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ENERGY TRENDS
MARCH 2007

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The cover illustration used for Energy Trends and other DTI energy statistics publications is from a photograph by David Askew. It was a winning entry in the DTI News Photographic Competition in 2002.

Introduction

Energy Trends and Quarterly Energy Prices are produced by the Department of Trade and Industry on a quarterly basis. Both periodicals are published concurrently in June, September, December and March. The March editions cover the fourth quarter of the previous year and also the previous year as a whole.

Energy Trends includes information on energy as a whole and by individual fuels. The text and charts provide an analysis of the data in the tables. The tables are mainly in commodity balance format, as used in the DTI's annual Digest of UK Energy Statistics. The 2006 edition of the Digest was published on 27 July 2006. Hard copies of the Digest can be obtained from The Stationery Office and electronic versions is available on our web site at www.dti.gov.uk/energy/statistics/publications/dukes/page29812.html The balance format shows the flow of a commodity from its sources of supply, through to its final use. The articles provide in-depth information on current issues within the energy sector.

The text and tables included in this publication represent a snapshot of the information available at the time of publication. However, the data collection systems operated by the DTI, which produce this information, are in constant operation. New data are continually received and revisions to historic data made. To ensure that those who use the statistics have access to the most up-to-date information, revised data will be made available as soon as possible, via the electronic versions of these tables. The electronic versions are available free of charge from the DTI web site. In addition to quarterly tables, the main monthly tables that were published in the period up to May 2001 when Energy Trends was produced monthly, continue to be updated and are also available on the DTI web site. Both sets of tables can be obtained from www.dti.gov.uk/energy/statistics/index.html

Energy Trends does not contain information on Foreign Trade, Temperatures and Prices. Foreign Trade and Temperatures tables are, however, available on the DTI web site and information on Prices can be found in the Quarterly Energy Prices publication. Prices information is also available on our web site at the above address.

If you have any comments on Energy Trends or Quarterly Energy Prices publications please send them to:

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The main points for 2006:

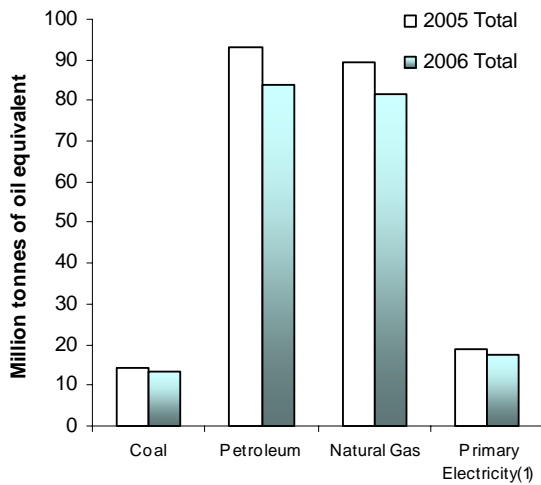
- Total energy production was 9 per cent lower than in 2005.
- Oil production fell by 9½ per cent as production from older established fields continued to decline.
- Gas production was 8½ per cent lower than in 2005. Net imports of gas increased by 60 per cent and represented 12½ per cent of gas demand. Gas demand was 4½ per cent lower than in 2005.
- Total primary energy consumption for energy uses fell by ½ per cent in 2006. This was also ½ per cent lower when adjusted to take account of weather differences between 2005 and 2006.
- Final energy consumption fell by ½ per cent, with a fall in the domestic sector of 2 per cent. Services and other consumers sector fell marginally. There were rises in the transport sector of 1 per cent and the industrial sector of ½ per cent.
- Coal production was 9½ per cent lower than in 2005. Coal imports were 14½ per cent higher and at a new record level of 50½ million tonnes. Generators' demand for coal was up 11 per cent.
- Coal supplied 11½ per cent more electricity than in 2005 while gas supplied 7½ per cent less. Nuclear supplied 8 per cent less. Net imports of electricity increased by 12 per cent.

The main points for the fourth quarter of 2006:

- Total energy production was 12 per cent lower than in the fourth quarter of 2005.
- Oil production fell by 7 per cent from that of a year ago.
- Gas production was 13 per cent lower than the same period of 2005. Net imports of gas increased by 71 per cent. Gas demand was 3½ per cent lower than in the fourth quarter of 2005.
- Total primary energy consumption for energy uses fell by 2½ per cent in the fourth quarter of 2006 compared with the same period of 2005. When adjusted to take account of weather differences between 2005 and 2006, primary energy consumption rose by ½ per cent.
- Final energy consumption fell by 4½ per cent over quarter four of 2005, with rises in the services and other consumers sector of 2 per cent, but with falls in the transport sector of 1 per cent; the domestic sector of 9 per cent and in the industrial sector of 3½ per cent.
- Coal production was 23 per cent lower than in the same period of 2005. Coal imports were 11½ per cent higher while generators' demand for coal was 1½ per cent lower.
- Coal supplied 3½ per cent less electricity than in quarter four 2005 while gas supplied 12½ per cent more. Nuclear supplied 24 per cent less. Net imports of electricity fell by 7 per cent.

Section 1 - Total Energy

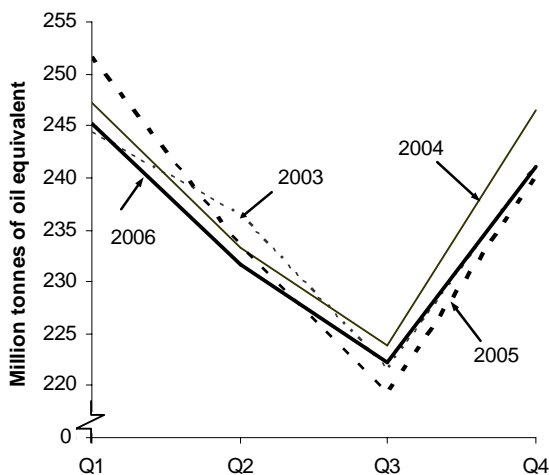
Chart 1.1 Production of indigenous primary fuels



1 Nuclear and natural flow hydro electricity.

- Total production in 2006 was 196.4 million tonnes of oil equivalent, 8.8 per cent lower than in 2005. In the fourth quarter of 2006 production was 11.7 per cent lower than in the fourth quarter of 2005.
- Production of natural gas fell by 8.5 per cent between 2005 and 2006. Between the fourth quarter of 2005 and the fourth quarter of 2006 it fell by 12.9 per cent.
- Production of petroleum was 9.6 per cent lower in 2006 than a year earlier. In the fourth quarter of 2006 it was 6.9 per cent lower than in the fourth quarter of 2005.
- Primary electricity output in 2006 was 7.2 per cent lower than in 2005 with which nuclear electricity output was 7.9 per cent lower. Output from other primary electricity sources (natural flow hydro and wind) increased by 11.7 per cent. In quarter four of 2006 nuclear electricity output was 24.1 per cent lower than quarter four of 2005 but other primary electricity sources were 25.7 per cent higher than in the same period of 2005.
- In 2006 production of coal and other solid fuel was 8.3 per cent lower than in 2005. In quarter four 2006 it was 20.7 per cent lower than a year earlier.

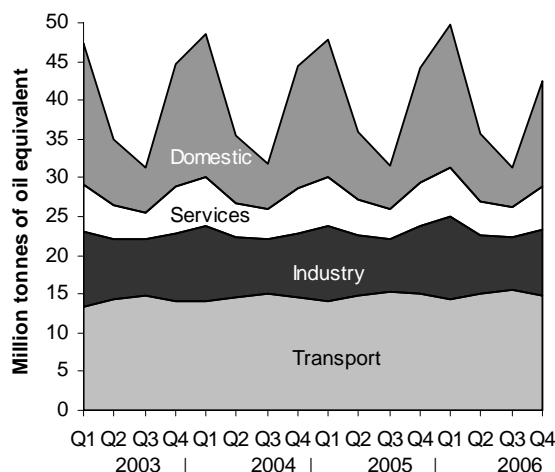
Chart 1.2 Total inland consumption (primary fuel input basis)¹



1 Seasonally adjusted and temperature corrected annual rates.

- Total inland consumption on a primary fuel input basis was 235.1 million tonnes of oil equivalent in 2006 (on a temperature corrected basis). This is a fall of 0.4 per cent from 2005. The average temperature in 2006 was 0.3 degrees Celsius warmer than in 2005.
- The 2006 quarter four consumption level was 0.4 per cent higher than the same period a year earlier (on a temperature corrected basis); the fourth quarter of 2006 was 1.0 warmer than the same period a year earlier.
- Between 2005 and 2006 (on a seasonally adjusted and temperature corrected basis) coal and other solid fuel consumption increased by 11.0 per cent. Between quarter four 2005 and quarter four 2006 it fell by 1.3 per cent.
- Also on a seasonally adjusted and temperature corrected basis, oil consumption rose by 1.1 per cent in 2006 and increased by 6.5 per cent between quarter four of 2005 and quarter four of 2006.
- On the same basis, gas consumption fell by 5.5 per cent in 2006 and rose by 0.4 per cent between quarter four of 2005 and quarter four of 2006.

Chart 1.3 Final energy consumption by user



- Total final energy consumption decreased by 0.6 per cent between 2005 and 2006.
- Total final energy consumption fell by 4.5 per cent between the fourth quarter of 2005 and the fourth quarter in 2006.
- Service sector energy consumption increased by 1.9 per cent between quarter four 2005 and quarter four 2006; during the year as whole it fell by 0.2 per cent.
- During the final quarter of 2006 domestic sector energy consumption fell by 8.9 per cent; annually it fell by 2.0 per cent.
- Transport energy consumption was 0.8 per cent lower during the final quarter of 2006 compared with the previous year, annually it was 1.1 per cent higher.
- Industrial energy consumption fell by 3.4 per cent in quarter four and rose by 0.5 per cent annually.

Background

Relevant tables

- 1.1: Indigenous production of primary fuels.....Page 52
 1.2: Inland energy consumption: primary fuel input basis.....Page 53
 1.3: Supply and use of fuels.....Page 54-55

Production

Indigenous production of energy was 8.8 per cent lower in 2006 than in 2005, continuing a year on year decline for each year since 2000. Coal and other solid fuel production was lower by 8.3 per cent, gas production fell by 8.5 per cent, and petroleum production fell by 9.6 per cent and nuclear output fell by 7.9 per cent.

Petroleum was 44.1 per cent of total indigenous production in the fourth quarter of 2006 while natural gas accounted for 42.1 per cent, nuclear 6.8 per cent and coal and other solid fuels 6.6 per cent. A year earlier the proportions were petroleum 41.8 per cent, natural gas 42.7 per cent, nuclear 7.9 per cent and coal and other solid fuels 7.3 per cent.

Total inland consumption

In 2006 consumption of primary fuels was lower than the preceding year, 0.3 per cent down on 2005. The largest contributions to this fall in absolute terms were from natural gas (which decreased by 4.5 per cent) and nuclear (which decreased by 7.9 per cent). On a temperature corrected basis consumption in 2006 was 0.4 per cent lower than in 2005.

Total inland energy consumption, on a primary fuel input basis (not temperature corrected or seasonally adjusted), in the fourth quarter of 2006 was 62.1 million tonnes of oil equivalent. This was 2.6 per cent lower than in the corresponding period a year ago and also 3.8 per cent lower than in the corresponding period two years ago.

Consumption by final users

Final energy consumption shows a strong seasonal pattern with more energy being consumed in the winter months and less in the summer, particularly in the domestic and service sectors.

Total Energy

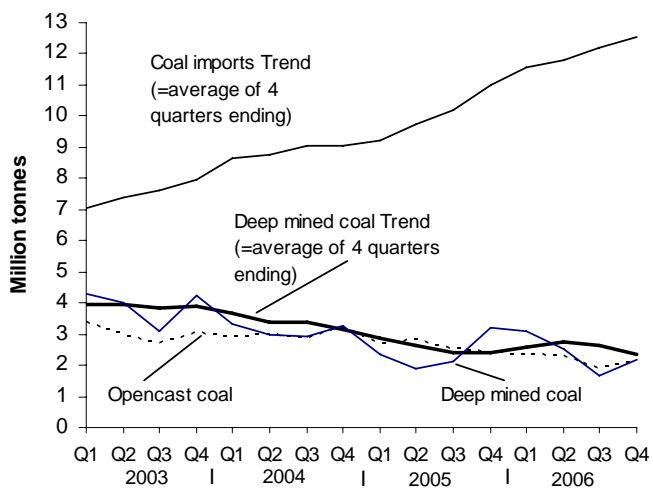
In 2006 the transport sector had the largest share of total final consumption, 35 per cent. The domestic sector accounted for 27 per cent of the total, while the industrial sector made up 19 per cent of the total, and the service industries, including agriculture, accounted for 12 per cent. Non-energy use contributed the remaining 7 per cent.

Final consumption decreased by 0.6 per cent between 2005 and 2006, following a decrease of 0.1 per cent between 2004 and 2005. Final energy consumption fell between 2005 and 2006 by 2.0 per cent in the domestic sector and 0.2 per cent in the service sector; however there were rises of 1.1 per cent in the transport sector and 0.5 per cent in the industrial sector.

Final energy consumption fell by 4.5 per cent between the fourth quarter of 2005 and the fourth quarter of 2006, mainly due to decreases in the domestic sector (an 8.9 per cent decrease, the industrial sector (a 3.4 per cent decrease) and the transport sector (a 0.8 per cent decrease). There was an increase in the service sector of 1.9 per cent.

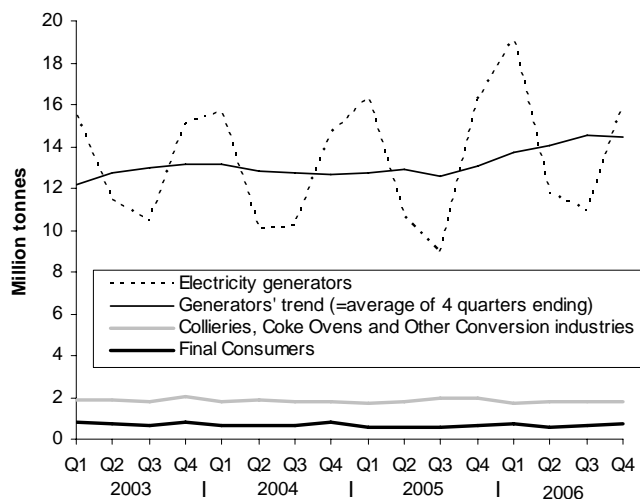
Section 2 - Solid Fuels and Derived Gases

Chart 2.1 Coal production and imports



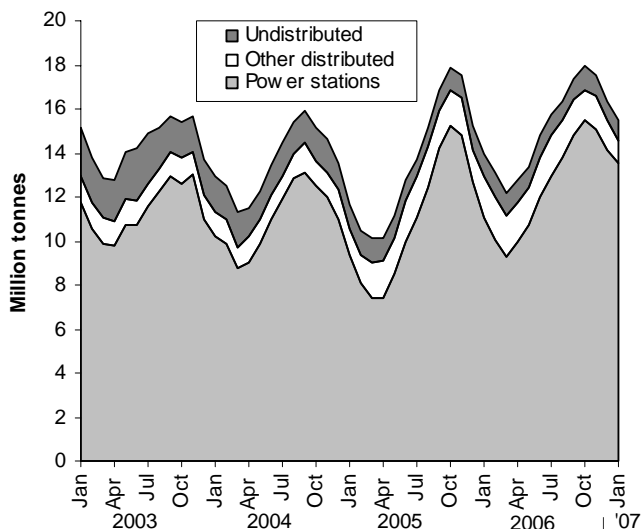
- Provisional figures for 2006 as a whole show that coal production (including an estimate for slurry) was 9.3 per cent down on production in 2005 at 18.6 million tonnes. Deep mined production was down 1.3 per cent and opencast production was down 17.3 per cent.
- Provisional figures for the fourth quarter of 2006 show that coal production (including an estimate for slurry) was 23.0 per cent lower than the fourth quarter of 2005 at 4.4 million tonnes, with deep mined production down 31.5 per cent and opencast production down 13.2 per cent.
- Imports of coal in 2006 as a whole were 14.3 per cent up on 2005 at a record high level of 50.3 million tonnes.
- Imports of coal in the fourth quarter of 2006 were 11.6 per cent higher than in the fourth quarter of 2005 at a new quarterly record of 13.3 million tonnes.
- 44.4 million tonnes of the coal imported in 2006 (86½ per cent) was steam coal, largely for the power stations market.

Chart 2.2 Coal consumption



- Demand for coal in 2006 as a whole, at 68.2 million tonnes, was 10.3 per cent higher than in 2005, with consumption by electricity generators up by 10.8 per cent.
- Demand for coal in the fourth quarter of 2006, at 18.6 million tonnes, was 1.3 per cent down on demand in the fourth quarter of 2005; consumption by electricity generators was down by 2.4 per cent over the same period.
- Electricity generators accounted for 84½ per cent of total coal use in 2006, compared with 84 per cent a year earlier.
- Provisionally, final consumption grew by 11.8 per cent (0.3 million tonnes) in 2006 compared with particularly low levels a year earlier.

Chart 2.3 Coal stocks



- Coal stocks showed a seasonal fall of 1.0 million tonnes during the fourth quarter 2006 and at the end of December 2006 stocks stood at 16.4 million tonnes, 0.6 million tonnes higher than at the end of December 2005. By the end of January 2007 the seasonal decline had taken stocks lower to 15.5 million tonnes.
- The level of coal stock at power stations fell by 0.6 million tonnes in the fourth quarter of 2006 to 14.1 million tonnes. This was 1.5 million tonnes higher than the corresponding level a year earlier.
- There was a fall of 0.1 million tonnes in stocks held by producers (undistributed stocks) in the fourth quarter of 2006 to 0.8 million tonnes. At the end of December 2006 the level was 24.6 per cent lower than the level at the end of December 2005.

Background

Relevant tables

- 2.1: [Supply and consumption of coal.....Page 56](#)
- 2.2: [Supply and consumption of coke oven coke, coke breeze and other manufactured solid fuels.....Page 57](#)
- 2.3: [Supply and consumption of coke oven gas, blast furnace gas, benzole and tars.....Page 58](#)

Coal production and imports

In 2006 indigenous production of coal fell by 1.9 million tonnes. Deep mined production fell to a record low of 9.4 million tonnes, while opencast coal production was at its lowest level since 1970, and 17½ per cent lower than in 2005. During 2005 Ellington mine closed due to flooding and geological and operational difficulties reduced production at the remaining deep mines so that in 2005, for the first time ever, opencast production exceeded deep mined production. Deep mined production recovered towards the end of 2005 and in the first half of 2006, however deep mined production fell back in the second half of 2006 with the closure of Rossington at the end of March 2006 and the run down in production and eventual mothballing of Harworth in September 2006. These closures, geological difficulties and other one-off factors suppressed production and in the third quarter of 2006, opencast production once again exceed deep mined production. However, In 2006 as a whole, deep mined production levels exceeded those of opencast. Imports of coal in 2006 were at a new record level of 50.3 million tonnes, 6.3 million tonnes above the previous record level of 2005. Just under 0.5 million tonnes of coal was exported.

Coal consumption

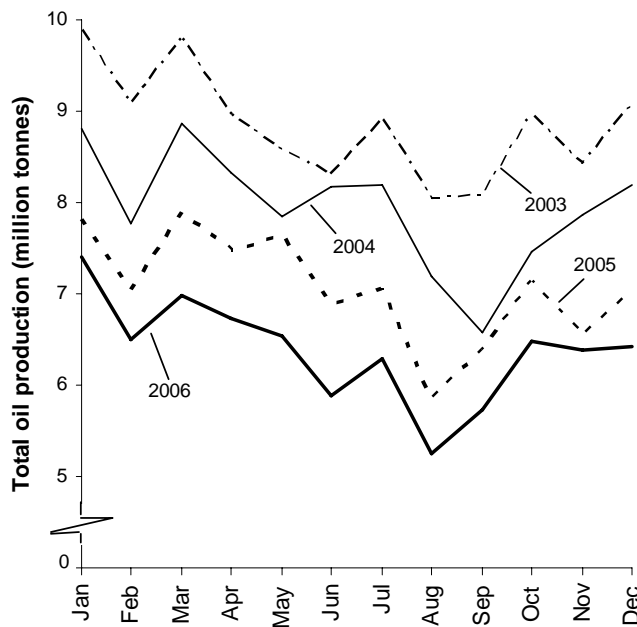
Coal use by electricity generators was 4.7 million tonnes higher in 2003 as a whole than it was in 2002, but in 2004 it fell back by 2.0 million tonnes because prices enabled gas fired generation to be more competitive. In 2005, coal use rose by 1.6 million tonnes as higher gas prices made coal more competitive for generation. This trend continued into 2006 with the demand from electricity generators up 5.6 million tonnes on 2005. The use of coal for coke making and at blast furnaces increased by 6.8 per cent, (nearly 0.5 million tonnes) in 2006.

Stocks

End of winter stock levels have risen over the past two years from the low levels of 2004/05. The seasonal rise in stocks over the summer periods of 2005 and 2006 was strong, boosted by record levels of coal imports over the period. Coal stocks peaked in October 2005 at 18.3 million tonnes and although demand for coal to generate electricity was heavy throughout 2006, levels at the end of 2006 were 16.4 million tonnes, 0.5 million tonnes higher than a year earlier.

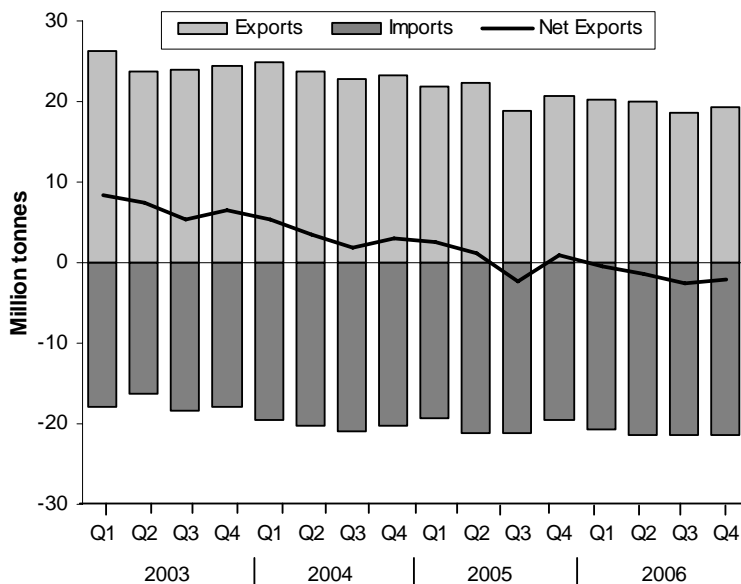
Section 3 - Oil and Oil Products

Chart 3.1 Production of crude oil and NGLs



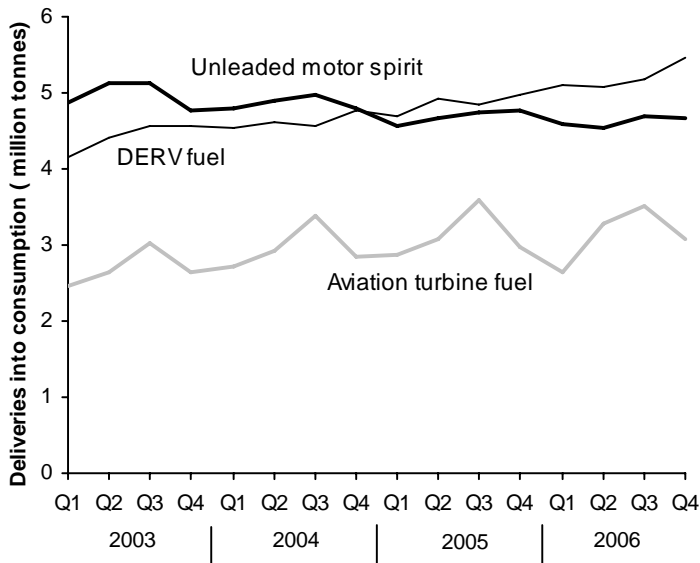
- Total indigenous UK production of crude oil and NGLs in 2006 decreased by 9.6 per cent, compared to 2005, to 76.6 million tonnes.
- Production in the fourth quarter of 2006 was 6.9 per cent lower than a year earlier.
- Two new fields started production in 2006, but production from these fields was insufficient to make up the general decline in production from older established fields.

Chart 3.2 UK trade in crude oils, NGLs and petroleum products



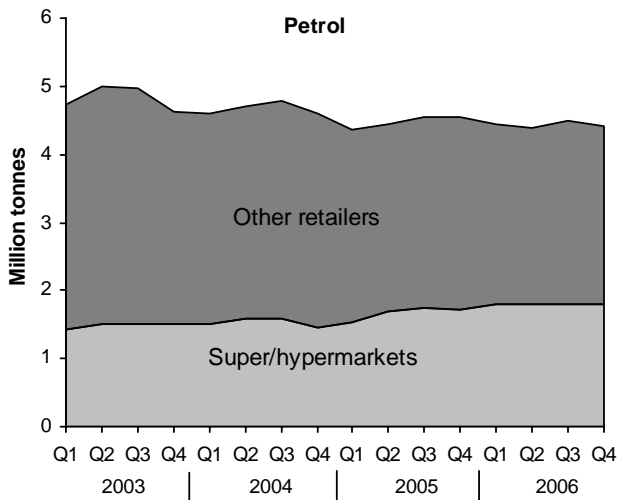
- The UK was a net importer of oil and oil products by 6.6 million tonnes in 2006, compared to being a net exporter by 2.4 million tonnes in 2005.
- Exports of crude oil, NGLs and feedstocks decreased by 7.2 per cent in 2006 while imports fell by 0.7 per cent, resulting in the UK being a net importer of crude oil, NGLs and feedstocks by 8.3 million tonnes.
- The UK was still a net exporter of petroleum products in 2006 by 1.7 million tonnes, although imports rose by 16.7 per cent. Exports fell by 5.9 per cent.
- During the fourth quarter of 2006 the UK was a net importer of oil and oil products by 2.0 million tonnes, whereas in the fourth quarter of 2005 the UK was a net exporter by 1.0 million tonnes.
- The UK was a net importer of crude oil, NGLs and feedstocks in the fourth quarter of 2006 (by 2.4 million tonnes). Exports of crude oil, NGLs and feedstocks decreased by 6.9 per cent. Imports rose by 3.4 per cent.
- In 2006 net exports of petroleum products fell sharply to 0.4 million tonnes when compared with 2005. Exports of petroleum products fell by 6.0 per cent whilst imports rose by 21.6 per cent.

Chart 3.3 Demand for key transport fuels

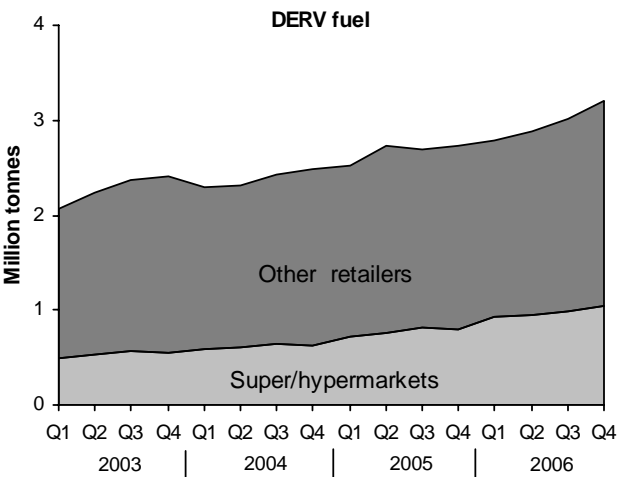


- In 2006 total deliveries of key transport fuels were 1.6 per cent higher than in 2005. Quarter four saw an increase of 0.7 per cent on the same quarter a year earlier.
- Preliminary figures for 2006 suggest motor spirit deliveries fell by 1.7 per cent.
- Deliveries of DERV fuel in 2006 increased by 5.6 per cent.
- DERV fuel's share of road transport fuels in 2006 was 52.7 per cent compared to 50.9 per cent in 2005. These figures reflect the continuing shift from petrol engine vehicles to diesel engine vehicles.
- Deliveries of aviation turbine fuel were 0.1 per cent higher in 2006. Quarter four saw an increase of 3.1 per cent on the same quarter a year earlier.

Chart 3.4 Super/hypermarket shares of retail deliveries

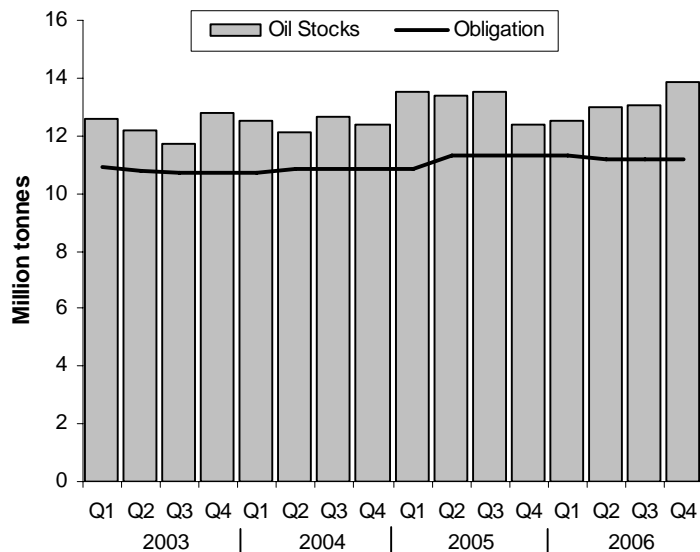


- Sales of motor spirit by super/hypermarket companies accounted for 40.6 per cent of retail sales of petrol in 2006, up from 37.5 per cent in 2005.
- In the fourth quarter of 2006, sales of motor spirit by the super/hypermarkets accounted for 41.1 per cent of total retail sales.



- Sales of DERV by super/hypermarket companies accounted for 33.0 per cent of retail sales of DERV in 2006, up from 28.9 per cent in 2005.
- In the fourth quarter of 2006, sales of DERV by the super/hypermarkets accounted for 32.7 per cent of total retail sales.
- Sales of DERV exceeded motor spirit in volume terms for the first time in the fourth quarter of 2006.

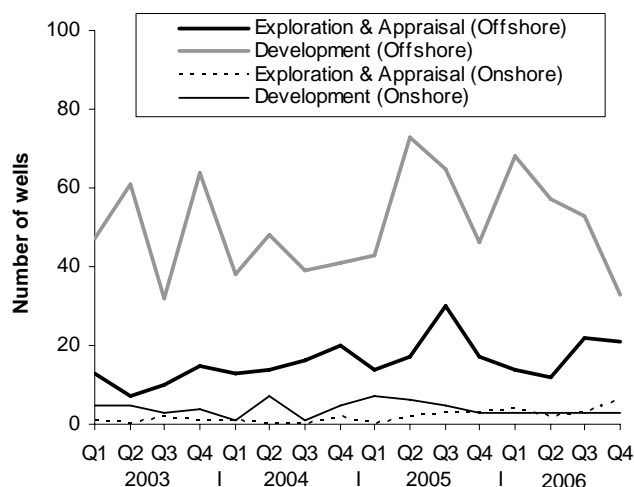
Chart 3.5 Stocks of key oil products⁽¹⁾



- Overall, stocks of crude oil and petroleum products were 7.2 per cent higher at the end of 2006 than a year earlier.
- Compared with a year earlier crude oil and refinery process oil stocks were 5.0 per cent higher while stocks of products were 9.3 per cent higher.
- Stocks at UKCS pipeline terminals rose by 44.8 per cent (506 thousand tonnes) in 2006.
- Chart 3.5 combines stocks of products with the product equivalent of stocks of crude oil to give an overall level of UK stocks of key products.
- At the end of the fourth quarter of 2006, the UK held stocks equal to 84 days of consumption of these key products, compared with an obligation of 67½ days (see Background for more details).

⁽¹⁾ This includes motor spirit, DERV fuel, other gas diesel oils, aviation turbine fuel, kerosene and fuel oils.

Chart 3.6 Drilling activity on the UKCS



- The number of exploration and appraisal wells started offshore fell to 69 in 2006, compared to 78 in 2005.
- The number of development wells drilled offshore fell to 211, compared to 227 in 2005, following a sharp fall in the fourth quarter of 2006.
- 12 development wells were drilled onshore in 2006, compared to 21 in the previous year.
- 15 exploration and appraisal wells started onshore in 2006, compared to only 8 in 2005.

Background

Relevant tables

3.1: Supply and use of crude oil, natural gas liquids and feedstocks..... Page 59
 3.2: Supply and use of petroleum products.....Page 60
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Oil and Oil Products

Crude oil production and trade

Total UK production of crude oil and NGLs decreased in 2006 by 9.6 per cent to 76.6 million tonnes when compared to 2005. Two new fields started production in 2005, but production from these fields was insufficient to make up the general decline in production from older established fields. The UK was a net importer of oil and oil products in 2006 by 6.6 million tonnes, whereas it was a net exporter in 2005 by 2.4 million tonnes. About two thirds of UK production of crude oil and NGLs is exported as the UK generally produces a lighter, more valuable crude oil than other areas of the world such as the Middle East or West Africa. UK refineries are relatively modern and as such can cope with having these lower grade crude oils as an input. Therefore the economics of crude oil markets results in significant volumes of crude oil being imported into the UK.

Refinery production of petroleum products and trade

The net refinery output in 2006 was 85.0 million tonnes, 4.4 million tonnes (5.0 per cent) lower than in 2005. The fourth quarter of 2006 saw a 6.4 per cent fall in refinery output compared with year earlier, this was due to maintenance work and kit failure at three refineries.

Demand for petroleum products

Overall demand for petroleum products in 2006 was 0.4 per cent lower than in 2005. Deliveries of motor spirit were lower by 1.7 per cent whilst DERV deliveries were 5.6 per cent higher at 20.5 million tonnes. Deliveries of aviation turbine fuel were 0.1 per cent higher.

Stocks of crude oil and petroleum products

The UK has an obligation under EU law to maintain stocks of key oil products at or above a certain level to ensure adequate supplies would exist for any international oil supply emergency. These obligations are based on the UK's annual consumption of the key products motor spirit, DERV fuel and other gas diesel oils, aviation fuel and other kerosenes and fuel oils. These obligations are usually updated every 1st July as consumption data for the previous year are finalised. Chart 3.5 above combines data on stocks of key oil products with the product equivalent of stocks of crude oil to give an overall level of UK stocks of key oil products to show how the UK is complying with these obligations at an overall level. The UK's current overall obligation, based on 2005 consumption data, is to hold a total of 11 million tonnes of these products, equal to 67½ days of consumption.

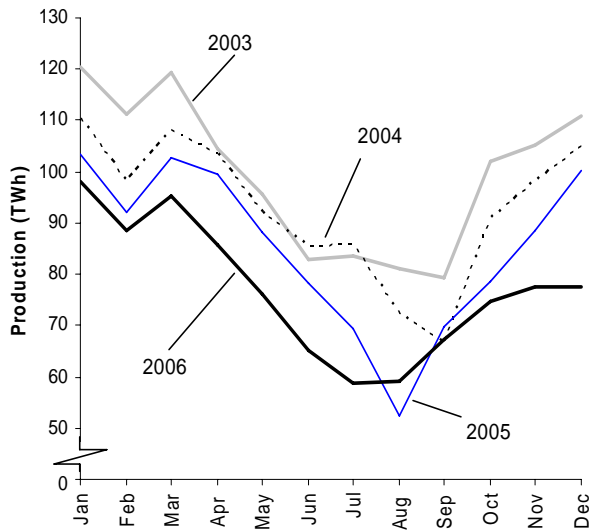
Financial aspects of operations on the United Kingdom Continental Shelf

As announced in the June 2004 issue of Energy Trends, the quarterly collection of the data used to compile Table 3.8, Value of UKCS production and investment by operators and licensees, has now ceased. Data up to Q4 2003 is still available on the DTI Energy Statistics web site.

As announced in the September 2005 issue of Energy Trends, publication of Table 3.9 Indicative tariffs rates offered in the UKCS for handling of oil and gas, has been discontinued. Indicative tariffs are no longer reported to DTI following the introduction in 2004 of a substantially revised Code of Practice on Access to Upstream Infrastructure. Under the new Code, information on actual tariff agreements should be posted on the infrastructure owner/operator's website or, if they do not have an appropriate website, on the DEAL website (<http://www.ukdeal.co.uk>). Historical data on indicative tariffs (as was reported in Table 3.9) continues to be available on the DTI Energy Statistics website.

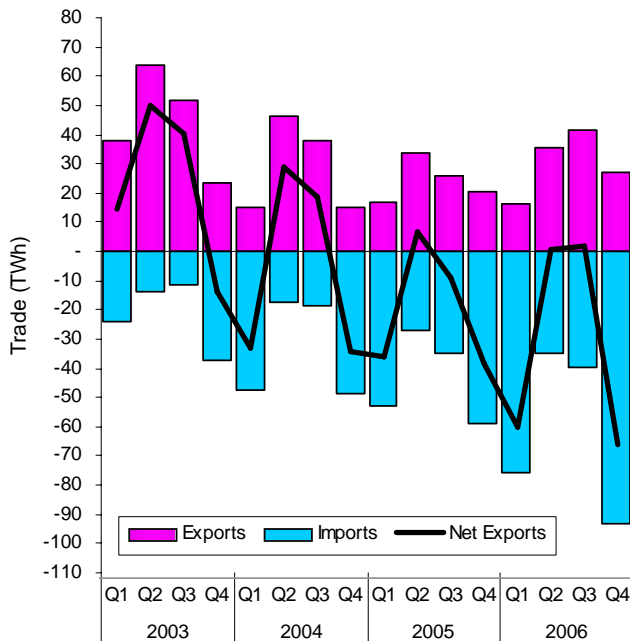
Section 4 – Gas

Chart 4.1 Production of natural gas



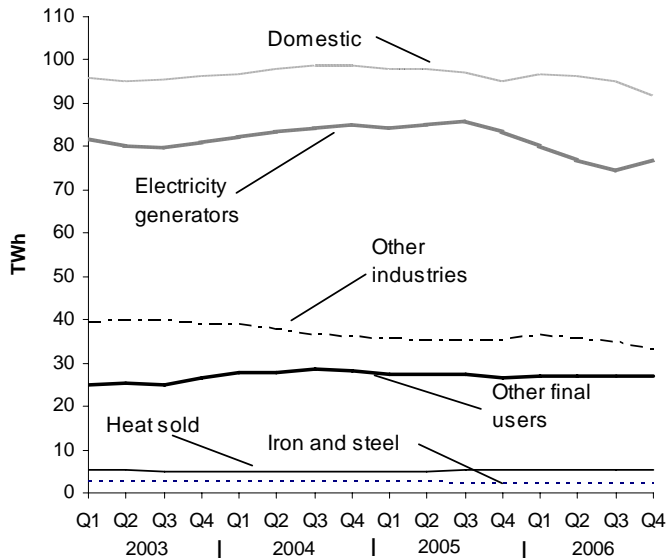
- Total indigenous UK production of natural gas in 2006 was 8.6 per cent lower than in 2005.
- Total indigenous UK production of natural gas in the fourth quarter of 2006 was 13.1 per cent lower than in the corresponding quarter a year earlier.

Chart 4.2 UK trade in natural gas



- Two new import pipelines were commissioned in the fourth quarter of 2006 – Langeled from Norway and BBL from the Netherlands
- Exports of natural gas in 2006 rose by 25.4 per cent compared with 2005 while imports increased by 40.8 per cent.
- In the fourth quarter of 2006 exports of natural gas increased by 33.8 per cent and imports increased by 58.1 per cent compared with the fourth quarter of 2005.
- Net imports of gas in 2006 at 123.4 TWh were 60.0 per cent higher than in 2005 (77.1 TWh).
- Net imports of gas in the fourth quarter of 2006, at 65.9 TWh, were 71.0 per cent higher than in the fourth quarter of 2005.

Chart 4.3 Natural gas consumption - average of four quarters ending



- Demand for gas in 2006 as a whole was 4.4 per cent lower than in 2005.
- Demand for gas in the fourth quarter of 2006 was 3.3 per cent lower than the level in the fourth quarter of 2005.
- Gas use for electricity generation in 2006 was 7.5 per cent lower than in 2005.
- In the fourth quarter of 2006 gas use for electricity generation was 13.3 per cent higher than a year earlier, with gas prices falling from the high levels in the earlier part of the year.
- Provisionally, consumption in the domestic sector fell by 3.6 per cent in 2006 as a whole while consumption in the industrial sector fell 4.7 per cent. Consumption by other final users rose by 1.5 per cent in 2006.
- In the fourth quarter of 2006, consumption in the domestic sector fell by 11.1 per cent. In the industrial sector consumption fell by 15.9 per cent while consumption by other final users rose by 3.1 per cent.

Background

Relevant table

[4.1: Natural gas supply and consumption..... Page 66](#)

Gas production and trade

Indigenous production of natural gas peaked in 2000 at 1,261 TWh. Since then production has been in decline and in 2006 was 26 per cent below the 2000 peak. Production in 2006 was 8½ per cent lower than in 2005. In 2004 the UK became a net importer of gas for the first time since 1996. Because of declining gas production net imports of gas in 2006, at 123 TWh, were 60 per cent higher than the 77 TWh seen in 2005.

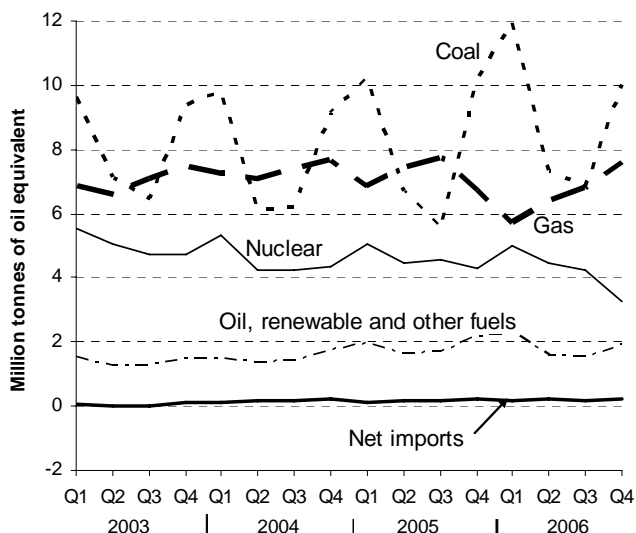
The UK currently exports gas to the Netherlands from the Markham and Windermere fields, to the Irish Republic via the Irish – UK gas interconnector and to Belgium through the Bacton-Zeebrugge interconnector. Imports to the UK are from Belgium, via the interconnector, Norway, via the Langeled, Statfjord and Vesterled pipelines, Netherlands via the BBL pipeline and liquefied natural gas from various sources.

Gas consumption

Until the middle of 2000 the growth in consumption of natural gas was dominated by growth in consumption for electricity generation, mainly in Combined Cycle Gas Turbine stations. However, high gas prices led to the use of gas for generation levelling off after 2000, rising slightly in some years and falling back in others. While much of this switchback pattern is the result of the relative prices of gas and coal, the 2004 growth can also be attributed to the three newest CCGT stations operating at high levels throughout the year, while the downturn in 2005 results from generators preferring coal when prices reached very high levels at the end of the year. Gas prices remained high in early 2006 so generators continued to use less gas and more coal, however gas use in the fourth quarter of 2006 rose back to the levels of 2003 and 2004 as prices fell back. Gas use in the domestic sector is particularly dependent on temperatures not only during the heating season, but also in summer very hot weather deters use for cooking and hot water. Colder weather at the beginning of 2006 boosted domestic gas consumption and the warmer weather through the second half of the year led to lower consumption compared to a year earlier.

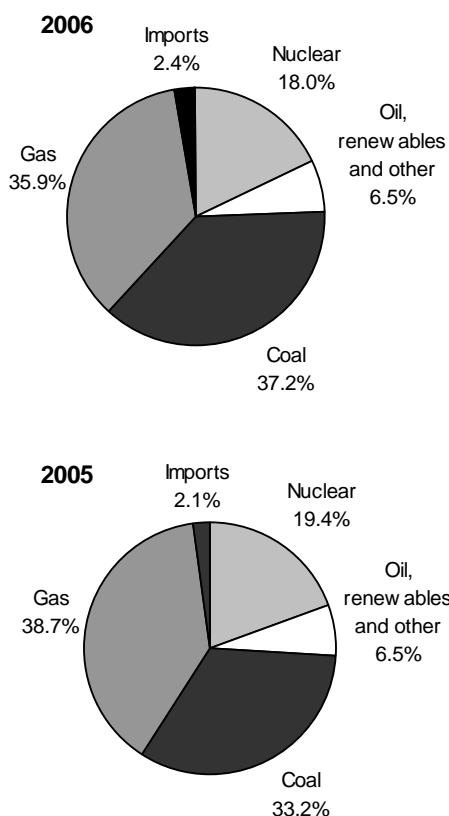
Section 5 - Electricity

Chart 5.1 Fuel used for electricity generation



- Fuel used by generators in 2006 as a whole was, in total, 0.3 per cent lower than in 2005.
- Fuel used by generators in the fourth quarter of 2006 was, in total, lower by 2.8 per cent than in the fourth quarter of 2005.
- Overall coal use during 2006 was 10.8 per cent higher than in 2005. However, coal use in the fourth quarter of 2006, was 2.1 per cent lower than a year earlier.
- Gas use in 2006 was lower than 2005 by 7.7 per cent. Although, in the fourth quarter of 2006 gas use was 12.7 per cent higher than a year earlier.
- Generation from nuclear sources in 2006 as a whole was down 7.9 per cent on 2005. In the fourth quarter of 2006 there was a fall of 24.1 per cent on the fourth quarter of 2005.
- Hydro sources in 2006 were 8.4 per cent lower than the levels of 2005, but were 17.5 per cent higher than a year earlier in the fourth quarter of 2006.

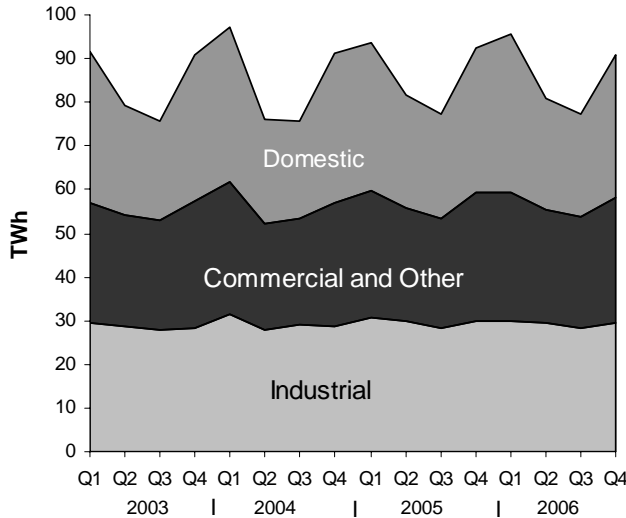
Chart 5.2 Electricity supplied



- Total electricity supplied by all generators in 2006 was 0.4 per cent lower (-1.7 TWh) than in 2005.
- Total electricity supplied by all generators in the fourth quarter of 2006 was 2.2 per cent lower (-2.2 TWh) than a year earlier.
- Indigenous supply in 2006 was 0.1 per cent lower, (-2.7 TWh) than in 2005. There were net imports of 9.3 TWh in 2006 compared with net imports of 8.3 TWh in 2005.
- The supply from coal in 2006 increased by 11.6 per cent (+14.9 TWh), while from gas fired stations supply fell by 7.5 per cent (-11.2 TWh). The supply from nuclear stations fell by 7.9 per cent (-5.9 TWh).
- In the fourth quarter of 2006 the supply from coal fell by 3.5 per cent (-1.4 TWh), while from gas fired stations supply rose by 12.2 per cent (+4.2 TWh). The supply from nuclear stations fell by 24.1 per cent (-4.2 TWh).
- In 2006 coal's share of electricity supplied rose by 4 percentage points to 37 per cent. Gas' share fell by 3 percentage points to 36 per cent. Nuclear's share fell 1½ percentage points from 2005 to 18 per cent.

Electricity

Chart 5.3 Electricity consumption



- Final consumption of electricity fell by 0.1 per cent in 2006 as a whole compared with 2005. Domestic use was up by 1.0 per cent, industrial use was down 1.7 per cent and consumption by other final users was up by 0.4 per cent.
- Final consumption of electricity fell by 1.7 per cent in the fourth quarter of 2006. Domestic use was down by 1.9 per cent, industrial consumption was down 2.0 per cent and consumption by other final users was lower by 1.2 per cent.
- On average in 2006 temperatures were 0.3 degrees higher than in 2005. Similarly, temperatures in the fourth quarter of 2006 were on average about 1 degree higher than in the fourth quarter of 2005, due to a very much milder autumn and winter than 2005.

Background

Relevant tables

[5.1: Fuel used in electricity generation and electricity supplied.....Page 67](#)

[5.2: Supply and consumption of electricity.....Page 68](#)

Fuel use

In 2001 higher gas prices and strong competition from coal, especially imported coal, brought a temporary halt to the rising trend in gas use at power stations, and gas use maintained a fairly flat profile until the second half of 2003. As coal prices rose so gas use became more attractive and gas use for generation increased again to reach a new record level in 2004, 3½ per cent higher than 2002's previous record. Rising gas prices over the later part of 2005 and throughout 2006 led to a preference for coal as the main fuel source for electricity generation. Although the amount of gas used in electricity generation increased in the fourth quarter of 2006, the level for the year as a whole was 7½ per cent lower than a year previously.

Supply

Total electricity supplied in the UK in 2006 was ½ per cent lower than in 2005, the first year there has been a fall since 2002. Supply from the coal fired power stations of all generating companies rose by 11½ per cent in 2006, with electricity supplied from gas falling 7½ per cent from the level in 2005. Supply from nuclear sources fell by 8 per cent in 2006 to the lowest annual level since 1991. This fall was the result of a high level of outages for repairs and maintenance. Imports and exports of electricity from and to continental Europe are volatile with suppliers taking advantage of price differentials that have arisen during periods of extreme weather. In 2003 both very hot and very cold weather increased exports to continental Europe to record levels. Imports have risen consistently since 2004, but exports have remained high because of increased exports from Northern Ireland to the Irish Republic. While dry weather led to electricity supplied from hydro sources in 2006 being 17 per cent down on 2005, a wet autumn led to a recovery in hydro output at the end of the year.

Consumption

After the near absence of growth in 2002, electricity demand by final consumers grew by 1¼ per cent in 2003 but only ¾ per cent in 2004 (although this rises to just above the 1½ per cent per year trend rate of growth when allowance is made for the change to reporting on a calendar year basis in 2004). In 2005, growth in electricity demand was closer to 2 per cent, the highest percentage rise since 2000. In 2006 final consumption of electricity fell by 0.1 per cent, the first fall since 1994. Consumption in 2006 was divided 29 per cent to the domestic, 28½ per cent to industry and 27 per cent to commerce, public administration, transport and agriculture. Fuel industries accounted for a

Carbon dioxide emissions and energy consumption in the UK

The UK is committed under the United Nations Framework Convention on Climate Change (UNFCCC) and by agreement with the European Union to provide annual data on greenhouse gas emissions. This information is compiled by the AEA Energy and Environment under contract to Defra and the Devolved Administrations; data for the latest year (2005) was published by Defra on 31 January 2007. DTI is able to produce provisional estimates for 2006 based on energy consumption data that are published in this edition of Energy Trends. These provisional estimates will be subject to revision when final estimates are published next year, but they provide an indication of the emissions in the most recent calendar year. The majority of provisional estimates are within 1 per cent of the final figures. Emissions data are expressed in terms of millions of tonnes of carbon emitted per year (MtC/yr); they can be converted to million tonnes of carbon dioxide by multiplying by the relative molecular weights (44/12).

The key points to note are:

- CO₂ emissions including the net impact of land use, land use change and forestry (LULUCF) in 2006 were provisionally 153 MtC/yr, or 5¼ per cent below 1990 levels. This is 1¾ MtC/yr (1¼ per cent) higher than in 2005.
- Excluding the net contribution of LULUCF, emissions were provisionally 153½ MtC/yr, or 4½ per cent below 1990 levels.
- The fall in emissions since 1990 occurred despite an overall increase of 9½ per cent in energy consumption over the same period. The increase in emissions between 2005 and 2006 resulted from fuel switching from natural gas and nuclear to coal for electricity generation.
- CO₂ emissions from use of coal and other solid fuels rose by 9¾ per cent between 2005 and 2006 resulting from increased coal fired generation as a response to high gas prices; emissions from gas fell by 4½ per cent; emissions from oil were 1 per cent higher mainly due to increased transport and industrial use.
- CO₂ emissions from power stations decreased by 11½ per cent between 1990 and 2006. Between 2005 and 2006 they increased by 4¾ per cent. Emissions from power stations are driven by changes in both the fuel mix used for generation and generation efficiency; more coal and oil but less gas was used to generate electricity in 2006 compared with 2005.
- These estimates do not include the effect of emissions trading. Installations covered by the EU Emissions Trading Scheme must buy allowances to cover emissions in excess of their allocations.
- Over the period 1990 to 2006 there were also falls in industrial emissions and in the commercial and public service sectors. However emissions from fossil fuels delivered to both the domestic and transport sectors increased.

Why are CO₂ emissions important?

CO₂ emissions are important because, on a global basis, they contribute about 70 per cent of the potential global warming effect of anthropogenic emissions of greenhouse gases. Carbon dioxide is naturally emitted by living organisms and absorbed by plants during photosynthesis. However, the burning of fossil fuels releases CO₂ fixed by plants many millions of years ago, and increases its concentration in the atmosphere. The UK contributes about 2 per cent to global man-made emissions of CO₂; within the UK energy consumption accounts for about 95 per cent of all CO₂ emissions.

Policy targets

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) was agreed in December 1997. It committed the then 15 EU member states (including the UK) to a collective target of reducing EU emissions of a basket of 6 greenhouse gases, including CO₂, of 8 per cent relative to the 1990 level over the period 2008-2012. As part of an agreement between EU member states, the UK subsequently undertook to reduce its emissions by 12½ per cent as its contribution to the EU's target. The Kyoto Protocol became legally binding in February 2005 and to date has been ratified by 168 countries.

Special feature – Carbon dioxide emissions

The UK Government has also committed itself to moving towards a domestic goal of reducing UK CO₂ emissions to 20 per cent below the 1990 level by 2010. Following a review of the UK Climate Change Programme which contained a package of measures aimed at meeting the UK's Kyoto target and move towards our domestic goal, a revised programme was published in March 2006¹; the review examined how existing policies were performing, and the range of policies that could be implemented to further reduce emissions.

The Energy White Paper², published in February 2003, defined four goals for energy policy, the first of which was to put ourselves on a long term path to reduce the UK's CO₂ emissions by 60 per cent by 2050 with "real progress" by 2020; the 2006 Energy Review³ reiterated this target. The draft Climate Change Bill⁴ published in March 2007 proposes that the 60 per cent target and the "real progress", which would be quantified as a reduction of 26-32 per cent below 1990 levels by 2018-22 would be legally binding.

In reducing CO₂ emissions from the energy supply sector priority areas are seen as increasing the amount of energy generated from renewable energy sources and strengthening the contribution of energy efficiency; to support this "Energy Efficiency – The Government's Plan for Action" was published in April 2004⁵ – this sets out how improvements to energy efficiency can deliver a reduction of 12 million tonnes of carbon emissions by 2010. The EU Emissions Trading Scheme⁶ forms a key part of the plan for action.

Estimates of CO₂ emissions

The measurement of CO₂ emissions presented in this article is based on the international methodology agreed by the Intergovernmental Panel on Climate Change, under which the UN-FCCC, and Kyoto Protocol commitments, and the UK's domestic targets for greenhouse gases are measured. This article refers to emissions both including and excluding the net impact of emissions from land use, land use change and forestry (LULUCF). Annual figures since 1990 are shown in Table 1. Progress towards the 20 per cent domestic goal is measured including the net impact of LULUCF, which allows the forestry sector to contribute fully towards meeting the targets. The 2006 provisional estimates are based on provisional energy consumption data, contained in this edition of Energy Trends.

Chart 1: CO₂ emissions

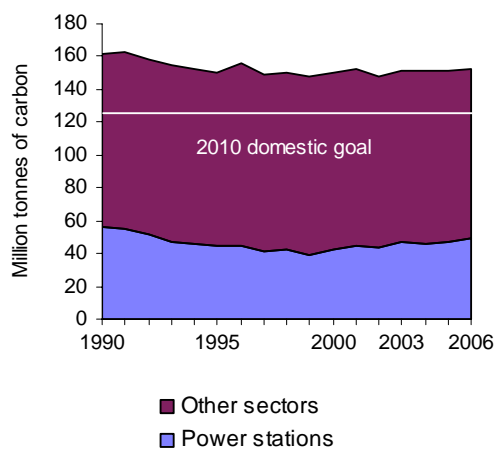
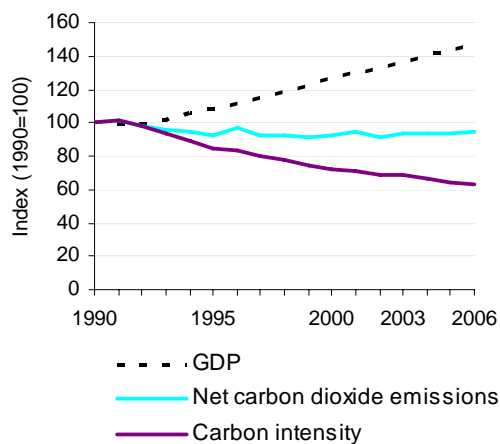


Chart 2: Carbon intensity



¹ "UK Climate Change Programme 2006". See www.defra.gov.uk/environment/climatechange/uk/ukccp/index.htm for more information.

² "Our energy future – creating a low carbon economy". See www.dti.gov.uk/energy/policy-strategy/energy-white-paper-2003/page21223.html for more information.

³ "The Energy Challenge". See www.dti.gov.uk/energy/review/page31995.html for more information.

⁴ See www.defra.gov.uk/environment/climatechange/uk/legislation/index.htm for more information.

⁵ See www.defra.gov.uk/environment/energy/review/index.htm for more information.

⁶ See www.dti.gov.uk/energy/environment/euets/index.html for more information.

Overall CO₂ emissions

CO₂ emissions including the net impact of LULUCF fell provisionally by 5.3 per cent between 1990 and 2006; over the same period CO₂ emissions excluding LULUCF fell by 4.5 per cent. These falls in emissions occurred despite an overall increase of 9.3 per cent in energy consumption. A number of factors explain these contrary movements, such as changes in efficiency in generation of electricity and switching to less carbon intensive fuels such as gas. Chart 1 shows UK CO₂ emissions with the 20 per cent UK domestic goal. The Kyoto commitment is not shown because it relates to a basket of greenhouse gases, not just to CO₂.

CO₂ intensity

Chart 2 shows the trends in Gross Domestic Product (GDP) and CO₂ emissions since 1990 to show the relationship between carbon dioxide emissions and the economy. Overall, GDP has increased by around 47 per cent while CO₂ emissions have fallen. The ratio of CO₂ emissions to GDP is also shown in Chart 2. This ratio is known as the carbon intensity of the economy. The overall decline in carbon intensity of around 36½ per cent has occurred because increased GDP has not resulted in overall increases in emissions of CO₂.

CO₂ emissions by source

Chart 3 shows the key sources of emissions, and how they have changed since 1990. It can be seen that emissions from the transport sector have gradually increased throughout the period, and that since the late 1990s emissions from industrial use have fallen. The most substantial fall – in terms of reduced CO₂ emissions – occurred in the power stations sector, which fell by 11½ per cent (6½ MtC), despite rises during 5 of the last 7 years. The main sources are discussed in the following sections.

CO₂ emissions from electricity generation

CO₂ emissions from power stations currently account for 32 per cent of total CO₂ emissions. Consumption of electricity increased between 1990 and 2006 by 25½ per cent but overall emissions from electricity generation have decreased by 11½ per cent. Emissions from electricity generation rose by 4½ per cent between 2005 and 2006 as a result of using less gas and more coal and oil during generation. Chart 4 illustrates the changing fuel mix in electricity generation between 1990 and 2006.

Chart 3: CO₂ emissions by source

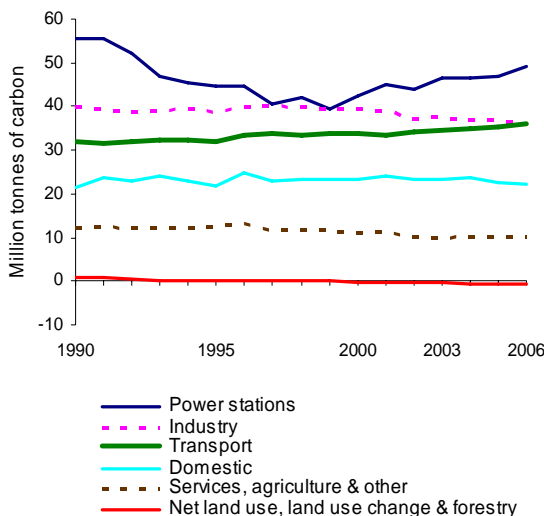


Chart 4: Fuel used in electricity generation

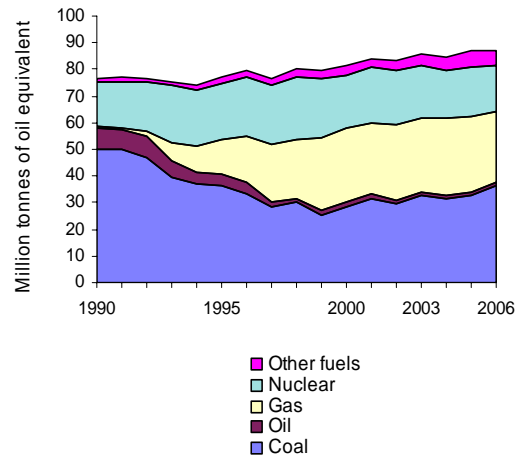


Chart 5 shows the actual level of CO₂ emissions from electricity generation. It also shows what emissions would have been had improvements in technology and changes in generating fuel mix

Special feature – Carbon dioxide emissions

not been made. Since 1990 savings due to increased efficiency and fuel switching have led to a reduction in CO₂ emissions of 29½ per cent by 2006 compared with what they would have been (taking into account increased electricity demand). Of this 29½ per cent saving, 16 per cent was due to fuel switching between 1990 and 2006 (a combination of an increased use of gas and nuclear energy). Improved efficiency was responsible for the remaining 13½ per cent of the saving. The increase in the electricity supply over the period was not reflected in an equivalent increase in emissions due to this increased efficiency and fuel switching.

Chart 5: CO₂ emissions from electricity generation

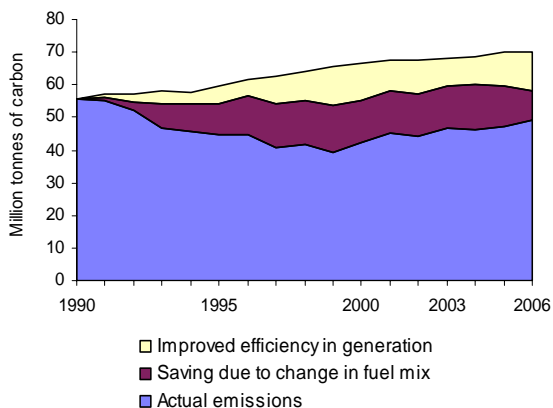
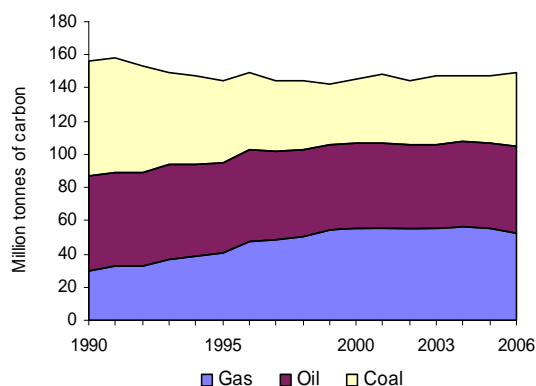


Chart 6: CO₂ emissions by fossil fuels



The emissions from power stations can be reallocated to the sector consuming the electricity. Around 29 per cent of electricity was consumed by the domestic sector in 2006, implying that 14½ MtC from the total of 49 MtC was attributable to that sector. Similarly 21½ MtC can be allocated to the industrial sector, with 12 MtC to the commercial and public service sector, and 1 MtC to the transport sector.

CO₂ emissions from the industrial sector

Industrial sector emissions fell by 2 per cent in 2006 compared with a year earlier. Within this sectoral change emissions from the energy industry fell, whilst other industrial emissions increased slightly. Overall industrial emissions were 9½ per cent lower than 1990 levels.

CO₂ emissions by transport

The transport sector accounted for 23½ per cent of CO₂ emissions in 2006, of which 93 per cent was from road transport. Between 2005 and 2006, transport emissions rose by 2 per cent; emissions are now 13 per cent higher than during 1990. It is estimated that since 1990 emissions from vans and HGVs increased at a higher rate than emissions from cars, and that changes reflect traffic growth. Emissions from international aviation and shipping are excluded from the internationally agreed reporting framework.

CO₂ emissions from the domestic sector

CO₂ emissions from the domestic sector fell by 2½ per cent between 2005 and 2006, resulting from reduced gas consumption in this sector. Since 1990 emissions have increased by 3½ per cent, with non-electricity energy consumption for the domestic sector increasing by 10 per cent over the same period. This is largely a result of the increase in the number of households - energy use per household is similar to 1990 levels. These emissions estimates do not include emissions from power stations as a result of domestic electricity consumption; domestic electricity consumption was 26 per cent higher in 2006 than during 1990.

CO₂ emissions by the commercial and public service sector

CO₂ emissions in these sectors fell by 7 per cent between 1990 and 2006; however there was a 2 per cent rise between 2005 and 2006 due to increased gas consumption.

CO₂ emissions from agricultural and forestry fuel use and land use, land use change and forestry

Emissions from fuel used in the agricultural and forestry sectors are estimated to have been some 13½ per cent (0.2MtC) lower than in 1990. Net land use, land use change and forestry emissions have changed from emitting 0.8MtC in 1990 to removing 0.6MtC in 2005; data are not yet available for 2006 so the 2005 estimate has been used for this component of these provisional estimates of total UK CO₂ emissions.

CO₂ emissions by fuel

It is estimated that 149 MtC were emitted in 2006 from the use of fossil fuels. CO₂ emissions from fossil fuels, including fuel used for generating electricity, decreased by 4½ per cent over the period 1990 to 2006. Over the same period, overall inland consumption of fossil fuels increased by 8 per cent. The increased use of gas (from 26 per cent of fossil fuels used in 1990 to 44½ per cent in 2006) rather than coal and other solid fuels (whose share decreased from 34½ per cent to 19 per cent) resulted in a decrease in emissions. Oil accounted for 39½ per cent of fossil fuels used in 1990 and 36½ per cent in 2006.

The amount of CO₂ released by the consumption of one unit of energy depends on the type of fuel consumed. For example, more CO₂ emissions are emitted from one unit of coal than from one unit of gas. Emissions per unit of electricity supplied from fossil fuels are estimated to have been 171 tonnes of carbon per GWh in 2006 overall. The figures for coal, oil and gas vary, with coal (240 tonnes of carbon per GWh electricity supplied) producing more carbon emissions per unit of electricity supplied than gas (100 tonnes of carbon per GWh) in 2006 and oil (145 tonnes per GWh). For all sources (including nuclear and renewables) the average amount of carbon emitted amounted to 131 tonnes per GWh of electricity supplied.

Temperature correction

Temperature corrected figures show what emissions might have been if the average temperature during the year had been the same as the UK average for the years 1971 to 2000, which has been calculated at 9.5 degrees Celsius. Targets set at Kyoto are not based on temperature corrected data. Average temperatures in 2006 were 0.3 degrees Celsius higher than in 2005 and 1.1 degree Celsius higher than the long-run average temperature. On a temperature corrected basis, total emissions of CO₂ for fuel combustion in 2006 was about 1½ per cent higher than in 2005 and 6½ per cent lower than in 1990.

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Table 1: CO₂ emissions by source Million tonnes of carbon

	1990	1991	1992	1993	1994	1995	1996	1997
Power stations	55.6	55.3	52.1	46.8	45.5	44.6	44.6	40.7
Other energy industry	8.7	8.8	9.1	9.5	9.6	9.6	10.0	10.4
Other industrial	31.2	30.7	29.7	29.4	29.9	29.2	29.7	29.9
Domestic	21.4	23.8	23.1	24.1	22.9	21.8	24.8	22.9
Commercial and public services	7.0	7.7	7.6	7.5	7.3	7.3	7.9	7.3
Agriculture and forestry fuel use	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4
Transport	31.8	31.6	32.0	32.3	32.3	32.1	33.4	33.8
Other sectors ¹	3.6	3.2	3.2	3.3	3.3	3.7	3.8	3.0
Total (excluding net LULUCF ²)	160.7	162.6	158.1	154.3	152.3	149.6	155.6	149.4
Net LULUCF ²	0.8	0.8	0.6	0.3	0.2	0.3	0.2	0.1
Total (including net LULUCF ²)	161.5	163.3	158.7	154.6	152.5	149.9	155.8	149.6

<i>continued</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006p
Power stations	41.9	39.4	42.4	45.2	44.0	46.5	46.4	47.0	49.2
Other energy industry	10.2	9.9	9.7	9.6	10.3	10.1	9.9	9.9	9.1
Other industrial	29.4	29.7	29.6	29.2	26.8	27.3	26.7	26.9	26.9
Domestic	23.4	23.3	23.4	24.0	23.2	23.4	23.8	23.7	22.2
Commercial and public services	7.4	7.5	7.3	7.4	6.3	6.3	6.5	6.4	6.5
Agriculture and forestry fuel use	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.2
Transport	33.6	33.8	33.6	33.5	34.1	34.4	34.8	35.2	35.9
Other sectors ¹	2.8	2.7	2.5	2.5	2.5	2.4	2.4	2.5	2.5
Total (excluding net LULUCF ²)	150.0	147.6	149.8	152.8	148.5	151.7	151.8	151.7	153.5
Net LULUCF ²	-0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.5	-0.6	-0.6
Total (including net LULUCF ²)	150.0	147.5	149.7	152.6	148.2	151.4	151.3	151.1	152.9

¹ Includes waste, fugitive emissions from fuels.

² Land Use, Land Use Change and Forestry

Table 2: CO₂ emissions by fuel Million tonnes of carbon

	1990	1991	1992	1993	1994	1995	1996	1997
Gas	30.0	32.2	32.5	36.6	38.7	40.8	47.3	48.8
Oil	57.2	57.2	56.8	56.9	55.7	54.3	55.7	53.5
Coal and other solid fuels	68.6	68.7	64.4	56.2	52.8	48.9	46.8	41.8
Non-fuel	5.7	5.3	5.1	4.9	5.3	5.8	6.0	5.4
Total	161.5	163.3	158.7	154.6	152.5	149.9	155.8	149.6

<i>continued</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006p
Gas	50.6	54.4	55.9	55.8	55.4	55.8	56.7	54.9	52.5
Oil	52.5	51.3	50.5	51.0	50.3	50.2	51.0	51.9	52.4
Coal and other solid fuels	41.7	36.9	38.7	41.4	38.3	41.2	39.6	40.3	44.2
Non-fuel	5.2	4.9	4.6	4.4	4.2	4.2	4.0	4.1	3.9
Total	150.0	147.5	149.7	152.6	148.2	151.4	151.3	151.1	152.9

Table 3: CO₂ emissions (unadjusted and temperature corrected)

Million tonnes of carbon

	1990	1991	1992	1993	1994	1995	1996	1997	
Total CO₂ emissions (excluding LULUCF)	160.7	162.6	158.1	154.3	152.3	149.6	155.6	149.4	
Percentage change (year on year)		1.2%	-2.8%	-2.4%	-1.3%	-1.7%	4.0%	-4.0%	
Cumulative change since 1990		1.2%	-1.6%	-4.0%	-5.2%	-6.9%	-3.2%	-7.0%	
Total CO₂ emissions (including LULUCF)	161.5	163.3	158.7	154.6	152.5	149.9	155.8	149.6	
Percentage change (year on year)		1.1%	-2.8%	-2.6%	-1.4%	-1.7%	3.9%	-4.0%	
Cumulative change since 1990		1.1%	-1.7%	-4.2%	-5.6%	-7.2%	-3.5%	-7.4%	
Estimated total CO₂ emissions² (temperature corrected)	165.5	165.4	160.6	155.6	155.5	151.3	153.2	152.5	
Percentage change (year on year)		-0.0%	-3.0%	-3.1%	-0.1%	-2.7%	1.3%	-0.5%	
Cumulative change since 1990		-0.0%	-3.0%	-6.0%	-6.0%	-8.5%	-7.4%	-7.8%	
<i>continued</i>									
	1998	1999	2000	2001	2002	2003	2004	2005	2006p
Total CO₂ emissions (excluding LULUCF)	150.0	147.6	149.8	152.8	148.5	151.7	151.8	151.7	153.5
Percentage change (year on year)		0.4%	-1.7%	1.5%	2.0%	-2.8%	2.2%	0.0%	-0.1%
Cumulative change since 1990		-6.6%	-8.2%	-6.8%	-4.9%	-7.6%	-5.6%	-5.6%	-4.5%
Total CO₂ emissions (including LULUCF)	150.0	147.5	149.7	152.6	148.2	151.4	151.3	151.1	152.9
Percentage change (year on year)		0.3%	-1.7%	1.5%	2.0%	-2.9%	2.2%	-0.1%	-0.1%
Cumulative change since 1990		-7.1%	-8.7%	-7.3%	-5.5%	-8.3%	-6.3%	-6.3%	-5.3%
Estimated CO₂ emissions² (temperature corrected)	153.2	150.8	152.3	153.6	152.1	154.5	154.5	152.9	154.8
Percentage change (year on year)		0.4%	-1.6%	1.0%	0.8%	-0.9%	1.6%	0.0%	-1.0%
Cumulative change since 1990		-7.4%	-8.9%	-7.9%	-7.2%	-8.1%	-6.6%	-6.6%	-7.6%

² The energy component of total emissions has been temperature corrected and combined with unadjusted non-energy emissions. Targets are not based on temperature corrected figures.

Table 4: Fuel used in electricity generation

Million tonnes of oil equivalent

	1990	1991	1992	1993	1994	1995	1996	1997	
Coal	49.8	50.0	46.9	39.6	37.1	36.3	33.6	28.3	
Oil	8.4	7.6	8.1	5.8	4.1	4.2	4.0	2.0	
Gas	0.6	0.6	1.5	7.0	10.1	13.3	17.4	21.7	
Nuclear	16.3	17.4	18.5	21.6	21.2	21.3	22.2	22.0	
Other fuels ³	1.3	1.3	1.6	1.4	1.5	2.2	2.5	2.7	
Total	76.3	76.9	76.6	75.4	74.0	77.2	79.6	76.8	
<i>continued</i>									
	1998	1999	2000	2001	2002	2003	2004	2005	2006p
Coal	29.9	25.5	28.7	31.6	29.6	32.5	31.3	32.6	36.1
Oil	1.5	1.5	1.5	1.4	1.3	1.2	1.1	1.3	1.6
Gas	22.0	27.1	27.9	26.9	28.4	27.9	29.3	28.7	26.5
Nuclear	23.4	22.2	19.6	20.8	20.1	20.0	18.2	18.4	16.9
Other fuels ³	3.0	3.3	3.5	3.3	3.7	4.3	4.9	6.1	5.6
Total	80.0	79.7	81.2	84.0	83.0	86.0	84.8	87.1	86.8

³ Includes natural flow hydro, coke oven gas, blast furnace gas, waste products from chemical processes, sludge gas, refuse derived fuels and other renewable sources including wind

The UK oil industry over the past 100 years

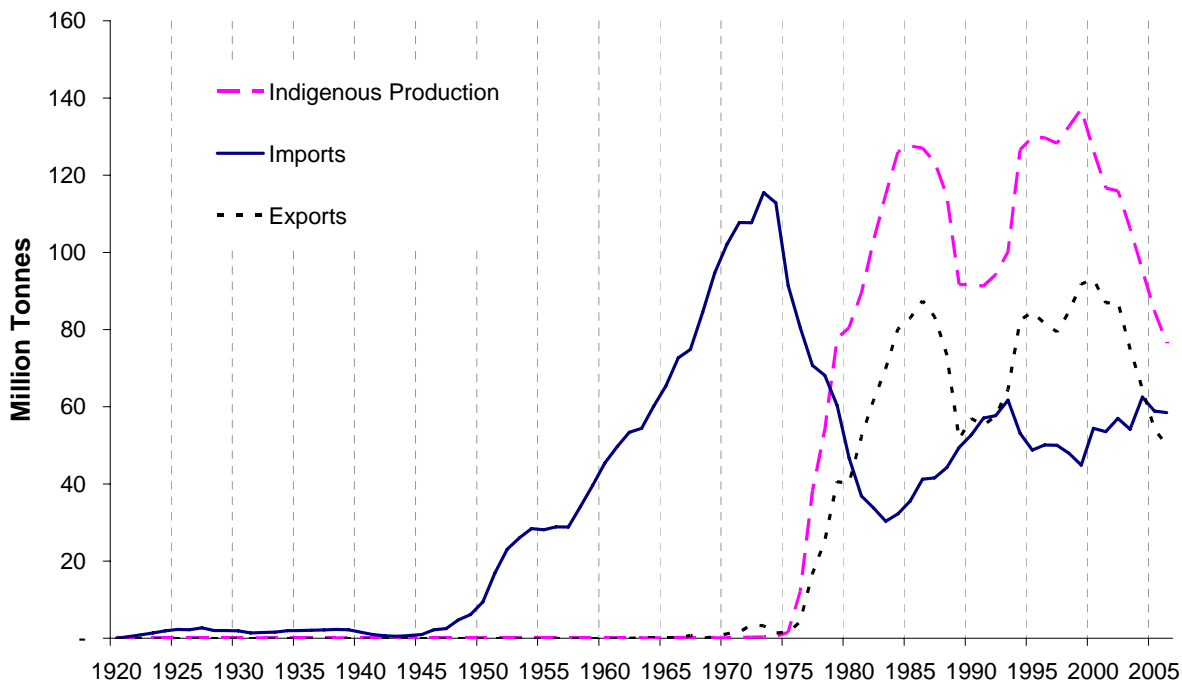
Background

The March 2002 edition of Energy Trends included an article on the UK Oil industry back to the 1940s. This article uses archive data from old editions of the DTI's Digest of UK Energy Statistics (DUKES) back to 1950 to extend the analysis. This has enabled the long term trends table 3.1.1 to be extended back to 1920 with a restricted series going back to 1890. Other archive data from the early 1950s have enabled the creation of a new long term trends table covering consumption of petroleum products dating back to 1870. This article highlights some trends from these long term data series.

Crude oil

In the first part of the 20th Century the UK relied on imports of crude oil although there was some limited indigenous production from oil bearing shale. Chart 1 below shows UK use of crude oil. Consumption (ie imports) took off after 1945 rising steadily to a peak of 115 million tonnes in 1973. Imports subsequently fell following the 1973/74 oil supply crisis and their gradual replacement by indigenous production from the North Sea oil that began in 1975. After a dramatic build-up following the start of offshore oil production from the North Sea in 1975, and against a background of rapidly falling dollar oil prices, UK oil production peaked at 128 million tonnes in the mid 1980s ahead of the Piper Alpha disaster in 1988 which resulted in a sudden and dramatic decline in production. With recovery of production from existing fields and increasing numbers of new fields coming on stream (following a period of significantly higher development expenditure in the early and mid 1990s), oil production reached a second (and higher) peak of 137 million tonnes in 1999. Since then UK indigenous crude production has gradually declined and eventually led to the UK reverting to being a net importer of crude oil in 2005 for the first time since 1991-92.

Chart 1: Crude oil production, imports and exports, 1920 – 2006

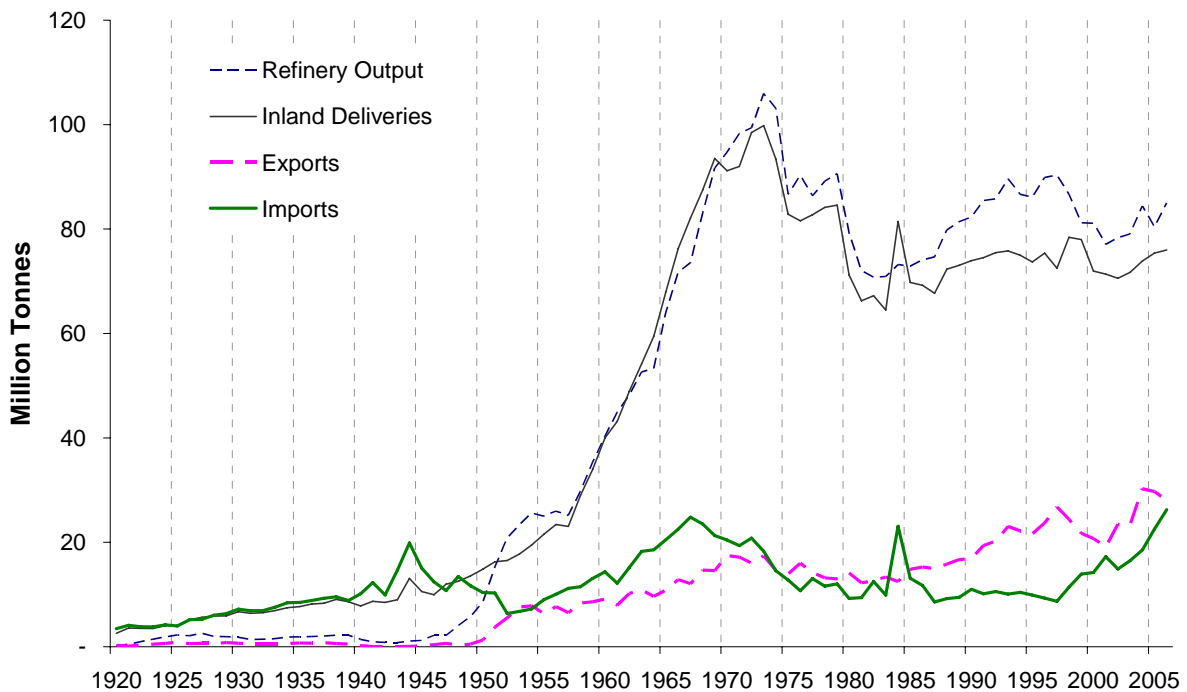


Oil products

Chart 2 shows a similar pattern to crude oil for oil products with imports providing the majority of inland deliveries of products until the early 1950s. Until this time, refinery output remained steady at around 1.5 million tonnes although a number of small refineries were operating, such as Grangemouth in Scotland (opened 1924), Fawley on the south coast (1921) and Stanlow (1924). Development of indigenous refinery capacity from the late 1940s onwards resulted in UK refinery output passing product imports as the main contributor to inland deliveries in 1950. Inland consumption and refinery output increased in tandem to peak in 1973 at 100 million tonnes and 106 million tonnes, respectively. The oil supply crisis of 1973/74 reduced consumption and refinery output, dropping to about 80 million tonnes, a level it has broadly stayed at subsequently. This reduction in demand also reduced the number of active UK oil refineries - in 1970 23 were in operation but this has been rationalised to the 9 major refineries and 3 smaller refineries that are currently operating. While the number of active oil refineries has fallen, their individual refining capacities increased to keep overall UK production at broadly the same level.

The sudden increase in 1984 of 17.0 million tonnes (26 per cent) in inland deliveries and of 13.2 million tonnes (133 per cent) in imports were a consequence of the 1984 miners' strike when refinery output was unable to cope with the sudden increased demand. After this, deliveries reverted to trend with the UK currently remaining a net exporter of oil products.

Chart 2: Production and trade of petroleum products, 1920 – 2006



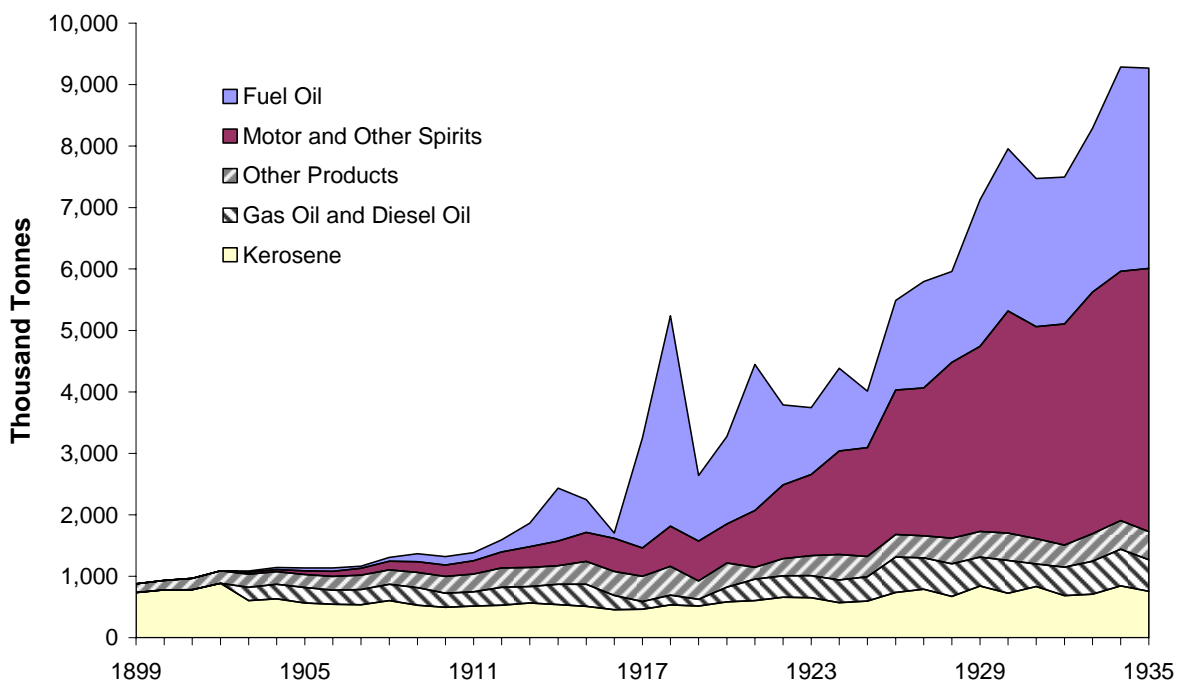
Early use of oil products

Chart 3 shows consumption by fuel type from 1899 to 1935 with motor spirit and fuel oil being the two key products. Motor vehicle innovation gathered pace in the late 1890s but did not result in significant demand for motor spirit consumption until after 1903. It should also be noted that until the jet turbine engine, aviation engines were also fuelled by motor spirit although usually with a higher octane rating.

The demand for fuel oil was also prompted by transportation use. In 1904, the British Navy made a strategic decision to replace coal fired engines for a system using fuel oil as a power source for their submarines and destroyers. Fuel oil had been used in coal-fired engines when it was sprayed onto coal to increase combustion and this technique was used elsewhere in the naval fleet. Admiral Fisher, the First Sea Lord from 1904 to 1910, said that undoubtedly “*a fleet with oil fuel will have an overwhelming strategic advantage over a coal fleet*”. This change of power source led to increased fuel oil consumption and ultimately oil consumption in general. The decision also had a global impact as other nations followed suit with their fleets.

A clear peak can be seen in consumption of fuel oil during the latter half of the First World War, with an increase of 3.3 million tonnes between 1916 and 1918, despite having decreased in the first half of the war. In 1918, fuel oil accounted for over 65 per cent of total consumption of petroleum products.

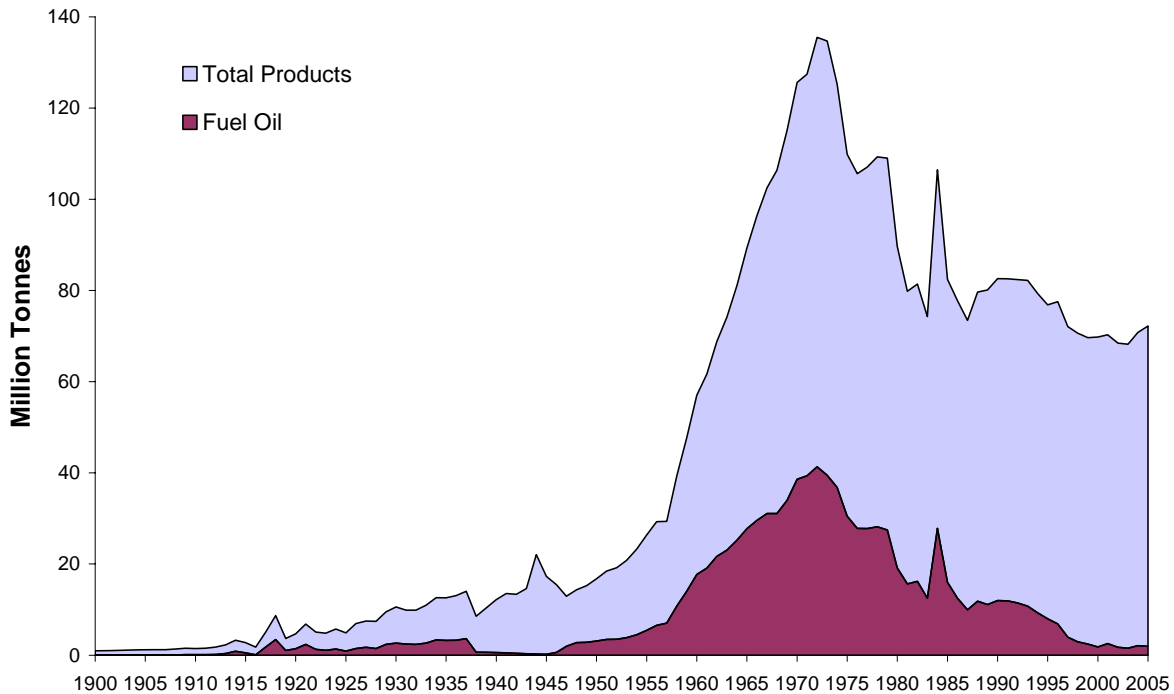
Chart 3: Consumption of petroleum by product, 1899 – 1935



Trends for specific oil products

Fuel oil

There are two distinct uses for fuel oil that have significantly influenced its demand. As noted above, the initial significant use was as marine bunker fuel for shipping. This still remains a substantial use although is not included within inland demand. The other significant use was for electricity generation in power stations. From 1950 to 1973, fuel oil consumption grew in line with rising overall product demand. However this usage has fallen significantly since the 1973/74 oil supply crisis with a temporary reprieve in 1984 due to the miners’ strike. Since about 2000, its use has been broadly level at about 2 million tonnes (Chart 4).

Chart 4: Total deliveries for energy use and deliveries of fuel oil, 1900 - 2005

Aviation Fuels

As noted previously, aviation gasoline (effectively higher octane motor spirit) was used to power all aircraft until the advent of the jet turbine. Chart 5 illustrates the massive increase over 4 years of approximately 4.2 million tonnes in consumption of aviation gasoline during the Second World War. Of the 12 million tonne increase in consumption of petroleum products between 1939 and 1944, 35 per cent of the increase was in aviation gasoline.

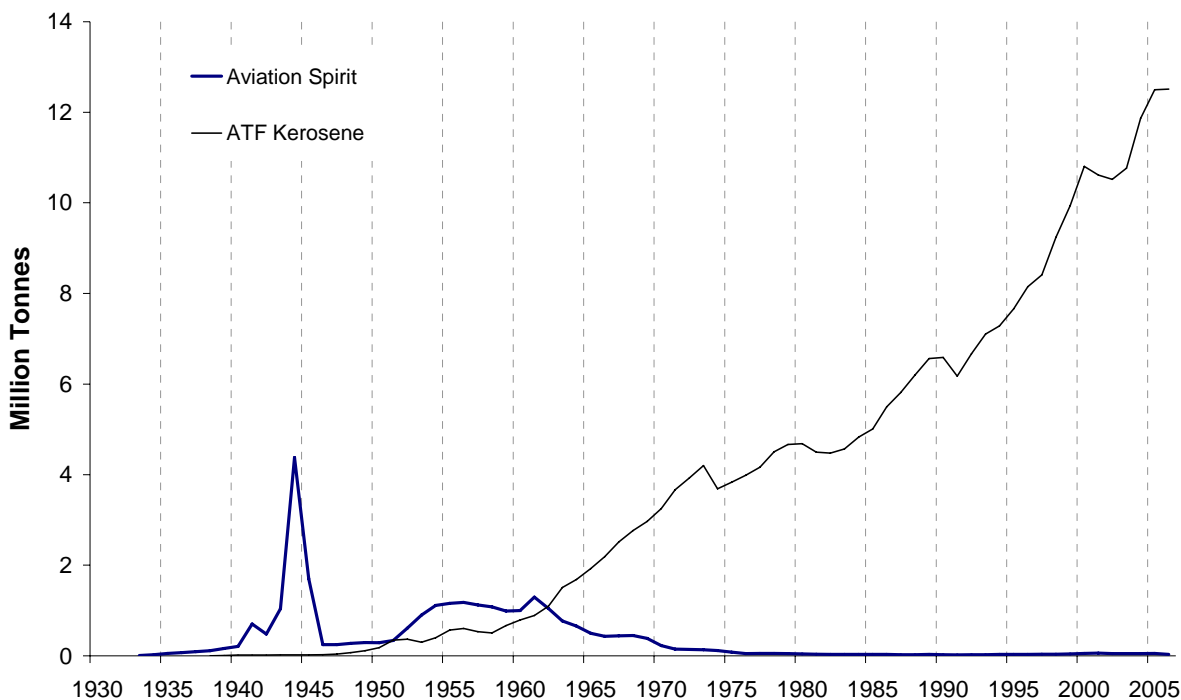
In 1952 the first commercial jet powered flight took place from London to Johannesburg, with the *De Havilland Comet*. Since then, Aviation Turbine Fuel Kerosene (ATF/jet fuel) deliveries have risen to pass deliveries of aviation gasoline in 1962 and continue to rise to this present day.

Aviation gasoline initially increased in line with ATF kerosene, but after having peaked in 1961 at 1.3 million tonnes, deliveries fell below ATF and have fallen to 50 thousand tonnes. Aviation gasoline now is used by the few piston-engines aeroplanes.

In the years following the 9/11 attacks in the U.S.A in 2001, deliveries of ATF fell by 3 per cent, but have now recovered, increasing by 19 per cent in the past 3 years, and in 2005 were at their highest ever level of 12.5 million tonnes.

The high demand of ATF has led to imports dramatically rising over the period, especially since the closure of the Shellhaven refinery on the Thames in 1999.

Chart 5: Deliveries of aviation fuels, 1930 – 2006

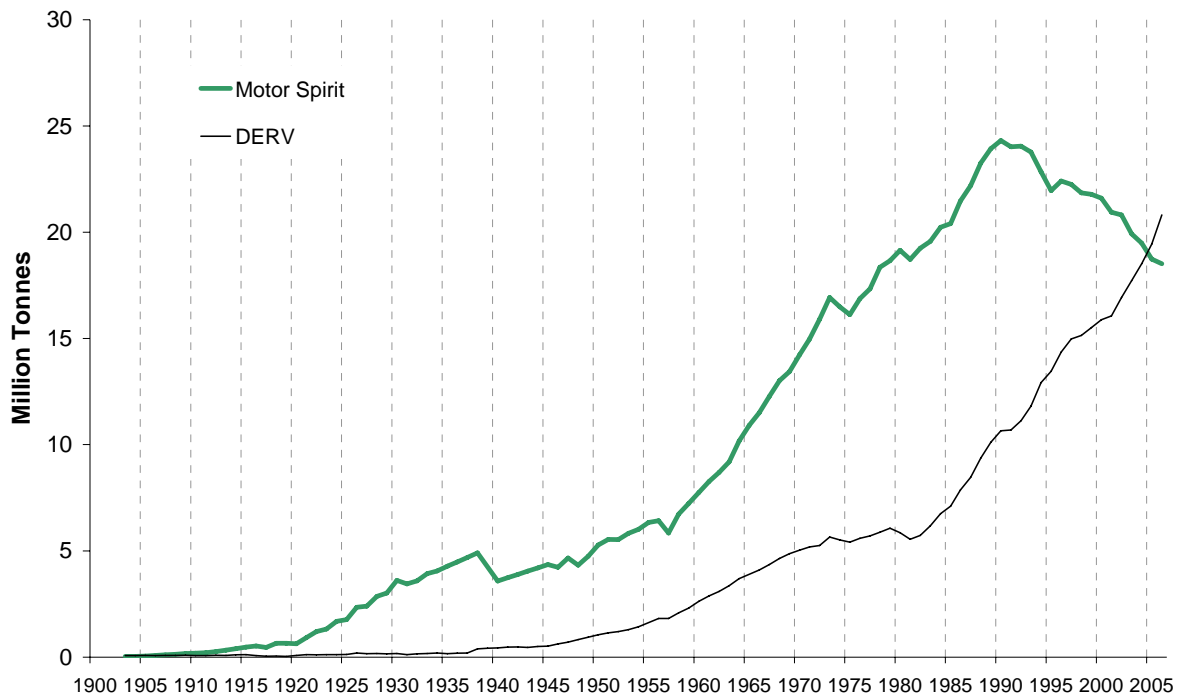


Road Transport Fuels

Chart 6 shows the steady increase in deliveries of motor spirit and DERV (fuel for Diesel Engine Road Vehicles) since the early part of the 20th Century. Motor spirit peaked at 24.3 million tonnes in 1990, and then witnessed a gentle decline to the present day. In contrast, DERV deliveries have continued to rise, and in 2005, DERV deliveries by weight overtook motor spirit. (DERV is a heavier fuel than motor spirit, so while in mass terms there were more DERV deliveries, in volume terms motor spirit deliveries were larger.) But what has caused these contrasting trends? Part can be attributed to the ever increasing popularity of diesel powered cars, especially large MPV/family cars. A key contribution to the fall in motor spirit can be placed with the 'White Van'. In past years, small vans such as the Ford Transit would have been petrol driven, but in recent years these are being replaced with diesel powered vans. This has had a noticeable impact on fuel sales over the past 10 years, motor spirit decreasing by 16.4 per cent and DERV rising by 35.5 per cent.

Now accounting for 66 per cent of demand for petroleum products (compared with 41 per cent in 1980 and 33 per cent in 1940), road transport fuels are likely to have an ever increasing influence on trends in the oil industry.

It should be noted that developments in the demand and supply of biofuels are likely to have an impact on deliveries of both motor spirit and DERV. In 2005 the UK witnessed demand of approximately 75 thousand tonnes for Bio-Ethanol and 27 thousand tonnes for Bio-Diesel, and both are increasing quickly month on month. Nevertheless it should be noted that this is still very small in comparison to motor spirit or DERV with deliveries of biofuels only 0.5 per cent of that of motor spirit or DERV. This is likely to change with the government's proposals for the Road Transport Fuel Obligation Order (RTFO), which will require that 5 per cent of all UK road transport fuel comes from a renewable source by 2010, with the aim of helping to meet the UK's climate change objectives. This proposal will indubitably ensure the continued growth of biofuels for year to come.

Chart 6: Deliveries of road transport fuels 1900 – 2006

What does the future hold for the UK oil industry?

The UK oil industry has adapted to changing trends in UK consumption over the last 100 years and will continue to do so. It now faces numerous challenges and the DTI recently commissioned an independent review of UK oil refining capacity to understand UK oil product capacity requirements and the long term sustainability of the UK refining sector. Some trends that have been discussed in this article clearly show that demand for some products is strongly increasing (DERV and ATF kerosene), whilst others are seeing a decline in usage (most notably fuel oil). The refining sector will need to adapt to this changing demand.

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The long term data series for oil that has been examined in this article can be found at:

Oil since 1870: www.dti.gov.uk/files/file38536.xls

Other long term data series are also available:

Coal since 1853: www.dti.gov.uk/files/file18938.xls

Electricity since 1920: www.dti.gov.uk/files/file18945.xls

Gas since 1882: www.dti.gov.uk/files/file18939.xls

UKCS capital expenditure survey 2006

A survey of activity relating to oil and gas fields on the UK Continental Shelf (UKCS) was conducted in autumn 2006. The annual joint DTI–UKOOA survey was conducted by the UK Offshore Operators Association under the auspices of PILOT, the joint Government–oil and gas industry taskforce. The survey covered operators' intentions to invest in UKCS oil and gas production. It also collected information on projected operating and decommissioning costs and on oil and gas production. The survey excluded exploration and appraisal activity. This note is restricted to development capital expenditure in the period up to 2011.

Summary of results

The survey indicates total development capital expenditure relating to existing fields and significant discoveries (excluding expenditure on exploration, appraisal and decommissioning) of around £5.7 billion in 2006. This is by some margin the highest level of expenditure since 1998 and significantly above the level indicated by the 2005 field activity survey. By contrast, outturn total development capital expenditure in 2005 was £4.4 billion (see the chart and table at http://www.og.dti.gov.uk/information/bb_updates/appendices/Appendix7.htm). The higher than expected level of expenditure in 2006 reflected cost inflation.

After 2007, the survey indicates significant year on year falls in development capital expenditure but, as with the level of spend in 2007, the extent of the fall is inherently uncertain. It is very unlikely that all of the possible projects will go ahead as reported, at least on the timeframe indicated, but against that the survey excludes activity relating to new (and even some recent) discoveries and extends beyond the time horizon for planning many projects, so total expenditure in the later years of the survey period is likely to be higher than indicated. However, that depends on high oil and gas prices continuing - cost pressures and recent falls in gas prices have already seen plans for development of some Southern Basin and West of Shetland gas fields being put on hold.

It should be noted that the survey was conducted following a period of high oil and gas prices which was responsible for significant inflation in input prices.

Background

Operators were asked to report their investment intentions for all oil and gas field developments and projects where development data were available. They placed each field or project in one of the following categories:

Sanctioned fields - fields, including sanctioned incremental investments, which are in production or under development assuming minimum ongoing investment (e.g. mandatory environmental or safety projects, etc.)

'Probable' incremental projects - projects which are not yet sanctioned but with at least 50% probability of being technically and economically developable

Probable new field developments - new fields which are not yet sanctioned but with at least 50% probability of being technically and economically producible

'Possible' incremental projects - projects which are not yet sanctioned with a significant but less than 50% probability of being technically and economically developable

Possible new field developments - new fields which are not yet sanctioned with a significant but less than 50% probability of being technically and economically producible

Operators were asked to include any developments which have the potential to become commercial at some time in the next 10 years. They were asked to indicate the probability of each new field or project going ahead and to use the central (most likely) case in the event that there was uncertainty about the timing of expenditure. Operators' estimates (of costs and production) were meant to be consistent with commercial development.

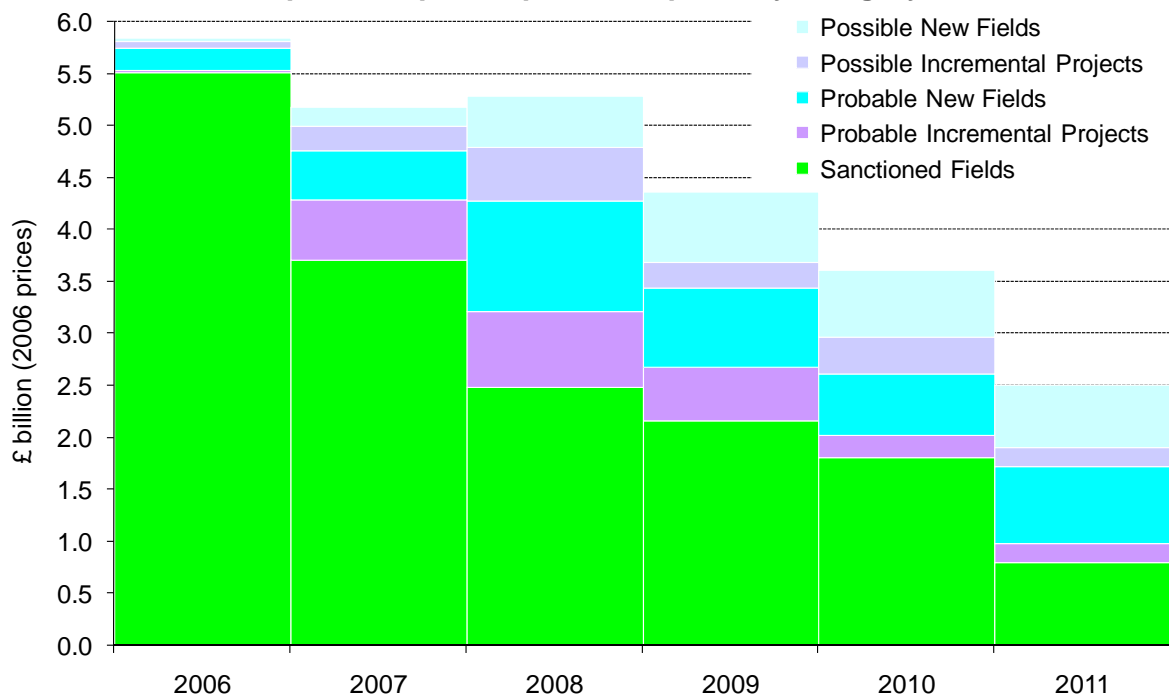
Capital expenditure plans by category

The results of the survey summarised in Tables 1–3 and illustrated in Chart 1. Expenditure has been included on the scale and at the time reported by the operators though it is likely that at least some of the less-certain projects will slip or even not materialise. The tables also include weighted totals which reflect the probabilities assigned by the operators. For total development capital expenditure (Table 1) the resultant profile is very close to that for sanctioned fields and probable projects.

Table 1: Total development capital expenditure plans by category

(£ billion, 2006 prices)	2006	2007	2008	2009	2010	2011	Total for 2007–2011
Sanctioned Fields	5.51	3.71	2.49	2.16	1.81	0.81	10.97
Probable Incremental Projects	0.02	0.58	0.72	0.52	0.22	0.18	2.22
Probable New Fields	0.21	0.47	1.06	0.76	0.59	0.74	3.63
Sanctioned plus Probable	5.74	4.75	4.27	3.44	2.62	1.73	16.82
Possible Incremental Projects	0.07	0.24	0.52	0.25	0.35	0.18	1.53
Possible New Fields	0.03	0.18	0.49	0.67	0.64	0.60	2.59
Sanctioned plus Probable plus Possible	5.84	5.17	5.28	4.36	3.61	2.51	20.94
Weighted Total	5.72	4.71	4.23	3.42	2.76	1.80	16.91

Chart 1: Total development capital expenditure plans by category



Compared with the intentions over the five years following the year of the survey indicated by the survey conducted in 2005, the 2006 survey indicates a small absolute increase in sanctioned expenditure but a decline in sanctioned expenditure as a proportion of the total. There is an increase in expenditure on probable projects both absolutely and as a proportion of the total.

Table 2 separates out capital expenditure on development wells while Table 3 shows the share of such expenditure in total development capital expenditure. The projections reflect operators' expectations of drilling rig rates, which in turn are heavily influenced by current and expected future oil and gas prices.

Table 2: Capital expenditure on development wells

(£ billion, 2006 prices)	2006	2007	2008	2009	2010	2011	Total for 2007–2011
Sanctioned Fields	2.69	1.86	1.34	1.19	1.02	0.33	7.58
Probable Incremental Projects	0.02	0.41	0.51	0.39	0.16	0.15	1.62
Probable New Fields	0.13	0.22	0.46	0.25	0.26	0.44	1.63
Sanctioned plus Probable	2.84	2.49	2.30	1.83	1.44	0.92	8.98
Possible Incremental Projects	0.05	0.15	0.38	0.20	0.18	0.13	1.04
Possible New Fields	0.01	0.09	0.12	0.23	0.16	0.18	0.78
Sanctioned plus Probable plus Possible	2.90	2.73	2.80	2.26	1.78	1.23	10.80
Weighted Total	2.83	2.45	2.26	1.83	1.45	0.87	8.86

Table 3 shows high shares of expenditure on development wells in incremental projects which contrasts with the lower shares for new fields.

Table 3: Share of total development capital expenditure on development wells

	2006	2007	2008	2009	2010	2011	Total for 2007–2011
Sanctioned Fields	49%	50%	54%	55%	56%	41%	69%
Probable Incremental Projects		71%	70%	75%	72%	84%	73%
Probable New Fields		48%	43%	33%	44%	59%	45%
Sanctioned plus Probable	50%	52%	54%	53%	55%	53%	53%
Possible Incremental Projects		65%	73%	78%	53%	74%	68%
Possible New Fields		47%	24%	35%	25%	30%	30%
Sanctioned plus Probable plus Possible	50%	53%	53%	52%	49%	49%	52%
Weighted Total	49%	52%	53%	54%	52%	48%	52%

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Regional and local estimates of non gas, non electricity and non road transport fuels in 2004

In March 2007 DTI released 2004 consumption estimates of non gas, non electricity and non road transport at local authority (NUTS4) and regional (NUTS1) levels. These estimates complement the earlier dataset for 2003 which was discussed in the December 2005 edition of the Energy Trends. The estimates were again produced for DTI by AEA Energy and Environment who are responsible for the National Atmospheric Emissions Inventory (NAEI); much of the base data for the estimates was obtained from the NAEI. The dataset covers consumption of a number of different fuel sources including coal, manufactured solid fuels, industrial and domestic use of petroleum and renewables. Again as with the 2003 estimates it has not been possible to produce local authority estimates for petroleum consumption for aircraft and national navigation, as consumption cannot be sensibly allocated to a NUTS4 area. In addition no estimates have been included for heat sold as the source data that is currently available is already heavily modelled at the UK level, and therefore cannot be further disaggregated.

Users should note there have been a number of methodological changes implemented for the 2004 estimates when compared to the previous year. These include the use of energy consumption data taken from sites participating in the EU-ETS trading scheme and also 1 km square gas consumption estimates improving the allocation of energy consumed within the domestic sector. As the data is experimental, the consumption estimates should be treated as indicative. Due to the large number of methodological improvements DTI advises data users not to directly compare the local authority estimates for 2003 and 2004.

The AEA Energy and Environment report on how the estimates were compiled is accessible using the web link provided below:

<http://www.dti.gov.uk/files/file38371.pdf>

The dataset of the 2004 estimates at local authority and government office regional levels can be found at the following link:

<http://www.dti.gov.uk/files/file38365.xls>

Further information on the estimates including a guidance note for data users on how to interpret the DTI local and regional energy data, and access to the 2003 and 2004 datasets is available respectively from the following web links below:

<http://www.dti.gov.uk/files/file36261.pdf>

<http://www.dti.gov.uk/energy/statistics/regional/other/page36195.html>

Comments or further enquiries should be addressed to Julian Prime at the e-mail address below. Alternatively mail can be addressed to Julian Prime, DTI, Bay 215, 1 Victoria Street, London, SW1H 0ET.

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Regional and local total energy consumption statistics for 2004

Introduction

This article provides further details of the 2004 estimates of total energy consumption that were published on the DTI regional energy consumption statistics website in March 2007. This work forms part of the DTI regional energy project set up to make available energy consumption data below national level. The project was initiated following the 2003 Energy White Paper, which emphasised the importance of local and regional decision making in energy policy. As part of this project, a number of local and regional datasets have been collected for 2004 data. Estimates of consumption for gas and electricity were released in January 2006, road transport in June 2006 and remaining fuels in March 2007. However in early March 2007 a revised set of gas data was released by DTI providing more robust estimates of consumption based on data collected at meter point level rather than older postcode sector data series taken from National Grid. This article combines the consumption statistics for these four datasets, on electricity, gas (revised dataset) road transport and remaining fuels to give total energy consumption at regional and local level in 2004. Together with the other regional information, the statistics presented in this article are classed as experimental; this means that the methodology for their production is new and may still be subject to modification. As such the information in this article may not currently meet the rigorous quality standards required of National Statistics.

Methodology

The individual articles on gas, electricity, road fuel and “other” fuels all contain a detailed description of the methodology by which the estimates were obtained. In summary the local gas data were obtained from xoserve¹ and the independent gas transporters and were mapped to NUTS4 areas using geographical information held on the National Statistics Postcode Directory. The electricity statistics were obtained by collecting consumption estimates from all electricity meters and then aggregating these for each of the NUTS4 areas. The road transport fuels figures were produced for DTI by AEA Energy and Environment using information on emissions from the National Atmospheric Emissions Inventory (NAEI) combined with traffic flow data produced by the Department for Transport (DfT). The remaining fuels were also modelled by AEA using spatial data produced for the NAEI. When combined, the information from these sources covers the majority of final energy consumption. However it was recognised that it would not be meaningful to allocate energy consumption locally or regionally for some energy uses, in particular aviation and shipping, and so a decision was made to exclude these uses from the analysis. It was not possible to model non-energy use of petroleum products and natural gas; nor was it practical to allocate heat sold to local and regional level since the source for this information is already heavily modelled, as described in paragraph 1.33 of the 2005 and 2006 editions of DUKES. Due to limitations of some of the source data, some of the estimates at local and regional level are less robust than others. This particularly applies to the non-gas, non-electricity, non-road transport fuels which are heavily modelled and often based on different sources of information. Thus the local estimates for these fuels should be treated as indicative, and DTI wish them to be classed as experimental.

The fuels and sectors which have not been allocated to local or regional level are shown in Table 1; the table also gives the overall quantity of fuel consumed in these sectors together with their percentage of energy consumption.

The sources and fuels where it has been possible to map to regional and local level are shown in Table 2, together with details of where additional information about the source, methodology and commentary can be found.

¹ xoserve was set up in May 2005 following the re-structuring of the gas distribution network to deliver transportation transactional services to gas shippers on behalf of the gas transporters.

Table 1: Fuels and sectors not included at regional and local level

Fuel	Consumption sector	Quantity (ktoe)	Percentage of energy consumption
Derived gases	Industry	37	0.02%
Petroleum products	Air	13,157	7.59%
Petroleum products	National Navigation	1,195	0.69%
Heat sold	All sources	2,189	1.26%

Table 2: Sources for further information regarding fuels and sectors modelled at regional and local level

Fuel	Consumption sector	Source of estimates and further information
Electricity	Industrial & commercial	Data from electricity meters:
Electricity	Domestic	Energy Trends December 2005
Gas	Industrial & commercial	Data from gas meters:
Gas	Domestic	Energy Trends March 2006
Petroleum	Road transport	AEA Energy and Environment, NAEI and DfT: Energy Trends June 2006
Petroleum	Rail transport	AEA Energy and Environment, NAEI modelling: Remaining fuels - DTI Regional Energy Consumption Website
Petroleum	Industrial & commercial	
Petroleum	Domestic	
Manufactured Solid Fuels	Industrial	
Manufactured Solid Fuels	Domestic	
Coal	Industrial	
Coal	Domestic	
Waste and renewables	All sources	

Commercial includes the DUKES categories “Commercial”, “Public Administration”, “Miscellaneous”, and “Agriculture”

Additional information on how the sub national estimates of energy consumption were compiled is available in the guidance note below for data users:

<http://www.dti.gov.uk/files/file36261.pdf>

The local authority data for gas and electricity would be potentially disclosive if local authorities within Northern Ireland were shown since there are single suppliers for these fuels there. To prevent disclosure, the total gas figure for Northern Ireland has been merged with the Great Britain consumption from large industrial users and power stations within 33 local authorities (which would also be disclosive if published at local authority level); these local authorities are identified in the tables released on the regional energy consumption statistics website. Similarly, electricity consumption in Northern Ireland has been combined with the 1.5 per cent of total GB electricity consumption that it was not possible to allocate to a specific local authority. Information for road transport and the remaining fuels have been analysed to include local authorities within Northern Ireland since the majority of these figures are modelled. Individual reconciliations with published UK figures are contained in the relevant Energy Trends articles for the individual fuels; where appropriate adjustments for the treatment of consumption in Northern Ireland are explained, together with other definitional and technical reasons for differences between the aggregated UK figures published in the Digest of UK Energy Statistics, and those obtained for combining local and regional estimates.

When preparing the regional estimates, the figures were reconciled with 2004 fuel and energy data contained within the 2005 edition of the Digest of UK Energy statistics. Some of these figures were subsequently revised when the 2006 Digest was published in July 2006, but the decision was taken not to subsequently revise the local and regional figures.

Special Feature – Regional and local energy consumption

Within the individual reports, the fuels are broken down at a greater level than shown in the table accompanying this article. A summary spreadsheet showing all local authorities fuel consumption “by fuel”, together with totals broken down by three final consuming sectors (domestic, commercial and industrial, and transport) is available at:

www.dti.gov.uk/files/file38367.xls

This spreadsheet shows consumption in GWh and thousand tonnes of oil equivalent.

Data interpretation

As mentioned earlier, different methodologies have been used to produce the estimates for different fuels. Where possible, the electricity and gas estimates are based on real consumption data; where this is the case the figures are considered to be of good quality. However the road transport and “other” fuels are heavily modelled and as such could be subject to more variability at local and regional level. Readers are encouraged to familiarise themselves with the methodology sections of the individual articles referred to in Table 2 before attempting to interpret the combined fuel consumption results presented in this article. In each of the local authority rows, the consumption figures are best interpreted as indicative; the rows for many local authorities will underestimate their consumption since it has not been possible to allocate some electricity and gas consumption to individual local authorities; however the total unallocated data appears in the “Northern Ireland and Unallocated” row towards the foot of the table. For the gas figures there is the additional caveat that their industrial coverage is wider than final consumption, with some energy industry use and transformation use included at NUTS4 level.

Data users should note that for some local authorities there has been a considerable amount of change between the 2003 and 2004 estimates, particularly for gas and the remaining fuels, where there has been a significant change in the methodology used. For the gas consumption estimates there have been a number of major changes in the compilation of the statistics including:

- The collection of base data at meter point rather than postcode sector, where consumption has been allocated to NUTS4 areas using the National Statistics Post Code Directory.
- Adjustment of the weather correction factor to a shorter 17 year trend to reflect milder temperatures in recent years, compared to the 35 year cycle, previously used by National Grid.
- The inclusion for the first time of annualised consumption estimates from meters served by the independent gas transporters network.

For further information on how the revised 2004 gas consumption estimates were collected and compiled, please use the link below to access a guidance note for data users of the sub national gas consumption estimates.

<http://www.dti.gov.uk/files/file37965.pdf>

For the remaining fuels analysis, new data taken from the EU Emissions Trading Scheme and 1 KM square gas consumption statistics for the domestic sector has been used to improve the reliability of the 2004 estimates.

DTI therefore advises that the total energy estimates for the two years should not be directly compared and that the consumption estimates should be treated as indicative and experimental.

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Special Feature – Regional and local energy consumption

Table 3: Selected 2004 regional and local energy consumption statistics (experimental)

	Fuel consumed (ktoe)							Consuming sector (ktoe)		
	Coal ⁽⁴⁾	Manufactured Solid Fuels ⁽⁵⁾	Petroleum ⁽⁴⁾	Natural Gas	Electricity	Renewables and Waste	Total Fuel Consumption	Industry & Commercial	Domestic	Transport
Selected NUTS4 Regions										
Pembrokeshire	10.2	0.0	919.1	59.7	90.3	2.3	1,081.7	885.2	100.2	96.2
Cardiff	2.7	0.1	207.0	437.6	137.8	1.2	786.4	347.8	254.9	183.8
Blaenau Gwent	10.0	0.1	37.3	78.2	24.0	1.9	151.5	59.6	70.4	21.4
Merthyr Tydfil	1.6	0.0	43.9	62.6	20.2	0.5	128.8	39.2	55.4	34.2
TOTAL WALES	367.1	110.5	4,020.9	3,396.6	1,424.9	63.5	9,383.6	4,528.3	2,624.0	2,231.3
Falkirk	23.9	5.1	1,224.1	186.6	75.2	4.6	1,519.4	1,255.8	141.1	122.5
Glasgow, City of	1.8	1.1	342.5	588.5	309.3	2.4	1,245.5	491.7	447.1	306.7
Shetland Islands	2.9	0.0	45.1	0.0	16.4	0.9	65.3	28.2	16.5	20.6
Eilean Siar	5.0	0.0	38.0	0.0	12.2	1.1	56.3	12.4	21.9	21.9
TOTAL SCOTLAND	345.0	95.0	6,715.5	5,247.8	2,605.3	165.8	15,174.4	6,797.9	4,561.7	3,814.8
Stockton-on-Tees	9.9	0.0	700.2	303.5	102.9	48.1	1,164.6	887.4	157.1	120.0
Redcar and Cleveland	189.2	150.4	139.2	207.4	56.5	128.0	870.6	684.3	121.2	65.2
Alnwick	3.7	0.0	52.2	22.6	14.0	0.8	93.4	23.1	30.1	40.2
Teesdale	4.7	0.0	50.8	20.0	11.8	1.0	88.4	30.9	22.5	34.9
TOTAL NORTH EAST	338.7	195.6	2,717.0	2,997.3	1,092.7	204.6	7,546.0	3,590.8	2,288.3	1,666.8
Ellesmere Port and Neston	1.2	0.2	1,272.0	133.3	52.5	65.9	1,525.0	1,409.2	67.6	48.2
Manchester	4.6	0.1	288.0	463.6	218.3	1.2	975.8	395.4	339.6	240.8
Pendle	2.1	0.1	63.8	87.2	34.2	0.5	187.7	66.9	77.0	43.8
Barrow-in-Furness	1.1	0.0	29.9	88.9	41.5	0.4	161.8	81.5	57.0	23.3
TOTAL NORTH WEST	232.8	30.8	7,476.6	7,918.8	2,943.2	122.9	18,725.1	7,622.4	5,975.0	5,127.7
North Lincolnshire	47.6	204.5	1,988.0	217.5	111.2	25.1	2,593.8	2,250.1	162.2	181.5
Leeds	15.1	1.3	644.3	772.1	322.8	7.5	1,763.1	573.8	629.4	559.9
Richmondshire	9.5	0.0	111.0	35.3	19.3	2.1	177.2	38.2	41.9	97.2
Craven	8.7	0.0	88.4	48.0	24.1	1.9	171.1	45.9	54.6	70.6
TOTAL YORKSHIRE & THE HUMBER	456.6	263.7	6,657.6	6,331.9	2,201.4	100.4	16,011.6	7,420.0	4,592.6	3,999.0

Special Feature – Regional and local energy consumption

March 2007

Table 3 (continued): Selected regional and local energy consumption statistics (experimental)

	Fuel consumed (ktoe)							Consuming sector (ktoe)		
	Coal ⁽⁴⁾	Manufactured Solid Fuels ⁽⁵⁾	Petroleum ⁽⁴⁾	Natural Gas	Electricity	Renewables and Waste	Total Fuel Consumption	Industry & Commercial	Domestic	Transport
Selected NUTS4 Regions										
Leicester	2.5	0.1	137.6	349.7	151.8	1.5	643.2	315.1	226.1	101.9
Nottingham	0.5	0.0	124.9	323.7	127.4	3.0	579.5	252.1	221.3	106.1
Melton	2.0	0.0	51.3	49.7	25.2	0.4	128.7	53.1	40.3	35.2
Oadby & Wigston	0.6	0.0	26.8	54.6	20.0	0.1	102.0	34.2	47.6	20.2
TOTAL EAST MIDLANDS	391.1	26.5	4,838.3	4,374.1	2,103.3	131.6	11,864.9	4,348.2	3,652.3	3,864.4
Birmingham	8.1	0.4	505.2	1,056.6	423.9	6.7	2,000.8	790.7	789.8	420.3
Coventry	17.4	1.0	184.0	326.8	139.7	6.5	675.4	299.6	235.8	140.0
South Shropshire	4.1	0.0	82.6	14.9	17.9	0.9	120.4	28.6	32.3	59.4
Oswestry	3.3	0.0	52.4	21.4	15.8	0.8	93.7	25.2	31.0	37.5
TOTAL WEST MIDLANDS	352.3	29.1	5,370.2	5,349.2	2,355.4	66.0	13,522.3	4,692.7	4,460.5	4,369.0
Thurrock	16.8	0.0	991.9	221.7	102.6	0.5	1,333.5	1,093.4	108.5	131.7
South Cambridgeshire	33.4	0.0	292.3	106.2	65.5	22.3	519.7	170.9	111.2	237.6
Castle Point	0.0	0.0	32.4	71.8	24.6	0.0	128.8	20.2	79.2	29.5
Maldon	0.8	0.0	40.6	32.9	29.9	0.2	104.4	32.8	45.0	26.6
TOTAL EAST OF ENGLAND	201.0	2.0	6,827.6	4,809.1	2,420.5	134.9	14,395.0	5,165.5	4,477.7	4,751.8
Westminster	0.0	0.0	151.1	389.8	333.2	0.8	874.9	584.9	150.8	139.2
Hillingdon	0.4	0.0	247.7	303.3	146.9	9.0	707.2	306.5	202.4	198.3
Sutton	0.0	0.0	84.2	147.3	58.0	0.3	289.9	62.5	146.7	80.7
Kingston upon Thames	0.1	0.1	90.5	126.3	55.8	0.3	273.2	62.0	125.4	85.7
TOTAL GREATER LONDON	5.8	2.7	3,973.0	7,113.0	3,470.9	30.4	14,595.8	5,151.5	5,785.4	3,658.9
New Forest	7.8	0.0	1,715.6	163.0	77.8	3.3	1,967.3	1,654.0	161.1	152.2
West Berkshire	6.4	0.7	355.4	175.0	80.5	1.3	619.4	184.7	130.0	304.6
Adur	1.0	0.0	45.3	45.2	20.8	0.2	112.6	25.8	46.9	39.8
Gosport	0.4	0.0	24.8	55.5	28.0	0.1	108.9	35.0	56.3	17.7
TOTAL SOUTH EAST	275.9	17.2	9,976.8	7,286.9	3,530.3	164.3	21,251.4	7,273.1	6,966.0	7,012.3

Special Feature – Regional and local energy consumption

Table 3 (continued): Selected regional and local energy consumption statistics (experimental)

	Fuel consumed (ktoe)							Consuming sector (ktoe)		
	Coal ⁽⁴⁾	Manufactured Solid Fuels ⁽⁵⁾	Petroleum ⁽⁴⁾	Natural Gas	Electricity	Renewables and Waste	Total Fuel Consumption	Industry & Commercial	Domestic	Transport
Selected NUTS4 Regions										
South Gloucestershire	9.4	0.5	380.3	293.8	134.2	2.0	820.2	309.4	190.3	320.5
Bristol, City of	1.9	0.4	185.0	337.8	174.2	1.1	700.4	252.8	302.0	145.7
Christchurch	0.2	0.0	34.6	35.7	19.0	0.1	89.6	21.6	40.1	27.9
Isles of Scilly	0.1	0.0	0.9	0.0	1.4	0.0	2.4	0.8	1.2	0.5
TOTAL SOUTH WEST	191.4	5.8	5,571.9	3,917.2	2,296.4	95.3	12,077.9	3,909.1	4,097.2	4,071.5
Belfast	4.6	2.2	269.9	..	..	1.7	..	..	..	..
Fermanagh	33.5	0.9	154.4	..	..	10.4	..	..	..	..
Moyle	1.7	0.4	38.8	..	..	0.0	..	..	..	..
Carrickfergus	2.7	0.6	36.6	..	..	0.0	..	..	..	..
TOTAL NORTHERN IRELAND	254.9	24.5	2,766.7	..	..	24.0	..	..	..	..
TOTAL GREAT BRITAIN	3,157.7	778.9	64,145.4	58,742.0	26,444.2	1,279.8	154,548.0	60,499.5	49,480.8	44,567.7
TOTAL NORTHERN IRELAND AND UNALLOCATED CONSUMPTION	..	..	..	26,061.9	1,045.6	..	27,107.5	..	..	..
TOTAL UK	3,412.6	803.4	66,912.1	84,803.9	27,489.8	1,303.9	184,725.6	..	..	..
CONSUMPTION FIGURES IN DUKES ⁽³⁾	3,351.5	935.3	61,888.2	89,042.1⁽¹⁾	27,834.1⁽²⁾	734.8	183,786.1	..	..	..

(1) As shown in table 4.3 of DUKES 2005

(2) As shown in table 5.5 of DUKES 2005

(3) Figures from table 1.1 of DUKES 2005 unless otherwise stated

(4) Includes coal/petroleum (as appropriate) consumed in autogeneration, heat generation, energy industry use, public administration, commercial, agriculture, miscellaneous

(5) Includes only manufactured solid fuels and not derived gases

High level indicators for regional and local energy data in 2004

A new set of high level energy indicators for 2004 data was released in March 2007 on the DTI regional energy consumption website.

The work is part of the development of further statistics from the DTI regional energy project and complements the first set of high level energy indicators for 2003 data, which were released in April 2006. The indicators are based on combining the DTI's experimental sub national energy consumption estimates with a number of socio economic datasets including population, employment and gross value added data. The indicators have been produced at NUTS4 (local authority), NUTS3 and NUTS1 (government office region) levels depending on the level of disaggregation of the base data available. There are 20 indicators in total, covering the following areas:

- Overall energy consumption.
- Domestic energy consumption
- Industrial/commercial energy consumption
- Transport consumption
- Supply side
- Emissions

It is important for readers to recognise that differences in energy consumption rates shown in the indicators reflect the fact that local authorities are very diverse, with some being heavily industrialised and containing some large energy intensive industrial sites, while others are very rural. This needs to be borne in mind when comparing the values of indicators for different areas. Where the indicators have been produced at NUTS3 and NUTS4 levels, a colouring scheme has been introduced to identify whether a particular authority falls within the upper or lower quartiles of values for each indicator.

Guidance for data users on how to interpret the high level indicators is accessible from the following link:

<http://www.dti.gov.uk/files/file27541.pdf>

The high level indicators datasets are available on the following web page:

<http://www.dti.gov.uk/energy/statistics/regional/high-level/page36161.html>

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Regional and local gas consumption statistics for 2005

Introduction

For the last four years DTI has published the results of exercises that converted gas consumption provided by National Grid (formerly Transco) at postcode sector level (ie the full postcode less the last 2 letters) into estimates of gas consumption at a regional and local level (NUTS1 and NUTS4 areas¹). Following the restructuring of the gas distribution network in May 2005, some Local Distribution Zones (LDZs) became independent of National Grid and so National Grid was not able to compile the postcode sector data for 2005. DTI therefore approached “xoserve”, the company launched on 1st May 2005, to be an integral part of the restructured gas distribution market in Britain. xoserve delivers transportation transactional services on behalf of all the major gas network transportation companies and is therefore the custodian of the Annual Quantity (AQ) data previously used by National Grid. DTI obtained permissions from the gas transporting companies for xoserve to release these data to DTI. These data are at Meter Point Reference Number (MPRN) level and DTI was able to use its experience of collecting and analysing the Meter Point Administration Number (MPAN) level data for electricity consumption (see December 2006 Energy Trends pages 23 to 31) to organise and analyse the gas data at this disaggregated level. DTI has also augmented the xoserve data with data from five groups of companies that are independent gas transporters (companies that have installed and own the local gas distribution pipelines between the National Grid network and, usually, recently built properties).

Methodology

The xoserve data were allocated to NUTS5 areas using the National Statistics Postcode Directory (NSPD) compiled by the Office for National Statistics (ONS). Truncating the NUTS5 code to 7 characters gives the NUTS4 code. Out of the 22.0 million records on the xoserve database in 2005 it was not possible to allocate a NUTS code to only a very small number of records (just under 9,000) because of incomplete, missing or incorrect postcodes. This method of allocating data to NUTS areas differs from the method previously used when the only data that DTI had access to was at postcode sector level and entailed apportioning data to NUTS4 areas when postcode sectors spanned more than one Local Authority. Additionally, to avoid disclosure of data for individual customers (which confidentiality commitments did not permit) National Grid used an algorithm to combine postcode sectors. In different years different postcodes were selected for amalgamation because the number of customers in a particular postcode sector may have moved above or below the amalgamation threshold. This makes comparison between years more difficult. A corresponding dataset for 2004 has also been provided by xoserve and identical methodology was used to produce a NUTS4 level dataset. However, more records had incomplete, missing or incorrect postcodes in 2004 (just under 124,000) and data for some of the independent gas transporters were not available and had to be estimated using the 2005 data.

Coverage

The data represent gas transported through the national distribution system that was previously wholly owned by National Grid. The data exclude any gas passing through other transmission and distribution systems such as those owned by North Sea producers. However, gas that passes through the National Transmission System and then into another independently owned local distribution system before reaching consumers is included. The data relate only to distribution and exclude large loads fed directly from the national transmission system (such as certain power

¹ NUTS (Nomenclature of Units for Territorial Statistics) is a hierarchical classification of spatial units that provides a breakdown of the European Union's territory for producing regional statistics which are comparable across the EU. NUTS1 refers to the 9 Government Office Regions in England, and separately Wales, Scotland, (and Northern Ireland), totalling 12 UK NUTS1 regions. NUTS4 refers to the 354 individual London boroughs/metropolitan districts/unitary authorities/local authority districts in England, the 22 individual unitary authorities in Wales, the 41 individual or groups of whole/part unitary authorities and/or local enterprise company areas in Scotland, (and the 26 individual district unitary authorities in Northern Ireland), totalling 443 UK NUTS4 regions. There were 4 NUTS4 areas in Great Britain where National Grid transmitted no gas: Isles of Scilly, Eilean Siar (Western Isles), Orkney Islands and Shetland Islands. NUTS5 areas are broadly Electoral Wards; there are about 10,000 NUTS5 areas in Great Britain.

Special feature – Regional and local gas consumption statistics for 2005

stations and large industrial consumers). The data **do** include the two and a half thousand gas consumers whose consumptions are recorded on a daily basis (Daily Metered or DM customers). As such, the total consumption of the NUTS4 areas given in this article represents around 68 per cent of the total UK gas consumption for 2004 and 2005, as recorded in the Digest of UK Energy Statistics 2006 (DUKES). Of the remaining 32 per cent, 27½ per cent is gas supplied directly from the National Transmission System and 4½ per cent is gas supplied through the transmission systems of others. Further work by the DTI has enabled the non-xoserve data to be allocated to NUTS4 areas and hence to regions and this is set out below in Table 1. The annual quantity (AQ) data on which the consumption for each gas meter is based is an estimate of annualised consumption between two meter readings at least 6 months apart with the closing reading taken within the period 1st April to 30th March each year (1st April 2005 to 30th March 2006 for 2005 data). However, not all AQs are recalculated each year, mainly because gas shippers have not provided any new meter readings. The number of AQs carried forward is variable but is usually around 4 million. A weather correction factor is applied (except to sites that have daily meters) so that AQ data are adjusted to normal weather conditions based on a 17 year average. For these reasons the data cannot be exactly aligned to data in DUKES which are calendar year and not weather corrected, or data on electricity which are partly calendar year and partly 30 January 2005 to 29 January 2006.

Regional and local estimates

Tables 2 and 3 (presented in “landscape” format at the end of this article) show gas sales via the national distribution network for Scotland, Wales and the regions of England for 2004 and 2005. Domestic sector sales are distinguished from commercial and industrial sales and the numbers of consumers are also given. From this information sales per consumer have been calculated. The data cannot be fully disaggregated into final consumption, energy industry use and transformation use at NUTS4 level. This means that the industrial gas data are on a slightly different basis to other fuels in the exercise to combine all fuels to produce 2004 energy consumption data at NUTS4 level (see separate article on pages 34 to 39).

The data received from xoserve do not currently contain a reliable profile marker to indicate if the MPRN relates to either a domestic or industrial/commercial consumer. The gas industry uses a cut off point of 73,200 kWh (2,500 therms) and classifies consumers below that annual consumption level as domestic consumers. This incorrectly allocates many small and medium businesses to the domestic sector, and some large domestic consumers to the industrial/commercial sector. Over the next year DTI will be investigating if more a better classification can be produced, including linking the meter point data to external business databases through postcode.

In addition, Tables 2 and 3 show information for a selected number of NUTS4 areas. The full tables showing all 408 NUTS4 areas² are available on the DTI Energy statistics web site at:

www.dti.gov.uk/energy/statistics/regional/index.html

www.dti.gov.uk/files/file37898.xls .

Maps showing NUTS4 areas are available from the National Statistics web site at:

www.statistics.gov.uk/geography/maps.asp .

The NUTS4 areas (local authority areas in Scotland) selected for Tables 2 and 3 have been chosen to show some of the variation within the wider region. NUTS4s with the highest per meter point sales in 2005 are shown as well as the areas with the lowest per meter point sales. The same areas have been selected for both tables.

When comparisons are made between 2004 and 2005, it should be recognized that in the domestic sector new housing developments can substantially change the average consumption per consumer, as can new connections to the gas network. Similarly new industrial and commercial establishments or the closure or run down of existing businesses can have a large

² The NUTS4 areas in Scotland do not exactly match the Scottish Local Authority Areas. There are more NUTS4 areas in Scotland than Local Authorities. In the analysis in the full tables Scottish Local Authorities are used in place of NUTS4 giving a total of 408 local areas in Great Britain.

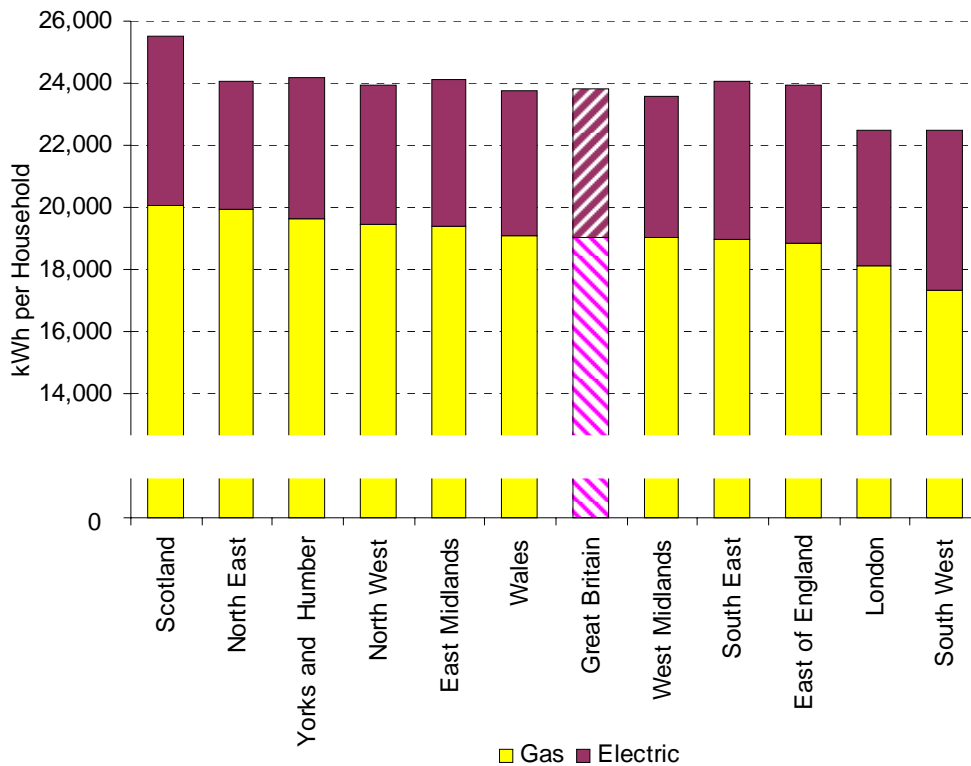
effect on the average consumption in a NUTS4 area, particularly if that incoming or outgoing business was a relatively large consumer. Because of the changes of methodology described above the new 2004 and 2005 data are not directly comparable with earlier data based on the National Grid postcode sector dataset.

Preliminary analyses

The lowest average domestic consumptions (strictly consumption per meter point rather than per home or household) in 2005 are 12,921 kWh in Tower Hamlets, followed by Southwark (14,106) and Westminster (14,249) – all inner city areas. The highest average domestic consumptions are East Renfrewshire (25,575 kWh), South Buckinghamshire (25,244) and Castle Morpeth (25,016). High average industrial and commercial consumptions tend to occur where a number of relatively large consumers dominate an area with a relatively small total number of industrial meter points. As a result Eden, Tonbridge and Malling, Thurrock and Selby, all have an average of over 4,000,000 kWh. The smallest average per meter point industrial and commercial consumptions are found in four rural areas Argyll and Bute (187,973 kWh), Tandridge (191,882), Elmbridge (194,642) and Wealden (199,337). Areas with a large number of industrial and commercial meters tend to be major commercial centres such as Birmingham, Westminster, Leeds and Glasgow City (all with more than 5,000 meter points).

Charts 1 and 2 illustrate the data at a regional level. Chart 1 shows regional consumption for the domestic sector on a per household (ie per MPRN) basis. Scotland, the North East of England and Yorkshire and The Humber have the highest average gas consumptions and London and the South West of England the lowest. Gas demand in the domestic sector is very weather sensitive so this is just as expected. When the average per household electricity consumptions are added (from the data presented in December 2006's Energy Trends), a flatter distribution is apparent because (apart from in Scotland) there is a tendency for electricity use to be higher in those regions with lower per household gas use.

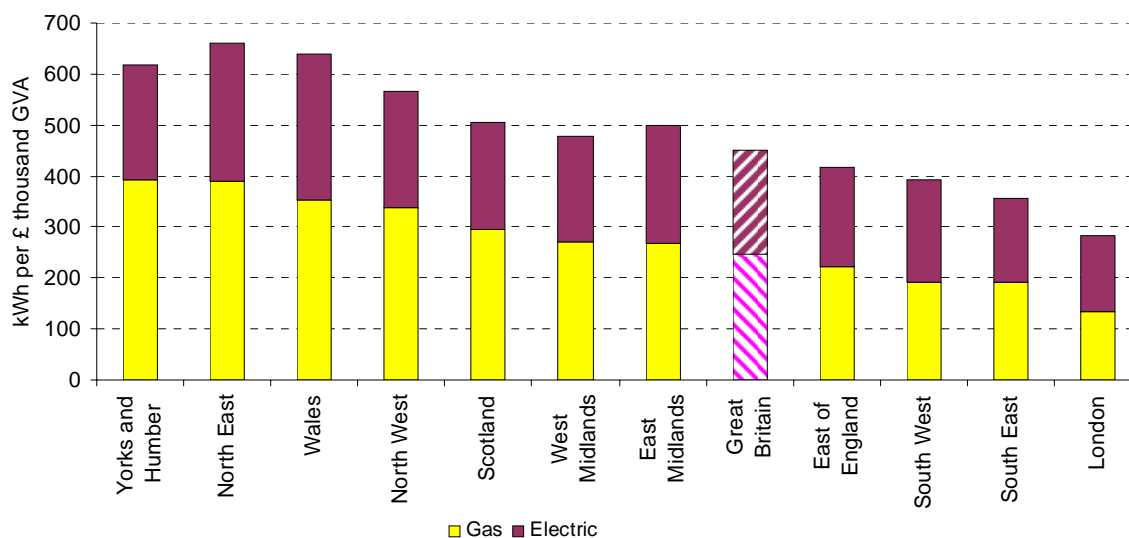
Chart 1: Average gas and electricity consumption per household, 2005



Special feature – Regional and local gas consumption statistics for 2005

Chart 2 shows that Yorkshire and The Humber and the North East of England have the highest industrial and commercial gas consumption per thousand pounds of Gross Value Added³ at more than twice the corresponding figures for London and the South East of England. Adding electricity consumption per thousand pounds of Gross Value Added (from the data presented in December 2006's Energy Trends) to the corresponding gas figure, to indicate the more energy intensive regions, makes very little change to the distribution, except to raise Wales and the North East of England, which are big electricity users, above Yorkshire and The Humber.

Chart 2: Industrial and commercial gas and electricity consumption per £ thousand of value added, 2005



Middle layer super output area (MLSOA) estimates of gas consumption

Middle layer super output areas are a statistical geography developed by the Office for National Statistics (ONS) as part of the 2001 census. They are areas containing a minimum population of 5,000 or around 2,000 households. MLSOA have the advantage of having more stable boundaries and are more homogenous in terms of population when compared to NUTS5 or electoral ward areas. DTI is working to provide local authorities with electricity and gas consumption data below local authority level. This will enable councils to monitor and target small areas for further interventions as part of their local energy strategies, and enhance the implementation of energy efficiency programmes and reduction of CO₂ emissions. On current plans gas data at MLSOA level should be available on the DTI regional energy website this summer.

Mean and median gas consumption

The dataset of consumption at MPRN level enables the distribution of gas consumptions to be examined. Of particular interest are consumptions of 73,200 kWh and below covering mainly the domestic sector but also small businesses. In 2004 mean annual consumption per MPRN for this category was 19,325 kWh, falling to 19,020 kWh in 2005. The median consumptions in each of these years were lower than this at 17,973 kWh in 2004 and 17,604 kWh in 2005. In carrying out these calculations it became apparent that certain annual consumption values were used as defaults for meters in new properties and for meters that for other reasons had no meter readings on which to base AQs. The value of 20,620 kWh is a particular case in point. These local "peak" values were removed from the distributions before the means and medians given above were calculated.

³ Using provisional Gross Value Added in 2005 at current basic prices (workplace based) as published in *Economic and Labour Market Review* February 2007.

Gas consumption not covered by the national dataset

As in the December 2005 article, DTI has produced a breakdown of the remaining 32 per cent of gas consumption not covered by the xoserve data, subject to confidentiality constraints. In 2005, according to Table 4.3 of DUKES 2006, gas consumption in the UK amounted to 1,004,697 GWh. Of this, it is estimated that 293,520 GWh was accounted for by 33 power stations and by consumers in Northern Ireland (who were supplied by a single supply company) and 32,203 GWh by 16 large industrial sites. Clearly, the relatively small number of sites means that assigning consumptions to NUTS4 areas would disclose the gas consumption of individual sites. DTI and xoserve have both undertaken that such commercially sensitive information would not be disclosed. However NUTS4 areas on the full regional and local gas tables available on the DTI energy web site at

www.dti.gov.uk/energy/statistics/regional/regional-local-gas/page36200.html

carry a marker to indicate that they contain either power stations or large industrial consumers. Table 1 gives information for the regions of England, Scotland, Wales, and Northern Ireland, although some regions are combined so as not to disclose the data for individual consumers or suppliers. When these power station and large consumer figures are subtracted from total UK gas consumption the balance is close to the sum of the domestic and industrial and commercial figures shown in Tables 2 and 3. The difference between these estimates is accounted for by the fact that the xoserve numbers are weather corrected rather than actual gas sales as reported to DTI by suppliers, and by the fact that the periods covered (see Coverage, above) are slightly different.

Table 1: Sub-national gas consumption data for power stations and large industrial consumers

	<i>GWh</i>	
	2004	2005
Power stations and Northern Ireland:		
East Midlands, Yorkshire and the Humber	82,810	94,056
East of England	39,936	42,875
London and the South East	56,196	50,765
North East and North West	43,528	41,257
Scotland and Northern Ireland	33,504	32,436
Wales and the South West	39,589	32,129
Total	295,563	293,520
Large industrial consumers (found in Scotland, North East, North West, South West, and Yorkshire and the Humber only)	35,100	32,203
Implied xoserve total – (calculated estimate, see text above). This is not corrected for weather and includes statistical differences.	705,292	678,974
UK gas consumption (Table 4.3 of DUKES 2006)	1,035,955	1,004,697
xoserve GB totals as shown in Table 2 and 3 (weather corrected to standard 17 year trend)	690,707	667,588
Implied weather correction, calendar and other statistical differences.	14,585	11,386

Consultation

If you have any comments on these estimates please send them to Sacha Chorley at the email address below. Alternatively mail can be addressed to Mr Sacha Chorley, Bay 209, 1 Victoria Street, London, SW1H 0ET.

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DTI gratefully acknowledges the assistance of Sallyann Blackett (xoserve), Jon Williams (DTI – data processing and Steve White (DTI) in producing this article and the analysis.

Special feature: Regional and local gas consumption statistics 2005

Table 2: Regional and local gas consumption statistics 2004

	Domestic consumers (1)		Commercial and industrial consumers		All consumers		Sales per MPRN - kWh	
	Sales 2004 - GWh	Number of MPRNs (thousands)	Sales 2004 - GWh	Number of MPRNs (thousands)	Sales 2004 - GWh	Number of MPRNs (thousands)	Domestic	Commercial and industrial
Government Office Regions and selected NUTS4 Regions								
Gwynedd	464	26.83	283	0.63	747	27.46	17,291	448,126
Blaenau Gwent	664	29.80	245	0.56	909	30.37	22,284	434,346
Pembrokeshire	553	30.22	141	0.54	695	30.77	18,303	260,456
Wrexham	822	43.79	1,645	0.72	2,467	44.51	18,773	2,297,391
TOTAL WALES	20,053	1,030.51	19,450	17.27	39,503	1,047.78	19,459	1,125,983
Glasgow City	3,737	218.77	3,108	4.86	6,844	223.62	17,080	640,112
East Renfrewshire	810	31.39	156	0.76	967	32.15	25,814	205,333
Argyll and Bute	209	9.93	55	0.29	264	10.22	21,013	191,036
North Ayrshire	1,031	51.65	2,118	0.81	3,149	52.45	19,971	2,620,897
TOTAL SCOTLAND (2)	34,851	1,721.33	26,181	35.69	61,032	1,757.052	20,246	733,498
Middlesbrough	1,064	56.20	443	0.85	1,507	57.05	18,925	520,606
Castle Morpeth	413	16.27	158	0.37	570	16.64	25,362	425,554
Alnwick	198	9.35	65	0.21	262	9.56	21,142	302,612
Redcar and Cleveland	1,094	57.07	1,318	0.67	2,412	57.74	19,169	1,960,978
TOTAL NORTH EAST	20,730	1,021.79	14,129	17.08	34,859	1,038.88	20,288	827,129
Barrow-in-Furness	516	30.69	518	0.43	1,034	31.12	16,810	1,196,087
Macclesfield	1,377	58.30	840	1.82	2,217	60.12	23,621	460,512
Blackpool	1,174	60.02	458	1.45	1,631	61.47	19,553	315,275
Eden	191	9.59	1,128	0.25	1,319	9.83	19,919	4,566,172
TOTAL NORTH WEST	53,282	2,692.64	38,813	52.46	92,096	2,745.10	19,788	739,809
City of Kingston upon Hull	1,744	104.45	1,522	1.92	3,266	106.36	16,698	793,878
Harrogate	1,180	53.89	602	1.51	1,781	55.40	21,895	398,138
Craven	387	18.91	171	0.58	558	19.49	20,466	296,146
Selby	449	22.97	1,321	0.35	1,770	23.32	19,552	3,829,536
TOTAL YORKSHIRE AND THE HUMBER	39,203	1,974.52	34,437	40.52	73,640	2,015.04	19,854	849,953
Lincoln	637	37.40	409	0.81	1,047	38.21	17,034	508,683
Derbyshire Dales	533	23.69	377	0.68	909	24.38	22,477	550,662
Rutland	230	10.76	115	0.32	345	11.07	21,370	363,636
Corby	440	22.32	1,077	0.52	1,517	22.84	19,733	2,055,160
TOTAL EAST MIDLANDS	31,509	1,597.50	19,364	31.53	50,870	1,629.03	19,723	614,174

Special feature: Regional and local gas consumption statistics 2005

Table 2: Regional and local gas consumption statistics 2004

	Domestic consumers (1)		Commercial and industrial consumers		All consumers		Sales per MPRN - kWh	
	Sales 2004 - GWh	Number of MPRNs (thousands)	Sales 2004 - GWh	Number of MPRNs (thousands)	Sales 2004 - GWh	Number of MPRNs (thousands)	Domestic	Commercial and industrial
Government Office Regions and selected NUTS4 Regions								
Worcester	645	37.73	310	0.71	955	38.44	17,096	439,777
Bromsgrove	747	33.83	222	0.82	969	34.64	20,088	270,971
South Shropshire	134	7.31	40	0.15	174	7.46	18,313	263,1567
East Staffordshire	725	38.70	773	0.70	1,498	39.41	18,731	1,100,255
TOTAL WEST MIDLANDS	37,974	1,970.83	24,238	40.42	62,212	2,011.24	19,268	599,698
Norwich	898	53.84	632	1.19	1,530	55.03	16,680	531,657
Brentwood	626	27.85	175	0.74	801	28.60	22,479	235,225
Three Rivers	716	31.45	198	0.97	914	32.42	22,774	203,887
Thurrock	916	52.46	1,663	0.80	2,579	53.26	17,465	2,078,141
TOTAL EAST OF ENGLAND	35,631	1,847.88	20,299	36.45	55,930	1,884.33	19,282	556,870
Tower Hamlets	955	71.82	913	1.50	1,868	73.32	13,301	610,531
Barnet	2,753	119.96	890	4.10	3,644	124.06	22,952	217,411
Haringey	1,747	91.84	500	2.11	2,247	93.95	19,027	237,019
Newham	1,498	89.23	1,490	1.26	2,988	90.48	16,785	1,185,559
TOTAL GREATER LONDON	53,463	2,882.79	29,262	66.25	82,725	2,949.04	18,546	441,710
Portsmouth	1,187	76.54	579	1.21	1,766	77.75	15,508	477,715
South Bucks	602	23.39	380	1.10	982	24.49	25,739	345,752
Tandridge	667	28.01	203	1.01	870	29.02	23,816	200,627
Tonbridge and Malling	782	39.98	913	0.86	1,695	40.84	19,553	1,057,238
TOTAL SOUTH EAST	56,688	2,934.14	28,058	62.68	84,747	2,996.82	19,320	447,627
Penwith	248	16.43	71	0.30	319	16.73	15,081	237,347
East Dorset	651	31.106	113	0.43	763	31.53	20,928	260,876
East Devon	754	42.18	167	0.67	921	42.85	17,864	251,700
West Somerset	125	7.27	434	0.13	559	7.40	17,188	3,310,875
TOTAL SOUTH WEST	28,606	1,630.16	16,950	29.32	45,557	1,659.48	17,548	578,157
Unallocated	2,375	137.82	5,162	3.90	7,537	141.72	17,233	1,323,590
GREAT BRITAIN	414,363	21,441.91	276,343	433.57	690,707	21,875.48	19,325	637,366

(1) Customers with an annual consumption of less than 73,200 kWh which will include some small industrial and commercial consumers

Special feature: Regional and local gas consumption statistics 2005

March 2007

Table 3: Regional and local gas consumption statistics 2005

	Domestic consumers (1)		Commercial and industrial consumers		All consumers		Sales per MPRN - kWh	
	Sales 2005 - GWh	Number of MPRNs (thousands)	Sales 2005 - GWh	Number of MPRNs (thousands)	Sales 2005 - GWh	Number of MPRNs (thousands)	Domestic	Commercial and industrial
Government Office Regions and selected NUTS4 Regions								
Gwynedd	463	27.34	266	0.59	729	27.94	16,941	448,542
Blaenau Gwent	651	29.77	234	0.51	885	30.28	21,854	458,411
Pembrokeshire	552	30.85	137	0.51	688	31.36	17,883	265,927
Wrexham	835	45.06	1,520	0.66	2,355	45.73	18,531	2,288,557
TOTAL WALES	19,889	1,041.74	14,422	16.08	34,311	1,057.83	19,092	896,725
Glasgow City	3,782	224.57	3,051	4.67	6,833	229.25	16,840	952,923
East Renfrewshire	819	32.01	150	0.72	969	32.73	25,575	208,454
Argyll and Bute	210	10.13	49	0.26	259	10.39	20,712	187,973
North Ayrshire	1,037	52.32	1,862	0.75	2,899	53.07	19,814	2,482,851
TOTAL SCOTLAND (2)	35,329	1,762.76	25,614	34.34	60,943	1,797.10	20,042	745,902
Middlesborough	1,050	56.71	433	0.82	1,484	57.53	18,523	528,790
Castle Morpeth	416	16.64	274	0.34	690	16.98	25,016	807,176
Alnwick	199	9.43	64	0.21	262	9.64	21,091	305,981
Redcar and Cleveland	1,062	56.95	1,242	0.63	2,304	57.58	18,645	1,977,529
TOTAL NORTH EAST	20,711	1,037.4	13,952	16.22	34,663	1,053.62	19,964	860,235
Barrow-in-Furness	517	31.03	520	0.40	1,037	31.42	16,657	1,317,093
Macclesfield	1,375	59.35	787	1.64	2,162	61.00	23,171	478,826
Blackpool	1,168	60.78	458	1.37	1,625	62.15	19,213	334,103
Eden	191	9.60	1,163	0.24	1,354	9.83	19,896	4,929,423
TOTAL NORTH WEST	53,391	2,747.97	35,926	48.87	89,317	2,796.84	19,429	860,235
City of Kingston upon Hull	1,753	104.95	1,495	1.78	3,248	106.72	16,701	841,469
Harrogate	1,166	54.03	591	1.43	1,757	55.47	21,587	412,782
Craven	387	19.21	164	0.52	551	19.73	20,147	317,161
Selby	444	23.19	1,399	0.35	1,842	23.53	19,138	4,042,529
TOTAL YORKSHIRE AND THE HUMBER	39,024	1,989.97	30,649	37.00	69,673	2,026.97	19,610	828,418
Lincoln	631	37.33	429	0.71	1,060	38.04	16,892	607,167
Derbyshire Dales	526	23.93	330	0.65	855	24.59	21,958	506,063
Rutland	236	11.20	80	0.28	316	11.48	21,065	288,363
Corby	438	22.58	1,053	0.45	1,492	23.03	19,408	2,335,402
TOTAL EAST MIDLANDS	31,469	1,620.79	18,936	28.50	50,405	1,649.29	19,416	664,388

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Special feature: Regional and local gas consumption statistics 2005

Table 3: Regional and local gas consumption statistics 2005

	Domestic consumers (1)		Commercial and industrial consumers		All consumers		Sales per MPRN - kWh	
	Sales 2005 - GWh	Number of MPRNs (thousands)	Sales 2005 - GWh	Number of MPRNs (thousands)	Sales 2005 - GWh	Number of MPRNs (thousands)	Domestic	Commercial and industrial
Government Office Regions and selected NUTS4 Regions								
Worcester	649	38.21	301	0.62	950	38.83	16,978	485,352
Bromsgrove	748	34.37	199	0.73	947	35.11	21,758	271,541
South Shropshire	135	7.42	41	0.15	175	7.56	18,149	275,347
East Staffordshire	723	39.08	722	0.65	1,444	39.73	18,492	1,103,616
TOTAL WEST MIDLANDS	37,726	1,984.92	22,963	36.40	60,689	2,021.32	19,006	630,898
Norwich	895	55.07	596	1.08	1,491	56.15	16,249	551,850
Brentwood	623	28.17	164	0.66	787	28.82	22,107	250,972
Three Rivers	708	31.60	191	0.89	899	32.49	22,410	213,850
Thurrock	915	53.52	2,931	0.69	3,846	54.21	17,094	4,279,390
TOTAL EAST OF ENGLAND	35,684	1,892.68	20,943	33.27	56,628	1,925.95	18,854	629,552
Tower Hamlets	931	72.06	775	1.44	1,706	73.49	12,921	539,960
Barnet	2,728	121.22	808	3.67	3,536	124.89	22,502	219,985
Haringey	1,719	92.54	446	1.87	2,165	94.41	18,573	238,324
Newham	1,467	89.82	1,356	1.17	2,823	90.99	16,336	1,158,123
TOTAL GREATER LONDON	52,635	2,901.38	27,214	60.80	78,849	2,962.18	18,141	447,582
Portsmouth	1,174	76.78	586	1.13	1,759	77.91	15,289	519,577
South Bucks	595	23.57	369	1.07	964	24.64	25,244	345,321
Tandridge	663	28.45	182	0.95	845	29.39	23,310	191,882
Tonbridge and Malling	786	41.26	3,789	0.79	4,575	42.05	19,063	4,790,038
TOTAL SOUTH EAST	56,300	2,964.02	29,675	58.64	85,975	3,022.67	18,994	506,024
Penwith	247	16.68	64	0.29	311	16.97	14,832	221,991
East Dorset	644	31.36	194	0.41	838	31.77	20,536	474,272
East Devon	753	42.32	158	0.63	911	42.95	17,787	251,143
West Somerset	124	7.27	376	0.13	500	7.40	17,025	3,010,150
TOTAL SOUTH WEST	28,438	1,642.75	16,247	27.80	44,685	1,670.55	17,311	584,372
Unallocated	140	8.59	308	0.26	449	8.86	16,350	1,172,893
GREAT BRITAIN	410,737	21,594.97	256,850	398.19	667,588	21,993.16	19,020	645,050

(1) Customers with an annual consumption of less than 73,200 kWh which will include some small industrial and commercial consumers

Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2004 and 2005 – an update.

Introduction

Following the publication of DTI estimates of electricity generation and supply figures for 2004 and 2005 in the December 2006 issue of Energy Trends, an error in the reporting of generation from renewable sources in Wales was discovered. This resulted from the double counting of one of the renewables technologies for Wales and the corresponding under-counting for England. The overall total figures for the United Kingdom were correct. A corrected Table 2 from the December article is to be found on the following page and a corrected Table 3 is given below. Following the convention used in Energy Trends an 'r' suffix indicates the revised figures. Tables 2 and 3 now agree with the renewables statistics on a sub-national and regional basis that were published in September 2006's issue of Energy Trends.

Table 3: Renewables percentages

		UK	Scotland	Wales	Northern Ireland	England
Overall	2003	2.67	7.71	2.59	1.59	1.90
renewables	2004	3.58	11.56	2.96r	2.03	2.34r
percentage	2005	4.22	13.25	3.56r	2.83	2.90r

Correspondingly the RO eligible electricity generated in Wales in 2005 was 21 per cent more than in 2004. In England the increase was 31 per cent.

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Special feature – Sub national electricity figures

Table 2: Generation of electricity by fuel in Scotland, Wales, Northern Ireland and England, 2004 and 2005 *GWh*

		2004					2005				
		UK total	Scotland	Wales	Northern Ireland	England	UK total	Scotland	Wales	Northern Ireland	England
Major power	Coal	127,827	13,002	7,234	2,711	104,880	130,894	12,092	6,772	2,455	109,576
producers:	Oil	1,883	149	-	347	1,387	2,716	556	-	331	1,829
	Gas	140,577	8,851	16,245	4,083	111,398	137,483	6,251	14,984	6,454	109,795
	Nuclear	79,999	18,013	7,388	-	54,598	81,618	18,681	7,842	-	55,095
	Thermal renewables	1,471	-	51	-	1,420	2,746	-	176	-	2,570
	Hydro natural flow	4,000	3,752	239	-	9	3,993	3,777	212	-	4
	Hydro pumped storage	2,648	786	1,863	-	-	2,930	643	2,287	-	-
	Total	358,405	44,552	33,020	7,141	273,692	362,379	41,999	32,273	9,239	278,869
Other	Coal	3,995	53	-	-	3,942	4,024	53	-	-	3,971
Generators:	Oil	2,990	2,125	39	-	826	2,702	2,164	41	-	497
	Gas	16,761	2,182	1,118	-	13,461	15,747	2,043	967	-	12,737
	Thermal renewables	5,824	513	144r	3	5,165r	6,297	595	62r	6	5,633r
	Other thermal	4,461	26	506	-	3,929	5,492	16	588	-	4,888
	Hydro natural flow	929	792	65	8	64	968	835	69	14	51
	Non thermal renewables	1,939	848	551	140	400	2,916	1,281	715	253	667
	Total	36,900	6,539	2,423r	269	27,669r	38,145	6,987	2,443r	393	28,322r
Total generation by fuel		395,305	51,091	35,494	7,410	301,310	400,525	48,985	34,717r	9,632	307,191r
<i>within</i>											
<i>which:</i> Renewables Hydro		4,930r	4,544	304	8	74r	4,961	4,612	281	14	55
	Wind, wave, solar	1,939	848	551	140	401	2,916	1,281	715	253	667
	Other	7,302r	513	195r	3	6,592r	9,042	595	238r	6	8,202r
	Total	14,171r	5,905	1,050r	150	7,066r	16,919	6,488	1,234r	273	8,923r
Renewables eligible under the renewables obligation		9,986	2,907	837r	150	6,092r	13,171	3,929	1,010r	273	7,959r
Percentage	Coal	33.4%	25.5%	20.4%	-	36.1%	33.7%	24.8%	19.5%r	-	36.6%
shares of	Oil	1.2%	4.5%	0.1%	-	0.8%	1.3%	5.6%	0.1%	-	0.8%r
generation:	Gas	39.8%	21.6%	49.0%r	-	41.8%	38.3%	16.9%	46.0%r	-	40.7%
	Nuclear	20.2%	35.3%	20.8%	-	17.7%	20.4%	38.2%	22.6%r	-	17.4%
	Hydro natural flow	1.3%	8.9%	0.9%	-	-	1.2%	9.4%	0.8%	-	-
	Other renewables	2.3%	2.6%	2.1%r	-	2.3%	3.0%	3.8%	2.7%r	-	2.9%r
	Other	1.8%	1.6%	6.7%	-	1.3%	2.1%	1.3%	8.3%	-	1.6%
	Total	100%	100%	100%	-	100%	100%	100%	100%	-	100%

Shaded areas indicate where separate figures for Northern Ireland cannot be given and the data have been merged with data for England

Figures in this table do not sum exactly to the UK totals shown because of rounding. "r" indicates a figure revised for March 2007

1 TOTAL ENERGY

TABLE 1.1. Indigenous production of primary fuels

Million tonnes of oil equivalent

	Total	Coal ¹	Petroleum ^{2,3}	Natural gas ⁴	Primary electricity	
					Nuclear	Wind and natural flow hydro ⁵
2002	272.9	20.5	127.0	104.7	20.10	0.52
2003	260.2	19.4	116.2	104.2	20.04	0.39
2004	238.0	17.2	104.5	97.5	18.16	0.59
2005	215.4	14.3	92.9	89.2	18.37	0.68
2006	196.4r	13.1	84.0r	81.6r	16.92	0.76
<i>Per cent change</i>	-8.8	-8.3	-9.6	-8.5	-7.9	+11.7
2005 Quarter 4	54.3	4.0	22.7	23.2	4.27	0.21
2006 Quarter 1	56.9r	3.9	22.9	24.9r	5.02	0.19
Quarter 2	49.1r	3.5	21.0	20.0r	4.45	0.15
Quarter 3	42.4r	2.7	18.9r	16.5r	4.21	0.14
Quarter 4 p	48.0	3.1	21.1r	20.2r	3.24	0.27
<i>Per cent change</i> ⁶	-11.7	-20.7	-6.9	-12.9	-24.1	+25.7

1. Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal etc) and an estimate for slurry.

2. Calendar months.

3. Crude oil, offshore and land, plus condensates and petroleum gases derived at onshore treatment plants.

4. Includes colliery methane, landfill gas and sewage gas. Excludes gas flared or re-injected.

5. Includes generation by solar PV.

6. Percentage change in the fourth quarter of 2006 compared with a year earlier.

1 TOTAL ENERGY

TABLE 1.2 Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

	Unadjusted ⁵							Seasonally adjusted and temperature corrected ^{6,7,9} (annualised rates)						
	Total	Coal ¹	Petroleum ²	Primary electricity			Net imports	Total	Coal	Petroleum	Primary electricity			Net imports
				Natural gas ³	Nuclear	Wind and natural flow hydro ⁴					Natural gas	Nuclear	Wind and natural flow hydro	
2002	229.5	39.3	73.5	95.4	20.1	0.52	0.72	235.0	40.1	74.9	98.7	20.0	0.54	0.72
2003	231.9	42.4	73.0	95.8	20.0	0.39	0.19	235.8	43.5	74.0	97.7	20.0	0.40	0.19
2004	233.6	41.2	75.3	97.7	18.2	0.59	0.64	237.7	41.8	76.5	100.0	18.1	0.61	0.64
2005	234.3	42.4	77.0	95.1	18.4	0.68	0.72	236.0	42.7	78.0	95.5	18.4	0.70	0.72
2006 p	233.5r	46.5r	77.7	90.8r	16.9	0.76	0.80	235.1r	47.4	78.8	90.3	17.0	0.78	0.80
<i>Per cent change</i>	-0.3	+9.7	+0.9	-4.5	-7.9	+11.7	+11.8	-0.4	+11.0	+1.1	-5.5	-7.9	+12.4	+11.8
2005 Quarter 4	63.8	12.8	19.5	26.8	4.3	0.21	0.25	240.2	45.6	78.6	97.4	16.9	0.68	0.98
2006 Quarter 1	70.7r	14.6	19.6	31.1r	5.0	0.19	0.16	245.3r	51.8	76.1	97.2r	19.0	0.59	0.63
Quarter 2	52.9r	9.9	18.9	19.2r	4.4	0.15	0.25	231.7r	45.8	78.9r	87.0r	18.2	0.81	0.99
Quarter 3	47.8r	9.4	19.1r	14.8	4.2	0.14	0.17	222.2r	47.0r	76.7r	79.1r	17.9	0.89	0.67
Quarter 4 p	62.1r	12.5	20.2r	25.7r	3.2	0.27	0.23	241.1r	45.1	83.7r	97.8r	12.8	0.83	0.91
<i>Per cent change⁸</i>	-2.6	-2.1	+3.6	-4.1	-24.1	+25.7	-7.1	+0.4	-1.3	+6.5	+0.4	-24.0	+22.7	-7.1

1. Includes solid renewable sources (wood, straw and waste), a small amount of renewable primary heat sources (solar, geothermal, etc.) and net foreign trade and stock changes in other solid fuels.

2. Excludes non-energy use.

3. Includes gas used during production, colliery methane, landfill gas and sewage gas. Excludes gas flared or re-injected and non-energy use of gas.

4. Includes generation by solar PV. Excludes generation from pumped storage stations.

5. Not seasonally adjusted or temperature corrected.

6. Coal, petroleum and natural gas are temperature corrected.

7. For details of temperature correction see DTI energy statistics website at www.dti.gov.uk/files/file19317.pdf

8. Percentage change in the fourth quarter of 2006 compared with a year earlier.

9. From April 2005 National Grid have changed their methodology for calculating the temperature correction of gas. More information on the methodology used by National Grid can be found at: <http://www.nationalgrid.com/uk/Gas/OperationalInfo/operationaldocuments/Gas+Demand+and+Supply+Forecasting+Methodology>

1 TOTAL ENERGY

Table 1.3a Supply and use of fuels

Thousand tonnes of oil equivalent

	2005	2006 p	per cent change	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ¹
SUPPLY													
Indigenous production	215,447	196,637	-8.7	60,607	59,891	55,269	45,865	54,421	57,011r	49,090r	42,355r	48,181	-11.5
Imports	134,702	148,795	+10.5	32,436	32,714	33,211	33,835	34,941	37,774r	34,836r	35,457r	40,728	+16.6
Exports	-100,519	-96,290	-4.2	-26,887	-25,609	-27,464	-22,967	-24,479	-23,589	-25,057	-24,043r	-23,602	-3.6
Marine bunkers	-2,180	-1,998	-8.4	-568	-495	-566	-600	-519	-450	-583	-487r	-478	-8.0
Stock change ²	-637	-2,273		+1,194	+4,721	-3,425	-4,771	+2,838	+3,205r	-2,363r	-2,665r	-450	
Primary supply	246,813	244,871	-0.8	66,782	71,223	57,027	51,361	67,202	73,952	55,922r	50,618r	64,379	-4.2
Statistical difference ³	-71	-524		-403	+145	+268	-546	+63	+110r	+29r	-368r	-295	
Primary demand	246,884	245,396	-0.6	67,185	71,078	56,759	51,908	67,139	73,842r	55,893r	50,986r	64,674	-3.7
Transfers ⁴	-114	+752		-100	+135	-22	-33	-194	+116	+81r	+202	+352	
TRANSFORMATION	-54,371	-55,523	+2.1	-14,509	-14,868	-12,781	-12,345	-14,377	-15,365r	-12,485r	-12,648r	-15,025	+4.5
Electricity generation	-51,107	-51,592	+0.9	-13,512	-14,150	-11,779	-11,564	-13,614	-14,557r	-11,761r	-11,629r	-13,645	+0.2
Heat generation	-867	-851	-1.8	-256	-261	-195	-169	-241	-269r	-183	-158	-241	-0.1
Petroleum refineries	84	-322	(-)	-77	135	-179	-7	134	171r	138r	-175r	-456	(-)
Coke manufacture	-38	-38	+1.3	-23	4	10	-24	-28	-12	-3	-25	1	(-)
Blast furnaces	-2,455	-2,720	+10.8	-643	-598	-643	-586	-629	-698	-680	-660	-682	+8.5
Patent fuel manufacture	11	0	(-)	1	1	5	4	1	-	3	-	-1	(+)
Energy industry use	16,523	15,600	-5.6	4,302	4,344	4,135	3,841	4,204	4,426r	3,823	3,595r	3,757	-10.6
Losses	3,765	3,890	+3.3	989	1,122	844	799	999	1,210r	829r	862r	989	-1.0
FINAL CONSUMPTION	172,111	171,136	-0.6	47,291	50,878	38,976	34,891	47,366	52,956r	38,837r	34,087r	45,256	-4.5
Iron & steel	1,762	1,781	+1.0	465	450	457	413	443	476	460r	416r	429	-3.1
Other industries	31,333	31,470	+0.4	7,903	9,427	7,266	6,410	8,229	10,121r	7,131r	6,271r	7,947	-3.4
Transport	59,225	59,882	+1.1	14,484	14,008	14,889	15,326	15,002	14,361r	15,030r	15,603r	14,888	-0.8
Domestic	46,979	46,032	-2.0	15,755	17,662	8,847	5,539	14,931	18,401r	8,782r	5,241r	13,608	-8.9
Other Final Users	20,229	20,198	-0.2	5,702	6,232	4,554	3,865	5,578	6,346r	4,361r	3,806r	5,684	+1.9
Non energy use	12,583	11,774	-6.4	2,982	3,099	2,963	3,339	3,183	3,250r	3,075r	2,749r	2,701	-15.1

1. Percentage change between the most recent quarter and the same quarter a year earlier.

2. Stock fall (+), stock rise (-).

3. Primary supply minus primary demand.

4. Annual transfers should ideally be zero. For manufactured fuels differences occur in the rescreening of coke to breeze. For oil and petroleum products differences arise due to small variations in the calorific values used.

1 TOTAL ENERGY

Table 1.3b Supply and use of fuels

Thousand tonnes of oil equivalent

	2005 Quarter 4								2006 Quarter 4 p									
	Coal	Manufactured fuels ⁴	Primary oil	Petroleum Products	Natural gas ⁵	Renewables & waste ⁶	Primary electricity	Electricity	Heat sold	Coal	Manufactured fuels ⁴	Primary oil	Petroleum Products	Natural gas ⁵	Renewables & waste ⁶	Primary electricity	Electricity	Heat sold
SUPPLY																		
Indigenous production	3,569	-	22,701	-	22,777	889	4,485	-	-	2,746	-	21,146	-	19,797	983	3,508	-	-
Imports	7,758	180	15,106	6,326	5,065	211	-	293	-	8,659	226	15,616	7,738	8,010	211	-	267	-
Exports	-88	-19	-13,998	-8,578	-1,748	-	-	-48	-	-130	-23	-13,025	-8,046	-2,340	-	-	-39	-
Marine bunkers	-	-	-	-519	-	-	-	-	-	-	-	-	-478	-	-	-	-	-
Stock change ¹	+919	+13	+605	+770	+531	-	-	-	-	+624	-108	-731	-285	+50	-	-	-	-
Primary supply	12,157	174	24,414	-2,000	26,624	1,101	4,485	245	-	11,900	96	23,006	-1,069	25,517	1,194	3,508	228	-
Statistical difference ²	+155	+68	-130	-161	+75	-	-	+56	-	-18	+12	+5	-121	-162	-	-	-9	-
Primary demand	12,002	107	24,544	-1,839	26,549	1,101	4,485	189	-	11,918	84	23,002	-948	25,680	1,194	3,508	237	-
Transfers ³	-	-29	-1,132	+968	-	-	-213	+213	-	-	-28	-530	+910	-	-	-267	+267	-
TRANSFORMATION	-11,548	467	-23,412	23,315	-7,253	-912	-4,273	8,864	376	-11,329	461	-22,472	21,725	-8,150	-1,005	-3,241	8,611	375
Electricity generation	-10,160	-247	-	-139	-6,746	-912	-4,273	8,864	-	-9,918	-234	-	-214	-7,643	-1,005	-3,241	8,611	-
Heat generation	-81	-13	-	-16	-507	-	-	-	376	-80	-13	-	-16	-507	-	-	-	375
Petroleum refineries	-	-	-23,412	23,546	-	-	-	-	-	-	-	-22,472	22,016	-	-	-	-	-
Coke manufacture	-1,083	1,055	-	-	-	-	-	-	-	-1,078	1,079	-	-	-	-	-	-	-
Blast furnaces	-176	-377	-	-76	-	-	-	-	-	-214	-409	-	-	-	-	-	-	-
Patent fuel manufacture	-47	48	-	-	-	-	-	-	-	-39	37	-	-	-	-	-	-	-
Energy industry use	-	212	-	1,490	1,844	-	-	647	9	-	214	-	1,174	1,743	-	-	614	9
Losses	-	49	-	-	286	-	-	664	-	-	33	-	-	275	-	-	681	-
FINAL CONSUMPTION	453	283	-	20,954	17,166	189	-	7,954	367	588	270	-	20,513	15,511	189	-	7,819	367
Iron & steel	-	165	-	5	166	-	-	108	-	-	162	-	3	159	-	-	106	-
Other industries	331	62	-	1,853	3,255	38	-	2,476	213	442	63	-	2,044	2,720	39	-	2,426	213
Transport	-	-	-	14,815	-	-	-	187	-	-	-	-	14,699	-	-	-	188	-
Domestic	115	57	-	983	10,813	84	-	2,861	17	139	46	-	901	9,617	84	-	2,805	17
Other final users	7	-	-	325	2,722	66	-	2,322	136	7	-	-	374	2,807	66	-	2,294	136
Non energy use	-	-	-	2,974	209	-	-	-	-	-	-	-	2,492	209	-	-	-	-

1. Stock fall (+), stock rise (-).

2. Primary supply minus primary demand.

3. Annual transfers should ideally be zero. For manufactured fuels differences occur in the rescreening of coke to breeze. For oil and petroleum products differences arise due to small variations in the calorific values used.

4. Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

5. Includes colliery methane.

6. Includes geothermal and solar heat. Latest quarter is estimated from the previous year and adjusted according to average annual rate of change over the last three years.

2 SOLID FUEL AND DERIVED GASES

Table 2.1 Supply and consumption of coal

Thousand tonnes

	2005	2006 p	per cent change ¹	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ²
SUPPLY													
Indigenous production	20,498	18,588	-9.3	6,623	5,112	4,854	4,789	5,742	5,567	4,965	3,637	4,419	-23.0
Deepmined	9,563	9,439	-1.3	3,263	2,324	1,908	2,132	3,199	3,073	2,541	1,633	2,192	-31.5
Opencast	10,445	8,635	-17.3	3,232	2,691	2,821	2,521	2,412	2,371	2,296	1,875	2,094	-13.2
Other sources	490	514	+5	127	97	125	136	132	124	128	129	133	+1
Imports	43,968	50,256	+14.3	8,611	10,185	10,903	10,962	11,918	12,507r	11,915r	12,531r	13,303	+11.6
Exports	536	480	-10.4	179	130	175	117	113	108	119	86r	166	+47
Stock change ³	-2,129	-454		+2,180	+3,320	-2,677	-4,173	+1,401	+3,669r	-2,562r	-2,565r	+1,004	
Total supply	61,802	67,910	+9.9	17,235	18,487	12,905	11,462	18,948	21,636r	14,199r	13,516r	18,560	-2.0
Statistical difference	-48	-315		+45	-121	-75	+51	+97	-134r	-80r	-60r	-40	
Total demand	61,850	68,225	+10.3	17,191	18,608	12,980	11,411	18,851	21,770r	14,279	13,576r	18,600	-1.3
TRANSFORMATION													
Electricity generation	59,406	65,494	+10.2	16,381	17,995	12,418	10,802	18,191	21,063r	13,684	12,890	17,856	-1.8
Heat generation	52,084	57,685	+10.8	14,603	16,297	10,626	8,882	16,278	19,128	11,736	10,930	15,892	-2.4
Coke manufacture	453	483	+7	131	123	113	102	115	133r	113	102	135	+17r
Blast furnaces	5,564	5,929	+6.5	1,341	1,262	1,331	1,481	1,490	1,462	1,478	1,506	1,482	-0.5
Patent fuel manufacture	1,039	1,121	+7.9	232	247	281	268	243	263	284	280	294	+21.1
Energy industry use	266	276	+4	74	65	67	68	66	78	73	72	53	-20
FINAL CONSUMPTION	2,439	2,727	+11.8	807	611	560	608	659	705r	595	685r	742	+12.5
Iron & steel	-	-		-	-	-	-	-	-	-	-	-	
Other industries	1,790	1,994	+11.4	514	423	414	455	498	509r	423	509r	554	+11.1
Domestic	614	676	+10.1	288	179	139	147	149	186	157	154r	180	+20
Other final users	34	57	+70	4	9	7	6	11	10r	16	22r	9	-20
Stocks at end of period													
Distributed stocks	14,719	15,543	+5.6	12,498	9,221	12,094	16,273	14,719	11,210r	13,811r	16,409r	15,543	+5.6
Of which:													
Major power producers	12,696	14,146	+11.4	11,019	7,419	9,990	14,211	12,696	9,258r	11,966r	14,789r	14,146	+11.4
Coke ovens	1,604	1,362	-15.1	1,291	1,558	1,801	1,706	1,604	1,857	1,802	1,595	1,362	-15.1
Undistributed stocks	1,101	830	-24.6	1,192	1,150	954	947	1,101	1,040	1,000	969	830	-24.6
Total stocks	15,819	16,374	+3.5	13,691	10,371	13,048	17,221	15,819	12,250r	14,812r	17,377r	16,374	+3.5

1. Percentage change in 2006 compared with a year earlier.

2. Percentage change in the fourth quarter of 2006 compared with a year earlier.

3. Stock fall (+), stock rise (-).

2 SOLID FUEL AND DERIVED GASES

Table 2.2 Supply and consumption of coke oven coke, coke breeze and other manufactured solid fuels

	Thousand tonnes												
	2005	2006 p	per cent change ¹	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ²
SUPPLY													
Indigenous production	4,622	4,942	+6.9	1,105	1,061	1,136	1,213	1,212	1,222	1,248	1,236	1,236	+2.0
Coke oven coke	4,105	4,384	+6.8	965	949	992	1,078	1,086	1,087	1,098	1,090	1,109	+2.1
Coke breeze	259	298	+15	69	51	77	67	64	63	78	78	79	+24
Other MSF	258	260	+1	71	61	67	68	62	72	72	68	48	-22
Imports	927	1,004	+8	236	239	265	152	271	207	229	244	324	+20
Exports	134	180	+35	51	41	34	29	29	43	71	34	32	+11
Stock change ³	-147	-215		+111	+79	-49	-187	+10	+68r	-17r	-115	-151	
Transfers	-	-		-	-	-	-	-	-	-	-	-	
Total supply	5,268	5,551	+5.4	1,401	1,339	1,317	1,149	1,463	1,455	1,389r	1,330	1,376	-5.9
Statistical difference	-3	-24		+16	+35	-19	-121	+103	-22r	-12r	-7r	+17	
Total demand	5,271	5,575	+5.8	1,385	1,303	1,337	1,270	1,360	1,476	1,402r	1,338r	1,359	-
TRANSFORMATION	4,067	4,474	+10.0	1,064	987	1,040	982	1,058	1,183	1,116	1,086	1,089	+2.9
Coke manufacture	-	-		-	-	-	-	-	-	-	-	-	
Blast furnaces	4,067	4,474	+10.0	1,064	987	1,040	982	1,058	1,183	1,116	1,086	1,089	+2.9
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	
FINAL CONSUMPTION	1,203	1,101	-8.5	321	316	297	288	302	293	286r	251r	271	-10
Iron & steel	821	727	-11	209	199	213	206	203	182	190	171	184	-10
Other industries	92	85	-7	28	27	19	21	25	20	22r	16	27	+10
Domestic	290	289	-	85	90	65	61	74	91	74r	64r	60	-19
Stocks at end of period	855	1,069	+25	708	628	677	864	855	786r	803r	918r	1,069	+25

1. Percentage change in 2006 compared with a year earlier.

2. Percentage change in the fourth quarter of 2006 compared with a year earlier.

3. Stock fall (+), stock rise (-).

2 SOLID FUEL AND DERIVED GASES

Table 2.3 Supply and consumption of coke oven gas, blast furnace gas, benzole and tars

														<i>GWh</i>
			2004	2005	2005	2005	2005	2005	2006	2006	2006	2006		
	2005	2006 p	<i>per cent change¹</i>	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter p	<i>per cent change²</i>	
SUPPLY														
Indigenous production	27,289	28,197	+3.3	6,699	6,551	6,849	6,814	7,075	7,198	7,026	7,102	6,870	-2.9	
Coke oven gas	9,290	9,828	+5.8	2,209	2,151	2,252	2,436	2,451	2,412	2,455	2,509	2,453	+0.1	
Blast furnace gas	16,199	16,443	+1.5	4,064	3,972	4,159	3,890	4,179	4,289	4,078	4,125	3,951	-5.5	
Benzole & tars	1,749	1,873	+7.1	422	411	425	473	440	474	479	462	459	+4	
Transfers	+50	+53	+4	+4	+17	+13	+15	+5	+23	+15	+7	+8	+72.4	
Total supply	27,289	28,197	+3.3	6,699	6,551	6,849	6,814	7,075	7,198	7,026	7,102	6,870	-2.9	
Statistical difference	-38	-43		-3	-14	-6	-11	-7	-19	-11	-3	-9		
Total demand	27,327	28,240	+3.3	6,701	6,565	6,855	6,825	7,082	7,217	7,037	7,106	6,880	-2.9	
TRANSFORMATION														
Electricity generation	11,481	11,283	-1.7	2,822	2,870	2,870	2,870	2,870	2,945	2,851	2,768	2,719	-5.3	
Heat generation	598	598	-	149	149	149	149	149	149	149	149	149	-	
Energy industry use	9,537	10,131	+6.2	2,384	2,305	2,380	2,383	2,469	2,625	2,486	2,529	2,491	+0.9	
Losses	2,456	2,061	-16.1	677	625	700	564	567	494	522	666	379	-33	
FINAL CONSUMPTION														
Iron & steel	1,208	2,053	+70.0	176	133	258	310	508	498	479	468	609	+20	
Other industries	2,047	2,114	+3.3	493	483	497	549	518	506	550	526	532	+2.7	

1. Percentage change in 2006 compared with a year earlier.

2. Percentage change in the fourth quarter of 2006 compared with a year earlier.

3 OIL AND OIL PRODUCTS

Table 3.1 Supply and use of crude oil, natural gas liquids and feedstocks¹

Thousand tonnes

	2005	2006 p	<i>per cent change</i>	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	<i>per cent change⁸</i>
SUPPLY													
Indigenous production ²	84,721	76,579	-9.6	23,516	22,714	21,990	19,308	20,710	20,878	19,151	17,266	19,283	-6.9
Crude oil	77,179	69,665	-9.7	21,507	20,546	20,071	17,663	18,899	19,028	17,390	15,763	17,485	-7.5
NGLs ³	7,543	6,913	-8.3	2,009	2,168	1,919	1,645	1,811	1,850	1,761	1,503	1,798	-0.7
Imports ⁴	58,885	58,466	-0.7	15,448	13,694	15,796	15,552	13,843	13,758	15,189	15,212	14,307	+3.4
Crude oil & NGLs	52,211	51,134	-2.1	13,991	12,469	13,896	13,656	12,190	12,282	13,237	13,563	12,052	-1.1
Feedstocks	6,675	7,333	+9.9	1,457	1,225	1,900	1,896	1,653	1,477	1,952	1,649	2,256	+36.4
Exports ⁴	54,098	50,196	-7.2	15,052	14,547	15,345	11,404	12,801	13,795	13,116	11,370	11,914	-6.9
Crude Oil & NGLs	52,106	47,553	-8.7	14,858	14,039	15,039	10,900	12,128	13,260	12,271	10,771	11,251	-7.2
Feedstocks	1,992	2,643	+32.7	194	508	306	504	673	536	845	599	663	-1.5
Stock change ⁵	-385	-355		+329	-329	-376	-235	+556	-594	+10	+898	-668	
Transfers ⁶	-3,054	-2,116		-929	-636	-869	-584	-965	-580	-629	-483	-424	
Total supply	86,070	82,378	-4.3	23,312	20,896	21,196	22,636	21,342	19,667	20,604	21,522	20,584	-3.6
Statistical difference ⁷	-66	+16		+128	+70	+73	-98	-111	+10	-21	+18	+8	
Total demand	86,135	82,362	-4.4	23,184	20,826	21,122	22,734	21,453	19,657	20,625	21,504	20,576	-4.1
TRANSFORMATION													
Petroleum refineries	86,135	82,362	-4.4	23,184	20,826	21,122	22,734	21,453	19,657	20,625	21,504	20,576	-4.1
Energy industry use	-	-		-	-	-	-	-	-	-	-	-	

1. As there is no use made of primary oils and feedstocks by industries other than the oil and gas extraction and petroleum refining industries, other industry headings have not been included in this table. As such, this table is a summary of the activity of what is known as the Upstream oil industry.

2. Includes offshore and onshore production.

3. Natural Gas Liquids (NGLs) are condensate and petroleum gases derived at onshore treatment plants.

4. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics. 2006 data are subject to further revision as revised information on imports and exports becomes available.

5. Stock fall (+), stock rise (-). Stocks include stocks held at refineries, at oil terminals and also those held in tanks and partially loaded vessels at offshore facilities.

6. Mostly backflows from petrochemical plants to refineries.

7. Total supply minus total demand.

8. Percentage change between the most recent quarter and the same quarter a year earlier.

3 OIL AND OIL PRODUCTS

Table 3.2 Supply and use of petroleum products

Thousand tonnes

	2005	2006 p	per cent change	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ¹
SUPPLY													
Indigenous production ²	89,389	84,964	-5.0	24,000	21,850	21,794	23,395	22,351	20,593r	21,456r	21,992	20,922	-6.4
Imports ³	22,510	26,260	+16.7	4,732	5,579	5,477	5,656	5,798	6,845r	6,278r	6,088	7,049	+21.6
Exports ³	29,722	27,955	-5.9	8,240	7,397	6,990	7,456	7,879	6,367	6,899	7,279	7,410	-6.0
Marine bunkers	2,055	1,887	-8.2	533	466	533	566	490	424	549	461	453	-7.5
Stock change ⁴	+1,046	-814		-531	+647	+187	-498	+710	+313r	-216r	-660	-252	
Transfers ⁵	-333	-146		-83	-164	+8	-145	-32	-127r	-21r	+6	-5	
Total supply	80,837	80,421	-0.5	19,346	20,049	19,943	20,386	20,459	20,834r	20,050r	19,686	19,851	-3.0
Statistical difference ⁶	-140	-208		-447	-35	+120	-97	-128	+43	+106r	-244	-113	
Total demand	80,977	80,630	-0.4	19,793	20,084	19,823	20,482	20,587	20,791r	19,944r	19,930	19,964	-3.0
TRANSFORMATION	980	913	-6.9	232	282	195	289	215	209	199	232	273	+27.0
Electricity generation	650	620	-4.6	137	190	104	229	127	134	131	156	200	+57.6
Heat generation	61	63	+2.0	15	15	15	15	15	16	16	16	16	+2.0
Blast furnaces	269	230	-	80	76	76	45	73	60	53	60	57	-21.1
Energy industry use	5,602	5,083	-9.3	1,436	1,379	1,414	1,412	1,397	1,496r	1,282r	1,194	1,112	-20.4
Petroleum Refineries	5,602	5,083	-9.3	1,436	1,379	1,414	1,412	1,397	1,496r	1,282r	1,194	1,112	-20.4
Blast Furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-
FINAL CONSUMPTION	74,395	74,633	+0.3	18,124	18,423	18,214	18,782	18,975	19,086r	18,464r	18,504	18,579	-2.1
Iron & steel	14	11	-20.0	7	6	2	2	5	8	-	-	2	-45.7
Other industries	6,410	6,878	+7.3	1,428	1,881	1,472	1,368	1,688	2,162r	1,439r	1,415	1,862	+10.3
Transport	52,907	53,529	+1.2	12,932	12,502	13,303	13,698	13,404	12,830	13,433r	13,960	13,306	-0.7
Domestic	2,782	2,872	+3.2	932	970	505	423	884	978	647r	436	811	-8.3
Other final users	1,603	1,400	-12.6	305	418	433	456	295	360	323r	374	343	+16.2
Non energy use	10,678	9,942	-6.9	2,519	2,645	2,499	2,835	2,699	2,747	2,621r	2,319	2,255	-16.4

1. Percentage change between the most recent quarter and the same quarter a year earlier.
2. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.
3. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics.
2006 data are subject for further revision as revised information on imports and exports becomes available.
4. Stock fall (+), stock rise (-).
5. Mainly backflows from petrochemical plants to refineries.
6. Total supply minus total demand.

3 OIL AND OIL PRODUCTS

Table 3.3 Supply and use of petroleum products - annual data

Thousand tonnes

	2005								2006 p							
	Total Petroleum Products	Motor spirit	Gas diesel oil ^{1,9}	Aviation turbine fuel	Fuel oils	Petroleum gases ²	Burning oil	Other products ³	Total Petroleum Products	Motor spirit	Gas diesel oil ^{1,9}	Aviation turbine fuel	Fuel oils	Petroleum gases ²	Burning oil	Other products ³
SUPPLY																
Indigenous production ⁴	89,389	22,620	28,691	5,167	11,728	8,218	3,325	9,640	84,964	21,296	26,280	6,125	11,718	7,752	3,370	8,422
Imports ⁵	22,510	2,377	4,921	9,083	1,528	920	407	3,275	26,260	3,486	7,986	8,039	1,347	837	653	3,912
Exports ⁵	29,722	6,586	6,314	1,397	8,452	1,298	282	5,392	27,955	6,433	5,781	995	8,367	1,157	193	5,029
Marine bunkers	2,055	-	889	-	1,166	-	-	-	1,887	-	738	-	1,149	-	-	-
Stock change ⁶	+1,046	+366	+284	+96	+136	+22	+24	+119	-814	-29	-283	-256	-123	-42	-107	+24
Transfers ⁷	-333	-4	-262	-343	-92	-6	+333	+42	-146	+3	-120	-428	-65	+3	+392	+67
Total supply	80,837	18,772	26,431	12,606	3,681	7,855	3,807	7,684	80,421	18,324	27,345	12,485	3,361	7,393	4,115	7,397
Statistical difference ⁸	-140	+42	-8	+109	+143	-331	-63	-32	-208	-90	+545	-26	-124	-141	-4	-368
Total demand	80,977	18,731	26,438	12,497	3,538	8,186	3,870	7,717	80,630	18,414	26,800	12,512	3,486	7,534	4,120	7,765
TRANSFORMATION	980	-	75	-	723	182	-	-	913	-	52	-	621	182	-	-
Electricity generation	650	-	66	-	402	182	-	-	620	-	42	-	396	182	-	-
Heat generation	61	-	9	-	52	-	-	-	63	-	10	-	52	-	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	269	-	-	-	269	-	-	-	230	-	-	-	230	-	-	-
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy industry use	5,602	-	206	-	1,573	2,612	-	1,211	5,083	-	118	-	1,282	2,305	-	1,379
FINAL CONSUMPTION	74,395	18,731	26,158	12,497	1,242	5,392	3,869	6,506	74,633	18,414	26,630	12,512	1,583	5,047	4,119	6,329
Iron & steel	14	-	-	-	14	-	-	-	11	-	-	-	11	-	-	-
Other industries	6,410	-	3,285	-	772	863	1,490	-	6,878	-	3,211	-	838	1,150	1,654	-
Transport	52,907	18,731	21,140	12,497	355	120	12	52	53,529	18,414	21,837	12,512	596	126	12	32
Domestic	2,782	-	141	-	-	298	2,344	-	2,872	-	125	-	-	315	2,430	-
Other final users	1,603	-	1,363	-	101	115	24	-	1,400	-	1,135	-	136	105	24	-
Non energy use	10,678	-	229	-	-	3,996	-	6,454	9,942	-	320	-	-	3,350	-	6,272

1. Includes DERV road fuel and middle distillate feedstock destined for use in the petrochemical industry.
2. Includes ethane, propane, butane and other petroleum gases.
3. Includes naphtha, industrial and white spirits, lubricants, bitumen, petroleum waxes, petroleum coke and other oil products.
4. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.
5. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics.
2006 data are subject to further revision as revised information on imports and exports becomes available.
6. Stock fall (+), stock rise (-).
7. Mainly backflows from petrochemical plants to refineries.
8. Total supply minus total demand.
9. See page 11 of September 2006 Energy Trends for a note concerning changes to this table.

3 OIL AND OIL PRODUCTS

Table 3.4 Supply and use of petroleum products - latest quarter

Thousand tonnes

	2005 4th quarter								2006 4th quarter p							
	Total Petroleum Products	Motor spirit	Gas diesel Oil ^{1,9}	Aviation turbine fuel	Fuel oils	Petroleum gases ²	Burning oil	Other products ³	Total Petroleum Products	Motor spirit	Gas diesel Oil ^{1,9}	Aviation turbine fuel	Fuel oils	Petroleum gases ²	Burning oil	Other products ³
SUPPLY																
Indigenous Production ⁴	22,351	5,831	7,319	1,178	2,786	1,989	1,022	2,227	20,922	5,398	6,501	1,255	3,059	1,694	910	2,104
Imports ⁵	5,798	601	1,352	2,285	312	196	131	921	7,049	860	2,251	2,191	191	286	287	983
Exports ⁵	7,879	1,847	1,683	501	2,105	318	71	1,354	7,410	1,723	1,691	256	2,135	263	82	1,259
Marine bunkers	490	-	201	-	288	-	-	-	453	-	139	-	314	-	-	-
Stock change ⁶	+710	+9	+165	+203	+203	+42	+24	+63	-252	-71	-80	-36	+85	-1	-125	-24
Transfers ⁷	-32	-15	-59	-88	-7	+30	+84	+23	-5	-1	-12	-138	-3	+4	+139	+6
Total supply	20,459	4,579	6,892	3,077	901	1,940	1,189	1,880	19,851	4,462	6,831	3,016	883	1,721	1,130	1,809
Statistical difference ⁸	-128	-202	+101	+98	63	-139	-39	-9	-113	-112	+129	-55	-5	+8	-46	-31
Total demand	20,587	4,781	6,791	2,979	838	2,080	1,228	1,889	19,964	4,574	6,702	3,072	889	1,712	1,176	1,840
TRANSFORMATION	215	-	27	-	142	46	-	-	273	-	16	-	211	46	-	-
Electricity generation	127	-	25	-	56	46	-	-	200	-	13	-	141	46	-	-
Heat generation	15	-	2	-	13	-	-	-	16	-	3	-	13	-	-	-
Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	73	-	-	-	73	-	-	-	57	-	-	-	57	-	-	-
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy industry use	1,397	-	87	-	365	643	-	302	1,112	-	5	-	219	559	-	329
FINAL CONSUMPTION	18,975	4,781	6,677	2,979	331	1,391	1,228	1,587	18,579	4,574	6,680	3,072	458	1,107	1,176	1,512
Iron & steel	5	-	-	-	5	-	-	-	2	-	-	-	2	-	-	-
Other industries	1,688	-	839	-	194	172	482	-	1,862	-	891	-	262	218	467	25
Transport	13,404	4,781	5,496	2,979	104	32	3	9	13,306	4,574	5,457	3,072	157	33	3	10
Domestic	884	-	53	-	-	94	737	-	811	-	25	-	2	84	700	-
Other final users	295	-	229	-	29	31	6	-	343	-	278	-	35	24	6	-
Non energy use	2,699	-	60	-	-	1,061	-	1,578	2,255	-	30	-	-	749	-	1,476

1. Includes DERV road fuel and middle distillate feedstock destined for use in the petrochemical industry.
2. Includes ethane, propane, butane and other petroleum gases.
3. Includes naphtha, industrial and white spirits, lubricants, bitumen, petroleum waxes, petroleum coke and other oil products.
4. Includes refinery production and petroleum gases extracted as products during the production of oil and gas.
5. Foreign trade as recorded by the Petroleum Industry which may differ from the figures published by HM Revenue and Customs in the Overseas Trade Statistics. 2006 data are subject to further revision as revised information on imports and exports becomes available.
6. Stock fall (+), stock rise (-).
7. Mainly backflows from petrochemical plants to refineries.
8. Total supply minus total demand.
9. See page 11 of September 2006 Energy Trends for a note concerning changes to this table.

3 OIL AND OIL PRODUCTS

Table 3.5 Demand for key petroleum products¹

Thousand tonnes

	2005	2006 p	per cent change	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ²
MOTOR SPIRIT													
Total sales	18,731	18,414	-1.7	4,807	4,553	4,656	4,740	4,781	4,597r	4,544r	4,699	4,574	-4.3
By seller:													
Retail sales: ³	17,903	17,710	-1.1	4,595	4,350	4,443	4,551	4,559	4,433r	4,375r	4,502	4,401	-3.5
hypermarkets ⁴	6,710	7,196	+7.2	1,464	1,542	1,683	1,754	1,730	1,792r	1,797	1,799	1,808	+4.5
refiners/other traders	11,193	10,515	-6.1	3,131	2,807	2,760	2,796	2,829	2,641r	2,578r	2,703	2,593	-8.3
Commercial sales ⁵	828	703	-15.1	212	203	214	190	222	165	169	197	173	-22.2
By grade:													
4-Star/Leaded/LRP ⁶	26	20	-22.4	9	6	6	7	7	5	6	4	4	-42.9
Super Premium Unleaded	940	759	-19.2	211	219	232	257	231	199	210	196	154	-33.6
Premium Unleaded/ULSP ⁷	17,765	17,335	-2.4	4,587	4,328	4,418	4,477	4,543	4,393r	4,328r	4,498	4,116	-9.4
GAS DIESEL OIL													
Total sales	26,233	26,682	+1.7	6,236	6,295	6,603	6,630	6,704	6,757	6,349	6,880	6,697	-0.1
DERV fuel	19,436	20,532	+5.6	4,779	4,694	4,919	4,842	4,980	5,097	5,071	5,184	5,181	+4.0
Retail sales: ³	10,679	11,873	+11.2	2,475	2,524	2,735	2,689	2,732	2,781	2,873	3,010	3,209	+17.5
hypermarkets ⁴	3,091	3,917	+26.7	628	726	755	815	795	927	956	984	1,051	+32.1
refiners/other traders	7,588	7,956	+4.8	1,847	1,798	1,979	1,874	1,936	1,855	1,917	2,026	2,158	+11.5
Commercial sales ⁵	8,757	8,659	-1.1	2,304	2,170	2,184	2,153	2,249	2,316	2,198	2,174	1,972	-12.3
Other gas diesel oil ⁸	6,797	6,150	-9.5	1,458	1,602	1,684	1,788	1,724	1,661	1,278	1,696	1,516	-12.1
AVIATION FUELS													
Total sales	12,549	12,544	-	2,844	2,879	3,085	3,598	2,988	2,647	3,295	3,521	3,082	+3.1
Aviation spirit	52	32	-37.8	9	9	16	18	9	7	9	6	10	+8.5
Aviation turbine fuel	12,497	12,512	+0.1	2,835	2,870	3,069	3,580	2,979	2,640	3,286	3,514	3,072	+3.1
FUEL OIL													
Total Sales	1,965	2,099	+6.8	534	561	480	421	503	692	480	421	507	+0.8
Light	124	219	+76.2	54	38	30	24	32	47	19	55	97	(+)
Medium	881	711	-19.2	251	250	215	190	225	283	205	115	108	(-)
Heavy	960	1,169	+21.8	229	273	235	207	246	361	255	251	303	+23.2

1. Monthly data for inland deliveries of oil products are available - See DTI web-site. www.dti.gov.uk/energy/statistics/source/oil/page18470.html.
2. Percentage change between the most recent quarter and the same quarter a year earlier.
3. Retail sales are those deliveries made to garages etc. mainly for resale to final consumers.
4. Data for sales by hypermarket companies are collected by a separate reporting system, but are consistent with the main data collected from companies.
5. Commercial sales are those deliveries made direct to a consumer for use in their own business, e.g. to bus and coach depots.
6. Sales of leaded petrol ceased from 31st December 1999, with Lead Replacement Petrol being introduced as a replacement fuel.
7. ULSP is Ultra Low Sulphur Petrol introduced during the second half of 2000 and first half of 2001 as a replacement for ordinary Premium grade unleaded petrol.
8. This includes gas diesel oil used for other purposes such as heating and middle distillate feedstock destined for use in the petrochemical industry.

3 OIL AND OIL PRODUCTS

Table 3.6 Stocks of petroleum¹ at end of period

March 2007

		Crude oil and refinery process oil				Petroleum products					Total stocks		
		Refineries ²	Terminals ³	Offshore ⁴	Total ⁵	Light distillates ⁶	Kerosene & gas/diesel ⁷	Fuel oils ⁸	Other products ⁹	Total products	Net bilaterals ¹⁰	Stocks in UK ¹¹	Total stocks
	2002	4,508	2,126	760	7,504	1,282	3,173	1,196	2,061	7,712	1,118	14,098	15,216
	2003	4,670	1,509	741	7,140	1,490	3,640	1,237	2,166	8,533	1,610	14,063	15,673
	2004	4,440	1,261	736	6,648	1,504	3,790	987	1,693	7,974	1,545	13,078	14,623
	2005	4,875	1,129	798	7,067	1,051	3,911	1,057	1,548	7,567	1,587	13,047	14,634
	2006 p	4,720	1,635	774	7,423	1,091	4,398	1,247	1,532	8,268	1,526	14,165	15,691
	<i>Per cent change</i>	-3.2	+44.8	-3.0	+5.0	+3.8	+12.5	+18.0	-1.1	+9.3	-3.9	+8.6	+7.2
	4th quarter	4,440	1,261	736	6,648	1,504	3,790	987	1,693	7,974	1,545	13,078	14,623
	2005 1st quarter	4,546	1,169	982	7,017	1,204	4,060	1,351	1,647	8,261	1,937	13,341	15,279
	2nd quarter	4,843	1,459	772	7,458	993	4,055	1,363	1,604	8,015	1,943	13,530	15,473
	3rd quarter	4,671	1,875	773	7,619	909	4,295	1,236	1,654	8,094	1,440	14,274	15,713
	4th quarter	4,875	1,129	798	7,067	1,051	3,911	1,057	1,548	7,567	1,587	13,047	14,634
	2006 1st quarter	5,234	1,564	620	7,699	884	3,789	1,069	1,390	7,132	1,493	13,337	14,831
	2nd quarter	5,065	1,518	772r	7,563r	920	4,082	1,215	1,320	7,538	1,629	13,472r	15,101r
	3rd quarter	4,626	1,211	673	6,511	1,101	4,426	1,408	1,506	8,441	1,661	13,291	14,952
	4th quarter p	4,720	1,635	774	7,423	1,091	4,398	1,247	1,532	8,268	1,526	14,165	15,691
	<i>Per cent change¹²</i>	-3.2	+44.8	-3.0	+5.0	+3.8	+12.5	+18.0	-1.1	+9.3	-3.9	+8.6	+7.2

G4

1. Stocks held at refineries, terminals and power stations. Stocks in the wholesale distribution system and certain stocks at offshore fields (UK Continental Shelf [UKCS]), and others held under approved bilateral agreements are also included.

2. Stocks of crude oil, NGLs and process oil at UK refineries.

3. Stocks of crude oil and NGLs at UKCS pipeline terminals

4. Stocks of crude oil in tanks and partially loaded tankers at offshore field (UKCS).

5. Includes process oils held under approved bilateral agreements.

6. Motor spirit and aviation spirit.

7. Aviation turbine fuel, burning oil, gas oil, DERV fuel, middle distillate feestock (mdf) and marine diesel oil.

8. Including Orimulsion.

9. Ethane, propane, butane, other petroleum gases, naphtha (ldf), industrial white spirit, bitumen, petroleum wax, lubricating oil, petroleum coke and miscellaneous products.

10. The difference between the stocks held abroad for UK use under approved bilateral agreements and the equivalent stocks held in the UK for foreign use.

11. Stocks held in the national territory or elsewhere on the UKCS.

12. Percentage change between the most recent quarter and the same quarter a year earlier.

3 OIL AND OIL PRODUCTS

Table 3.7 Drilling activity¹ on the UKCS

		<i>Number of wells started</i>					
		Offshore			Onshore		
		Exploration &		Development ²	Exploration &		
		Exploration	Appraisal		Appraisal	Development ²	
2004		29	34	63	166	3	14
2005		41	37	78	227	8	21
2006 p		29	40	69	211	15	12
<i>Per cent change</i>		-29.3	+8.1	-11.5	-7.0	+87.5	-42.9
2004	4th quarter	8	12	20	41	2	5
2005	1st quarter	6	8	14	43	-	7
	2nd quarter	8	9	17	73	2	6
	3rd quarter	19	11	30	65	3	5
	4th quarter	8	9	17	46	3	3
2006	1st quarter	8	6	14	68r	4	3
	2nd quarter	7	5	12	57	2r	3r
	3rd quarter	8	14	22	53	3r	3r
	4th quarter p	6	15	21	33	6	3
<i>Per cent change³</i>		-25.0	+66.7	+23.5	-28.3	(-)	-

1. Including sidetracked wells

2. Development wells are production or injection wells drilled after development approval has been granted.

3. Percentage change in the fourth quarter of 2006 compared with a year earlier

4 GAS

Table 4.1. Natural gas supply and consumption

GWh

	2005	2006 p	per cent change ¹	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ²
SUPPLY													
Indigenous production	1,017,813	929,784	-8.6	293,690	298,271	265,126	189,724	264,694	285,257r	227,819r	186,669r	230,039	-13.1
Imports	173,328	244,029	+40.8	48,950	52,597	26,952	34,873	58,906	75,928r	35,122	39,823	93,156	+58.1
Exports	96,181	120,591	+25.4	14,960	16,726	33,517	25,604	20,334	16,105r	35,595	41,678	27,214	+33.8
Stock change ³	+1,321	-6,435		-419	+24,768	-16,688	-12,932	+6,173	+13,746	-6,156	-14,606	+581	
Transfers	-51	-52		-4	-17	-13	-15	-5	-23	-15	-7	-8	
Total supply	1,096,231	1,046,735	-4.5	327,257	358,893	241,859	186,046	309,434	358,803r	221,175r	170,202r	296,554	-4.2
Statistical difference	+634	-1,166		-2,946	+848	+1,656	-2,742	+871	+1,639r	+460r	-1,378r	-1,887	
Total demand	1,095,597	1,047,901	-4.4	330,203	358,044	240,202	188,788	308,562	357,164r	220,715r	171,580r	298,441	-3.3
TRANSFORMATION													
Electricity generation	333,245	308,159	-7.5	89,157	79,412	86,111	89,410	78,312	66,495r	73,948r	78,978	88,738	+13.3
Heat generation	20,671	20,671	-	5,682	6,408	4,513	3,854	5,896	6,408	4,513	3,854	5,896	-
Energy industry use	84,051	79,597	-5.3	22,653	23,086	21,422	18,139	21,404	22,248r	19,353r	17,758r	20,238	-5.4
Losses	10,694	12,010	+12.3	2,492	2,637	2,738	1,987	3,332	3,651r	2,643r	2,519r	3,197	-4.0
FINAL CONSUMPTION													
Iron & steel	8,412	8,443	+0.4	2,336	2,392	2,307	1,785	1,928	2,408r	2,273r	1,917r	1,845	-4.3
Other industries	140,271	133,236	-5.0	39,024	48,909	30,364	23,154	37,843	53,416r	28,603r	19,603r	31,614	-16.5
Domestic	381,879	368,000	-3.6	132,540	155,265	68,004	32,854	125,756	161,441r	65,469r	29,250r	111,840	-11.1
Other final users	106,653	108,289	+1.5	33,814	37,505	22,312	15,174	31,662	38,893r	21,483r	15,271r	32,642	+3.1
Non energy use	9,721	9,496	-2.3	2,505	2,430	2,430	2,430	2,430	2,205	2,430	2,430	2,430	-

1. Percentage change in 2006 compared with a year earlier.

3. Stock fall (+), stock rise (-).

2. Percentage change in the fourth quarter of 2006 compared with a year earlier.

5 ELECTRICITY

Table 5.1. Fuel used in electricity generation and electricity supplied

	2005	2006 p	per cent change ¹	2004 4th quarter	2005 1st quarter	2005 2nd quarter ³	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	per cent change ²
FUEL USED IN GENERATION													
Major power producers													
Million tonnes of oil equivalent													
Coal	31.65	34.99	+10.5	8.90	9.95	6.42	5.35	9.93	11.69	7.06	6.57	9.67	-2.6
Oil	0.83	1.14	+37.8	0.16	0.25	0.09	0.11	0.38	0.58r	0.15	0.13	0.28	-26.4
Gas	25.42	23.78	-6.4	6.89	5.96	6.59	6.85	6.02	5.01	5.69	6.18	6.91	+14.8
Nuclear	18.37	16.92	-7.9	4.36	5.06	4.46	4.59	4.27	5.02	4.45	4.21	3.24	-24.1
Hydro (natural flow)	0.34	0.32	-7.9	0.12	0.12	0.07	0.05	0.11	0.08	0.07	0.04	0.13	+19.4
Other renewables	0.82	0.72	-11.6	0.19	0.22	0.17	0.19	0.23	0.29r	0.13r	0.13r	0.18	-20.4
Net imports	0.72	0.80	+11.8	0.21	0.12	0.18	0.17	0.25	0.16	0.25	0.17	0.23	-7.1
Total major power producers	78.15	78.67	+0.7	20.83	21.69	17.98	17.30	21.18	22.83r	17.78	17.43r	20.63	-2.6
Other generators													
Coal	0.96	1.13	+17.9	0.24	0.25	0.24	0.21	0.26	0.28	0.28	0.27	0.31	+18.3
Oil	0.50	0.48	-4.3	0.13	0.16	0.11	0.11	0.13	0.15	0.10	0.10	0.14	+7.2
Gas	3.28	2.72	-17.1	0.79	0.88	0.83	0.85	0.73	0.72	0.68	0.63	0.69	-4.6
Hydro (natural flow)	0.08	0.07	-10.6	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.01	0.03	+9.1
Other renewables	2.78	3.04	+9.4	0.66	0.66	0.66	0.69	0.77	0.72	0.71	0.75	0.85	+10.4
Other fuels	2.07	1.48	-28.6	0.49	0.50	0.50	0.54	0.53	0.42	0.42	0.34	0.30	-42.7
Total other generators	9.68	8.93	-7.8	2.32	2.47	2.36	2.42	2.44	2.31	2.21	2.10	2.32	-5.0
All generating companies													
Coal	32.62	36.12	+10.8	9.14	10.20	6.66	5.56	10.19	11.97	7.34	6.84	9.98	-2.1
Oil	1.33	1.62	+21.9	0.29	0.41	0.20	0.22	0.50	0.74r	0.24	0.23	0.41	-18.0
Gas	28.70	26.51	-7.7	7.68	6.84	7.42	7.70	6.75	5.73	6.37	6.80	7.60	+12.7
Nuclear	18.37	16.92	-7.9	4.36	5.06	4.46	4.59	4.27	5.02	4.45	4.21	3.24	-24.1
Hydro (natural flow)	0.43	0.39	-8.4	0.14	0.15	0.09	0.06	0.13	0.10	0.08	0.06	0.16	+17.5
Other renewables	3.60	3.76	+4.6	0.85	0.88	0.83	0.89	1.00	1.01r	0.84r	0.88r	1.03	+3.4
Other fuels	2.07	1.48	-28.6	0.49	0.50	0.50	0.54	0.53	0.42	0.42	0.34	0.30	-42.7
Net imports	0.72	0.80	+11.8	0.21	0.12	0.18	0.17	0.25	0.16	0.25	0.17	0.23	-7.1
Total all generating companies	87.83	87.61	-0.3	23.15	24.16	20.34	19.72	23.62	25.13	20.00r	19.53r	22.95	-2.8
ELECTRICITY SUPPLIED													
All generating companies													
TWh													
Coal	128.67	143.54	+11.6	36.79	40.65	26.29	21.19	40.54	48.65	28.98	26.77	39.13	-3.5
Oil	4.72	5.20	+10.1	1.18	1.37	0.75	0.76	1.85	2.38	0.81	0.90	1.12	-39.4
Gas	149.78	138.57	-7.5	39.82	35.93	38.97	40.16	34.72	29.88	33.98	35.74	38.96	+12.2
Nuclear	75.17	69.24	-7.9	17.67	20.69	18.24	18.76	17.48	20.52	18.21	17.24	13.26	-24.1
Hydro (natural flow and net supply by pumped storage stations)	4.01	3.32	-17.2	1.41	1.45	0.79	0.50	1.27	0.77	0.71	0.34	1.51	+19.4
Other renewables	11.91	12.41	+4.2	2.61	3.06	2.64	2.76	3.45	3.11r	2.76r	3.00r	3.54	+2.5
Other fuels	4.72	4.03	-14.8	1.17	1.20	1.15	1.20	1.17	1.11	0.99	1.01	0.92	-21.7
Net imports	8.32	9.30	+11.8	2.46	1.40	2.13	1.94	2.85	1.84	2.86	1.95	2.65	-7.1
Total all generating companies	387.31	385.60	-0.4	103.12	105.74	90.96	87.28	103.33	108.25r	89.30r	86.95r	101.09	-2.2

1. Percentage change in 2006 compared with a year earlier.

3. See note on page 14 of September 2005 Energy Trends regarding calendar differences

2. Percentage change in fourth quarter of 2006 compared with a year earlier

5 ELECTRICITY

Table 5.2 Supply and consumption of electricity

GWh

	2005	2006 p	Per cent change ¹	2004 4th quarter	2005 1st quarter	2005 2nd quarter	2005 3rd quarter	2005 4th quarter	2006 1st quarter	2006 2nd quarter	2006 3rd quarter	2006 4th quarter p	Per cent change ²
SUPPLY													
Indigenous production	400,525	399,107	-0.4	106,098	110,306	93,685	90,065	106,469	113,158r	91,540r	90,178r	104,231	-2.1
Major power producers ³	359,449	357,285	-0.6	95,769	99,553	83,991	80,082	95,822	102,271r	81,431r	80,165r	93,418	-2.5
Auto producers	38,146	37,969	-0.5	9,638	9,986	9,131	9,291	9,737	9,814	9,306	9,022	9,827	+0.9
Other sources	2,930	3,853	+31.5	692	766	563	691	910	1,073	803	990	986	+8.3
Imports	11,160	11,551	+3.5	3,027	2,299	2,716	2,734	3,410	2,621	3,308	2,518	3,104	-9.0
Exports	2,839	2,247	-20.9	565	900	590	793	556	785	443	567	453	-18.6
Transfers	-	-	-	-	-	-	-	-	-	-	-	-	-
Total supply	408,846	408,411	-0.1	108,561	111,705	95,811	92,006	109,324	114,995r	94,404r	92,129r	106,883	-2.2
Statistical difference	+1,582	-175		+1,402	-252	+476	+701	+657	+309r	-662r	+287r	-109	
Total demand	407,263	408,586	+0.3	107,159	111,957	95,335	91,305	108,666	114,686r	95,066r	91,842r	106,992	-1.5
TRANSFORMATION													
Energy industry use	31,384	32,571	+3.8	7,706	8,515	7,284	7,149	8,436	9,218r	7,594r	7,628r	8,132	-3.6
Losses	30,638	31,164	+1.7	8,333	9,789	6,382	6,743	7,724	9,929r	6,474r	6,838r	7,923	+2.6
FINAL CONSUMPTION	345,241	344,851	-0.1	91,119	93,653	81,668	77,414	92,506	95,540	80,998	77,376	90,937	-1.7
Iron & steel	5,019	5,030	+0.2	1,365	1,262	1,247	1,260	1,250	1,270	1,272	1,261	1,227	-1.9
Other industries	113,810	111,823	-1.7	27,068	29,564	28,590	26,855	28,802	28,486	28,212	26,913r	28,212	-2.0
Transport	8,609	8,622	+0.2	2,145	2,136	2,136	2,161	2,175	2,148	2,203	2,079	2,192	+0.8
Domestic	116,811	118,004	+1.0	34,111	33,799	25,870	23,871	33,272	36,047	25,573	23,760	32,623	-1.9
Other final users	100,991	101,372	+0.4	26,430	26,891	23,825	23,267	27,008	27,588	23,738	23,363r	26,682	-1.2
Non energy use	-	-	-	-	-	-	-	-	-	-	-	-	-

1. Percentage change in 2006 compared with a year earlier.

2. Percentage change in the fourth quarter of 2006 compared with a year earlier.

3. Companies that produce electricity from nuclear sources plus all companies whose prime purpose is the generation of electricity are included under the heading "Major Power Producers". At the end of December 2005 they were:

AES Electric Ltd., Baglan Generation Ltd., Barking Power Ltd., BNFL Magnox, British Energy plc., Centrica plc., Coolkeeragh ESB Ltd., Corby Power Ltd., Coryton Energy Company Ltd., Derwent Cogeneration Ltd., Drax Power Ltd., EDF Energy plc., E.On UK plc., Fellside Heat and Power Ltd., Fibrogen Ltd., Fibropower Ltd., Fibrothetford Ltd., First Hydro Company, Immingham CHP, International Power plc., Premier Power Ltd., Rocksavage Power Company Ltd., RWE Npower plc., Scottish Power plc., Scottish and Southern Energy plc., Seabank Power Ltd., SELCHP Ltd., Spalding Energy Company Ltd., Teesside Power Ltd., Usknoth Power Company Ltd., Western Power Generation Ltd.

Explanatory notes

General

More detailed notes on the methodology used to compile the figures and data sources are included in the annual Digest of United Kingdom Energy Statistics.

Notes to tables

- Figures for the latest periods and the corresponding averages (or totals) are provisional and are liable to subsequent revision.
- The figures have not been adjusted for temperature or seasonal factors except where noted.
- Due to rounding the sum of the constituent items may not equal the totals.
- Percentage changes relate to the corresponding period a year ago. They are calculated from unrounded figures but are shown only as (+) or (-) when the percentage change is very large.
- Quarterly figures relate to thirteen week periods except in the gas and petroleum sections where they relate to calendar quarters.
- All figures relate to the United Kingdom unless otherwise indicated.

Abbreviations

CCGT	Combined Cycle Gas Turbine
LRP	Lead Replacement Petrol
ATF	Aviation Turbine Fuel
NGLs	Natural gas liquids
UKCS	United Kingdom Continental Shelf
GVA	Gross Value Added
MSF	Manufactured Solid Fuels

Symbols used in the tables

- .. not available.
- nil or less than half the final digit shown.
- p provisional.
- r revised; where a column or row shows 'r' at the beginning, most, but not necessarily all, of the data have been revised.
- e estimated; totals of which the figures form a constituent part are therefore partly estimated.

Conversion factors

1 tonne of UK crude oil =	7.55 barrels	All conversion of fuels from original units to units of energy is carried out on the basis of the gross calorific value of the fuel. More detailed information on conversion factors and calorific values is given in Annex A of the Digest of UK Energy Statistics.
1 tonne =	1,000 kilograms	
1 gallon (UK) =	4.54609 litres	
1 kilowatt (kW) =	1,000 watts	
1 megawatt (MW) =	1,000 kilowatts	
1 gigawatt (GW) =	1,000 megawatts	
1 terawatt (TW) =	1,000 gigawatts	

Conversion matrices

To convert from the units on the left hand side to the units across the top multiply by the values in the table.

To:	Thousand toe	Terajoules	GWh	Million therms
<i>From</i>	<i>Multiply by</i>			
Thousand toe	1	41.868	11.630	0.39683
Terajoules (TJ)	0.023885	1	0.27778	0.0094778
Gigawatt hours (GWh)	0.085985	3.6000	1	0.034121
Million therms	2.5200	105.51	29.307	1

To:	Tonnes of oil equivalent	Gigajoules	kWh	Therms
<i>From</i>	<i>Multiply by</i>			
Tonnes of oil equivalent	1	41.868	11,630	396.83
Gigajoules (GJ)	0.023885	1	277.78	9.4778
Kilowatt hours (kWh)	0.000085985	0.003600	1	0.034121
Therms	0.0025200	0.105510	29.307	1

Note that all factors are quoted to 5 significant figures

Sectoral breakdowns

The categories for final consumption by user are defined by the Standard Industrial Classification 1992, as follows:

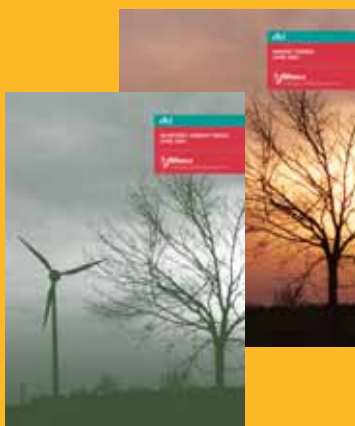
Fuel producers	10-12, 23, 40
Final consumers:	
Iron and steel	27, <i>excluding</i> 27.4, 27.53 and 27.54
Other industry	13 to 22, 24 to 37, 41 and 45 excluding those parts of 27 relating to Iron and Steel.
Transport	60-63
Other final users	
Agriculture	01, 02, 05
Commercial	50-52, 55, 64-67, 70-74
Public administration	75, 80, 85
Other services	90-93, 99
Domestic	Not covered by SIC 1992

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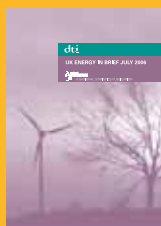
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