#### **PRESS NOTICE**





Date: 30 June 2016

#### STATISTICAL PRESS RELEASE

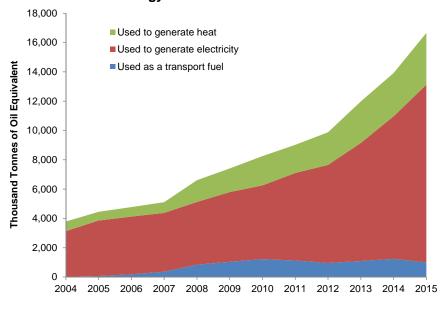
# **UK Energy Statistics, Q1 2016**

Energy Trends and Energy Prices publications are published today 30 June 2016 by the Department of Energy and Climate Change.

Energy Trends covers statistics on energy production and consumption, in total and by fuel, and provides an analysis of the year on year changes. Energy Prices covers prices to domestic and industrial consumers, prices of oil products and comparisons of international fuel prices.

An article on Renewable Energy in 2015, within Energy Trends, shows the progress made against the UK's 15 per cent target under the 2009 EU Renewable Directive. Provisional calculations show that 8.3 per cent of final energy consumption in 2015 came from renewable sources; up from 7.1 per cent in 2014. There was a significant growth in the contribution of renewable electricity (up 29 per cent); renewable heating also rose though renewable transport contributions fell slightly. The chart below shows the use of renewable energy for heat, electricity and transport.

#### Trends in the use of renewable energy



The main points for the first quarter of 2016 are:

- Total energy production was 4.4 per cent higher than in the first quarter of 2015, with further growth in UKCS production.
- Total primary energy consumption for energy fell by 4.4 per cent. However, when adjusted to take account of weather differences between the first quarter of 2015 and the first quarter of 2016, total primary energy consumption fell by 2.5 per cent.
- Final energy consumption (excluding non-energy use) was 1.2 per cent lower than in the first quarter of 2015. Domestic consumption fell by 3.4 per cent due to warmer weather. The average temperature in the first quarter of 2016 was 0.5 degrees Celsius warmer than the same period a year earlier. On a temperature corrected basis, final energy consumption was up 0.4 per cent over the same period.
- Of electricity generated in the first quarter of 2016, coal accounted for 15.8 per cent a record low, whilst gas accounted for 37.8 per cent. Nuclear generation accounted for 18.7 per cent of total electricity generated in the first quarter of 2016.
- Renewables' share of electricity generation (hydro, wind and other renewables) increased from 22.8 per cent in 2015 Q1 to 25.1 per cent in 2016 Q1.
- Renewable electricity generation was 23.2 TWh in the first quarter of 2016, an increase of 6.4
  per cent on the same period a year earlier.

For more detailed information on methodology, quality assurance and use of the data, please refer to the methodology notes available by energy sector on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics">www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics</a>

The June 2016 edition of Energy Trends also includes articles on:

- Changes to the oil and gas tables
- Fixed tariffs within the energy market
- Combined Heat and Power using renewable fuels



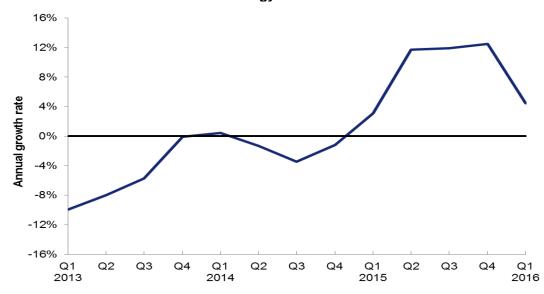
The following are also published today 30 June 2016 by the Department of Energy and Climate Change:

- National Energy Efficiency Data-Framework (NEED), 2016 analysis www.gov.uk/government/collections/national-energy-efficiency-data-need-framework
- Fuel Poverty, 2014 analysis www.gov.uk/government/collections/fuel-poverty-statistics
- Fuel Poverty sub-regional, 2014 analysis www.gov.uk/government/collections/fuel-poverty-sub-regional-statistics
- Local Authority carbon dioxide emissions, 2014 <u>www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics</u>
- Sub-national Road Transport energy consumption, 2014 <u>www.gov.uk/government/collections/road-transport-consumption-at-regional-and-local-level</u>
- Greenhouse gas emissions, Q1 2016 www.gov.uk/government/collections/uk-greenhouse-gas-emissions-quarterly-official-statistics
- Smart Meters installations, Q1 2016 www.gov.uk/government/collections/smart-meters-statistics
- Feed-in Tariff commissioned installations, May 2016
   www.gov.uk/government/statistics/monthly-small-scale-renewable-deployment
- Solar photovoltaics deployment, May 2016 www.gov.uk/government/statistics/solar-photovoltaics-deployment



### **TOTAL ENERGY: QUARTER 1 2016**

**Total Energy - Production** 



	<b>2016 Q1</b> Million tonnes of oil equivalent	Percentage change on a year earlier
Total production	33.3	+4.4
Oil	13.8	+17.3
Natural gas	10.5	+6.0
Primary electricity <sup>(1)</sup>	5.1	-3.3
Bioenergy & waste	3.3	+9.8
Coal	0.6	-68.5

(1) Nuclear and wind & natural flow hydro electricity

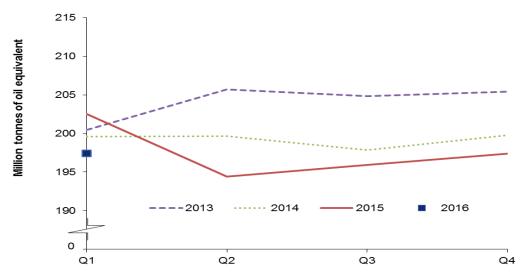
- Total energy production in the first quarter of 2016 stood at 33.3 million tonnes of oil equivalent, 4.4 per cent higher than in the first quarter of 2015.
- Production of oil rose by 17.3 per cent compared to the first quarter of 2015, due to new fields coming online but also due to reduced production in February 2015, while production of natural gas rose by 6.0 per cent.
- Primary electricity output in the first quarter of 2016 was 3.3 per cent lower than in the first quarter of 2015, within which nuclear electricity output was 4.6 per cent lower due to the closure of Wylfa at the end of December 2015 and output from wind and natural flow hydro was 0.9 per cent higher.
- Production of bioenergy and waste was 9.8 per cent higher compared to the first quarter in 2015, whilst coal production fell by 68 per cent due to mines closing and some other mines producing less coal as they come to the end of their operational life

Total energy quarterly tables ET 1.1 – 1.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/total-energy-section-1-energy-trends



# **TOTAL ENERGY: QUARTER 1 2016**

# Total Energy – consumption<sup>(1)</sup>



(1) Total inland energy consumption on a primary fuel input basis (seasonally adjusted and temperature corrected annual rates).

	<b>2016 Q1</b> Million tonnes of oil equivalent	Percentage change on a year earlier
Total energy consumption Unadjusted	56.1	-4.4
Seasonally adjusted and temperature corrected – annual rate	197.4	-2.5
Final consumption	43.8	-0.4

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland energy consumption on a primary fuel input basis was 197.4 million tonnes of oil equivalent in the first quarter of 2016, 2.5 per cent lower than the same quarter in 2015.
- Between the first quarter of 2015 and the first quarter of 2016, coal and other solid fuel consumption fell by 45 per cent as demand fell from electricity generators and UK steelworks.
- Oil consumption rose by 0.9 per cent.
- Gas consumption rose by 9.0 per cent.
- Primary electricity consumption fell by 1.5 per cent.

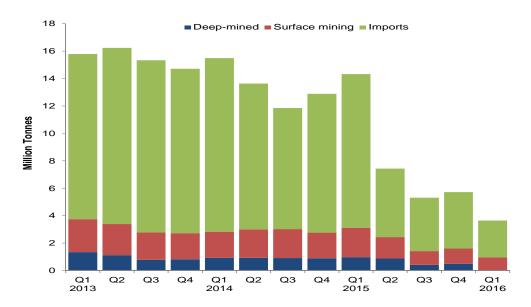
Final consumption was provisionally 0.4 per cent lower than in the first quarter of 2015, with domestic consumption down 3.4 per cent, reflecting the warmer weather, compared to the same quarter a year earlier. The average temperature in the first quarter of 2016 was 0.5 degrees Celsius warmer than the same period a year earlier. On a temperature corrected basis, final energy consumption was up 0.4 per cent over the same period.

Total energy quarterly tables ET 1.1 – 1.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/total-energy-section-1-energy-trends



# **COAL: QUARTER 1 2016**

#### Coal production and imports



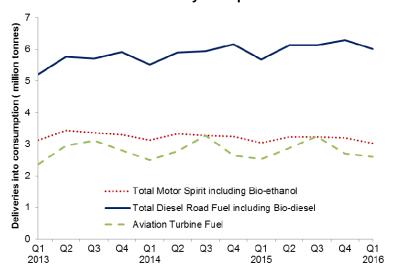
	<b>2016 Q1</b> Thousand tonnes	Percentage change on a year earlier
Coal production	978	-68.7
Coal imports	2,675	-76.1
Coal demand	7,222	-47.1
<ul> <li>Power stations</li> </ul>	5,667	-49.7
<ul> <li>Coke ovens &amp; blast furnaces</li> </ul>	759	-52.2
- Final users	661	-3.1

- Provisional figures for the first quarter of 2016 show that coal production fell to a new record low of 1.0 million tonnes, 69 per cent lower than the first quarter 2015. Deep mined production was down 99 per cent to 7 thousand tonnes, the lowest on record. This was due to Hatfield and Thoresby collieries closing in early July 2015, and Kellingley, the last large deep mine in operation, closing in December 2015. Surface mine production was down by 55 per cent to 1.0 million tonnes, also a record low. This was due to a number of collieries/companies closing, and some other mines producing less coal as they near the end of operation.
- Imports of coal in the first quarter of 2016 were 76 per cent lower than in the first quarter of 2015 at 2.7 million tonnes, due to low demand. This was the lowest value for at least 18 years.
- Total demand for coal in the first quarter of 2016 was 7.2 million tonnes, 47 per cent lower than in the first quarter of 2015, with consumption by electricity generators down by 50 per cent to 5.7 million tonnes.
- Coal stocks showed a seasonal fall of 3.8 million tonnes during the first quarter of 2016 and stood at 10.3 million tonnes, 9.4 million tonnes lower than at the end of March 2015.

Coal quarterly tables ET 2.1 – 2.3 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/solid-fuels-and-derived-gases-section-2-energy-trends

# **OIL: QUARTER 1 2016**

#### Demand for key transport fuels



	<b>2016 Q1</b> Thousand tonnes	Percentage change on a year earlier
Primary oil production	12,714	+17.3
Refinery production	14,645	-3.0
Net imports (all oil)	4,677	-28.7
Petroleum demand	17,066	+3.9
<ul> <li>Motor spirit (including biofuels)</li> </ul>	3,023	-0.7
- DERV fuel (including biofuels)	6,016	+5.8
- Aviation turbine fuel	2,607	+2.7

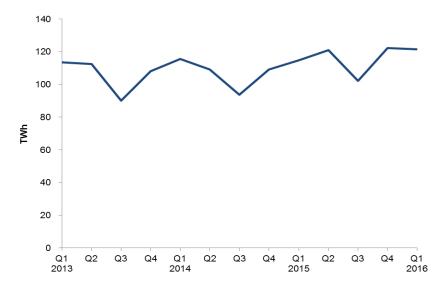
- Indigenous production of crude and NGLs was higher by 17.3 per cent in quarter 1 2016 compared with the same quarter a year earlier. UK Production had been in general decline since the peak in 1999 but new fields opening (such as Golden Eagle) have led to a recent increase in production.
- Production of petroleum products was 3.0 per cent lower in the first quarter of 2016 compared with the first quarter of 2015. Production was strong in 2015 but is now reverting to historical norms. Partly attributable to maintenance work this quarter, production is at its lowest level since records began in 1999.
- The UK was a net importer of oil and oil products in the first quarter of 2016 by 4.7 million tonnes. In the same period of 2015 the UK was a net importer by 6.6 million tonnes.
- Overall primary demand for petroleum products in the first quarter of 2015 was 3.9 per cent higher than last year, representing the fifth successive quarter demand has increased. This is being driven by strong growth in demand for road diesel and lower contraction of demand for motor spirit than has been typical.

Oil quarterly tables ET 3.1 – 3.7 are available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/publications/oil-and-oil-products-section-3-energy-trends">www.gov.uk/government/publications/oil-and-oil-products-section-3-energy-trends</a>



# **GAS: QUARTER 1 2016**

# Production of natural gas



	<b>2016 Q1</b> <i>TWh</i>	Percentage change on a year earlier
Gas production	121.6	+6.0
Gas imports	159.3	+1.7
Gas exports	22.2	-20.9
Gas demand	291.0	+5.0
<ul> <li>Electricity generation</li> </ul>	73.5	+43.7
- Domestic	127.9	-4.1

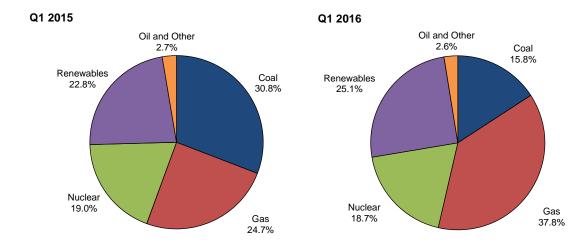
- Total indigenous UK production of natural gas in the first quarter of 2016 was 121.6 TWh, 6.0 per cent higher than a year before.
- Imports were broadly flat in comparison to Q1 2015. In contrast exports decreased by just over a fifth, this was driven by a 14 per cent decrease in exports to Belgium via the interconnector and a 23 per cent decrease in exports to Ireland. This lead to net imports increasing by 6.6 per cent.
- UK gas demand was up 5.0 per cent compared to Q1 2015, with a notable increase in demand for electricity generation, which was up 44 per cent on the same quarter last year. This is as a result of less coal generation.

Gas quarterly table ET 4.1 is available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/publications/gas-section-4-energy-trends">www.gov.uk/government/publications/gas-section-4-energy-trends</a>



# **ELECTRICITY: QUARTER 1 2016**

#### **Electricity generated**



	<b>2016 Q1</b> <i>TWh</i>	Percentage change on a year earlier
Electricity		
Generated from		
Coal	14.64	-50.4
Nuclear	17.34	-4.6
Gas	34.96	+47.5
Renewables	23.22	+6.4
Total	92.52	-3.4
Supplied to		
Industry	24.94	+0.3
Domestic	31.19	-1.5
Other final consumers	26.86	+0.4
All	82.99	-0.3

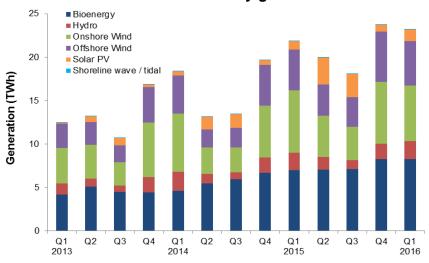
- Fuel used by generators in the first quarter of 2016 was 6.8 per cent lower than in the first quarter of 2015.
- Generation from coal in the first quarter of 2016 fell by 50.4 per cent, while gas rose by 47.5 per cent compared with a year earlier. Nuclear fell by 4.6 per cent.
- Low carbon generation accounted for 43.8 per cent of generation in Q1 2016, compared to 41.8 per cent in the same period of 2015.
- Total electricity generated in the first quarter of 2016 was 3.4 per cent lower than a year earlier.
- Final consumption of electricity fell by 0.3 per cent in the first quarter of 2016. Domestic use fell by 1.5 per cent, consumption by the service sector was up 0.4 per cent, and industrial use was up 0.3 per cent.

Electricity quarterly tables ET 5.1 – 5.2 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/electricity-section-5-energy-trends



#### **RENEWABLES: QUARTER 1 2016**

#### Renewable electricity generation



	<b>2016 Q1</b> <i>TWh</i>	Percentage change on a year earlier
Renewable electricity generation		
Onshore wind	6.43	-10.5
Offshore wind	5.14	10.0
Hydro	2.05	+1.8
Solar PV	1.34	+40.9
Bioenergy (inc. co-firing)	8.26	+18.0
All renewables	23.22	+6.4

- Compared to 2015 Q1, generation from bioenergy increased by 18.0 per cent to 8.3 TWh largely due to an conversion at Drax Power Station to high-range co-firing (85 per cent to 100 per cent biomass). Electricity generated from onshore wind decreased by 10.5 per cent to 6.4 TWh, and generation from offshore wind increased by 10.0 per cent to 5.1 TWh due to an increase in capacity. Wind speeds were in line with the long term mean at 9.7 knots. Generation from solar photovoltaics increased by 41 per cent to 1.3 TWh, largely due to increased capacity; solar photovoltaics now has the highest share of renewable capacity. Previously, onshore wind had the highest share.
- Renewables' share of total generation in 2016 quarter 1 was 25.1 per cent, an increase of 2.3 percentage points on 2015 quarter 1, mostly reflecting increased capacity.
- Renewable electricity capacity was 31.3 GW at the end of the first quarter of 2016, 12 per cent (3.4 GW) higher than a year earlier, and a 2.6 per cent increase (0.8 GW) on 2015 quarter 4.
- Liquid biofuels represented 2.9 per cent of petrol and diesel consumed in road transport in the first quarter of 2016, the same as in 2015Q 1.

Renewables quarterly tables ET 6.1 - 6.2 are available on the DECC section of the GOV.UK website at: www.gov.uk/government/publications/renewables-section-6-energy-trends

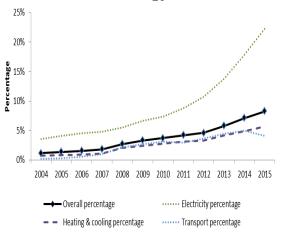


#### **RENEWABLES: 2015**

A special feature in the June 2016 edition of Energy Trends looks at Renewable energy in 2015. It includes summary renewables statistics for 2015, which are published for the first time. A full set of renewables statistics will appear in the Digest of United Kingdom Energy Statistics 2016, which will be published on 28 July 2016. The main features of the latest statistics are:

## Renewable electricity generation

# UK progress towards the 2009 Renewable Energy Directive<sup>1</sup>



	2013	2014	2015
Percentage of electricity from renewable sources <sup>1</sup>	13.8	17.9	22.3
Percentage of heating and cooling from renewable sources	4.1	4.9	5.6
Percentage of transport energy from renewable sources	4.4	4.9	4.1
Overall renewable consumption as a percentage of capped gross final energy consumption using net calorific values [not directly calculated from the three percentages above]	5.8	7.1	8.3

<sup>&</sup>lt;sup>1</sup>Normalisation used for wind and hydro electricity generation.

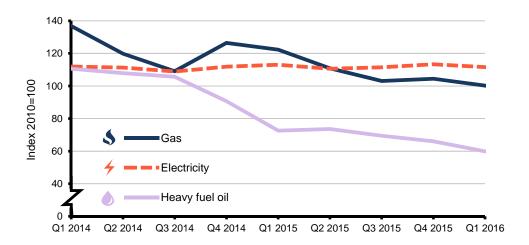
## Renewable electricity generation

- The amount of electricity generated from renewables sources in 2015 was 83,550 GWh, a 29 per cent increase during the year.
- Offshore wind generation increased by 30 per cent, and onshore wind generation increased by 23 per cent. Generation from solar PV increased by 87 per cent; Bioenergy sources increased by 30 per cent and hydro generation saw 6.7 per cent increases.
- Generation capacity increased by 5.7 GW (23 per cent) to 30.5 GW.
- Heat from renewable sources increased by 20 per cent during 2015 (to 3,535 ktoe); renewable biofuels for transport fell by 19 per cent (to 1,003 ktoe).
- Renewable transport fuels accounted for 3.2 per cent (by volume) of road transport fuels in 2015.
- Renewable energy provisionally accounted for 8.3 per cent of energy consumption, as measured using the 2009 Renewable Energy Directive methodology. This is an increase of 1.2 percentage points on the 2014 position of 7.1 per cent.
- The UK achieved its second interim target; averaged over 2013 and 2014, 6.34 pre cent agaist its target of 5.14 per cent. The UK's third interim target is 7.47 per cent averaged across 2015 and 2016.



#### **INDUSTRIAL PRICES: QUARTER 1 2016**

#### Industrial fuel price indices in real terms including the Climate Change Levy



Fuel prices index in real terms <sup>(1)</sup> 2010=100	2016 Q1	Percentage change on a year earlier
Coal	87.6	-5.3
Heavy fuel oil	59.8	-17.5
Gas	100.2	-18.1
Electricity	111.6	-1.3
Total fuel	98.3	-7.3

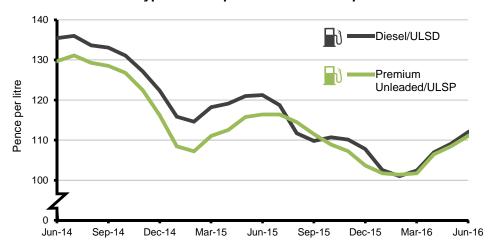
- (1) Deflated using the GDP implied deflator. Includes estimates of the average Climate Change Levy (CCL) paid.
  - Average industrial gas prices, including CCL were 18 per cent lower in real terms in Q1 2016 compared to Q1 2015, whilst prices excluding CCL were 19 per cent lower.
  - Average industrial electricity prices were 1.3 per cent lower including CCL and 2.2 per cent lower excluding CCL, in real terms, in Q1 2016 compared to Q1 2015.
  - Average coal prices were 5.3 per cent lower in real terms including CCL and 5.7 per cent lower excluding CCL in Q1 2016 compared to Q1 2015.
  - Heavy fuel oil prices were 18 per cent lower in real terms than a year ago.
  - For the period July to December 2015, UK industrial electricity prices for medium consumers including tax were the second highest in the EU 15, whilst industrial gas prices for medium consumers including tax were the sixth lowest in the EU 15.

Industrial prices tables are available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/collections/industrial-energy-prices">www.gov.uk/government/collections/industrial-energy-prices</a>



# **ROAD TRANSPORT FUEL PRICES: QUARTER 1 2016**

#### Typical retail prices of road transport fuels



Retail prices of petroleum products	Mid June 2016 <sup>(1)</sup> Pence per litre	Percentage change on a year earlier
Unleaded petrol (2)	111.0	-4.6
Diesel (2)	112.0	-7.6

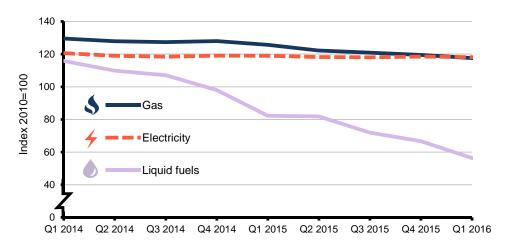
- (1) Prices are for ultra low sulphur versions of these fuels.
- (2) Prices are provisional estimates.
  - In mid June 2016, a litre of unleaded petrol was on average 111.0 pence per litre, 5.4 pence per litre lower than a year earlier, and 22 per cent lower than the high reached in April 2012.
  - In mid June 2016, diesel was on average 112.0 pence per litre, 9.3 pence per litre lower than a year earlier, and 24 per cent below the peak seen in April 2012.
  - In May 2016, the UK retail price for petrol was ranked eighth highest in the EU. UK diesel prices were the highest in the EU.
  - Between March 2012, when the series was at a record high, and May 2016, the price of crude oil acquired by refineries fell by 60 per cent in £ sterling.

Road transport fuel prices tables are available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices">www.gov.uk/government/collections/road-fuel-and-other-petroleum-product-prices</a>



# **DOMESTIC PRICES: QUARTER 1 2016**

#### Fuel price indices in the domestic sector in real terms



Consumer price index fuel components in real terms (1) 2010=100	2016 Q1	Percentage change on a year earlier
Solid fuels	105.4	-0.9
Gas	117.6	-6.5
Electricity	118.1	-0.7
Liquid fuels	56.3	-31.5
Total domestic fuels	115.8	-4.3

- (1) Deflated using the GDP implied deflator. The original source of the indices is ONS.
  - The price paid for all domestic fuels by household consumers has fallen by 4.3 per cent in real terms between Q1 2015 and Q1 2016, and by 1.4 per cent between Q4 2015 and Q1 2016.
  - Domestic electricity prices, including VAT, in Q1 2016 were 0.7 per cent lower in real terms than in Q1 2015. Prices were 0.4 per cent lower than in Q4 2015.
  - The price of domestic gas, including VAT, fell by 6.5 per cent in real terms between Q1 2015 and Q1 2016, and by 1.7 per cent between Q4 2015 and Q1 2016.
  - All of the major six domestic energy suppliers announced gas price cuts in Q1 2016 of around 5%.
  - For the period July to December 2015, prices for medium domestic gas, including tax, were the third lowest and for electricity consumers, including tax, were the eighth highest in the EU15.

#### Switching levels

 The rates of switching in the electricity market increased by 26 per cent between 2015 quarter 1 and 2016 quarter 1. Since quarter 4 of 2015, electricity transfers have increased by 8 per cent. Gas transfers increased by 22 per cent between Q1 2015 with Q1 2016 and have increased by 8 per cent since last quarter.

Domestic prices tables are available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/domestic-energy-prices



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#### **Notes to editors**

- 1. More detailed figures of United Kingdom energy production and consumption and of energy prices, for the first quarter of 2016 are given in the June 2016 editions of ENERGY TRENDS and ENERGY PRICES respectively, the Department's statistical bulletins on energy, released on 30 June 2016.
- 2. Energy Trends and the Energy Prices bulletins, published quarterly, are available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/collections/quarterly-energy-prices">www.gov.uk/government/collections/quarterly-energy-prices</a>
- 3. Articles featured in Energy Trends are also available on the DECC section of the GOV.UK website at: <a href="https://www.gov.uk/government/collections/energy-trends-articles">www.gov.uk/government/collections/energy-trends-articles</a>
- 4. More detailed annual data on energy production and consumption for the years 2010 to 2014 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2015, published by the Stationery Office on 30 July 2015, priced £75. The 2016 edition of the Digest will be published on 28 July 2016. All information contained in the Digest is available on the DECC section of the GOV.UK website at: www.gov.uk/government/collections/digest-of-uk-energy-statistics-dukes

