gov.uk/government/collections/energy-and-emissions-projections

#### The Clean Growth Strategy

On 12 October 2017 The Clean Growth Strategy was published. The strategy sets out proposals for decarbonising all sectors of the UK economy through the 2020s. It explains how the whole country can benefit from low carbon opportunities, while meeting national and international commitments to tackle climate change. The strategy is available at:

www.gov.uk/government/publications/clean-growth-strategy

#### **Policy publications**

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

#### Related websites

The Department for Business, Energy and Industrial Strategy section of the GOV.UK website can be found here:

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

The energy information and statistics section is here:

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

#### Other Government websites

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

## Other useful energy related websites

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



#### © Crown copyright 2020

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit <a href="mailto:nationalarchives.gov.uk/doc/open-government-licence/version/3">nationalarchives.gov.uk/doc/open-government-licence/version/3</a> or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: <a href="mailto:psi@nationalarchives.gsi.gov.uk">psi@nationalarchives.gsi.gov.uk</a>.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available from: www.gov.uk/government/collections/quarterly-energy-prices

If you need a version of this document in a more accessible format, please email <a href="mailto:energy.stats@beis.gov.uk">energy.stats@beis.gov.uk</a>. Please tell us what format you need. It will help us if you say what assistive technology you use.