

## PRESS NOTICE



Department  
of Energy &  
Climate Change



## STATISTICAL PRESS RELEASE

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# UK Energy Statistics

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Energy Trends and Quarterly Energy Prices publications are published today 28 March 2013 by the Department of Energy and Climate Change. The publications cover new data for the fourth quarter of 2012 and thus provisional annual data for 2012. This press release focuses on the 2012 annual data.

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

The key points from 2012 are:

- Total energy production was 10½ per cent lower than in 2011, due to the significant falls in oil and gas production as a result of maintenance activity, as well as longer-term decline on the UK Continental Shelf.
- Imports in 2012 were at a record high, with exports at their lowest level since 1989. Net import dependency rose to 43 per cent, the highest level since 1976.
- Total primary energy consumption for energy uses rose by 2½ per cent from 2011. When adjusted to take account of weather differences between 2011 and 2012, primary consumption fell by under ½ per cent. Final energy consumption was 2 per cent higher than in 2011.
- Of electricity generated in 2012, coal accounted for 39½ per cent (an increase of 9 percentage points on 2011) and gas 27½ per cent (a decrease of 13 percentage points on 2011), mainly due to high gas prices.
- Renewables' share of generation increased by 2 percentage points on 2011 to a record 11½ per cent.
- Average annual household standard electricity bills (fixed consumption of 3,300 kWh per annum) across all payment types in 2012 are £26 higher than in 2011 (up 5.7 per cent to £479), and average gas bills (fixed consumption of 18,000 kWh per annum) across all payment types are £81 higher (up 11.3 per cent to £800).

Other highlights from 2012 include:

- Oil production was 14½ per cent lower than in 2011, the lowest annual production volume since our current reporting system began. Production of petroleum products was down 8½ per cent, with the closure of Coryton in July 2012 a key factor.
- Natural gas production was 14 per cent lower than in 2011, and at its lowest level since 1985. Gas exports and imports were, respectively, 21½ per cent and 6½ per cent lower than in 2011.
- Coal production was 10 per cent lower than in 2011. Coal imports were 37½ per cent higher. Generators' demand for coal was higher by 31 per cent. Coal stocks were 18 per cent lower, and at a record low for the year end.
- Within final energy consumption there were rises in all sectors except transport. Domestic consumption rose by 10 per cent due to the cooler weather in 2012, with temperatures in 2012 being 1.0 degrees cooler than 2011. On a seasonally and temperature adjusted basis final energy consumption was broadly unchanged.
- Gas demand was 5½ per cent lower than in 2011, largely driven by the fall in gas demand for electricity generation. Electricity consumption was under ½ per cent lower than in 2011 and at its lowest level since 1998.
- Electricity generated in 2012 fell by 1 per cent, from 367.8 TWh a year earlier to 363.2 TWh.
- Low carbon electricity's share of generation increased from 28 per cent in 2011 to 30½ per cent in 2012, due to higher renewables and nuclear generation.
- Nuclear's share of generation increased by 1 percentage point on 2011, to 19½ per cent of the total. Hydro generation decreased by 8 per cent on 2011 as a result of lower rainfall in the main hydro areas, whilst wind rose by 31½ per cent, of which offshore wind rose by 45½ per cent, due to increased capacity. Overall hydro and wind generation was 21 per cent higher than in 2011.
- UK domestic gas and electricity prices are the lowest and fifth lowest in the EU15 respectively.
- The price for coal paid by generators fell by 17 per cent, whilst the price for gas rose by 11½ per cent in 2012 compared to 2011.

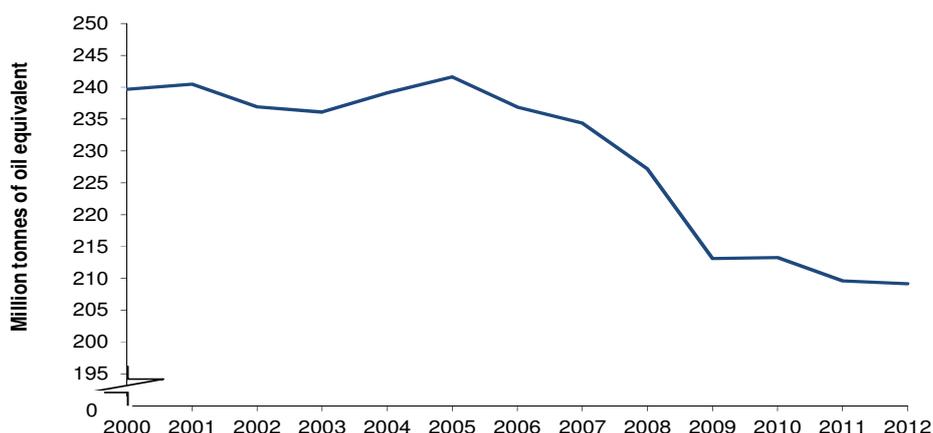
The March 2013 edition of Energy Trends also includes articles on:

- Coal in 2012
- Domestic energy bills in 2012: The impact of variable consumption
- Petrol and diesel prices
- Long-term mean temperatures 1981-2010
- DECC and the new Government website
- UKCS capital expenditure survey 2012



## TOTAL ENERGY: 2012

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



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

	2012 Million tonnes of oil equivalent	Percentage change on a year earlier
Total production	122.9	-10.3
Total consumption		
Unadjusted	208.1	+2.5
Temperature corrected	209.2	-0.2
Final consumption	149.7	+1.8

- Total energy production in 2012 was 122.9 million tonnes of oil equivalent, 10.3 per cent lower than in 2011, due to significant falls in the production of oil and gas.

When examining seasonally adjusted and temperature corrected annualised rates:

- Total inland consumption on a primary fuel input basis was 209.2 million tonnes of oil equivalent in 2012, 0.2 per cent lower than in 2011. DECC estimate that the switch from gas to coal for generation increased primary consumption by 1.2 per cent due to the lower thermal efficiency.
- Between 2011 and 2012 coal and other solid fuel consumption rose by 17.2 per cent driven by increased coal use in generation.
- Oil consumption fell by 1.3 per cent.
- Gas consumption fell by 9.2 per cent, with less gas used in electricity generation.
- Primary electricity consumption, from nuclear and non-thermal renewables rose by 6.7 per cent.

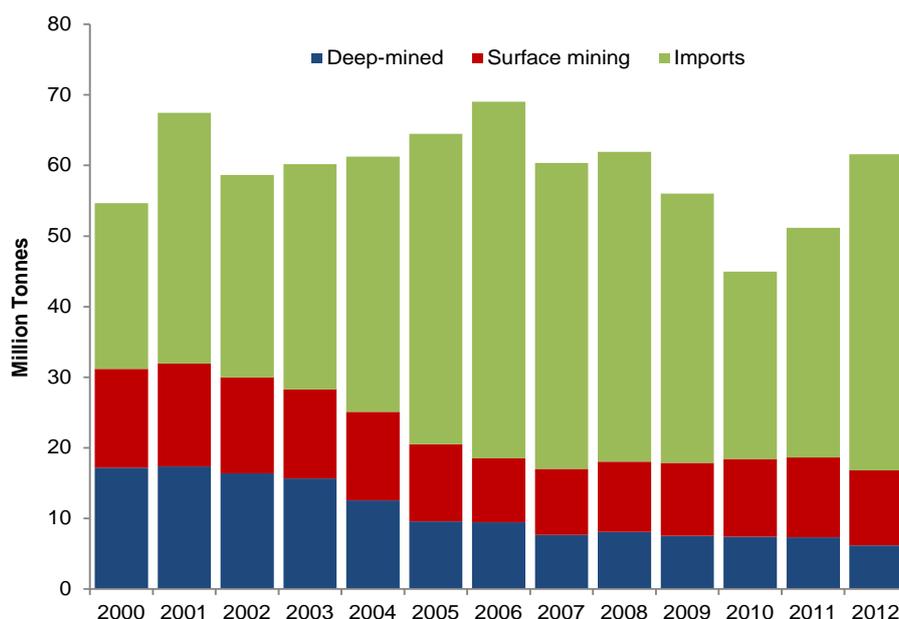
Final energy consumption was 1.8 per cent higher in 2012, reflecting the colder weather in 2012, with domestic consumption up 10.2 per cent.

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/organisations/department-of-energy-climate-change/series/total-energy-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/total-energy-statistics)



## COAL: 2012

### Coal production and imports



	2012 <i>Million tonnes</i>	Percentage change on a year earlier
Coal production	16.788	-9.9
Coal imports	44.796	+37.7
Coal demand	64.042	+24.3
- Power stations	54.818	+31.0
- Coke ovens & blast furnaces	5.922	-7.4
- Final users	2.514	+2.5

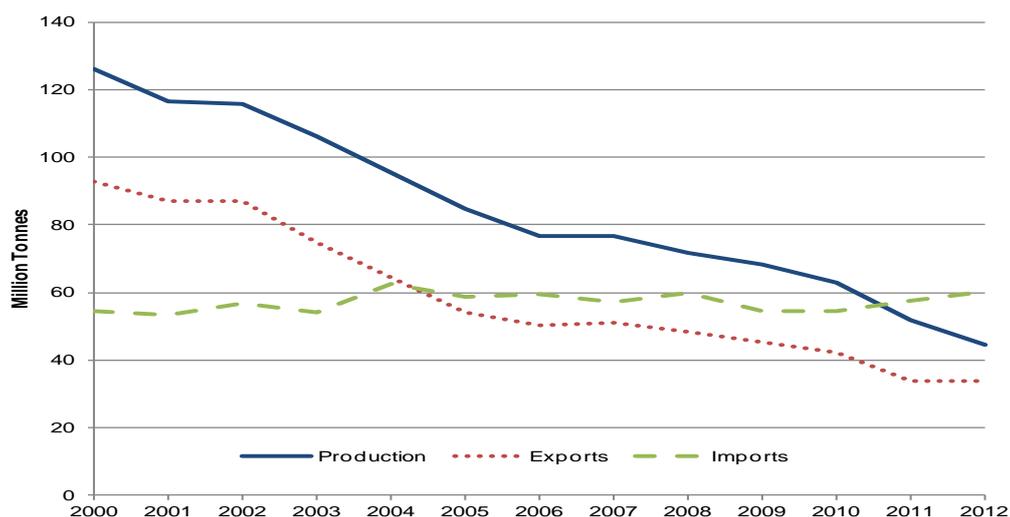
- Provisional figures for 2012, as a whole, show that coal production at 16.8 million tonnes was 9.9 per cent down on 2011. Deep mined production was down 15.9 per cent at 6.2 million tonnes, the lowest on record due to operational issues at a number of sites. Surface mine production was also down but by only 3.7 per cent.
- Imports of coal in 2012 as a whole were 37.7 per cent up on 2011 at 44.8 million tonnes, similar to levels last seen during 2008.
- Total demand for coal in 2012 was 64.0 million tonnes, 24.3 per cent higher than in 2011, with consumption by electricity generators up by 31.0 per cent (+13.0 million tonnes).
- Coal stocks showed a seasonal fall of 2.7 million tonnes during the fourth quarter of 2012 and stood at 13.2 million tonnes, 2.9 million tonnes lower than at the end of December 2011. Stocks are at their lowest year end level for over 40 years.

Coal quarterly tables ET 2.1 – 2.3 are available on the DECC section of the gov.uk website at: [www.gov.uk/government/organisations/department-of-energy-climate-change/series/coal-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/coal-statistics)



## OIL: 2012

### Production and trade of crude oil and NGLs



	2012 Million tonnes	Percentage change on a year earlier
Oil production	44.5	-14.3
Primary demand	68.6	-8.2
Net imports (all oil products)	25.3	+34.6
Refinery production	70.3	-8.3
Refinery demand	67.3	-3.1
Motor spirit	13.2	-4.8
- DERV fuel	21.5	+2.6
- Aviation turbine fuel	11.1	-4.2

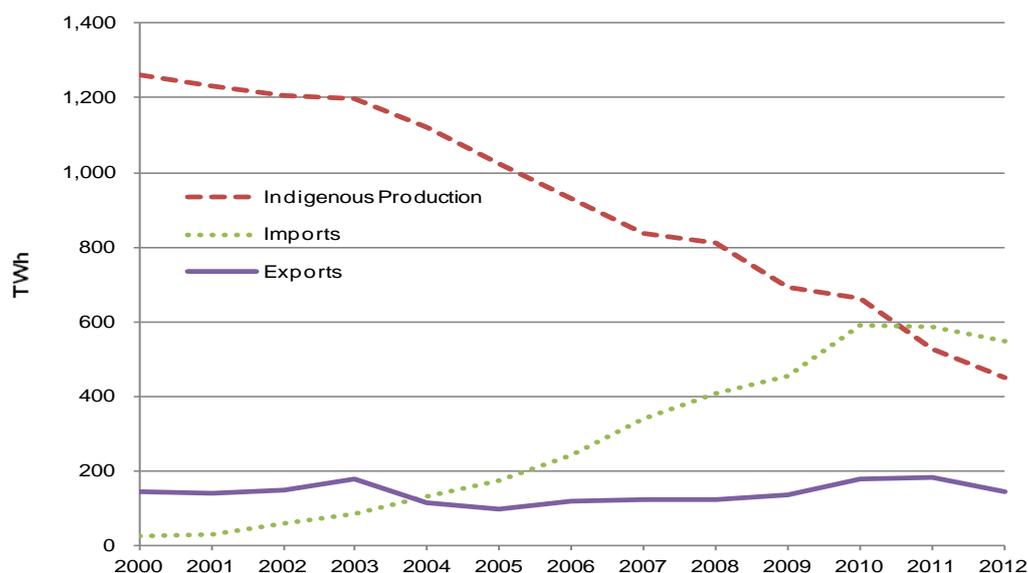
- Indigenous oil production decreased by 14.3 per cent (7.4 million tonnes) compared with 2011, resulting from long term decline and maintenance issues in 2012.
- Refinery production in 2012 decreased by 8.3 per cent; largely driven by the closure of Coryton.
- Imports of crude oil and NGLs increased by 9.2 per cent in 2012, whilst exports of crude oil and NGLs were virtually unchanged compared with 2011.
- Net imports of crude oil and NGL's products increased to 25.5 million tonnes in 2012, compared with 20.8 million tonnes in 2011. The UK remained a net exporter of petroleum products by 1.1 million tonnes, the lowest annual recorded volume since 1984.
- Overall demand for primary oils in 2012 was 8.2 per cent lower than last year.
- In 2012 total deliveries of key transport fuels decreased by 1.3 per cent compared with 2011. Motor Spirit deliveries decreased by 4.8 per cent, aviation fuel was down by 4.2 per cent, while DERV deliveries increased by 2.6 per cent

Oil quarterly tables ET 3.1 – 3.7 are available on the DECC section of the gov.uk website at:  
[www.gov.uk/government/organisations/department-of-energy-climate-change/series/oil-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/oil-statistics)



## GAS: 2012

### Production and trade of natural gas



	2012 TWh	Percentage change on a year earlier
Gas production	452.0	-14.1
Gas imports	547.6	-6.3
Gas exports	144.0	-21.6
Gas demand	854.8	-5.6
- Electricity generation	211.1	-31.2
- Domestic	336.2	+14.8

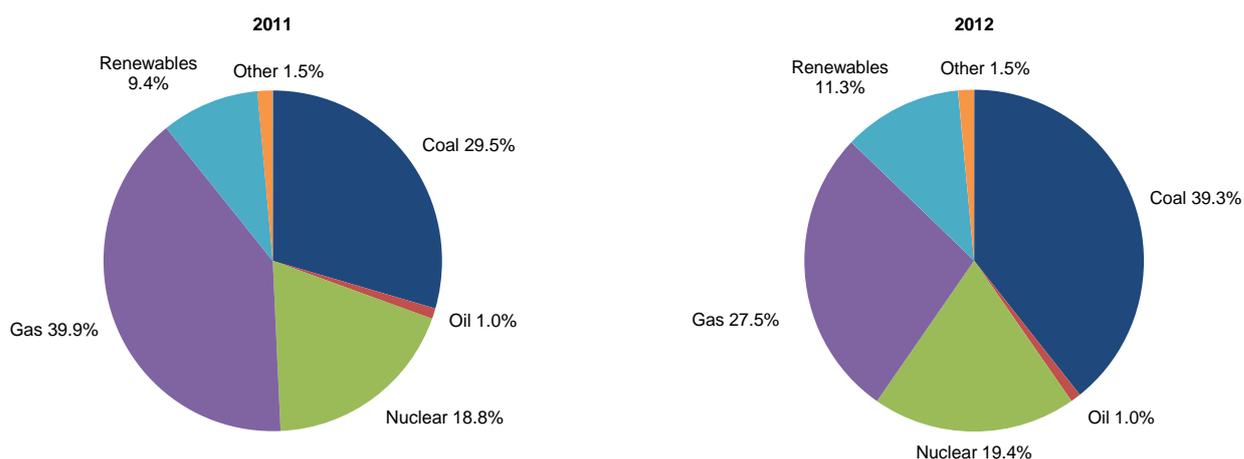
- In 2012 gross production of natural gas was 14.1 per cent lower than in 2011, and, at around 452 TWh, was the lowest production since 1985. A key driver of this fall in production in 2012, on top of the long term decline, was the Elgin gas leak that occurred in March 2012 and which has constrained gas production since.
- Gas exports and imports were, respectively, 21.6 per cent and 6.3 per cent lower than in 2011. The trade position for 2012 shows net imports (difference between imports and exports) virtually unchanged.
- In 2012, gas demand fell by 5.6 per cent - this was largely driven by the fall in gas demand for electricity generation, down by just under a third in 2012 compared with 2011, reflecting the greater use of coal for electricity generation at the expense of higher priced gas.
- The decline in gas used for electricity generation was somewhat offset by an increase in domestic use of gas, up 14.8 per cent in 2012. The average temperature in 2012 was around 1.0 degree cooler compared with 2011.

Gas quarterly table ET 4.1 is available on the DECC section of the gov.uk website at:  
[www.gov.uk/government/organisations/department-of-energy-climate-change/series/gas-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/gas-statistics)



## ELECTRICITY: 2012

### Electricity generated



	2012 <i>TWh</i>	Percentage change on a year earlier
<b>Electricity Generated from</b>		
Coal	142.8	+31.5
Nuclear	70.4	+2.1
Gas	99.7	-32.1
Renewables	41.1	+19.6
Total	363.2	-1.3
<b>Supplied to</b>		
Industry	100.0	-2.4
Domestic	113.1	+1.4
Other final consumers	104.2	+0.2
All	317.3	-0.2

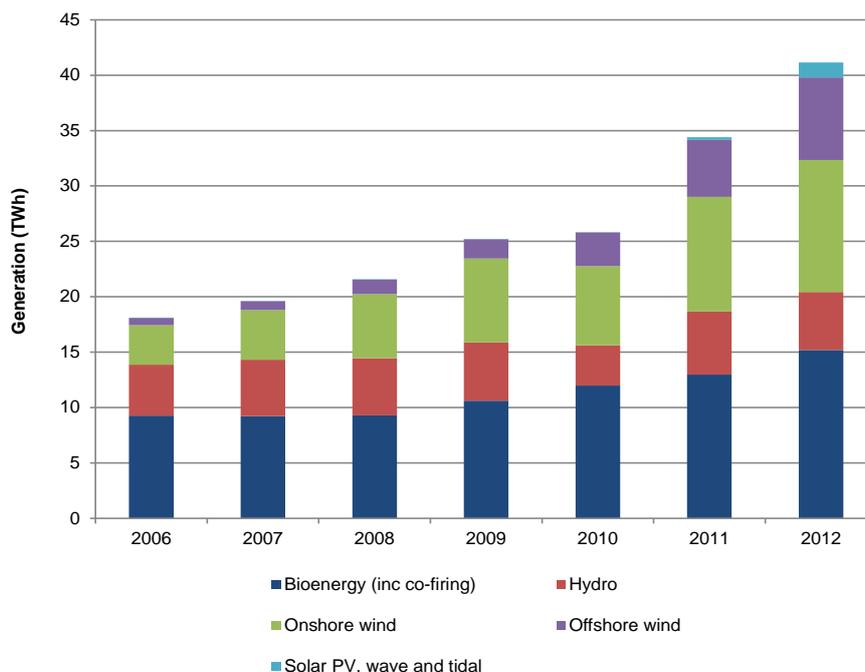
- Generation from coal in 2012 rose by 31.5 per cent, while gas fell by 32.1 per cent compared with a year earlier due to high gas prices. Generation from renewables was up 19.6 per cent, mainly due to increased wind capacity.
- In 2012, coal accounted for 39.3 per cent of generation, its highest share since 1996. Gas's share declined to 27.5 per cent, its lowest also since 1996. Nuclear's share increased marginally to 19.4 per cent, with renewables accounting for 11.3 per cent of generation.
- Low carbon generation (including renewables) accounted for 30.7 per cent of generation in 2012, compared to 28.1 per cent in 2011.
- Total electricity generated in 2012 was 1.3 per cent lower than a year earlier, whilst imports made up 3.4 per cent of electricity supplied.
- Fuel used by generators in 2012 was 2.0 per cent higher than in 2011, reflecting more use of coal, which has a lower thermal efficiency than gas.
- Final consumption of electricity provisionally fell by 0.2 per cent in 2012. Domestic use increased by 1.4 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/organisations/department-of-energy-climate-change/series/electricity-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/electricity-statistics)



## RENEWABLES: 2012

### Renewable electricity generation



	2012 TWh	Percentage change on a year earlier
<b>Renewable electricity generation</b>		
Onshore wind	11.92	+14.9
Offshore wind	7.46	+45.6
Hydro	5.23	-8.1
Bioenergy (inc. co-firing)	15.20	+17.2
All renewables	41.14	+19.6

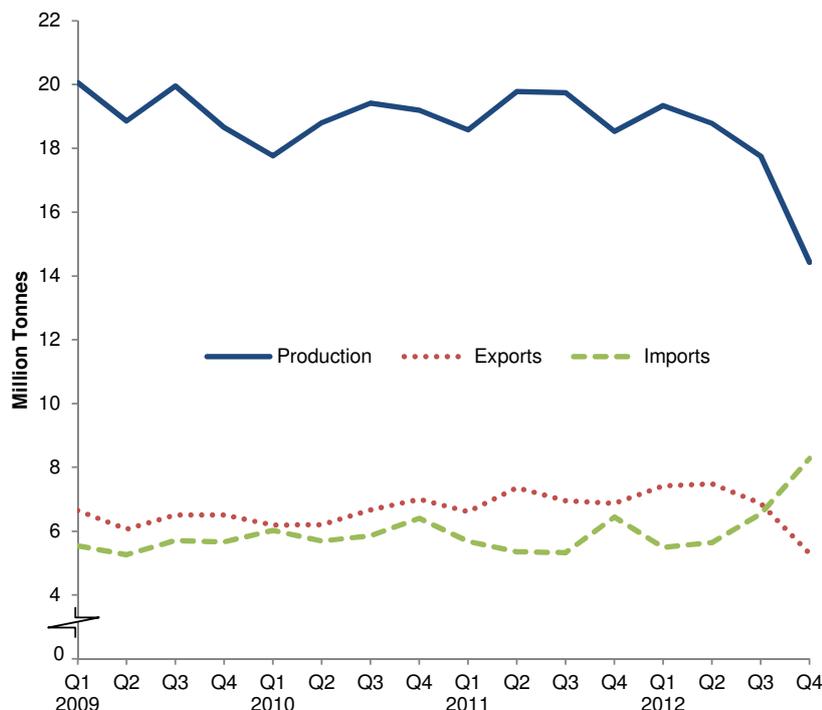
- Renewable electricity generation was 41.14 TWh in 2012, an increase of 19.6 per cent on the 34.10 TWh recorded in 2011. Offshore wind generation rose by 45.6 per cent and onshore wind by 14.9 per cent, due to increased capacity. Generation from hydro fell by 8.1 per cent compared with a year earlier, due to lower rainfall in 2012.
- Renewables' share of electricity generation increased from 9.4 per cent in 2011 to 11.3 per cent in 2012.
- Renewable electricity capacity was 15.5 GW at the end of 2012, a 25.8 per cent increase (3.2 GW) on a year earlier.
- Renewable transport: Liquid biofuels represented 3.1 per cent of petrol and diesel consumed in road transport in 2012, a 0.4 percentage point fall on the share in 2011.

Renewables quarterly tables ET 6.1 – 6.2 are available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/renewables-statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/renewables-statistics)



## MAIN POINTS FOR THE FOURTH QUARTER OF 2012



- Total energy production was 14 per cent lower than in the fourth quarter of 2011. This decline in output was due to a significant fall in petroleum and gas production as a result of maintenance work and slowdowns on a number of fields. Net import dependency increased to 49 per cent.
- Refinery production in the fourth quarter of 2012 was down 22 per cent compared with the same quarter a year earlier. This is the lowest recorded quarterly production figure and is due, in the main, to the closure of the Coryton refinery in Essex.
- Total primary energy consumption for energy uses rose by 5.3 per cent. However, when adjusted to take account of weather differences between the fourth quarter of 2011 and the fourth quarter of 2012, primary energy consumption decreased by 0.7 per cent.
- Of electricity generated in the fourth quarter of 2012, gas accounted for 25½ per cent (its lowest share in the last 14 years) due to high gas prices, whilst coal accounted for 42 per cent (its highest share in the last 14 years). Nuclear generation accounted for 17 per cent of total electricity generated in the fourth quarter of 2012, up from the 15 per cent share in the fourth quarter of 2011, due to increased availability.
- Renewables' share of electricity generation increased to a new record of 12½ per cent from the 11½ per cent share in the fourth quarter of 2011. Hydro generation decreased by 21 per cent on the fourth quarter of 2011 as a result of low rainfall in catchment areas. Over the same period, offshore wind generation increased by 38 per cent, whilst onshore wind generation decreased by 7½ per cent. Overall renewable generation was up 7½ per cent compared to the same quarter in 2011.

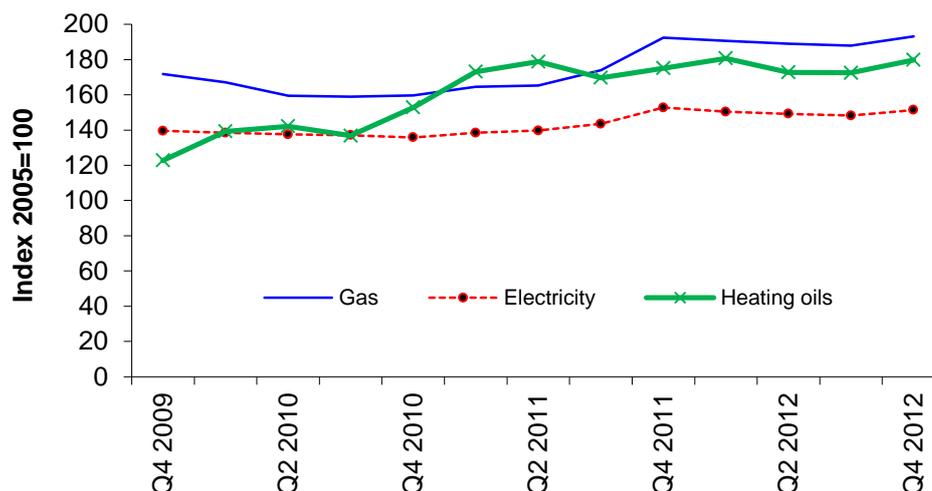
Quarterly tables are available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics)



## DOMESTIC PRICES: QUARTER 4 2012

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



Retail price index fuel components in real terms ( <sup>1</sup> ) 2005=100	2012 Q4	Percentage change on a year earlier
Coal and smokeless fuels	149.2	-1.8
Gas	193.1	+0.3
Electricity	151.4	-0.9
Heating oils	179.8	+2.7
Total fuel and light	168.7	-0.1

(1) Deflated using the GDP implied deflator. The original source of the indices is ONS.

- Q4 2012 data shows that the price paid for all fuel and light by household consumers has fallen by 0.1 per cent in real terms between Q4 2011 and Q4 2012, but has risen by 2.5 per cent between Q3 and Q4 2012.
- Domestic electricity prices, including VAT, in Q4 2012 were 0.9 per cent lower in real terms than in Q4 2011, but were 2.1 per cent higher than in Q3 2012.
- The price of domestic gas, including VAT, rose by 0.3 per cent in real terms between Q4 2011 and Q4 2012 and by 2.8 per cent between Q3 and Q4 2012.
- All 6 of the major energy suppliers announced price increases for both gas and electricity towards the end of 2012. These took effect between quarter 4 of 2012 and quarter 1 of 2013, with average prices increasing by 8.0 per cent for electricity and 7.8 per cent for gas. The impact of these price increases will be more fully reflected in 2013 data.

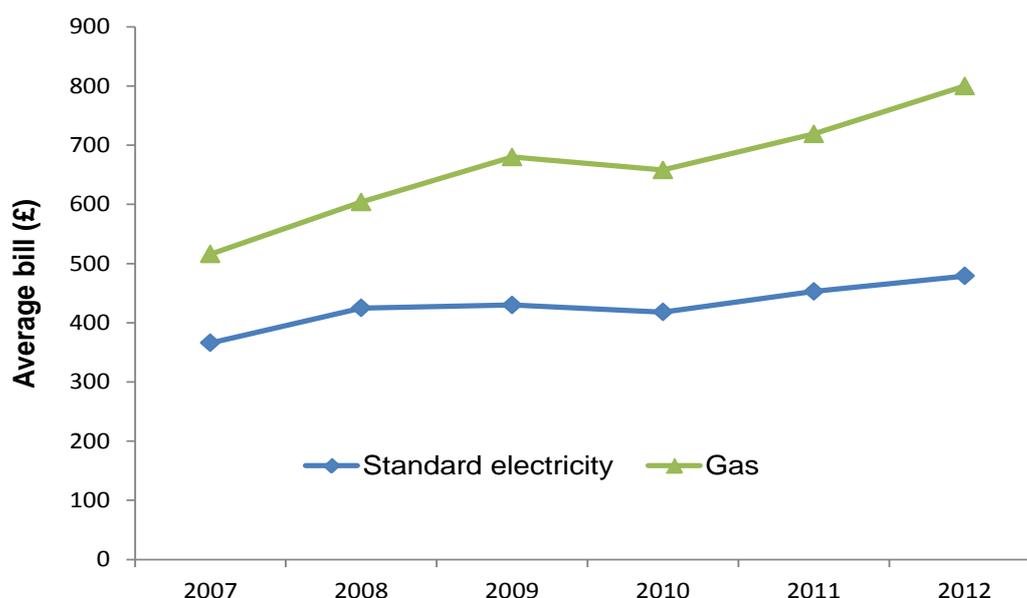
Domestic prices tables are available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/domestic-energy-prices](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/domestic-energy-prices)



## DOMESTIC ENERGY BILLS: 2012

### Average domestic gas and electricity bills (cash terms), 2007 to 2012



#### Average annual domestic fuel bills <sup>(1)</sup>

	2011	2012	Percentage change, cash terms	Percentage change, real terms <sup>(2)</sup>
Gas <sup>(3)</sup>	£719	£800	+11.3	+10.0
Electricity <sup>(4)</sup>	£453	£479	+5.7	+4.3
Total <sup>(5)</sup>	£1,172	£1,279	+9.1	+7.8

(1) Average annual bills for domestic customers weighted by the proportion of customers on the different payment methods, which include standard credit, direct debit and pre-payment meter. Bills relate to the total bill received in the calendar year and are in cash terms.

(2) To estimate the percentage change in real terms bills were deflated using the GDP (implied) deflator.

(3) Gas bills are based on an annual consumption of 18,000 kWh.

(4) Electricity bills are based on an annual consumption of 3,300 kWh.

(5) The average total gas and electricity bill presented should be taken as broadly indicative only. It is not based on individual customers, but is simply the sum of the averages for electricity and gas.

- The average electricity bill in 2012, based on a fixed consumption level of 3,300 kWh, increased by £26 compared to 2011. Over the same period, the average standard credit bill increased by £28, direct debit bills increased by £26 and pre-payment bills increased by £22.
- For gas, the average 2012 domestic gas bill, based on a fixed consumption level of 18,000 kWh, rose by £81, compared to 2011 bills. Average standard credit bills in 2012 rose by £90 compared to average 2011 bills. Comparable increases for average direct debit and prepayment bills were £76 and £85 respectively.
- For the period July to December 2012, prices for medium domestic gas and electricity consumers, including tax, were the lowest and fifth lowest in the EU15 respectively.

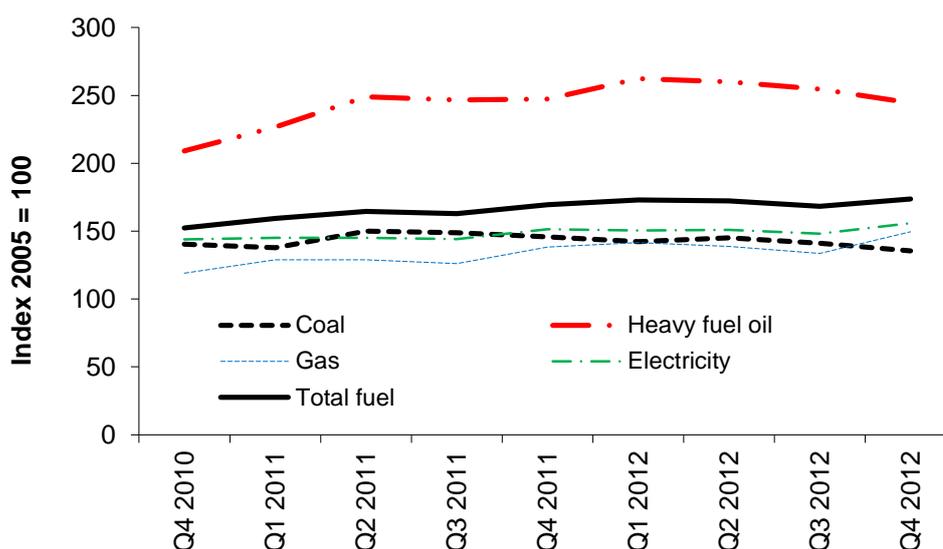
Domestic prices tables are available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/domestic-energy-prices](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/domestic-energy-prices)



## INDUSTRIAL PRICES: QUARTER 4 2012

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



Fuel prices index in real terms <sup>(1)</sup> 2005=100	2012 Q4	Percentage change on a year earlier
Coal	135.4	-7.1
Heavy fuel oil	244.6	-1.2
Gas	149.4	+8.1
Electricity	155.9	+3.0
Total fuel	173.7	+2.4

(1) Deflated using the GDP implied deflator. Includes estimates of the average Climate Change Levy paid.

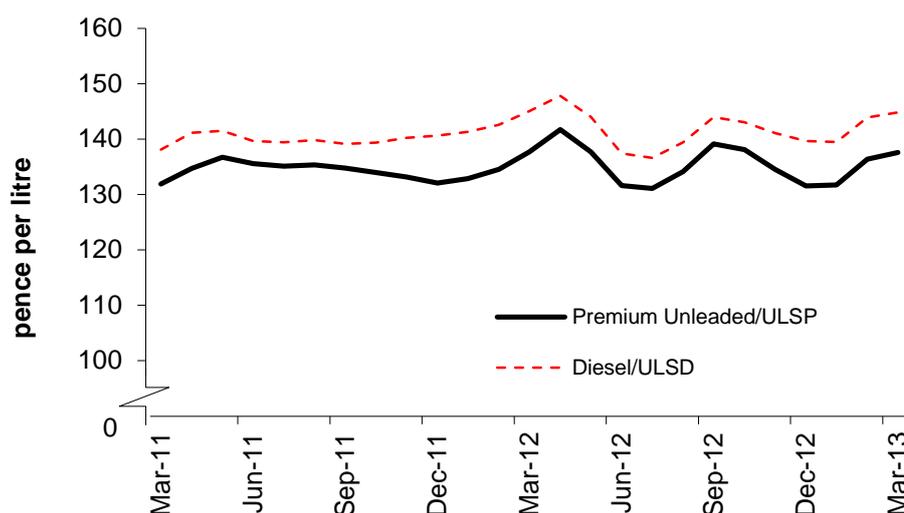
- Average industrial gas prices, including CCL, were 8.1 per cent higher in real terms in Q4 2012 compared to Q4 2011, whilst prices excluding CCL were also 8.1 per cent higher.
- Average industrial electricity prices were 3.0 per cent higher including CCL and 3.2 per cent higher excluding CCL, in real terms, in Q4 2012 compared to Q4 2011.
- Average coal prices were 7.1 per cent lower in real terms including CCL and 7.5 per cent lower excluding CCL in Q4 2012 compared to Q4 2011. Heavy fuel oil prices were 1.2 per cent lower in real terms than a year ago.
- For the period July to December 2012, prices for industrial electricity consumers including taxes were above the EU15 median for medium, large and extra large consumers and at the median for small consumers. UK industrial gas prices were the lowest in the EU15 for all sizebands of consumer including and excluding tax.

Industrial prices tables are available on the DECC section of the gov.uk website at: [www.gov.uk/government/organisations/department-of-energy-climate-change/series/industrial-energy-prices](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/industrial-energy-prices)



## ROAD TRANSPORT FUEL PRICES: QUARTER 4 2012

### Typical retail prices of road transport fuels



Retail prices of petroleum products	Mid March 2013 <sup>(1)</sup> Pence per litre	Percentage change on a year earlier
Unleaded petrol <sup>(2)</sup>	137.6	-0.1
Diesel <sup>(2)</sup>	144.8	-0.1

(1) Prices are for ultra low sulphur versions of these fuels.

(2) Prices are provisional estimates.

- In mid-March 2013, a litre of unleaded petrol was on average 137.6 pence per litre, broadly unchanged compared to a year earlier but 4.2 per cent lower than the high of April 2012.
- In mid-March 2013, diesel was on average 144.8 pence per litre, again broadly unchanged compared to a year earlier but 2.9 per cent lower than the high of April 2012.
- In February 2013, the UK retail price for petrol was twelfth highest in the EU. UK diesel prices were the third highest in the EU.
- The price difference between diesel and petrol in March 2013 is 7.3 pence per litre, slightly lower than the previous month.

Road transport fuel prices tables are available on the DECC section of the gov.uk website at: [www.gov.uk/government/organisations/department-of-energy-climate-change/series/road-fuel-and-other-petroleum-product-prices](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/road-fuel-and-other-petroleum-product-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 fourth quarter of 2012 and 2012 as a whole are given in the March 2013 editions of ENERGY TRENDS and QUARTERLY ENERGY PRICES respectively, the Department's statistical bulletins on energy, published on 28 March 2013.

2. Energy Trends and the Quarterly Energy Prices bulletins, published quarterly, are available in hard copy from DECC on subscription, price £40 per annum and on the DECC section of the gov.uk website at

[www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics](http://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics)

3. Articles featured in Energy Trends are also available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/energy-trends-articles](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/energy-trends-articles).

4. For new subscription queries or a subscription form, telephone SSD on 01904 455395 or you can write to: SSD/Finance, 2nd Floor, Foss House, 1-2 Peasholme Green, York YO1 7PX

A subscription form is also available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/energy-trends](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/energy-trends)

Single copies of Energy Trends and Quarterly Energy Prices are also available from the DECC Publications Orderline priced £6 and £8 respectively:

Phone: 0845 504 9188

E-mail: [deccteam@decc.ecgroup.net](mailto:deccteam@decc.ecgroup.net)

5. More detailed annual data on energy production and consumption for the years 2007 to 2011 are available in the DIGEST OF UNITED KINGDOM ENERGY STATISTICS 2012, published by the Stationery Office on 26 July 2012, priced £62. The 2013 edition of the Digest will be published on 25 July 2013.

All information contained in the Digest is available on the DECC section of the gov.uk website at:

[www.gov.uk/government/organisations/department-of-energy-climate-change/series/digest-of-uk-energy-statistics-dukes](http://www.gov.uk/government/organisations/department-of-energy-climate-change/series/digest-of-uk-energy-statistics-dukes)

6. Please note that the old DECC website moved to the new gov.uk website ([www.gov.uk/](http://www.gov.uk/)) on 23 January 2013. All previous links should redirect to the new website; however, if users experience any difficulty in locating Energy Trends and Prices publications or tables on the new website they should contact the DECC Energy Statistics contacts shown for each section or article within the publications.

