



## **Domestic Energy Prices: Data sources and methodology**

### **1. Introduction**

#### 1.1 Background – Domestic Energy Prices Statistics

Domestic price statistics provide important information for monitoring the energy market. They are used to measure the rises and falls in gas and electricity prices and the effect this has on domestic energy bills, including effects on prices from any changes to competition within the market.

UK domestic energy prices are compared with prices in other countries to measure the competitiveness of the UK and monitor the effects of liberalising energy markets across the EU.

Domestic energy prices data are also used to inform the estimates of Fuel Poverty and domestic energy price projections.

#### 1.2 Background – Domestic Energy Market

The domestic gas market was opened to competition in stages between 1996 and 1998; whilst the domestic electricity market was opened up to competition over eight months between 1998 & 1999.

The main six energy suppliers in Great Britain are British Gas, EDF, E.on, Npower, Scottish Power, and SSE. Between them, these six suppliers capture the majority of all domestic energy customers in Great Britain. In addition to these, there are other smaller suppliers which operate within the market. Within Northern Ireland, Power NI and SSE Airtricity are the dominating domestic energy supply companies.

#### 1.3 Background – Home and Non-Home Suppliers

The home supplier for any area is the original supplier in that area prior to the opening of the domestic energy market to competition. For gas, the home supplier is British Gas Trading. For electricity, the home supplier is the former public electricity suppliers (PES) within their own distribution area or that of their parent company.

### **2. Publications**

#### 2.1 Quarterly Energy Prices

Domestic energy price statistics are published online within a National Statistics publication entitled 'Quarterly Energy Prices' (QEP). In addition, all tables within the publication are available online in Excel form.

The QEP publication can be accessed at:

<https://www.gov.uk/government/collections/quarterly-energy-prices>

The online tables can be accessed at:

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

On a monthly basis, the domestic component of the Consumer Price Index for the UK is published. Further details on the methodology behind the domestic component of the Consumer Price Index are in section 4.1.

On a quarterly basis, the proportion of customers paying by various payment methods is published. Further details on the methodology behind the customer splits are included in section 4.2. Also published on a quarterly basis are the number of households switching energy supplier. For further details on this methodology refer to section 4.4.

On a bi-annual basis, domestic gas and electricity prices for EU countries (including the UK) are published, with prices presented for a range of consumption bands. Further details on the methodology behind the domestic prices by consumption band are included in section 4.6.

On an annual basis, the level of average domestic energy bills by payment method, with a comparison of prices over time, are published in Tables 2.2 and 2.3. Provisional estimates are published in December with final estimates of average domestic energy bills published in March. Further details on the methodology behind the average domestic energy bills by payment method are included in section 4.3. Also published on an annual basis is the total household expenditure on energy in the UK, and the average weekly household expenditure on fuel by income decile. Further details on the expenditure data are included in section 4.5.

## 2.2 Other Energy Statistics publications

Energy in Brief includes tables and charts sourced from Quarterly Energy Prices. The Fuel Poverty statistics utilise figures from tables 2.2.4 and 2.4.3 which contain average unit costs and regional standing charges.

## 3. Data Sources and Quality Assurance

All domestic price data for the UK is collected directly from energy suppliers on a quarterly basis. There are two main surveys used to collect data: the Domestic Fuel Inquiry (DFI) survey and the Price Transparency (PT) survey. Both surveys are managed by BEIS statisticians and are not contracted out to external providers. All data is collected on a confidential basis to reflect the market sensitive nature of the data. Energy suppliers return their completed surveys to a named member of the energy price statistics team.

### 3.1 Domestic Fuel Inquiry

#### 3.1.1 Data sources for DFI

The Domestic Fuel Inquiry (DFI) Survey is used to calculate the quarterly and annual domestic energy pricing information outlined in Section 2.1.

The DFI survey is used to collect data sourced directly from energy suppliers at the tariff level. These data are used to calculate the proportion of customers paying by each payment method, and for calculating average domestic energy bills. Bills are calculated assuming household energy consumption of 15,000kWh for gas, 3,800kWh for standard electricity and 6,000kWh for Economy 7 per annum.

Domestic energy suppliers provide the source data for the DFI. The DFI survey is sent out on a quarterly basis to nine domestic electricity suppliers and eight domestic gas suppliers (see Annex 1 for an example DFI survey form), capturing nine distinct energy companies in the UK: British Gas, Scottish Power, SSE, E.on, Npower, EDF, SSE, Airtricity, Power NI, and Good Energy. The survey captures data for all customers from these companies. Overall, this provides a sample of around 85% of all domestic energy customers in the UK.

The majority of our statistics are not weighted as they are thought to be representative of the market. However, overall home/non-home figures are weighted to include the 15% of the market that are not included in the survey. These customers are known to be non-home customers as they aren't with the 'Big 6' suppliers; therefore we adjust our figures accordingly.

At present, the electricity market in Northern Ireland is largely monopolistic and subject to Ofreg price controls, although a start has been made to open the market to competition (Gas is not yet widely available in Northern Ireland). Meanwhile within Great Britain there has recently been an increase in the market share of small suppliers and increased market competition causing many consumers to move away from the main 'Big 6' suppliers.

BEIS will continue to monitor the energy market across the UK and assess whether there are any additional suppliers that need to be included in the DFI survey. Unless a supplier has a significant proportion of customers, they are generally excluded from the survey sample in order to minimise the relative burden of the survey compared to their customer base.

### 3.1.2 Quality Assurance of the DFI

There are around 18,000 lines of data collected quarterly; this is formed from around 750 distinct tariffs by suppliers for gas and electricity by payment types across the 14 public electricity suppliers (PES) regions. Previously, gas suppliers used Local Distribution Zones (LDZ), and electricity suppliers used the PES regions, however, now PES regions are used for both. Details of these areas can be found in the table below.

| <b>Town/City</b> | <b>Gas LDZ</b> | <b>Electricity PES area</b> |
|------------------|----------------|-----------------------------|
| Aberdeen         | Scotland       | North Scotland              |
| Belfast          | N/A            | Northern Ireland            |
| Birmingham       | West Midlands  | West Midlands               |

|             |               |                          |
|-------------|---------------|--------------------------|
| Canterbury  | South East    | South East               |
| Cardiff     | Wales         | South Wales              |
| Edinburgh   | Scotland      | South 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                 |

From 2013 onwards regional breakdowns for gas were presented at a PES region level. This change has been made because most energy suppliers now charge for gas according to the PES area that a household is in, and so it is more appropriate to present data in this format.

Some tariffs have no customers on them and so would not be included in the weighted average bill estimates, but the tariff information is still received. There are a significant number of tariffs with less than ten customers, most of whom are on tariffs that have long since closed to new customers. All tariff information received by energy suppliers on the DFI surveys is subject to internal validation. However, since the average bill estimates are weighted by customer numbers, particular attention is placed on the validation of the modal tariffs.

Each tariff has up to 14 variables. Therefore with over a million data points per year, it is necessary for the DFI to undergo a robust internal validation process. A set of targeted and random data validation methods have been set up to quality assure the data provided at the tariff level. There are specific checks in place: the tariff structures of the modal tariffs are compared with the entries from previous quarters and with known price movements. Where tariffs have multiple unit prices the unit 1 price is expected to be larger than a unit 2 price and the split level is generally expected to be around 4,000kWh for gas and around 900kWh for standard electricity. The pricing structure of a selection of both randomly selected and most popular tariffs are compared with information from company websites; pricing structures across regions are compared; and the numbers of customers on modal tariffs are compared across quarters (see Annex 2 for additional definitions).

Once returns have been received and checked the data are then entered onto the Domestic Fuel Inquiry computer system. Additional validation checks are included on this system to check for missing values, spelling of regions and other potential technical issues.

Using the DFI computer system, an extract of all the tariff information can be downloaded, however the main tool used is a reporting tool for customer numbers and bill estimates. Validation at this stage includes: comparisons of customer numbers and bills by payment method, region and energy company over time;

comparisons of changes in bills with the Consumer Price Index; consideration of the Expenditure and Food Survey; and comparison with Ofgem bill estimates.

Once all data are validated, the outputs from the DFI system reports are then inputted into the Quarterly Energy Prices tables. A final check is done on the charts and tables to spot any anomalous results.

## 3.2 Price Transparency Survey

### 3.2.1 Data source for the PT

The Price Transparency (PT) Survey is used to calculate the bi-annual domestic energy pricing information outlined in Section 2.1. This data is submitted to Eurostat and used to provide international comparisons of energy prices (see Section 4.6).

The PT survey is used to collect data directly from energy suppliers on their total volume and value by consumption band. These data are used to infer average prices for gas and electricity in the UK split by standardised annual consumption size bands set by Eurostat. This survey has been developed with other EU Member states to assess price levels across the EU. The PT survey is used to collect domestic energy pricing information for different consumption levels, and as such differs from the DFI survey which does not collect pricing information based on consumption.

The PT survey is sent out to seven domestic electricity suppliers: British Gas, EDF, E.on, Power NI, Npower, SSE, and Scottish Power. The PT survey is also sent out to seven domestic gas suppliers: British Gas, EDF, E.on, Npower, SSE, Scottish Power, and Total. As with the DFI, the PT surveys capture around 85% of the domestic energy customers.

On a quarterly basis the domestic energy suppliers complete the PT survey detailing the volume of gas and electricity sold to domestic customers against a range of consumption bands laid out by Eurostat, along with the amount of money generated from these sales, before and after taxes as well as excluding costs due to environmental and social policies. An example PT survey form is included in Annex 3.

### 3.2.2 Quality Assurance of the PT

In a similar manner to the DFI, all of the PT data undergoes a series of validation checks. Data received from suppliers are initially put into a spreadsheet and compared for consistency against returns from 4 previous quarters. The spreadsheet produces comparisons looking at the change in volumes, the change in values, and the change in price, for each size band and company.

Once returns have been checked against previous quarters' returns, data for each company on prices, market share and volume is compared to other data sources. The average prices between quarters are compared to movements seen in the Consumer Price Index for electricity and gas, the market share of each company is calculated and compared to market shares derived from DFI data and the volume data is compared to domestic electricity and gas consumption data collected by

other teams within the department. Results of comparisons should show consistency and any anomalous results are discussed with energy suppliers.

### 3.3 International domestic price data

The international domestic prices data in sections 5.6 and 5.10 of QEP are derived from Eurostat's Statistics in Focus series. The data is requested from EU member states under Directive 90/377/EEC and is provided by suppliers on a voluntary basis. The figure for the UK is sourced from the Price Transparency Survey; see Section 3.2 for further details.

### 3.4 The Domestic Energy component of the Consumer Price Index (CPI)

The domestic energy component of the Consumer Price Index (CPI) is sourced from the Office for National Statistics who do their own data collection. The CPI is updated on a monthly basis within QEP's internet tables in both real and current terms.

In order to ensure an unbiased sample of tariffs with the CPI, BEIS provide the ONS with data from the DFI on the number of customers on each tariff. This allows the ONS to use a representative sample of tariffs when collecting price information to inform the domestic energy component of the CPI.

### 3.5 Expenditure on Domestic Energy

Data on total household expenditure on energy are sourced from Consumer Trends published by the Office for National Statistics (ONS). Data are published on an annual basis, with latest figures referring to 2016 (as of June 2017 QEP).

Data on average weekly household expenditure are sourced from the Living Costs and Food Survey (LFS), formerly known as the Expenditure and Food Survey (EFS), published by the ONS. Data are published on an annual basis, with latest figures referring to 2014/15 (as of March 2017 QEP). Between 2006 and 2014, figures were published by calendar year. Prior to this and from 2014/15, figures are published by financial year.

### 3.6 Transfer Statistics

Data on the number of transfers between energy suppliers and the number of domestic households are collated by Ofgem, provided to BEIS on a quarterly basis.

## **4. Methodology**

### 4.1 Consumer Price Index

The Office for National Statistics (ONS) produces the Consumer Price Index (CPI), and produce their own methodology notes. BEIS publish the domestic fuel components of the CPI within QEP. For more information, visit the ONS website at: <http://www.ons.gov.uk/ons/index.html>

The CPI is presented in Tables 2.1.1, 2.1.2 and 2.1.3 in both real and current terms. The real terms index is calculated by multiplying the ratio of the current terms index relative to the GDP inflator (both of which are relative to a 2010 base year).

#### 4.2 Customer numbers by payment method

The proportion of customers paying by Standard Credit, Direct Debit and Pre-payment meter for each region are summarised in Tables 2.4 and 2.5. The regions used for electricity and gas are the distribution areas of the public electricity suppliers (PES). Prior to 2013, the regions used for gas were the local distribution zones (LDZ) of Transco. Further details on the LDZ and PES regions are outlined in Section 3.1.2.

Each quarter, the energy suppliers (listed in Section 3.1) submit their completed DFI return outlining how many customers are on each of their tariffs by region and payment method. The sum of customers paying by Standard Credit, Direct Debit and Pre-payment meter is then calculated for each region, summing across energy suppliers. For each of gas and electricity, the proportion of all customers paying by each payment method is then derived using the total sum of all customers. These numbers are used to populate tables 2.4.2, 2.4.3 and 2.5.2. The data are updated on a quarterly basis with quarterly updates published within QEP.

Table 2.4.1 and 2.5.1 summarise the proportion of customers on each payment method by region for home and non-home suppliers. The home supplier for any area is the original supplier in that area prior to the opening of the domestic energy market to competition. For gas, the home supplier is British Gas Trading. For electricity, the home supplier is the former public electricity suppliers within their own distribution area (PES) or that of their parent company.

#### 4.3 Average Domestic Energy Bills

Average domestic energy bills are published on an annual basis within Quarterly Energy Prices (QEP). Average bills reflect all price changes that have occurred over the course of year. This is as opposed to using prices for the latest quarter and projecting them forward for the year ahead.

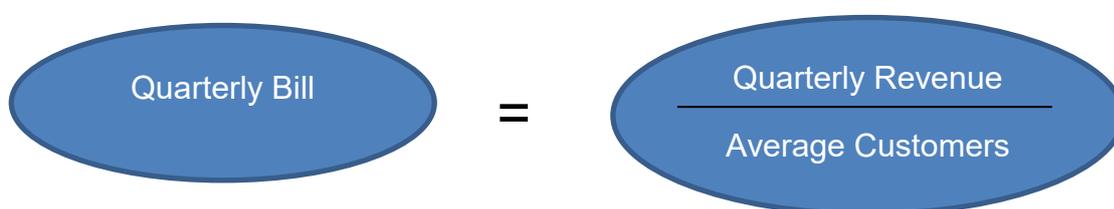
In the years before 2007, the annual average domestic gas and electricity bills reflect the prices within the fourth quarter of the previous year, and quarters one, two and three of the current year. This reflects the payment pattern for Standard Credit, where customers pay for their energy on receipt of the quarterly bill, so in effect paying for their energy use one quarter in arrears. However, Standard Credit is no longer the most common payment method, with over half of all gas and electricity customers now paying by Direct Debit. Therefore, following a consultation of users in the September 2010 edition of Energy Trends, BEIS decided to revise the methodology such that bills are calculated using prices from the calendar year. Bills were revised up to (and including) 2007 using this new methodology. See [http://webarchive.nationalarchives.gov.uk/20130109092117/http://decc.gov.uk/asset/s/decc/statistics/publications/trends/articles\\_issue/559-trendssep10-domestic-energy-bills-article.pdf](http://webarchive.nationalarchives.gov.uk/20130109092117/http://decc.gov.uk/asset/s/decc/statistics/publications/trends/articles_issue/559-trendssep10-domestic-energy-bills-article.pdf) for further details.

### 4.3.1 Calculating average annual bills

The average annual bills are calculated as an average of the weighted prices of all tariffs over the whole year, and include VAT at 5 per cent. Average annual bills are calculated at the national and regional level.

Average annual bills are derived from the calculation of quarterly bills that use pricing and customer numbers information at the tariff level. Further details on the quarterly bill calculations are included in section 4.3.2. Once the average quarterly revenue and customer numbers have been calculated at the tariff level for all gas and electricity tariffs for each of the four quarters, this information can then be used to derive the average annual bills at the regional and national level by payment method.

### 4.3.2 Calculating average quarterly bills



The quarterly bill is calculated using the tariff-level pricing information provided within the DFI survey by the energy suppliers along with a household annual energy consumption assumption of 15,000 kWh for gas, 3,800 kWh for standard electricity and 6,000 kWh for Economy 7 electricity (of which 3,000 kWh are assumed to be day time and 3,000 kWh at night). The fixed levels of consumption used were updated in March 2014 following a user consultation, to better reflect recent trends in average household consumption.

For electricity, it is assumed that the quarterly consumption (in kWh) is as shown in the following table:

| Electricity type  | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-------------------|-----------|-----------|-----------|-----------|
| Standard          | 1,140     | 760       | 760       | 1,140     |
| Economy 7 (day)   | 900       | 600       | 600       | 900       |
| Economy 7 (night) | 900       | 600       | 600       | 900       |

Following analysis on UK quarterly domestic gas consumption data (which is collected from energy suppliers directly by another statistics team in BEIS), the assumptions of quarterly gas consumption were changed for 2007 onwards. Full details of the reasons behind this methodology change can be found in the September 2010 edition of Energy Trends:

[http://webarchive.nationalarchives.gov.uk/20130109092117/http://BEIS.gov.uk/assets/BEIS/statistics/publications/trends/articles\\_issue/559-trendssep10-domestic-energy-bills-article.pdf](http://webarchive.nationalarchives.gov.uk/20130109092117/http://BEIS.gov.uk/assets/BEIS/statistics/publications/trends/articles_issue/559-trendssep10-domestic-energy-bills-article.pdf).

The following table shows the gas consumption assumptions (in kWh) now used in

the calculation of bills:

|     | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|-----|-----------|-----------|-----------|-----------|
| Gas | 6,000     | 3,000     | 1,500     | 4,500     |

The glossary in Annex 2 explains each of the terms used to derive a quarterly bill. Broadly speaking, a household is charged one level (unit 1 price) for each unit of energy used. Some suppliers still have split level tariffs whereby consumers are charged one level (unit 1 price) until they reach a pre-specified consumption level (split level) when the rate switches to a lower level (unit 2 price). Most tariffs instead have a fixed daily rate which must be paid regardless of how much energy is consumed (standing charge). A tariff can have changes to a different pricing structure during the course of a year, which needs to be accounted for within the quarterly bill calculations. The following formulae are based on four possible scenarios for a tariff:

1. No Split level, and no date of change to the tariff pricing structure.
2. Split level, and no date of change.
3. No split level, and a date of change.
4. Split level, and a date of change.

If the split level is greater than the quarterly consumption for the tariff, all fuel consumption for the quarter is charged at the unit 1 price. Otherwise, the unit 1 price is charged up to the split level with the unit 2 price charged for the consumption above the split level. Where there is a split level for the tariff, it is used to represent the amount of fuel charged at the unit 1 price.

U1 = Unit 1 price U2 = Unit 2 price

R = Split level SC = Daily standing charge

Cw = Total quarterly consumption Dqx = Number of days in quarter x

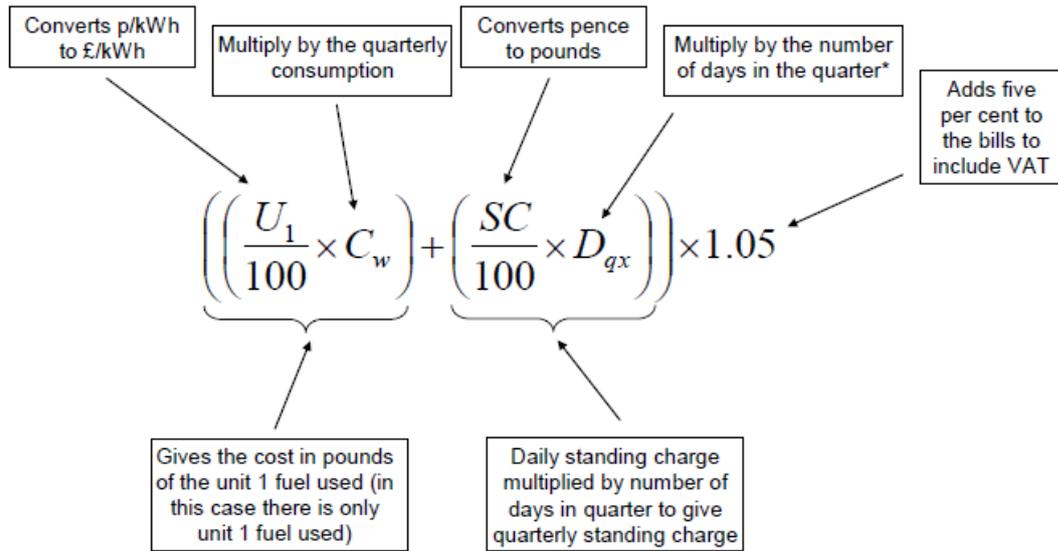
U1O = Old unit 1 price U1N = New unit 1 price

U2O = Old unit 2 price U2N = New unit 2 price

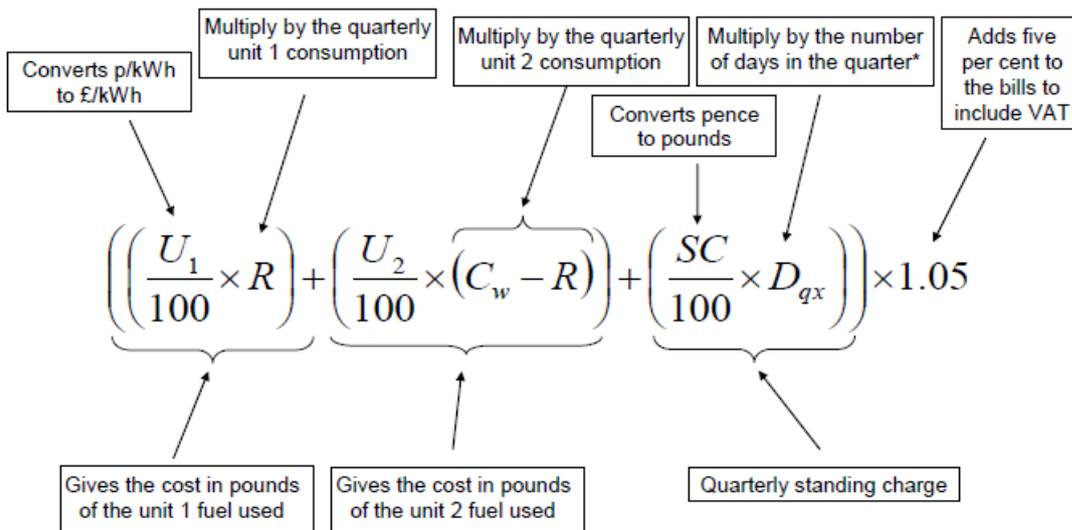
SCOLD = Old standing charge SCNEW = New standing charge

Ndq = Number of days into the quarter the price change occurs

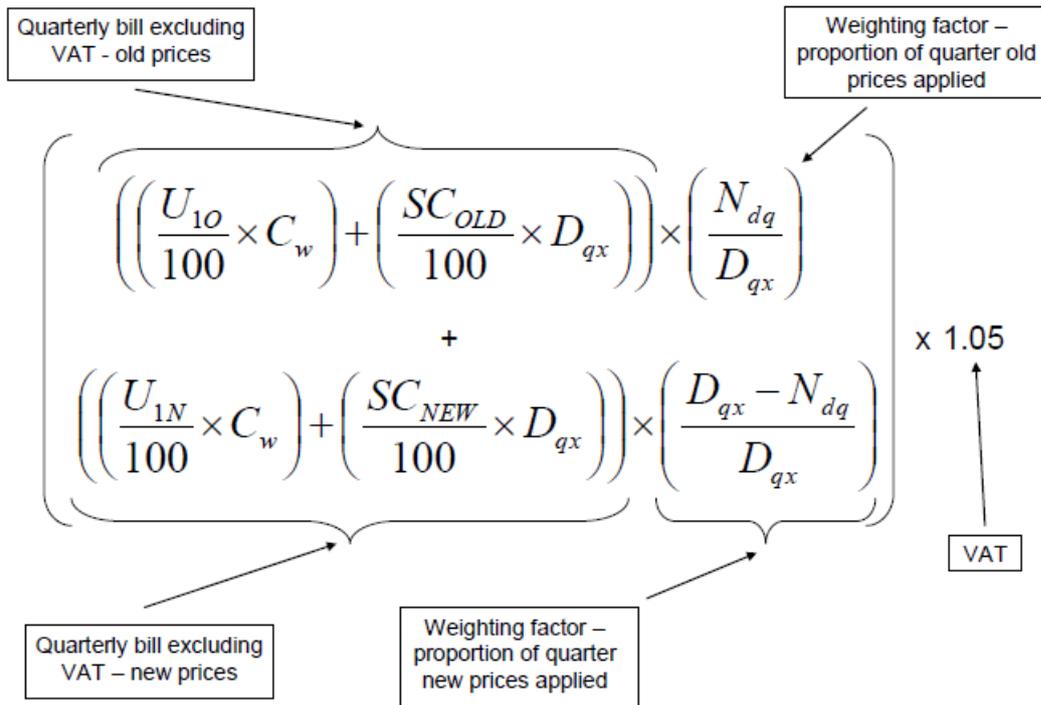
#### 1. Average quarterly bill, no split level and no date of change



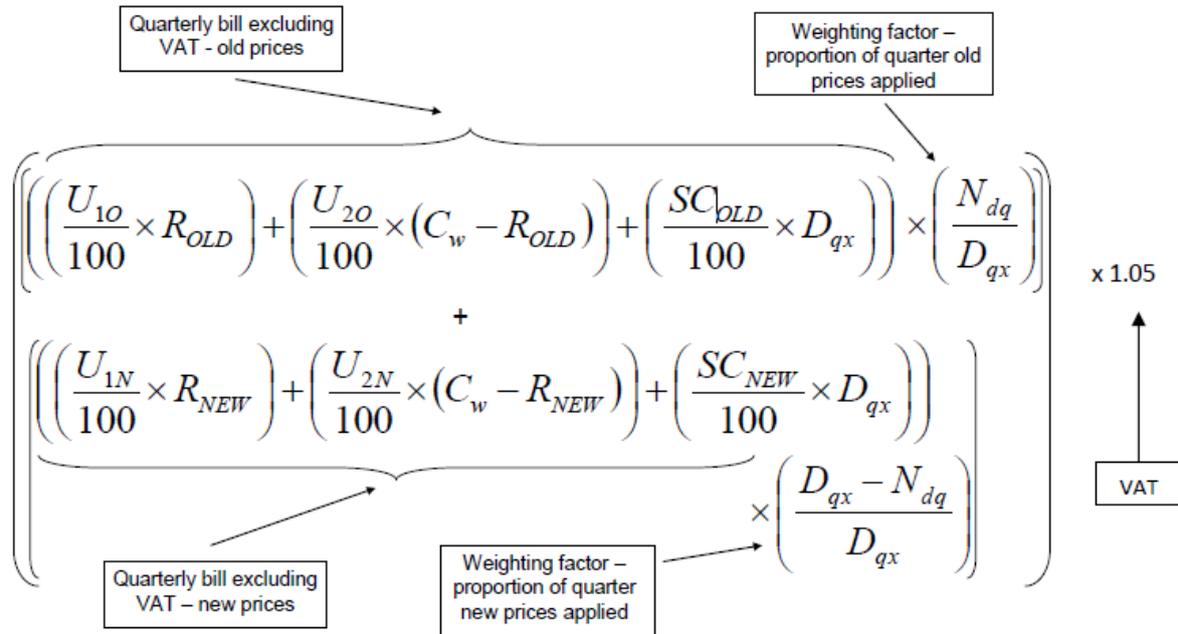
## 2. Average quarterly bill, split level and no date of change



## 3. Average quarterly bill, no split level with date of change



#### 4. Average quarterly bill, with split level and date of change



#### 4.3.3 Provisional and Final Bill Estimates

The average annual bill (from 2007 onwards) is based on the prices in quarters 1 to 4 of the year in question. Once quarter 4 (October to December) data has been

received within the DFI, this data is then quality assured and combined with the quarterly bill estimates from the previous three quarters to provide final average annual bills. These final bills are published in the March edition of Quarterly Energy Prices (QEP).

Provisional bill estimates are published in the December edition of QEP. Since quarter 4 data are not available at time of publication, quarter 3 data is amended with any known price changes between October and December and used as estimates for quarter 4 data. For example if, for a particular tariff, the unit 1 price was 5p and it was known there had been a 10% increase in unit 1 prices for this tariff in October, then a unit 1 price of 5.05p would be used to estimate the data in quarter 4. Since most of the main price changes are fairly easy to apply, it is expected that the provisional and final bills will be similar. Within the QEP tables, provisional bill estimates are indicated with a 'p'.

Finally, if figures need revising (either because suppliers have returned new figures, or a processing error has been discovered) then the new revised figures are indicated with an 'r' next to them, along with a footnote to elaborate further as required.

#### 4.3.4 Average Unit Cost

The average unit cost for domestic gas and electricity are included within QEP tables 2.2.3 and 2.3.3 and indicate the total cost to the customer per unit consumed by region. They are calculated by dividing the average annual bill by the assumed average household consumption (see section 4.3.2 for energy consumption assumptions). However, if a household were to use a different household consumption, then their average unit cost would differ from those outlined in tables 2.2.3 and 2.3.3.

QEP Tables 2.2.4 and 2.3.4 split bill costs into the variable and fixed proportions that make up energy bills by region. The variable rate shown is essentially the average price paid for each unit (pounds per kWh) of electricity consumed regardless of whether consumption is before or after the split level. The fixed costs are reported in pounds per year and is constructed from averaging standing charge costs for the whole year; this also takes into account the difference between the unit 1 and unit 2 prices for the year for tariffs with multiple units; we include this in the fixed costs as it is assumed that all households will use more electricity over the year than the given split level amount.

#### 4.4 Transfer Statistics

GB energy suppliers send monthly figures to Ofgem on the number of transfers. An account is counted as a transfer if there is a switch from one supplier to another. The figures are not an exact reflection of the total number of households who have switched as the figures exclude switching payment method or switching to a new tariff within the same company; the figures also include any people who may have switched multiple times within a month.

#### 4.5 Expenditure on Domestic Energy

#### 4.5.1 Total household expenditure on energy

Data on total household expenditure on energy (published in Table 2.6.1 of QEP) are based on Consumer Trends as published by the Office for National Statistics.

All data may be subject to change by ONS. From 2001/02, Household Expenditure has been reclassified to conform to the European System of Accounts 1995 (ESA 95), using the Classification of Individual Consumption by Purpose (COICOP).

#### 4.5.2 Household expenditure by fuel and heating system

Additional information on the average weekly spend on gas and electricity by heating method is summarised on an annual basis (Table 2.6.2 in QEP). This data is sourced from the Living Costs and Food Survey (LCFS). Further details on the methodology and data collection can be found at:

<https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdsandindividualsurveys/livingcostsandfoodsurvey/lcf>

#### 4.5.3 Proportion of household expenditure spent on fuel and power, by income decile

Additional information is published on the proportion of household expenditure spent on Fuel & Power, Food, Housing and Petrol & Oil. To produce this table, data from two tables of the LCFS are required. Table A8 provides average weekly spend by income decile. Using the COICOP definitions, the following categories are included: Fuel & Power (4.4); Food (1.1, 11.1.1, 11.1.3, 11.1.4, and 11.1.5); Housing (4.1.3, 4.2, 4.3 and 13.1); and Petrol & Oil (7.2.2). Table A6 provides the total weekly household expenditure by income decile. The proportion of average weekly household expenditure spent on Fuel & Power, Food, Housing, and Petrol & Oil can then be calculated for each income decile.

#### 4.6 International Comparisons of domestic energy prices

Domestic energy prices for the UK and EU countries are published in Tables 5.6 and 5.10 of QEP.

##### 4.6.1 UK average unit costs

The Price Transparency survey (as outlined in section 3.2) is sent out to energy suppliers on a quarterly basis. Energy suppliers return their completed PT forms which include, for each of gas and electricity, their total revenue and volume consumed during the quarter. It is worth noting that some of the volume and revenue figures will be based on estimated meter readings rather than actual meter readings.

The size bands for consumers from January 2008 onwards are defined as follows:

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| Domestic Gas | Eurostat size band | Annual consumption (kWh) |
|--------------|--------------------|--------------------------|
|--------------|--------------------|--------------------------|

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|                    |         |                |
|--------------------|---------|----------------|
| Small <sup>1</sup> | Band D1 | <5,557         |
| Medium             | Band D2 | 5,557 – 55,557 |
| Large              | Band D3 | >55,557        |

From the volume and value figures, an average unit cost per consumption band can be derived.

$$\text{Unit cost} = \frac{\text{Total Value}}{\text{Total Volume}}$$

Since unit 1 prices are typically higher than unit 2 prices, it is expected that higher volume consumers will have a lower average unit cost than lower consumers.

Eurostat require average UK prices, including and excluding VAT, on bi-annual basis. The quarterly data is therefore combined into two 6-monthly returns by adding together quarters 1 and 2, and quarters 3 and 4. The quarterly average unit costs collected from the PT survey are combined into bi-annual unit costs by summing the total value and total volume figures across the two quarters, for each consumption band. These prices are then submitted to Eurostat in February and August of each year to represent the UK average domestic prices.

#### 4.6.2 International comparisons

To obtain the domestic gas and electricity prices for EU countries, prices are downloaded from the Eurostat website and converted to sterling using exchange rates for the appropriate period (see the International Prices methodology note for further details).

Once all data has been downloaded and collated, the UK rank and median price are calculated and the tables are updated. Where data is not available, a price is estimated in relation to the EU 15 median. A '+' indicates that the price is likely to exceed the median, '+/-' indicates that the price is likely to be around the median, '-' indicates that the price is likely to be below the median price. In order to give a better indication of the UK rank and median when compared with those countries where up-to-date data is not available, price estimates in these countries are calculated using price movements seen in neighbouring countries.

From 1st January 2008, the data shows average prices over 6-month periods (January - June and July - December), and each size band covers a range of consumption. Previously, the Price Transparency data was for a single point in time

<sup>1</sup> 5,557 kWh = 20GJ

(1st January and 1st July), and each size band was represented by a single consumption figure.

#### 5. Users of the data

Domestic energy price statistics are used by a broad range of people. Within BEIS, the statistics influence policy-making and are used for modelling purposes. For example, electricity and gas prices form part of the cost of energy element of fuel poverty analysis. Externally, users include students, academics, members of the public, and companies who wish to undertake modelling of future energy costs (recent queries include research projects studying consumer behaviours & tax, and the cost of living). The data are used by the ONS to inform lower level weights in the CPI and RPI for gas and electricity, and is also submitted to Eurostat and the IEA, who use it to compile EU domestic price statistics.



## Annex 2 - Glossary of Terms

- Dual fuel: Both gas and electricity are provided by the same supplier - price reductions and discounts are usually applied to dual fuel tariffs
- Unit price 1: The initial cost to the consumer for each unit of energy consumed up until a certain level of consumption has been reached
- Unit price 2: The cost to the consumer for each unit of energy consumed after a certain level of consumption has been reached
- Night price: The cheaper unit price from Economy 7 tariffs given to electricity used during the night
- Standing Charge: A fixed daily charge for gas or electricity unrelated to the level of energy consumption the consumer uses.
- Split level: The number of units of energy at which the pricing structure switches from the unit price 1 to the unit price 2
- Economy 7: Electricity Tariffs which have a separate unit cost for the night and day and are designed for use with night storage heaters.
- Standard Electricity Tariffs: where there is no distinction in price for electricity used between night and day
- Consumption: The amount of energy a customer consumes. The consumption estimates used by BEIS when calculating annual bills are: 3,800 kWh per annum for standard electricity; 6,000 kWh per annum for Economy 7 electricity (of which 3,000 kWh are assumed to be day time and 3,000 kWh at night); and 15,000 kWh per annum for gas.
- LDZ – Local Distribution Zones: The initial 12 regions allocated to each gas company to operate in when the gas market opened up to competition in 1998.
- PES – Public Electricity Supplier: The 14 companies created when the electricity market was privatised in 1998
- Home supplier / Non-home supplier: For gas, home supplier denotes British Gas Trading. For electricity, home supplier denotes the former public electricity suppliers within their own distribution area or that of their parent company

## Annex 3 – PT form

**Company name**  
**Restricted Commercial (when completed)**

### DATA RELATING TO DOMESTIC UK GAS CONSUMERS Q2 2016

[Click here for instructions](#)

| Size of consumer | Annual consumption kWh | Volume sold kWh | Value excluding all taxes £ | Value excluding VAT £ | Value including all taxes £ |
|------------------|------------------------|-----------------|-----------------------------|-----------------------|-----------------------------|
| Small            | <5,556                 |                 |                             |                       |                             |
| Medium           | 5,557 - 55,556         |                 |                             |                       |                             |
| Large            | 55,557 +               |                 |                             |                       |                             |

| Size of consumer | Annual consumption kWh | Unit price excluding all taxes p/kWh | Unit price excluding VAT p/kWh | Unit price including all taxes p/kWh |
|------------------|------------------------|--------------------------------------|--------------------------------|--------------------------------------|
| Small            | <5,556                 | #DIV/0!                              | #DIV/0!                        | #DIV/0!                              |
| Medium           | 5,557 - 55,556         | #DIV/0!                              | #DIV/0!                        | #DIV/0!                              |
| Large            | 55,557 +               | #DIV/0!                              | #DIV/0!                        | #DIV/0!                              |

#### Validation check

Please review your data if there is any red text in the table below.

| Size of consumer | Annual consumption kWh | Amount of VAT p/kWh |
|------------------|------------------------|---------------------|
| Small            | <5,556                 | #DIV/0!             |
| Medium           | 5,557 - 55,556         | #DIV/0!             |
| Large            | 55,557 +               | #DIV/0!             |

Any additional comments