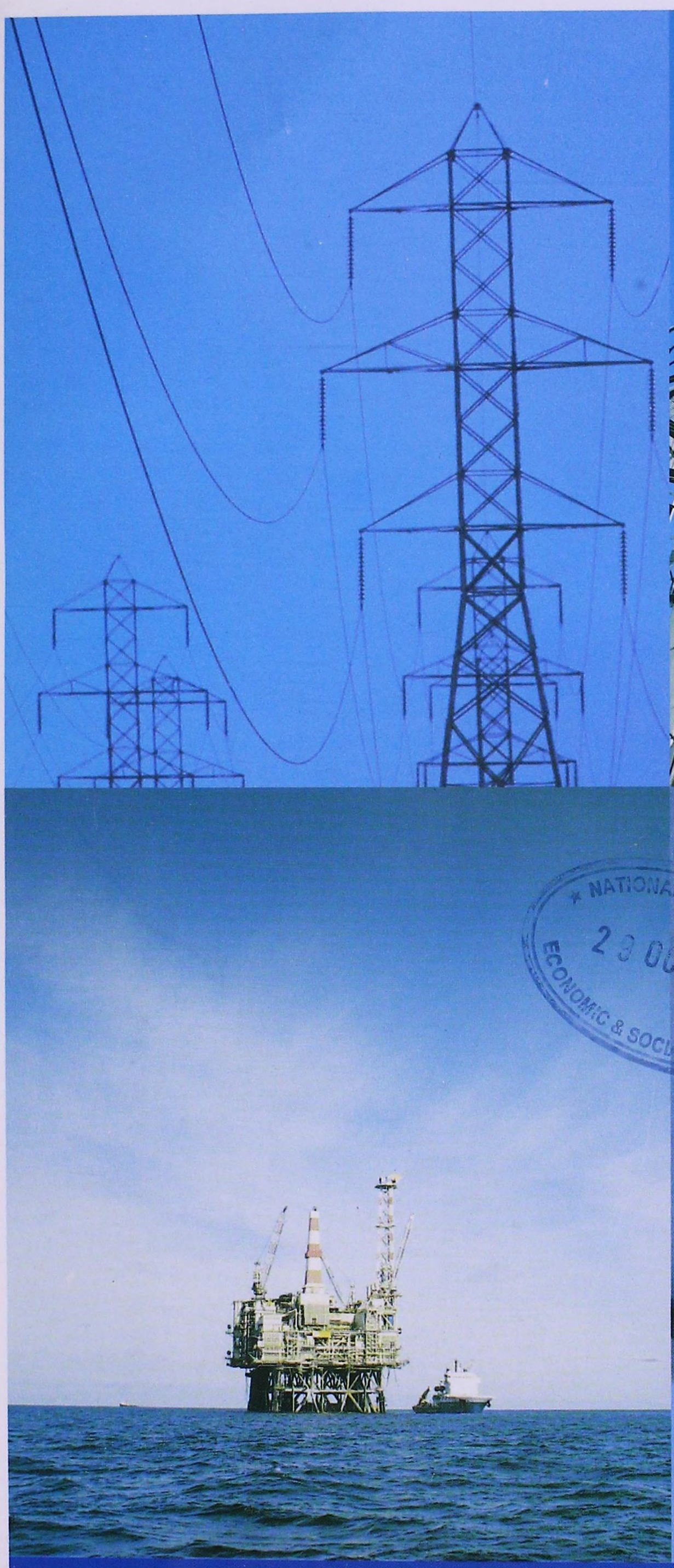
ENERGY trends

A monthly statistical bulletin from the Department of Trade & Industry

OCTOBER 1998



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CONTACT POINTS

Energy Trends is prepared by the Energy Policy & Analysis Unit of the Department of Trade & Industry. For data inquires, new subscriptions and subscription queries please telephone the Energy Trends helpdesk on 0171-215 2697 or write to "Energy Trends", Room 1.E.44, Department of Trade & Industry, 1 Victoria Street, London SW1H 0ET.

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For enquiries please contact:		**Telephone 0171-215**	**e-mail**
General enquiries on Energy Statistics (Helpdesk)	**Gillian Purkis**	**2697**	**Gillian.Purkis@epad.dti.gov.uk**
Total energy statistics (Tables 1,2 & 3)	Gillian Purkis Roger Barty	2697 5187	Gillian.Purkis@epad.dti.gov.uk Roger.Barty@epad.dti.gov.uk
Coal and other solid fuels **Natural gas consumption** (Tables 4, 5, 6, 7 & 12)	Mari Scullion	2717	Mari.Scullion@epad.dti.gov.uk
Gas and petroleum exploration drilling **Gas and petroleum investment** (Tables 8 & 9)	Philip Beckett Peter Birch	5260 5261	Philip.Beckett@ogld.dti.gov.uk Peter.Birch@ogld.dti.gov.uk
Indicative tariffs (Tables 10)	Mary Duff	5262	Mary.Duff@ogld.dti.gov.uk
Natural gas production **Petroleum production** (Tables 11 & 13)	Ian Montague	2711	Ian.Montague@epad.dti.gov.uk
Petroleum consumption and stocks (Tables 14, 15, 16 & 17)	Ian Corrie	2714	Ian.Corrie@epad.dti.gov.uk
Electricity statistics (Tables 18, 19, 20, 21, 22 & 23)	Bridgitte Mitchell	5190	Bridget.Mitchell@epad.dti.gov.uk
Temperatures (Table 24)	Gillian Purkis	2697	Gillian.Purkis@epad.dti.gov.uk
Foreign trade (Table 25)	Roger Barty	5187	Roger.Barty@epad.dti.gov.uk
Energy prices (Tables 26, 27, 28, 29 & 30)	Adrian Jones	5191	Adrian.Jones@epad.dti.gov.uk

All the above can be contacted by fax on 0171-215-2723

EXPLANATORY NOTES ARE NOW ON THE BACK PAGE

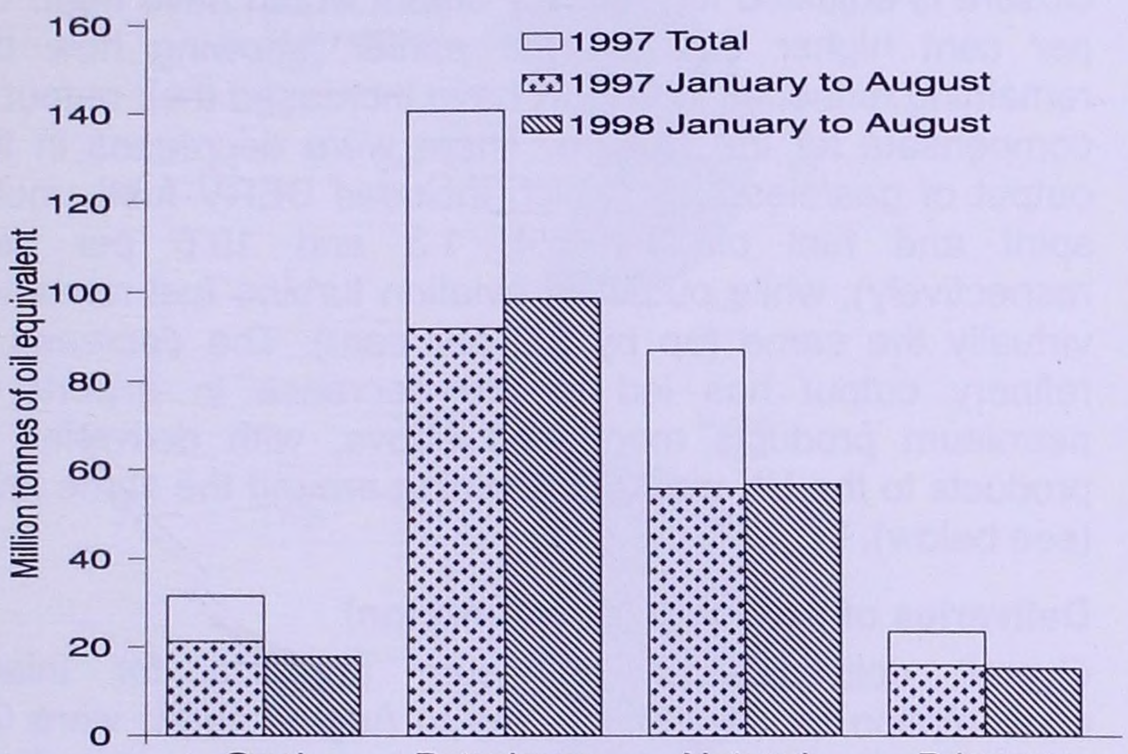
Cover photographs courtesy of British Petroleum.
Top right: BP Exploration - Wytch Farm Project, Dorset Gathering centres at Wytch Heath.
Bottom left: Production platform in BP's Magnus oilfield north-east of Shetland.

MAIN POINTS

* *Energy production in the three months to August 1998 was 1½ per cent higher than a year earlier, with petroleum and gas production both up 5 per cent respectively, whilst coal and other solid fuels, and primary electricity fell by 17 per cent and 5½ per cent respectively.*
* *Primary energy consumption in the three months to August 1998 after temperature correction and seasonal adjustment, was 1 per cent higher than a year earlier. Coal and other solid fuels, petroleum and gas consumption increased by 4 per cent, ½ per cent and 2 per cent respectively.*
* *Final energy consumption in the second quarter of 1998 was similar to that in the same quarter of 1997. A slight increase in consumption resulted from an increase of 11 per cent in the domestic sector was offset to some extent by a fall of 5 per cent in the transport sector and 3 per cent in the industrial sector*
* *In August the UK became a net exporter of 30 GWh of electricity, whereas the UK customarily imports over 1,200 GWh each month. The electricity was sent to France where there were problems refuelling three nuclear stations, and to the Irish Republic.*

TOTAL ENERGY PRODUCTION (Table 1)

Chart 1: Production of indigenous primary fuels



1 Nuclear and natural flow hydro.

Indigenous production of primary fuels in the three months to August 1998 at 62.6 million tonnes of oil equivalent, was 1.4 per cent higher than in the corresponding period a year ago.

Production of coal and other solid fuels, and nuclear production fell by 16.8 per cent and 5.9 per cent compared to a year ago, whilst petroleum and gas rose by 5.0 per cent and 4.9 per cent respectively.

TOTAL ENERGY CONSUMPTION (Table 2)

Total inland energy consumption, on a primary fuel input basis, in the three months to August 1998 was 47.9 million tonnes of oil equivalent, 2.2 per cent higher than in the corresponding period a year ago. Consumption of coal and other solid fuels, petroleum and natural gas rose by 6.7 per cent, 0.9 per cent and 5.6 per cent respectively, whilst nuclear consumption fell by 5.9 per cent.

The average temperature during the period was 1.3 degrees celsius colder than a year ago and total energy consumption, on a seasonally adjusted and temperature corrected basis was 0.8 per cent higher than in the same period a year earlier. On this basis, consumption of coal, petroleum and gas rose by 4.2 per cent, 0.5 per cent and 1.9 per cent respectively, whilst nuclear consumption fell by 5.9 per cent.

ENERGY CONSUMPTION BY FINAL USERS (Table 3)

Final energy consumption in the second quarter of 1998 was 0.2 per cent higher than in the same quarter of 1997. The domestic and service sectors increased their energy consumption by 11.7 per cent and 1.1 per cent respectively whilst industry and transport decreased consumption by 3.2 per cent and 4.8 per cent respectively compared with a year earlier. Consumption by final users of coal and petroleum decreased by 19.3 per cent and 4.1 per cent whilst other solid fuel, coke oven gas, gas and electricity increased by 5.5 per cent, 0.1 per cent, 7.3 per cent and 1.7 per cent respectively.

COAL AND OTHER SOLID FUELS (Tables 4 to 7)

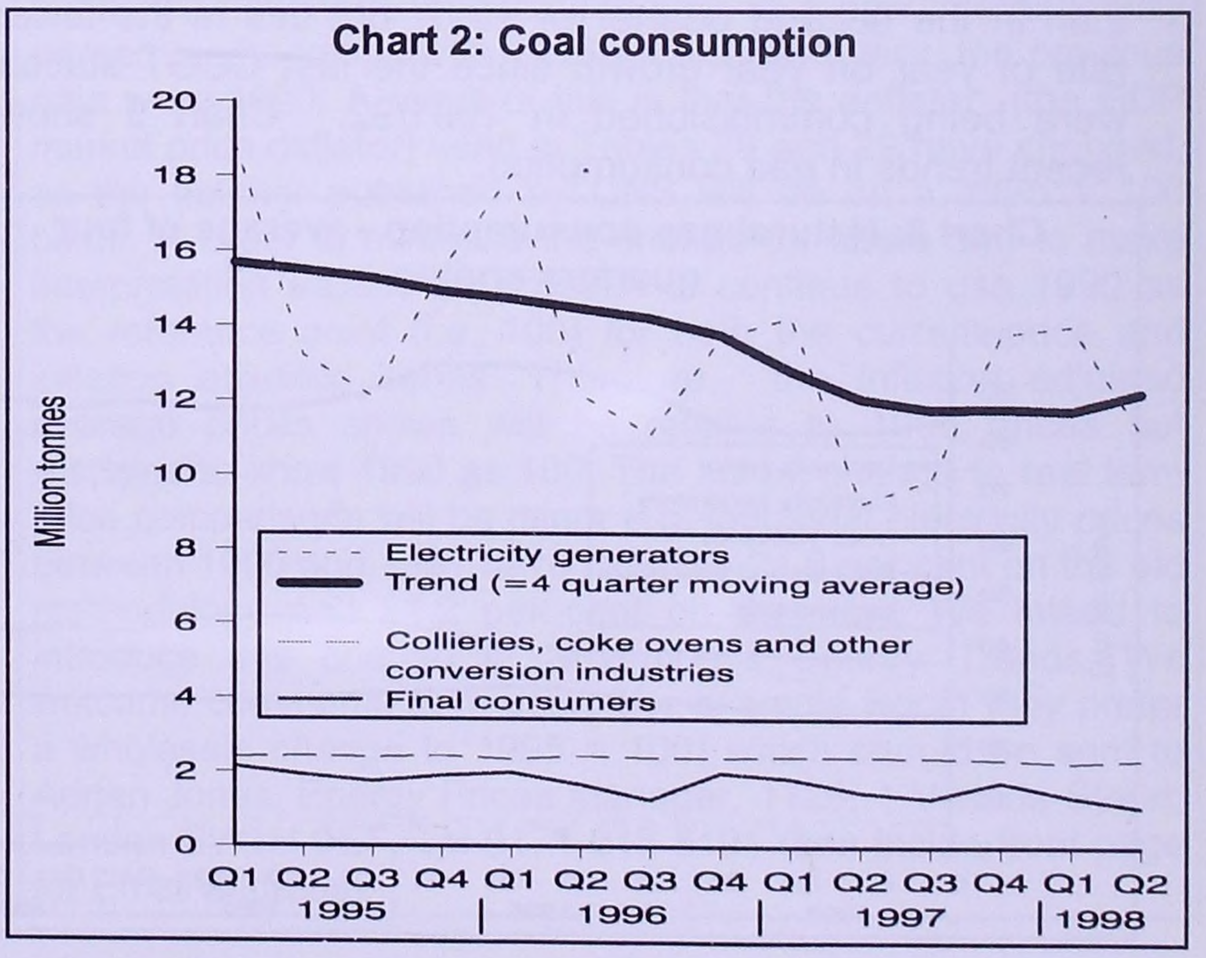
Production and imports

Provisional figures for the three month period June to August 1998 show that coal production (including an estimate for slurry) was 16.1 per cent lower than in the corresponding period a year earlier at 9.3 million tonnes. Deep mined production was down 19.6 per cent and opencast production was down less sharply than in recent months at 11.2 per cent. Imports of coal were 35.0 per cent higher than a year earlier with 5.8 million tonnes imported during the three month period. Indications are that about a third of the additional coal burn for electricity generation over this period was of imported coal. Exports of coal were 14.4 per cent higher than a year earlier but accounted for only just over 0.2 million tonnes.

Consumption

Use of home produced and imported coal in the period from June to August 1998 was 13.7 million tonnes. This was 7.5 per cent higher than in the corresponding period of 1997. Consumption by electricity generators, who accounted for 75 per cent of total coal use in the period, rose by 14.3 per cent. This increase was because more coal-fired power stations were in operation during the period while some nuclear and gas stations were out of action for maintenance and repair. In addition non-availability of some French nuclear stations curtailed electricity imports in July and August and coal fired stations were called upon to make up for this. Disposals to the industrial sector were down 17.8 per cent on a year earlier while disposals to the domestic sector were down 22.4 per cent. Recent trends in coal consumption are shown in Chart 2.

Chart 2: Coal consumption



Stocks

Coal stocks fell by 0.5 million tonnes in August to stand at 17.8 million tonnes, 2.8 million tonnes lower than at the end of August 1997. Stocks of coal held by electricity generators have decreased by 1.7 million tonnes in the last 12 months, mainly because of the increase in consumption for generation. There was a decrease of less than 0.1 million tonnes in August whereas usually in August a seasonal rise in stocks is expected. Stocks of coal at collieries have fallen by 1.2 million tonnes in the last 12 months, and they also showed a fall (0.3 million tonnes) between July and August 1998. These unusual stock movements for August can be attributed to the additional coal burn at power stations making up for the non-availability of electricity imports from France.

UK CONTINENTAL SHELF (Table 8 to 10)

In the third quarter of 1998, 22 exploration and appraisal (E&A) wells were started (the same figure as in the third quarter of 1997), leaving E&A drilling 20.5 per cent down in the year to date. The number of development wells started fell by 13.6 per cent, so that development drilling is 5.6 per cent down in the year to date.

Value of, and investment in, UKCS oil and gas production

Estimates for the second quarter show that, compared with the same period of 1997, gross trading profits fell by 10.1 per cent as total income fell by 5.5 per cent with lower prices and operating costs rose by 3.9 per cent. Capital expenditure rose by 15 per cent.

GAS (Tables 11 and 12)

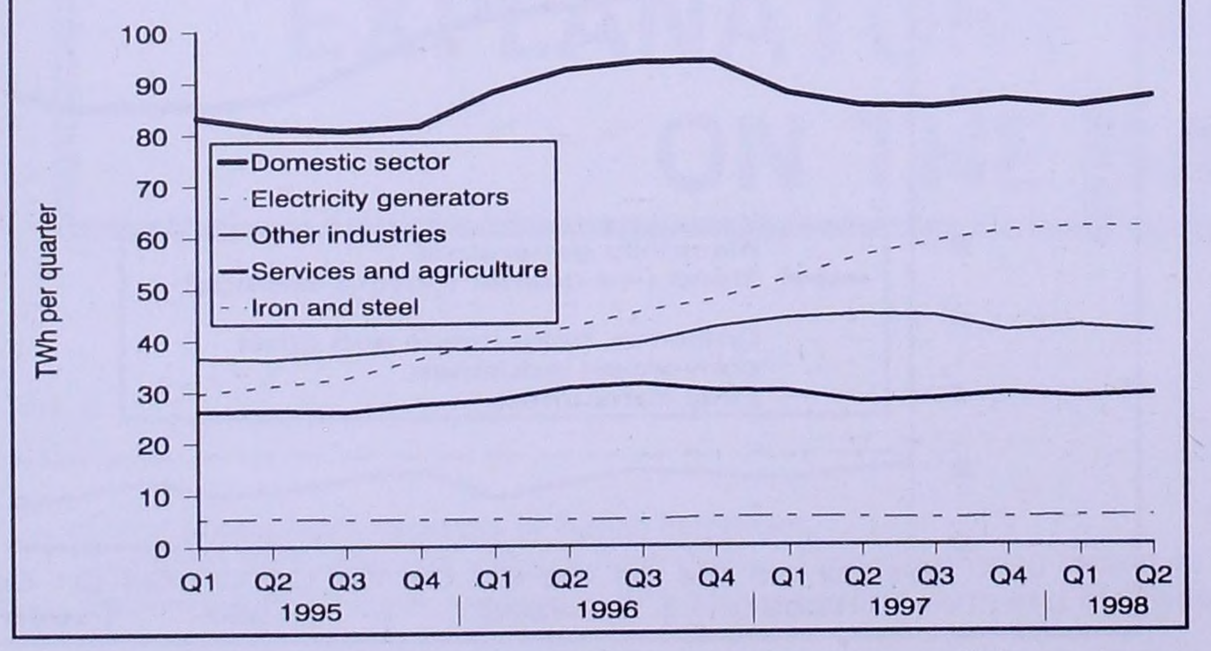
Production

Provisional data for the period June to August 1998 show that indigenous production of natural gas increased by 6.0 per cent compared to the same period a year earlier. Exports of gas increased by 25.7 per cent while imports fell by 26.4 per cent. Indigenous production accounted for 98.9 per cent of gas available for consumption in the UK for the period June to August 1998. Gas output from the inland transmission system into the local distribution network was 6.2 per cent higher than a year ago.

Consumption

Gas consumption in the second quarter of 1998 was up 4.6 per cent on a year earlier. Consumption in the domestic sector rose by 12.9 per cent compared with the second quarter of 1997, while consumption by public administration, commerce and agriculture was 11.9 per cent higher. Across the industrial sector gas sales were 7.1 per cent lower although they were higher within the iron and steel industry. Gas used for electricity generation was 3.6 per cent higher than in the second quarter of 1997, but this is the lowest rate of year on year growth since the first CCGT stations were being commissioned in 1991/92. Chart 3 shows recent trends in gas consumption.

Chart 3: Natural gas consumption - average of four quarters ending

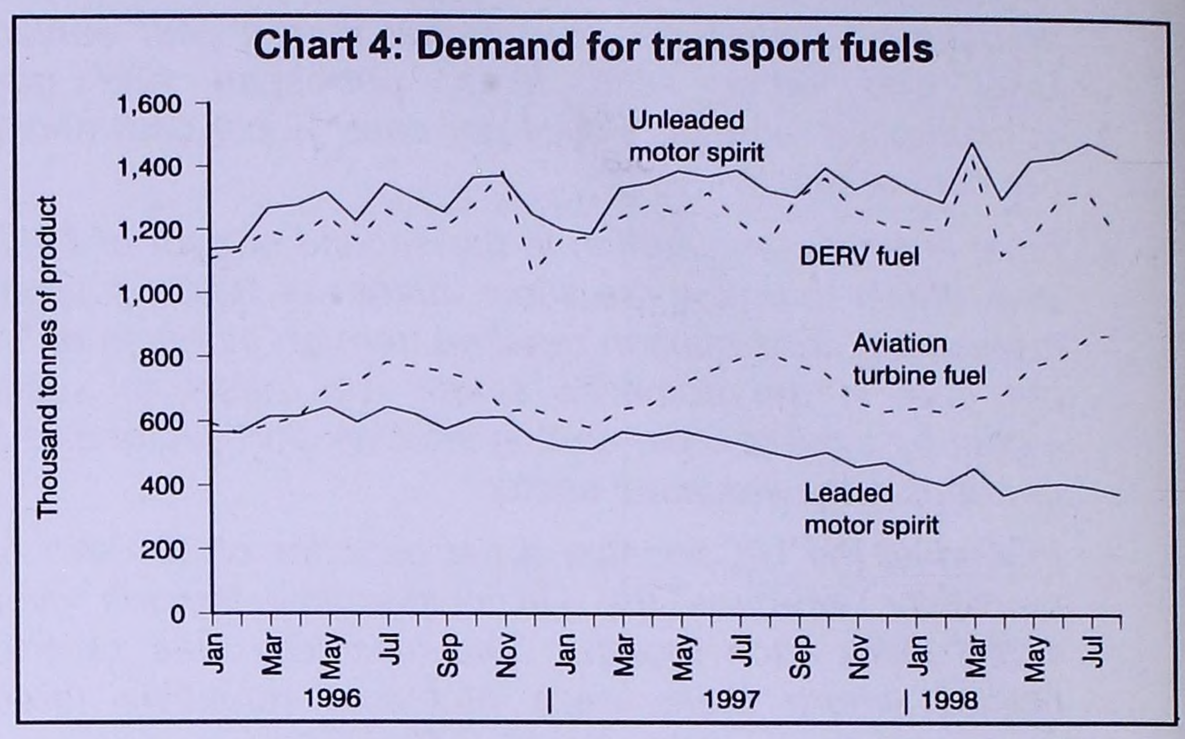


PETROLEUM (Tables 13 to 17)

Production and refining

Comparing June to August 1998 with the same period a year ago, total indigenous UK production of crude oil and NGLs increased by 5.0 per cent. Exports of crude oil and NGLs increased by 7.5 per cent, whilst imports decreased by 0.5 per cent. Exports of petroleum products were 10.5 per cent lower than a year ago, while imports were 16.2 per cent higher. However, overall the UK continues to be a net exporter of oil and oil products.

Chart 4: Demand for transport fuels



Refinery throughput and output are both lower than a year earlier (4.1 and 4.5 per cent respectively). This is due to maintenance shutdowns during July and August and the closure of the Gulf Oil refinery in December 1997. If the closure is adjusted for, refinery output would have been 1.7 per cent higher than a year earlier, showing how the remaining refineries in the UK have increased their output to compensate for the closure. There were decreases in the output of gas/diesel oil (which includes DERV fuel), motor spirit and fuel oil (by 5.4, 1.3 and 10.6 per cent respectively), while output of aviation turbine fuel remained virtually the same (up by 0.2 per cent). The decrease in refinery output has led to the decrease in exports of petroleum products mentioned above, with deliveries of products to the UK market remaining around the same level (see below).

Deliveries of products (consumption)

Overall deliveries of petroleum products for inland consumption for the period June to August 1998 were 0.8 per cent higher than in the same period a year earlier. Total deliveries of transport fuels were 1.2 per cent higher, with an increase in deliveries of DERV fuel (2.5 per cent) and a decrease in deliveries of motor spirit (2.4 per cent). Within the motor spirit total, unleaded petrol represented 78.7 per cent of total motor spirit deliveries over the period, compared with 72.0 per cent a year ago. DERV fuel's share of road transport fuels increased to 40.7 per cent compared to 39.5 per cent in the same period last year. Aviation turbine fuel increased by 7.6 per cent. Chart 4 shows recent movements in demand for transport fuels.

Deliveries of feedstock to petrochemical plants increased by 32.7 per cent mainly due to increased deliveries of Naphtha. Gas oil (other than DERV) increased by 4.5 per cent while fuel oil deliveries decreased by 9.7 per cent. There were no deliveries/imports of Orimulsion, these ceased in February 1997. The main reason for the reduction in the deliveries of fuel/gas oil is that power stations and other industries continue to move away from these fuels as a source of energy.

Stocks

During the month of August 1998 total stocks of petroleum decreased by 1.1 per cent, with stocks of crude oil and refinery process oils decreasing by 3.3 per cent and stocks of petroleum products increasing by 0.8 per cent. On a year

on year basis crude oil and refinery process oil stocks increased by 2.0 per cent whilst total products increased by 2.9 per cent. Overall stocks increased by 2.5 per cent.

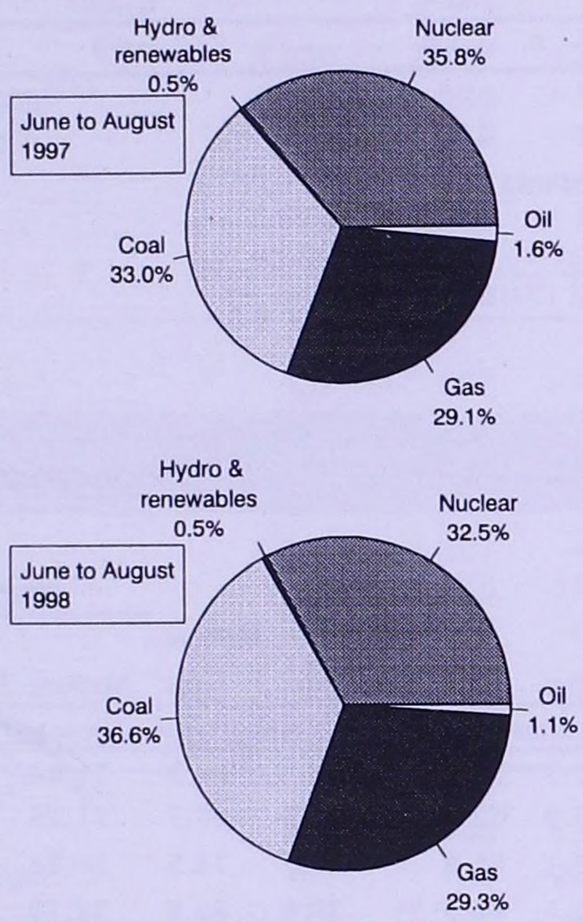
During the month of August stocks of kerosene and gas diesel increased by 2.1 per cent (88 thousand tonnes), and are 76.7 per cent higher than at the end of August 1997. This can be attributed to the rise in stocks of these products held abroad by UK companies under bilateral arrangements as part of their national stocking obligations.

ELECTRICITY (Tables 18 to 23)

Fuel use

Fuel used by the major power producers in the three months to August 1998 was, in total, 3.6 per cent higher than in the three months to August 1997. Chart 5 compares the fuel mix in each of these periods; coal's share is 3½ percentage points higher and nuclear's share 3½ percentage points lower than a year earlier. Coal use was 15.2 per cent higher than a year earlier with coal being used to make up for the non-availability of some nuclear and gas stations which were under maintenance and repair, and for the absence of imported electricity from France where there were refuelling problems at three French nuclear stations. The volume of gas used was, however, 4.2 per cent higher than a year earlier, while the use of nuclear sources was down 5.9 per cent.

Chart 5: Fuel used by major power producers - most recent 3 months compared with same 3 months a year earlier



Supplied

Electricity supplied by the major power producers in the June to August period of 1998 was 4.3 per cent higher than a year earlier. The supply from coal rose by 15.1 per cent (+3 TWh), while the supply from oil fell by 45.3 per cent (less than ½ TWh). The supply from gas fired stations was 5.6 per cent up on a year earlier with new stations that were not in full production a year ago more than compensating for the stations that were out of use for maintenance and repair. Supply from nuclear stations in this three month period was 5.1 per cent (-1 TWh) lower than a year earlier because of outages at several stations. When electricity available from other UK sources (0.1 per cent higher than a year earlier) and net imports (down 58.0 per cent) are included, total electricity available through the public distribution system was only 0.8 per cent higher than a year earlier. In August net exports of 30 GWh were recorded whereas the recent level of net imports has been over 1,200 GWh per month. This is because of problems refuelling three French nuclear plants that has temporarily cut French generating capacity.

Sales

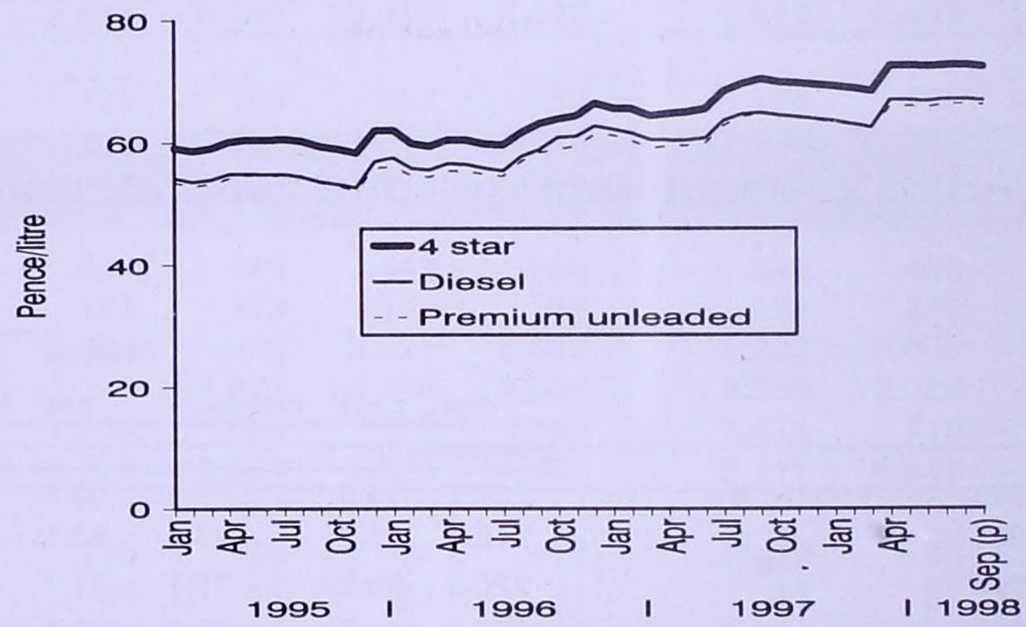
In the three months to August 1998, sales of electricity through the public distribution system were provisionally 0.5 per cent higher than a year earlier. In this period temperatures were on average below those of the corresponding period of 1997 which was particularly warm. Commercial sector sales were 2.2 per cent lower and sales to industrial customers were down by 1.6 per cent. Sales to domestic customers were up by 5.7 per cent. When estimates of electricity available from other generators are included, total consumption of electricity during the June to August period of 1998 was 0.8 per cent higher than a year earlier.

PRICES (Tables 26 to 30)

Petroleum product prices

Prices for 4 star, unleaded petrol and diesel all fell slightly in the month to mid-September 1998 (Table 30). Between mid-August and mid-September the price of 4-star petrol and diesel fell by 0.3 pence per litre with premium unleaded falling by around 0.2 pence per litre. However, prices are much the same as they have been since the budget duty increase in March 1998. Prices in September 1997 were at their highest for the year. As a result in the year since September 1997 4 star prices have risen by 2.7 per cent, unleaded by 1.9 per cent and diesel by 2.9 per cent, lower percentage changes than seen for August. Retail prices of standard grade burning oil and gas oil in August 1998 have continued on the downward trend evident since late 1997, falling by 3.8 and 2.3 per cent respectively over the last month. The crude oil price index (which is calculated in sterling terms) showed that the average cost of crude oil acquired by refineries in September 1998 was up by 4.6 per cent from August, rising for a second month, but still 33.2 per cent lower than in September 1997.

Chart 6: Typical retail prices[1] of petroleum products



1 These estimates are generally representative of prices paid on or about the 15th of the month.

Proposed change to prices tables

In September 1998 the Office for National Statistics (ONS) published new national accounts data to a new internationally agreed methodology with 1995 as the base year, the previous data were 1990. A result of this is that the deflator (the GDP market price deflator) used in Tables 28 and 29 have changed, as the deflator published by ONS will be on a 1995 = 100 basis. In order to minimise the change for users and to make interpretation easier, we propose to continue to use 1990 as the reference point (i.e. 100) for both the current price and inflation adjusted series. Therefore, the inflation adjusted average prices shown will be relative to 1995 prices but rescaled to show 1990 as 100. The actual change to real term price comparisons will be minor e.g. industrial electricity prices between 1990 and 1997 have fallen by 21.6 per cent on the old methodology and 21.2 per cent on the new. We intend to introduce this change in November's Energy Trends. We welcome comments from users (for example would they prefer a wholesale change to 1995 = 100) which should be sent to Adrian Jones, Energy Prices Manager, 1126, 1 Victoria Street, London SW1H 0ET, Tel 0171 215 5191 (see inside front page for Email address).

TOTAL ENERGY

TABLE 1. Indigenous production of primary fuels

Million tonnes of oil equivalent

						Primary electricity	
		Total	Coal[1]	Petroleum[2,3]	Natural gas[4]	Nuclear	Natural flow hydro[5]
1993		234.9	42.4	109.6	60.9	21.58	0.39
1994		256.6	30.9	138.9	65.0	21.20	0.47
1995		269.7	34.1	142.7	71.2	21.25	0.49
1996		281.8	32.2	142.4	84.8	22.18	0.33
1997		281.9	31.5	140.4	86.6	22.99	0.41
Per cent change		-	*-2.0*	*-1.4*	*+2.2*	*+3.7*	*+24.5*
1997	January - August	184.1	21.2	91.6	55.5	15.51	0.25
1998	January - August p	184.4	17.8	95.2	56.4	14.78	0.27
Per cent change		*+0.2*	*-16.3*	*+4.0*	*+1.5*	*-4.7*	*+10.7*
1997	June*	21.4	2.9	9.9	6.4	2.20	0.02
	July	20.8	2.6	11.7	4.7	1.74	0.02
	August	19.5	1.9	11.5	4.5	1.65	0.01
Total		61.8	7.4	33.1	15.6	5.59	0.05
1998	June*	22.5	2.4	11.2r	6.8	2.09	0.02
	July	20.2	2.2	11.7	4.8	1.49	0.02
	August p	20.0	1.6	11.9	4.8	1.68	0.03
Total		62.6	6.1	34.8	16.4	5.26	0.06
Per cent change		*+1.4*	*-16.8*	*+5.0*	*+4.9*	*-5.9*	*+23.7*

1. Includes solid renewable sources (wood, straw and waste), 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 at wind stations.

TABLE 2. Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

						Primary electricity							Primary electricity	
		Total	Coal[1]	Petroleum[2]	Natural gas[3]	Nuclear	Natural flow hydro[4]	Net imports	Total	Coal	Petroleum	Natural gas	Nuclear	Natural flow hydro	Net imports
		Unadjusted[5]							*Seasonally adjusted and temperature corrected*[6,7] *(annualised rates)*						
1993		221.2	55.8	78.5	63.5	21.58	0.39	1.44	222.7	55.9	79.1	64.3	21.44	0.39	1.44
1994		219.4	52.5	77.6	66.1	21.20	0.47	1.45	223.9	53.3	78.8	68.7	21.19	0.47	1.45
1995		220.8	50.2	75.7	71.7	21.25	0.49	1.40	226.1	51.2	77.2	74.5	21.27	0.47	1.40
1996		233.0	46.9	78.2	83.9	22.18	0.33	1.44	232.1	46.9	78.6	82.8	22.10	0.34	1.43
1997		226.9	42.0	75.6	84.5	22.99	0.41	1.43	233.5	42.9	77.0	88.7	22.99	0.42	1.42
Per cent change		*-2.6*	*-10.5*	*-3.3*	*+0.7*	*+3.7*	*+24.5*	*-0.8*	*+0.6*	*-8.4*	*-2.1*	*+7.2*	*+4.0*	*+25.8*	*-0.8*
1997	January - August	146.6	26.9	48.8	54.3	15.51	0.25	0.93	233.2	42.7	76.3	88.8	23.61	0.38	1.40
1998	January - August p	146.5	27.4	48.1	55.2	14.78	0.27	0.73	235.1	44.2	75.5	91.4	22.47	0.44	1.08
Per cent change		*-0.1*	*+2.0*	*-1.5*	*+1.7*	*-4.7*	*+10.7*	*-22.1*	*+0.8*	*+3.4*	*-1.0*	*+3.0*	*-4.9*	*+16.2*	*-22.6*
1997	June*	18.7	3.3	7.1	5.9	2.20	0.02	0.13	237.5	42.5	76.9	92.4	23.88	0.30	1.50
	July	14.3	2.6	5.5	4.2	1.74	0.02	0.11	234.5	41.1	75.5	93.0	23.30	0.36	1.29
	August	13.9	2.7	5.4	4.0	1.65	0.01	0.11	230.7	43.2	74.7	88.2	22.91	0.38	1.31
Total		46.8	8.7	18.1	14.1	5.59	0.05	0.34	234.2	42.2	75.7	91.2	23.36	0.35	1.37
1998	June*	19.0	3.4	7.1	6.3	2.09	0.02	0.12	243.6	43.2	77.3	98.6	22.72	0.26	1.46
	July	14.7	3.1	5.7	4.4	1.49	0.02	0.02	235.4	47.1	76.3	91.5	19.84	0.39	0.29
	August p	14.2	2.8	5.5	4.3	1.68	0.03	-0.01	229.2	41.8	74.6	88.8	23.39	0.74	-0.09
Total		47.9	9.2	18.2	14.9	5.26	0.06	0.14	236.0	44.0	76.1	93.0	21.98	0.46	0.56
Per cent change		*+2.2*	*+6.7*	*+0.9*	*+5.6*	*-5.9*	*+23.7*	*-59.4*	*+0.8*	*+4.2*	*+0.5*	*+1.9*	*-5.9*	*+33.0*	*-59.4*

1. Includes solid renewable sources (wood, straw and waste), and net foreign trade and stock changes in other solid fuels.
2. Inland deliveries for energy use, plus refinery fuel and losses, minus the differences between deliveries and actual consumption at power stations.
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 at wind stations. 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 Digest of United Kingdom Energy Statistics 1998, paragraphs 1.46 - 1.47.

TABLE 3. Supply and use of fuels

Thousand tonnes of oil equivalent

	1996	1997	Per cent change	1996 3rd quarter	1996 4th quarter	1997 1st quarter	1997 2nd quarter	1997 3rd quarter	1997 4th quarter	1998 p 1st quarter	1998 p 2nd quarter	Per cent change
PRIMARY FUELS AND EQUIVALENTS												
Production of primary fuels												
Coal[1]	32,172	31,524	*-2.0*	7,393	8,046	8,603	8,061	7,289	7,571	7,346	6,726	*-16.6*
Petroleum[2]	142,353	140,392	*-1.4*	34,368	37,895	36,246	32,149	34,612	37,385	36,557	35,031	*+9.0*
Natural gas[3,4]	84,776	86,604	*+2.2*	13,821	25,402	27,758	18,685	15,271	24,891	27,221	19,930	*+6.7*
Primary electricity[5]	22,510	23,405	*+4.0*	4,958	6,284	6,320	6,040	5,311	5,735	6,243	5,622	*-6.9*
Total[6]	281,821	281,935	-	60,542	77,629	78,930	64,938	62,485	75,583	77,369	67,312	*+3.7*
Imports	80,178	80,422	*+0.3*	16,811	17,067	20,493	20,465	20,143	19,321	19,564	21,943	*+7.2*
Exports	117,122	118,324	*+1.0*	28,194	30,472	30,284	26,978	29,994	31,067	30,206	30,409	*+12.7*
Marine bunkers	2,813	3,121	*+11.0*	795	731	647	836	851	787	766	861	*+3.0*
Stock changes[7]	+1,778	-2,635		-1,472	+95	+1	-3,008	-1,586	+1,958	+960	-278	
Non-energy use[8]	13,417	13,071	*-2.6*	3,415	3,456	3,246	3,040	3,390	3,394	3,268	2,570	*-15.5*
Statistical difference[9]	+2,530	+1,696		+3,545	+3,105	+1,526	+603	-113	-320	+1,717	-1,798	
Total primary energy input[10]	232,956	226,904	*-2.6*	47,021	63,238	66,773	52,144	46,694	61,294	65,372	53,339	*+2.3*
Conversion losses etc.[11]	70,947	69,038	*-2.7*	14,416	18,416	20,209	16,515	14,547	17,767	19,846	17,650	*+6.9*
Final energy consumption[12]	162,009	157,866	*-2.6*	32,605	44,823	46,564	35,629	32,147	43,526	45,526	35,689	*+0.2*
FINAL CONSUMPTION BY USER												
Iron and steel industry												
Coal	2	-	-	-	-	-	-	-	-	1	1	-
Other solid fuel[13]	3,805	3,749	*-1.5*	918	1,010	955	959	926	910	896	971	*+1.2*
Coke oven gas	626	655	*+4.7*	156	156	164	164	164	164	163	163	*-0.2*
Gas	1,889	1,800	*-4.7*	400	482	510	392	295	603	590	449	*+14.4*
Electricity	905	891	*-1.6*	213	226	232	227	209	223	232	227	-
Petroleum	771	765	*-0.7*	201	164	196	158	157	254	163	111	*-29.3*
Total	7,998	7,860	*-1.7*	1,888	2,040	2,057	1,900	1,751	2,153	2,046	1,922	*+1.2*
Other industries												
Coal	2,486	2,172	*-12.6*	503	728	613	534	437	589	503	394	*-26.3*
Other solid fuel[1,13]	603	626	*+3.7*	150	154	153	155	154	164	151	156	*+0.7*
Coke oven gas	18	19	*+5.8*	4	4	5	5	5	5	5	5	*+9.1*
Gas[4]	13,154	12,845	*-2.3*	3,178	3,636	3,753	2,715	2,749	3,628	4,179	2,497	*-8.0*
Electricity	7,964	8,118	*+1.9*	1,957	2,003	2,107	1,947	1,993	2,070	2,135	1,971	*+1.2*
Petroleum	6,999	6,282	*-10.2*	1,463	1,822	2,006	1,433	1,273	1,569	1,706	1,470	*+2.5*
Total	31,223	30,061	*-3.7*	7,256	8,348	8,637	6,790	6,610	8,025	8,679	6,493	*-4.4*
Transport												
Electricity[14]	639	667	*+4.5*	151	161	172	168	157	170	174	170	*+1.4*
Petroleum	51,605	52,349	*+1.4*	13,419	13,145	12,310	13,484	13,355	13,199	12,838	12,825	*-4.9*
Total[15]	52,245	53,018	*+1.5*	13,571	13,307	12,483	13,652	13,513	13,369	13,012	12,996	*-4.8*
Domestic sector												
Coal	2,085	1,991	*-4.5*	357	622	544	449	443	556	440	433	*-3.5*
Other solid fuel[1,13]	855	705	*-17.5*	218	190	193	173	163	176	155	210	*+21.5*
Gas	32,322	29,716	*-8.1*	2,972	10,586	11,662	5,320	3,071	9,663	11,233	6,006	*+12.9*
Electricity	9,246	8,983	*-2.8*	1,730	2,628	2,712	1,921	1,745	2,606	2,768	2,083	*+8.5*
Petroleum	3,521	3,393	*-3.6*	586	1,023	1,159	638	576	1,020	1,112	710	*+11.1*
Total[6]	48,039	44,798	*-6.7*	5,867	15,051	16,272	8,504	6,001	14,022	15,711	9,445	*+11.1*
Other final users[17]												
Coal	425	448	*+5.6*	46	88	170	87	74	117	72	36	*-59.1*
Other solid fuel[1,13]	161	128	*-20.7*	41	36	34	31	31	31	33	53	*+72.0*
Gas[4]	10,372	10,118	*-2.4*	1,349	2,913	3,668	2,011	1,592	2,848	3,014	2,248	*+11.8*
Electricity	7,533	7,937	*+5.4*	1,729	2,028	2,170	1,852	1,820	2,095	2,043	1,770	*-4.4*
Petroleum	4,013	3,496	*-12.9*	858	1,012	1,073	803	755	865	914	728	*-9.4*
Total	22,504	22,128	*-1.7*	4,024	6,077	7,116	4,783	4,273	5,956	6,077	4,834	*+1.1*
Total final consumption	162,009	157,866	*-2.6*	32,605	44,823	46,564	35,629	32,147	43,526	45,526	35,689	*+0.2*
FINAL CONSUMPTION BY FUEL												
Coal	4,998	4,613	*-7.7*	907	1,438	1,326	1,070	954	1,262	1,017	864	*-19.3*
Other solid fuel[1,13]	5,424	5,208	*-4.0*	1,328	1,389	1,335	1,317	1,274	1,281	1,236	1,389	*+5.5*
Coke oven gas	644	674	*+4.7*	161	161	168	168	168	168	169	169	*+0.1*
Gas[4,15,16]	57,739	54,480	*-5.6*	7,899	17,618	19,593	10,439	7,707	16,741	19,017	11,201	*+7.3*
Electricity	26,286	26,596	*+1.2*	5,780	7,047	7,393	6,115	5,924	7,163	7,351	6,221	*+1.7*
Petroleum	66,909	66,286	*-0.9*	16,528	17,167	16,744	16,517	16,116	16,908	16,733	15,843	*-4.1*
Total all fuels[6]	162,009	157,866	*-2.6*	32,605	44,823	46,564	35,629	32,147	43,526	45,526	35,689	*+0.2*

1. Includes solid renewable sources (wood, straw, waste etc).
2. Crude petroleum and natural gas liquids. Annual data includes extended well-test production.
3. Excludes gas flared or re-injected.
4. Includes landfill gas and sewage gas. Excludes non energy use of gas
5. Nuclear, natural flow hydro and generation at wind stations.
6. Includes small amounts of solar and geothermal heat.
7. Stock fall (+) or stock rise (-).
8. Petroleum and natural gas.
9. Recorded demand minus supply.
10. More detailed analyses of the 1996 and 1997 figures are given in the Digest of UK Energy Statistics 1998.
11. Losses in conversion and distribution, and use by fuel industries.
12. Measured as deliveries, except for natural gas and electricity, and for solid fuels used by the iron and steel industry.
13. Coke and other manufactured solid fuels.
14. Includes use in transport-related premises, eg. airports, warehouses.
15. Includes small quantities of gas used for road transport.
16. Due to late invoicing of gas sales adjustments have been made to each quarter of 1996.
17. Mainly public administration, commerce and agriculture.

COAL & OTHER SOLID FUELS

TABLE 4. Coal production and foreign trade

Thousand tonnes

			Production					
			Total[1]	Deep-mined	Opencast	Net imports	Imports[2]	Exports
1993			68,199	50,457	17,006	+17,286	18,400	1,114
1994			48,971	31,854	16,804	+13,852	15,088	1,236
1995			53,037	35,150	16,369	+15,037	15,896	859
1996			50,197	32,223	16,315	+16,811	17,799	988
1997			48,495	30,281	16,700	+18,610	19,756	1,147
Per cent change			*-3.4*	*-6.0*	*+2.4*	*+10.7*	*+11.0*	*+16.0*
1997	January -	August	32,649	20,431	11,277	+12,863	13,632	769
1998	January -	August p	27,128	16,465	9,725	+13,368e	14,017e	649e
Per cent change			*-16.9*	*-19.4*	*-13.8*	*+3.9*	*+2.8*	*-15.6*
1997	June*		4,491	2,715	1,645	+1,743	1,807	64
	July		3,860	2,494	1,257	+1,256	1,327	71
	August		2,772r	1,598r	1,061r	+1,273r	1,336r	63r
Total			11,124	6,807	3,963	+4,272	4,470	198
1998	June*		3,734	2,270	1,335	+1,967r	2,027	59r
	July		3,283	1,991	1,185	+1,933r	2,025	92r
	August p		2,317	1,215	1,001	+1,866e	1,942e	75e
Total			9,334	5,475	3,521	+5,766	5,993	227
Per cent change			*-16.1*	*-19.6*	*-11.2*	*+35.0*	*+34.1*	*+14.4*

1. Includes an estimate for slurry.
2. In 1993 import figures include an additional estimate for recorded trade. In other years figures are as recorded in the Overseas Trade Statistics of the United Kingdom (OTS) except that import and export figures for recent months are estimated on the basis of information available for extra-EC trade until monthly statistics for intra-EC trade become available from HM Customs and Excise.

TABLE 5. Inland coal use

Thousand tonnes

			Fuel producers' consumption				Final users (disposals by collieries and opencast sites)		
				Primary	Secondary				
			Total	Collieries	Electricity generators	Coke ovens	Other conversion industries[1]	Industry[2]	Domestic[2]	Other[3]
1993			86,727	48	66,106	8,479	1,329	5,300	4,638	826
1994			81,783	22	62,406	8,595	1,190	4,948	3,901	721
1995			76,948	8	59,588	8,664	982	4,493	2,690	523
1996			71,403	8	54,893	8,635	946	3,639	2,705	577
1997			63,092	8	47,058	8,750	863	3,174	2,587	651
Per cent change			*-11.6*	*-2.3*	*-14.3*	*+1.3*	*-8.8*	*-12.8*	*-4.4*	*+12.7*
1997	January -	August	39,444	5	28,965	5,750	594	2,047	1,643	440
1998	January -	August p	40,852	4	31,631	5,702	389	1,682	1,274	169
Per cent change			*+3.6*	*-2.7*	*+9.2*	*-0.8*	*-34.5*	*-17.8*	*-22.4*	*-61.5*
1997	June*		4,913	1	3,426	849	78	288	232	39
	July		3,886	-	2,687	688	74	233	170	33
	August		3,942r	-	2,845r	668	74	138r	182r	35r
Total			12,740	1	8,959	2,205	226	659	584	106
1998	June*		5,015	1	3,689	859	45	235	171	15
	July		4,599r	-	3,471	670	56	236	158	7
	August p		4,078	-	3,079	680	55	133	126	5
Total			13,692	1	10,240	2,209	156	603	455	28
Per cent change			*+7.5*	*-5.6*	*+14.3*	*+0.2*	*-31.1*	*-8.4*	*-22.1*	*-73.8*

1. Low temperature carbonisation and patent fuel plants.
2. Includes estimates of imports.
3. Public adminstration, commerce and agriculture.

TABLE 6. **Stocks of coal at end of period**

Thousand tonnes

			Distribution				
		Total[1]	Total distributed stocks	Electricity generators[2]	Coke ovens	Other	Total undistributed stocks
1993		45,860	29,872	28,579	1,218	75	15,989
1994		27,272	16,001	14,802	1,098	101	11,271
1995		18,730	11,626	10,587	961	77	7,104
1996		14,905	10,752	9,495	1,228	29	4,153
1997		18,881	14,064	12,897	1,128	39	4,817
1997	June*	19,530	14,492	13,333	1,134	26	5,038
	July	19,816	14,316	13,024	1,261	31	5,500
	August	20,565r	15,193r	13,952r	1,216r	25	5,372
1998	June*	17,761	13,335	11,955	1,361	19	4,426
	July	18,356	13,813	12,304	1,481	29	4,542
	August p	17,814	13,600	12,270	1,310	20	4,214
Absolute change:							
in latest month		*-542*	*-214*	*-34*	*-171*	*-9*	*-328*
on a year ago		*-2,751*	*-1,594*	*-1,682*	*+94*	*-6*	*-1,158*

1. Excluding distributed stocks held in merchants' yards, etc., mainly for the domestic market, and stocks held by the industrial sector.
2. Coal-fired power stations belonging to major power producers (see inside back cover).

TABLE 7. **Other solid fuel production, foreign trade and use**

Thousand tonnes

		Coke and breeze						Other manufactured solid fuels[1]				
				Consumption						Consumption		
		Production	Net imports[2]	Iron and steel industry[3]	Other industry[4,5]	Domestic[5]	Total use	Production	Net imports[2]	Domestic	Industry[4]	Total use
1993		6,093	+527	5,968	423	329	6,721	1,111	+9	1,127	33	1,160
1994		6,202	+218	6,168	237	150	6,555	1,034	-27	904	69	973
1995		6,228	+376	6,234	129	174	6,537	841	-58	708	63	771
1996		6,222	+557	6,611	183	181	6,975	862	-41	815	54	868
1997		6,233	+637	6,519	197	92	6,808	814	-59	677	58	735
Per cent change		*+0.2*	*+14.3*	*-1.4*	*+7.7*	*-49.0*	*-2.4*	*-5.6*	*+43.9*	*-17.0*	*+7.4*	*-15.3*
1996	2nd quarter	1,568	+236	1,685	53	77	1,815	238	-11	220	14	234
	3rd quarter	1,562	+155	1,601	46	51	1,698	220	-8	195	13	208
	4th quarter	1,556	+139	1,742	51	24	1,817	220	-5	183	15	198
1997	1st quarter	1,564	+142	1,663	46	34	1,743	223	4	187	15	202
	2nd quarter	1,566	+155	1,666	49	17	1,732	197	-29	169	14	183
	3rd quarter	1,553	+167	1,625	47	20	1,692	211	-19	150	12	162
	4th quarter	1,549	+173	1,565	54	21	1,640	182	-15	171	17	188
1998	1st quarter	1,537	+65	1,566	21	30	1,617	120	-7	134	16	150
	2nd quarter p	1,567	+285	1,679	31	118	1,827.	146	10	157	13	170
Per cent change		-	*+84.1*	*+0.8*	*-38.1*	*(+)*	*+5.5*	*-26.0*	*(-)*	*-7.1*	*-7.1*	*-7.1*

1. These include solid fuels used in open fires and closed appliances and fuel produced by low temperature carbonisation.
2. The latest quarter's import figures are estimated. They will be revised when the intra-EC trade data becomes available from HM Customs and Excise.
3. Includes an estimate of iron foundries' consumption.
4. Includes own use by fuel producers.
5. Includes an estimate of imports.

UK CONTINENTAL SHELF

TABLE 8. Drilling activity[1]

Number of wells started

		Offshore				Onshore	
		Exploration	Appraisal	Exploration & Appraisal	Development[2]	Exploration & Appraisal	Development
1993		51	59	110	162	2	9
1994		62	37	99	202	3	13
1995		60	38	98	244	2	19
1996		77	35	112	261	7	27
1997 p		63	35	98	256	13	29
Per cent change		*-18.2*	-	*-12.5*	*-1.9*	*+85.7*	*+7.4*
1996	3rd quarter	19	9	28	52	-	7
	4th quarter	22	9	31	62	2	4
1997	1st quarter	22	15	37	64	1	8
	2nd quarter	11	8	19	72	4	8
	3rd quarter	14	8	22	59	4	7
	4th quarter	16	4	20	61	4	6
1998	1st quarter	15r	9r	24r	76r	4	9r
	2nd quarter	9r	7	16r	57r	6r	7r
	3rd quarter p	13	9	22	51	1	3
Per cent change		*-7.1*	*+12.5*	-	*-13.6*		

1. Including sidetracked wells.
2. Development wells are production and appraisal wells drilled after development approval has been granted.

TABLE 9. Value of, and investment in, UKCS oil and gas production

£ million

		Total income[1]	Operating costs	Exploration expenditure	Gross trading profits (net of stock appreciation)	Percentage contribution to GDP[2]	Capital investment	Percentage contribution to industrial investment[3]
1993		13,827	3,661	1,213	8,111	1.7	4,664	20
1994		15,936	3,860	939	9,723	2.0	3,751	17
1995		17,791	3,913	1,085	10,949	2.0	4,438	18
1996		21,052	3,978	1,097	14,387	2.4	4,440	18
1997		18,955	4,150	1,194	12,638	2.1	4,336	16
Per cent change		*-10.0*	*+4.3*	*+8.9*	*-12.2*		*-2.3*	
1996	2nd quarter	4,683	976	242	3,051	2.1	1,192	22
	3rd quarter	4,733	956	279	3,076	2.1	1,188	20
	4th quarter	6,219	1,104	278	4,471	2.9	1,101	16
1997	1st quarter	5,581	953	296	4,097	2.6	949	16
	2nd quarter	4,060	1,039	376	2,456	1.6	1,146	18
	3rd quarter	4,115	1,037	288	2,528	1.7	1,203	18
	4th quarter	5,200	1,121	235	3,557	2.3	1,037	14
1998	1st quarter	4,705	990	153	3,306	2.1	1,350	20
	2nd quarter	3,839	1,080	184	2,208	1.4	1,318	18
Per cent change		*-5.5*	*+3.9*	*-51.2*	*-10.1*		*+15.0*	

1. Including sales of crude oil, NGLs and natural gas plus other income associated with oil and gas production.
2. GDP at factor cost.
3. Investment by energy, water supply and the manufacturing sectors.

TABLE 10. Indicative tariff rates offered in the UKCS for the handling of oil and gas

	Tariff rate (pence/thousand cubic feet)			Annual Capacity[1]	Number of years	Start date	Conditions the tariff allows for:														
	Processing	Transport	Bundled services																		
Gas systems																					
1 Caister / Murdoch			39.5	Large	16	2000	b		e	f	g	h					n	a - Priority rights			
2 Hewett Bacton Plant	12.0			Large	8	1998	b			f	g	h			l			b - Send or pay			
3 CATS			75	Small	4-Jun	1999	b			f	g							c - Annual charge			
4 Dimlington Terminal	15			Large	10+	Q4 99	b			f	g	h					o	d - New capital expense			
5 Cleeton Platform			35	Large	10+	Q4 99	b		e	f	g	h					o	e - Processing offshore			
6 Cleeton & Dimlington			35	Large	9	1999	b			f	g	h					o	f - Processing onshore			
7 Dimlington Terminal			15	Large	9	1999	b			f	g	h					o	g - NGLs			
8 Easington Terminal			25	Large	9	1999	b	d		f	g	h					o	h - Water			
9 Ravensprun North Transportation System			15.47	Large	9	1999	b		e			h					o	i - Salt			
																		j - Sulphur			
																		k - CO_2			
Oil systems	(pounds sterling/barrel)																	l - H_2S			
																		m - N_2			
10 Fulmar Processing and Export systems	0.75	1.25		Large	N/A	1999		b	e			h					n	n - Compression			
11 Ninian Pipeline System	0.15-0.25	0.30-0.40		Large	10	1999		b	e	f	g	h			l			o - Other			
12 Beryl			2.75	Large	5-7	1999	a	b	e			h					o				
13 Forties Pipeline System			1.20	Small	11	2000				f	g	h	i		k	l					
14 Forties Pipeline System			1.70	Large	12	1999				f	g	h	i		k	l					
15 Forties Pipeline System			1.20	Large	6	1999		b		f	g	h	i		k	l					
16 Ninian Platform	1.00	0.27		Large	10	1998			e			h					n				
17 Ninian Pipeline System			0.75	Large	10	1998		b		f	g	h	i								
18 Forties Platform	2.00			Large	9	1999			e		g	h			k	l					

1. Small annual capacity is less than 7.5 billion cubic foot of gas or 0.5 million tonnes of oil.

Additional comments on the conditions applying to the above indicative tariffs

Gas systems

1. No comments.
2. No comments.
3. Firm transportation and processing service until 30 September year 2001. Interruptible transportation service from 1 October 2001 (processing remains a firm service throughout).
4. Onshore processing at Dimlington terminal.
5. Offshore processing at Cleeton Platform, transportation in the Southern North Sea pipeline and Onshore processing at Dimlington.
6. No comments.
7. No comments.
8. Additional tariffs for compression services of 0.11 p/kcf.
9. No comments.

Oil systems

10. Offer includes operational expense sharing for processing and transportation services.
11. To 31/8/2000, 15p/bbl transportation, +30p/bbl SCO processing, +£40/tonne LPG processing. Post 1/9/2000, 25p/bbl transportation, +40p/bbl SCO processing, +£50/tonne LPG processing.
12. Includes storage, operation of subsea facilities, gas lift.
13. No comments.
14. Bundled tariff includes transportation through another field group's pipeline to enter the Forties Pipeline System. FPS and the other field group will share the total bundled tariff.
15. No comments.
16. Processing fee increased after certain cumulative throughput volume thresholds.
17. Tariff fee increased after certain cumulative throughput volume thresholds.
18. No comments.

The above table records the indicative tariffs offered in recent months for transportation and/or processing of offshore hydrocarbon resources, from wellhead to terminal or part thereof. The services on offer can be either processing (e.g. 'cleaning' or compression of the hydrocarbons), transport of the hydrocarbons, or a combination of the two, where the price is dependant on the 'bundling' of the services on offer. The prices themselves are not firm prices, but an indication of the type of price that could be expected by someone seeking a similar service from that system.

Prices will vary according to a large number of factors. Some of these are reflected in the main table. These include the date from which the services are required, the length of the contract, the volume of hydrocarbons involved (whether large or small), and the various types of processing involved. Other variables to take into consideration are whether the customer will have priority rights to use the services, whether they will be expected to pay even if the services booked are not utilised, and whether new infrastructure will be required (such as additional lengths of pipeline, new receiving facilities, etc.) to accommodate the customer's hydrocarbons. In some cases comments have been provided to give a more accurate picture of the conditions under which the indicative tariff has beer made.

The above table appears monthly in Energy Trends. Sometimes only a small number of indicative tariffs will be reported in the month, in which case entries from the previous month will be re-printed.

Enquiries regarding the publication of tariff rates should be directed to Mr S R Siddiqui at room 2.H.4, Department of Trade and Industry, 1 Victoria Street, London SW1H 0ET (Tel: 0171-215 5262).

GAS

TABLE 11. Natural gas production and supply

GWh

			Upstream gas industry					Downstream gas industry				
			Gross gas production[1]	*Less* Producers own use[2]	*Less* Exports[3]	*Less* Stock change and other net losses[4 5]	*Plus* Imports	Gas available at terminals[6]	Gas input into transmission system[7]	*Less* Operators own use[8]	*Less* Stock changes[9]	*Less* Metering differences[10]	Gas output from transmission system[11]
1993			703,166	40,669	6,824	+623	48,528	703,578	700,337	2,930	-950	-693	699,050
1994			750,860	48,260	9,557	+1,980	33,053	724,116	727,350	3,090	-3,067	2,495	724,832
1995			822,726	49,249	11,232	+4,278	19,457	777,424	778,874	3,311	-9,927	7,535	777,955
1996			980,064	55,825	15,203	+5,580	19,804	923,260	927,374	4,576	+3,632	10,519	908,647
1997			1,000,676	58,693	21,666	+5,127	14,062	929,252	929,917	4,066	+6,339	6,668	912,844
Per cent change			*+2.1*	*+5.1*	*+42.5*		*-29.0*	*+0.6*	*+0.3*	*-11.1*			*+0.5*
1997	January -	August	644,761	37,532	12,825	+3,918	11,445	601,931	600,379	2,619	+6,699	5,659	585,402
1998	January -	August p	656,792	43,745	18,096	+2,126	7,533	600,358	603,403	2,487	-3,183	39	604,060
Per cent change			*+1.9*	*+16.6*	*+41.1*		*-34.2*	*-0.3*	*+0.5*	*-5.0*			*+3.2*
1997	June		61,879	4,039	1,319	-330	1,068	57,919	57,570	145	+4,043	259	53,123
	July		60,375	4,596	1,514	+829	814	54,250	55,025	160	+4,921	676	49,268
	August		56,376	4,517	1,709	+615	782	50,317	50,643	86	+4,354	503	45,700
Total			178,630	13,152	4,542	+1,114	2,664	162,486	163,238	391	+13,318	1,438	148,091
1998	June		67,193r	6,919r	1,671	+588	768	58,783r	58,299	185	+3,127	125	54,862
	July		60,417	4,670	1,933	+577	551	53,788	55,377	176	+2,788	157	52,256
	August p		61,649	4,635	2,104	+738	643	54,815	55,384	193	+5,115	-81	50,157
Total			189,259	16,224	5,708	+1,903	1,962	167,386	169,060	554	+11,030	201	157,275
Per cent change			*+6.0*	*+23.4*	*+25.7*		*-26.4*	*+3.0*	*+3.6*	*+41.7*			*+6.2*

1. Includes waste and producers own use, but excludes gas flared.
2. Gas used for drilling, production and pumping operations.
3. Includes exports direct from the UKCS as well as others carried out by the downstream gas industry from the national transmission system.
4. Stock changes are changes in the volume of gas held within the UKCS pipeline system. Net losses include waste through venting of gas as well as losses due to pipeline leakage.
5. Includes the effect of the different methods of measurement of gas volumes used at various points along the production and transmission process. More detail on the reasons for these differences is given in the Digest of United Kingdom Energy Statistics 1998, Chapter 5, paragraphs 5.58 to 5.60 and Table 5.3.
6. Gas available at terminals for consumption in the UK as recorded by the terminal operators.
7. Gas received as reported by the pipeline operators. This differs from gas available atterminals due to different methods for calculating the volumes of gas involved being used by the terminal and pipeline operators. Pipeline operators include Transco, who run the national pipeline network, and other pipelines that take North Sea gas supplies direct to consumers.
8. Gas consumed by pipeline operators in pumping operations and on their own sites, offices etc.
9. Stocks of gas held in specific storage sites, either as liquefied natural gas, pumped into salt cavities or stored by pumping the gas back into an offshore field.
10. When the volume of gas output from the transmission is calculated, although the calorific value of gas varies fro day-to-day, when recording the gas supplied to customers a single calorific value is used. This is the lowest of the range of calorific values for the actual gas being supplied, resulting in a loss of gas in energy terms.
11. Including public gas supply, direct supplies by North Sea producers, third party supplies and stock changes. These figures differ from those for total consumption in Table 2 which include producers and operators own use of gas excluded in this table.

TABLE 12. Natural gas consumption[1,2]

GWh

		Total	Electricity generators[2]	Iron and steel industry	Other industries	Domestic	Other[3]
1993		672,953	81,778	15,577	136,517	340,162	98,919
1994		712,590	114,574	20,327	146,843	329,710	101,136
1995		755,615	145,790	20,689	153,207	326,010	109,920
1996		877,721	190,691	21,961	169,293	375,841	119,935
1997		892,544	243,361	20,934	165,746	345,533	116,970
Per cent change		*+1.7*	*+27.6*	*-4.7*	*-2.1*	*-8.1*	*-2.5*
1996	2nd quarter	183,434	41,999	5,338	32,794	71,981	31,322
	3rd quarter	141,105	46,280	4,408	37,141	36,844	16,432
	4th quarter	254,058	54,542	6,457	58,032	106,392	28,635
1997	1st quarter	295,509	63,562r	5,932r	47,933r	135,601	42,481r
	2nd quarter	184,232	59,110r	4,560r	35,488r	61,865	23,209r
	3rd quarter	150,939	57,563r	3,433r	35,895r	35,710r	18,338r
	4th quarter	261,863	63,126r	7,009r	46,430r	112,356	32,942r
1998	1st quarter	290,597	66,704	6,863	51,530	130,622	34,878
	2nd quarter p	192,706	59,700	5,216	31,980	69,840	25,970
Per cent change		*+4.6*	*+1.0*	*+14.4*	*-9.9*	*+12.9*	*+11.9*

1. Gas consumption is generally less than gas transmitted (Table 11) on an annual basis because of own use and losses in transmission.
2. Major power producers and auto generators (see defintions inside back cover).
3. Public administration, commerce and agriculture.

PETROLEUM

TABLE 13. Indigenous production, refinery receipts, imports and exports

Thousand tonnes

	Indigenous production[1]			Refinery receipts			Foreign trade[6,7]						
							Crude oil and NGLs		Process oils		Petroleum products		
	Total	Crude oil	NGLs[2]	Indigenous[3]	Other[4]	Net foreign imports[5]	Imports	Exports	Imports	Exports	Imports	Exports	Bunkers[8]
1993	100,189	93,950	6,239	36,680	852	59,868	50,601	60,556	11,100	1,834	10,064	24,890	2,478
1994	126,939	119,032	7,907	42,174	427	51,170	42,898	77,899	10,198	1,926	10,441	24,644	2,313
1995	130,324	121,794	8,530	44,872	1,110	47,590	40,920	78,337	7,829	1,350	9,878	24,418	2,465
1996	130,007	121,930	8,077	49,449	997	48,275	41,896	77,332	8,203	1,824	9,316	26,018	2,664
1997	128,205	120,116	8,089	47,589	794	48,649	41,333	75,169	8,661	1,345	8,706	29,118	2,962
Per cent change	*-1.4*	*-1.5*	*+0.1*	*-3.8*	*-20.4*	*+0.8*	*-1.3*	*-2.8*	*+5.6*	*-26.3*	*-6.5*	*+11.9*	*+11.2*
1997 January - August	83,604	78,441	5,164	30,897	451	32,992	28,224	49,591	5,802	1,034	5,271	18,797	1,956
1998 January - August p	86,919	81,417	5,503	29,325	819	33,135	28,048	52,282	5,937	850	6,545	18,335	2,055
Per cent change	*+4.0*	*+3.8*	*+6.6*	*-5.1*	*+81.8*	*+0.4*	*-0.6*	*+5.4*	*+2.3*	*-17.8*	*+24.2*	*-2.5*	*+5.0*
1997 June	9,072	8,533	539	3,320	59	4,548	3,755	5,416	802	9	946	1,913	277
July	10,683	10,063	620	3,620	95	4,728	4,145	6,141	638	55	488	2,980	272
August	10,493	9,873	620	4,197	108	4,241	3,545	6,204	783	87	453	2,849	276
Total	30,248	28,469	1,779	11,137	263	13,516	11,446	17,761	2,222	151	1,886	7,742	824
1998 June	10,213r	9,665r	549r	2,771	83	5,173	4,509	6,600	784	120	598	2,382	300
July	10,689	10,160	529	3,352	95	4,894	4,352	6,667	661	120	734	2,531	276
August p	10,873	10,225	648	3,969	27	3,103	2,526	5,820	728	151	860	2,016	240
Total	31,775	30,050	1,726	10,092	206	13,169	11,387	19,087	2,172	391	2,191	6,928	816
Per cent change	*+5.0*	*+5.6*	*-3.0*	*-9.4*	*-21.7*	*-2.6*	*-0.5*	*+7.5*	*-2.2*	*(+)*	*+16.2*	*-10.5*	*-1.1*

1. Includes for convenience offshore and land production.
2. Condensates and petroleum gases derived at onshore treatment plants.
3. Crude oil plus Natural gas liquids (NGLs).
4. Mainly recycled products (backflows to refineries).
5. Total arrivals less refinery shipments of crude oil, NGLs and process oils (ie partly refined oils).
6. Foreign trade recorded by the Petroleum Industry and may differ from figures published in the Overseas Trade Statistics.
7. 1996 data are subject to further revision as additional information on imports and exports of petroleum porducts becomes available.
8. International marine bunkers.

TABLE 14. Stocks of petroleum[1] at end of period

Thousand tonnes

	Crude oil and refinery process oil				Petroleum products					Total stocks		
	Refineries[2]	Terminals[3]	Offshore[4]	Total[5]	Light distiillates[6]	Kerosene & gas/diesel[7]	Fuel oils[8]	Other products[9]	Total products	Net bilaterals[10]	Stocks in UK[11]	Total stocks
1993	5,573	1,642	457	7,672	2,734	2,906	3,346	1,419	10,406	2,024	16,053	18,077
1994	5,402	1,720	428	7,650	2,515	2,650	2,884	1,464	9,513	1,543	15,620	17,163
1995	5,075	1,003	588	6,741	2,482	2,444	2,974	1,611	9,511	1,534	14,718	16,252
1996	4,970	1,461	590	7,065	2,509	2,534	2,962	1,441	9,447	1,527	14,984	16,511
1997	4,977	1,463	790	7,390	2,224	2,500	2,880	1,535	9,138	1,858	14,670	16,528
Per cent change	*+0.1*	*+0.1*	*+33.9*	*+4.6*	*-11.4*	*-1.3*	*-2.8*	*+6.5*	*-3.3*	*+21.7*	*-2.1*	*+0.1*
1997 June	5,353	1,409	610	7,412	2,386	2,436	2,975	1,556	9,353	1,472	15,293	16,765
July	5,175	1,366	542	7,243	2,347	2,287	3,120	1,441	9,195	1,765	15,193	16,958
August	5,543	1,114	592	7,409	2,431	2,414	2,922	1,509	9,276	1,810	14,875	16,685
1998 June	5,774	1,311	480	7,613	2,064	3,911	2,013	1,586	9,573	2,231	14,956	17,187
July	5,888	1,372	538	7,816	2,045	4,178	1,710	1,542	9,476	2,401	14,891	17,292
August p	5,451	1,463	583	7,557	2,027	4,266	1,701	1,555	9,549	2,511	14,595	17,106
Per cent change	*-1.7*	*+31.3*	*-1.5*	*+2.0*	*-16.6*	*+76.7*	*-41.8*	*+3.0*	*+2.9*	*+38.8*	*-1.9*	*+2.5*

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 fields (UKCS).
5. From April 1994 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 feedstock (mdf) and marine diesel oil.
8. Including Orimulsion.
9. Ethane, propane, butane, other petroleum gases, naphtha (ldf), industrial and white spirits, bitumen, petroleum wax, lubricating oil, petroleum coke and miscellaneous products.
10. The difference between 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.

TABLE 15. Refinery throughput and output of petroleum products

Thousand tonnes

		Throughput of crude and process oil	Refinery use: Fuel	Refinery use: Losses/ (gains)	Total[1] output of petroleum products	Gases: Butane and propane	Gases: Other petro-leum	Naphtha (LDF)	Motor spirit	Kerosene: Aviation turbine fuel	Kerosene: Burning oil	Gas/ diesel oil	Fuel oil	Lubricating oils	Bitumen
1993		96,274	6,383	308	89,584	1,575	162	2,696	28,394	8,341	2,707	27,361	13,183	1,264	2,450
1994		93,162	6,256	261	86,644	1,605	132	2,794	27,562	7,697	2,967	27,137	11,378	1,296	2,569
1995		92,743	6,481	129	86,133	1,815	133	2,711	27,254	7,837	2,924	27,169	10,969	1,261	2,459
1996		96,661	6,623	152	89,885	1,828	144	2,824	28,046	8,305	3,510	28,903	11,479	1,111	2,189
1997		97,024	6,572	86	90,366	1,950	139	2,854	28,260	8,342	3,336	28,778	11,747	1,231	2,258
Per cent change		*+0.4*	*-0.8*	*-43.1*	*+0.5*	*+6.7*	*-3.8*	*+1.1*	*+0.8*	*+0.4*	*-5.0*	*-0.4*	*+2.3*	*+10.8*	*+3.2*
1997	January - August	64,113	4,308	40	59,765	1,337	81	1,956	18,344	5,695	2,120	19,198	7,773	791	1,529
1998	January - August p	62,805	4,347	81	58,377	1,345	128	1,525	18,363	5,499	2,137	18,749	7,324	767	1,509
Per cent change		*-2.0*	*+0.9*	*(+)*	*-2.3*	*+0.6*	*+58.0*	*-22.1*	*+0.1*	*-3.4*	*+0.8*	*-2.3*	*-5.8*	*-3.1*	*-1.3*
1997	June	7,731	515	45	7,171	166	10	223	2,241	740	185	2,275	926	92	232
	July	8,664	561	-11	8,114	191	10	246	2,359	782	243	2,681	1,129	110	229
	August	8,430	550	2	7,878	178	10	226	2,428	793	217	2,558	1,019	95	218
Total		24,825	1,627	36	23,162	535	30	694	7,029	2,314	646	7,515	3,074	296	679
1998	June	8,188	555	26	7,607	178	9	216	2,346	756	218	2,497	946	94	215
	July	8,166	558	-47	7,655	188	32	171	2,347	826	167	2,479	959	114	234
	August p	7,446	551	44	6,851	177	18	93	2,244	736	193	2,137	843	69	212
Total		23,800	1,664	22	22,113	543	58	479	6,938	2,319	578	7,112	2,748	277	661
Per cent change		*-4.1*	*+2.3*	*-38.3*	*-4.5*	*+1.4*	*+96.1*	*-31.0*	*-1.3*	*+0.2*	*-10.5*	*-5.4*	*-10.6*	*-6.3*	*-2.6*

1. Including aviation spirit, wide cut gasoline industrial and white spirit, petroleum wax and miscellaneous products.

TABLE 16. Deliveries of petroleum products for inland consumption[1,2]

Thousand tonnes

		Total[1,2,3]	Butane[4] and propane	Naphtha (LDF)[5] and middle distillate feedstock	Motor Spirit: Total	Motor Spirit: of which Unleaded	Kerosene: Aviation turbine fuel	Kerosene: Burning oil: Premier	Kerosene: Burning oil: Standard domestic	Gas/diesel oil: Derv fuel	Gas/diesel oil: Other	Fuel oil[6]	Orimulsion	Bitumen	Lubricating oils
1993		75,790	1,992	3,777	23,766	12,503	7,106	35	2,002	11,806	7,782	9,355	1,416	2,523	806
1994		74,957	2,486	3,525	22,843	13,162	7,284	29	2,029	12,914	7,491	8,048	1,227	2,595	795
1995		73,695	2,500	3,531	21,953	13,831	7,660	26	2,075	13,457	7,227	6,709	1,266	2,420	895
1996		75,390	2,502	3,665	22,409	15,231	8,049	39	2,515	14,365	7,631	5,982	872	2,146	864
1997		72,501	2,426	3,367	22,252	16,002	8,411	28	2,496	14,976	7,325	3,754	182	2,015	872
Per cent change		*-3.8*	*-3.1*	*-8.1*	*-0.7*	*+5.1*	*+4.5*	*-27.8*	*-0.8*	*+4.3*	*-4.0*	*-37.2*	*-79.1*	*-6.1*	*+1.0*
1997	January - August	48,004	1,642	2,035	14,857	10,543	5,553	18	1,554	9,821	4,854	2,409	182	1,382	584
1998	January - August p	47,237	1,618	2,459	14,452	11,195	5,969	16	1,657	9,959	4,723	1,946	0	1,341	553
Per cent change		*-1.6*	*-1.5*	*+20.9*	*-2.7*	*+6.2*	*+7.5*	*-14.5*	*+6.6*	*+1.4*	*-2.7*	*-19.2*	*-100.0*	*-3.0*	*-5.3*
1997	June	5,902	187	227	1,922	1,372	757	1	118	1,321	516	274	0	185	74
	July	5,949	219	211	1,924	1,392	796	1	129	1,234	550	220	0	197	75
	August	5,752	220	254	1,836	1,328	817	1	112	1,160	545	204	0	192	67
Total		17,604	627	692	5,682	4,092	2,370	3	358	3,716	1,611	698	0	574	216
1998	June	5,884r	179	302	1,845	1,436	802	1	150r	1,304	544	221	0	179	71
	July	6,032	187	348	1,881	1,483	873	1	146	1,319	575	212	0	193	72
	August p	5,834	220	269	1,819	1,442	875	1	153	1,188	564	198	0	177	60
Total		17,751	587	918	5,544	4,361	2,550	2	449	3,811	1,684	630	0	549	202
Per cent change		*+0.8*	*-6.4*	*+32.7*	*-2.4*	*+6.6*	*+7.6*	*-4.4*	*+25.4*	*+2.5*	*+4.5*	*-9.7*	*-*	*-4.3*	*-6.4*

1. Including other petroleum gases, aviation spirit, industrial and white spirits, petroleum wax, non-domestic standard burning oil and miscellaneous products.
2. 1997 data are subject to futher revision as additional information on imports of petroleum products contributes to deliveries.
3. Excluding refinery fuel.
4. Including amounts for petro-chemicals.
5. Now mainly for petro-chemical feedstock.
6. Excludes Orimulsion.

TABLE 17. Deliveries of petroleum products for inland consumption: energy uses[1]

Thousand tonnes

		Total	Electricity[2] generators	Gas works	Iron and steel[2] industry	Other[2] industries	Transport[3]	Domestic	Other[4]
1993		65,065	5,522	44	855	7,207	44,568	2,713	4,156
1994		63,779	3,831	50	892	7,465	44,830	2,701	4,010
1995		62,374	3,694	47	881	6,487	44,818	2,696	3,751
1996		64,097	3,316	50	737	6,447	46,633	3,170	3,744
1997		61,547	1,393	46	730	5,751	47,317	3,057	3,253
Per cent change		*-4.0*	*-58.0*	*-8.0*	*-0.9*	*-10.8*	*+1.5*	*-3.6*	*-13.1*
1996	2nd quarter	15,649	766	11	199	1,517	11,681	621	855
	3rd quarter	15,774	779	8	192	1,338	12,128	529	800
	4th quarter	16,508	932	15	157	1,667	11,878	922	938
1997	1st quarter	15,797	695	18	185	1,749	11,118	1,047	999
	2nd quarter	15,250	246	7	149	1,341	12,176	579	748
	3rd quarter	14,864	202	6	150	1,218	12,060	521	702
	4th quarter	15,637	250	15	246	1,443	11,964	910	804
1998	1st quarter	15,474r	291r	16	160r	1,528r	11,648r	980	850
	2nd quarter p	14,500	192	9	111	1,287	11,578	645	677
Per cent change		*-4.9*	*-22.0*	*+28.6*	*-25.5*	*-4.0*	*-4.9*	*+11.4*	*-9.5*

1. 1997 data are subject to further revision as additional information on imports of petroleum products, which contributes to deliveries for energy uses becomes available.
2. For coverage of electricity generators see inside back cover .
3. Includes coastal shipping and fishing.
4. Mainly public administration, commerce and agriculture.

ELECTRICITY

TABLE 18. Fuel used in electricity generation

Million tonnes of oil equivalent

	Major power producers[1]				Other generators			All generating companies						
	Coal	Gas	Nuclear	Total[2]	Coal	Gas	Total[2]	Coal	Oil	Gas	Nuclear	Hydro	Other	Total[3]
1993	38.3	6.3	21.6	70.9	1.3	0.8	4.5	39.6	5.8	7.0	21.6	0.4	1.0	75.4
1994	35.9	9.1	21.2	70.2	1.2	0.8	3.5	37.1	4.1	9.9	21.2	0.4	1.1	73.7
1995	35.0	11.4	21.3	71.3	1.1	1.1	3.9	36.1	3.6	12.5	21.3	0.5	1.2	75.1
1996	32.0	15.2	22.2	72.8	1.0	1.2	3.8	33.0	3.5	16.4	22.2	0.3	1.2	76.6
1997	27.4	19.3	23.0	71.4	1.2	1.6	4.6	28.6	1.9	20.9	23.0	0.4	1.4	76.1
Per cent change	*-14.5*	*+27.2*	*+3.7*	*-1.9*	*+16.8*	*+32.5*	*+23.4*	*-13.5*	*-46.6*	*+27.6*	*+3.7*	*+22.6*	*+13.1*	*-0.7*
1996 2nd quarter	7.1	3.4	5.5	16.7	0.2	0.3	0.9	7.3	0.7	3.7	5.5	0.1	0.3	17.6
3rd quarter	6.4	3.7	4.9	15.9	0.2	0.3	0.8	6.7	0.8	4.0	4.9	0.0	0.2	16.7
4th quarter	8.0	4.4	6.1	19.4	0.3	0.3	1.1	8.2	0.8	4.6	6.1	0.1	0.5	20.5
1997 1st quarter	8.3	5.0	6.2	20.2	0.3	0.5	1.3	8.7	0.8	5.5	6.2	0.1	0.3	21.5
2nd quarter	5.3	4.7	6.0	16.3	0.3	0.4	1.3	5.6	0.4	5.1	6.0	0.1	0.5	17.6
3rd quarter	5.7	4.6	5.2	15.8	0.2	0.4	1.0	5.9	0.4	5.0	5.2	0.1	0.3	16.8
4th quarter	8.0	5.1	5.6	19.1	0.3	0.4	1.1	8.3	0.3	5.4	5.6	0.1	0.4	20.2
1998 1st quarter	8.2	5.3	6.1	20.0	0.2	0.4	1.1	8.4	0.2	5.7	6.1	0.2	0.4	21.0
2nd quarter p	6.5	4.7	5.5	17.0	0.3	0.4	1.2	6.8	0.2	5.1	5.5	0.1	0.4	18.2
Per cent change	*+21.6*	*+1.0*	*-6.9*	*+4.4*	*+5.5*	*+1.5*	*-11.2*	*+20.7*	*-42.2*	*+1.0*	*-6.9*	*-8.5*	*-12.1*	*+3.3*

1. See definitions inside back cover.
2. Total includes oil, (including oil used in gas turbine and diesel plant or for lighting up coal fired boilers), Orimulsion, hydro, wind and refuse derived fuel.
3. Does **not** include imports of electricity from France.

TABLE 19. Fuel used in electricity generation by major producers[1]

Million tonnes of oil equivalent

	Total[2]	Coal	Oil[3]	Gas	Nuclear[4]	Hydro
1993	70.88	38.26	4.41	6.27	21.58	0.30
1994	70.20	35.89	3.58	9.08	21.20	0.37
1995	71.31	35.02	3.13	11.44	21.25	0.34
1996	72.84	32.02	3.02	15.19	22.18	0.25
1997	71.44	27.39	1.23	19.32	22.99	0.31
Per cent change	*-1.9*	*-14.5*	*-59.3*	*+27.2*	*+3.7*	*+22.9*
1997 January - August	46.11	16.82	0.92	12.51	15.51	0.21
1998 January - August p	47.05	18.46	0.54	12.95	14.78	0.22
Per cent change	*+2.0*	*+9.8*	*-41.5*	*+3.5*	*-4.7*	*+6.7*
1997 June*	6.04	1.97	0.11	1.73	2.20	0.02
July	4.86	1.54	0.07	1.47	1.74	0.01
August	4.74	1.64	0.07	1.35	1.65	0.01
Total	15.64	5.15	0.25	4.56	5.59	0.04
1998 June*	6.13	2.13	0.08	1.81	2.09	0.01
July	5.14	2.02	0.06	1.55	1.49	0.01
August p	4.93	1.78	0.05	1.39	1.68	0.02
Total	16.20	5.94	0.18	4.75	5.26	0.04
Per cent change	*+3.6*	*+15.2*	*-27.5*	*+4.2*	*-5.9*	*+20.5*

1. See definitions inside back cover
2. Including wind power, and refuse derived fuel and other renewables.
3. Including oil used in gas turbine and diesel plant or for lighting up coal fired boilers, and Orimulsion.
4. Includes nuclear from British Nuclear Fuels Plc.

TABLE 20. Electricity generation, supply and availability

TWh

	Major power producers[1]			Other generators			All generating companies				
	Electricity generation	Own use[2]	Electricity supplied (net)	Electricity generation	Own use[2]	Electricity supplied (net)	Electricity generation	Own use[2]	Electricity supplied (net)	Net imports	Electricity available
1993	305.43	20.12	285.32	17.67	1.12	16.55	323.10	21.23	301.87	16.72	318.58
1994	306.73	18.75	287.98	18.25	0.80	17.46	324.98	19.55	305.44	16.89	322.32
1995	313.96	18.79	295.17	20.09	0.88	19.21	334.05	19.67	314.37	16.31	330.69
1996	326.29	19.11	307.18	21.10	1.07	20.03	347.39	20.18	327.21	16.68	343.89
1997	324.14	17.88	306.26	21.20	0.97	20.23	345.34	18.85	326.49	16.57	343.07
Per cent change	*-0.7*	*-6.4*	*-0.3*	*+0.5*	*-9.9*	*+1.0*	*-0.6*	*-6.6*	*-0.2*	*-0.6*	*-0.2*
1996 2nd quarter	74.38	4.41	69.97	5.16	0.38	4.79	79.54	4.78	74.76	4.30	79.06
3rd quarter	71.26	4.18	67.07	4.74	0.21	4.53	75.99	4.39	71.60	4.03	75.63
4th quarter	87.01	4.89	82.12	5.60	0.15	5.45	92.60	5.04	87.57	4.07	91.64
1997 1st quarter	91.25	5.10	86.15	5.23	0.24	4.99	96.48	5.34	91.14	4.27	95.41
2nd quarter	73.81	4.07	69.73	4.94	0.20	4.74	78.74	4.27	74.47	4.06	78.53
3rd quarter	72.18	4.01	68.17	5.08	0.29	4.79	77.26	4.30	72.96	4.00	76.96
4th quarter	86.91	4.70	82.21	5.95	0.24	5.71	92.86	4.94	87.92	4.25	92.17
1998 1st quarter	90.98	5.86	85.12	5.37	0.36	5.01	96.35	6.22	90.13	4.22	94.35
2nd quarter p	76.92	4.02	72.89	5.16	0.23	4.93	82.08	4.26	77.82	3.98	81.80
Per cent change	*+4.2*	*-1.2*	*+4.5*	*+4.5*	*+16.2*	*+4.0*	*+4.2*	*-0.4*	*+4.5*	*-1.9*	*+4.2*

1. See definitions inside back cover.
2. Used in works and for pumping at pumped storage stations.

TABLE 21. **Electricity supplied by other generating companies**

GWh

			Industry								
		Electricity supplied (net) [1] Total	Total industry	Petroleum refineries	Iron and steel	Chemicals	Engineering and other metal trades	Food, drink and tobacco	Paper, printing and stationery	Other [2,3]	Transport undertakings
1993		16,552	15,793	2,754	1,752	4,156	3,461	725	1,253	1,692	759
1994		17,457	16,751	2,932	1,693	4,258	3,620	771	1,300	2,177	706
1995		19,208	18,397	3,150	2,032	4,342	4,243	908	1,763	1,959	811
1996		20,028	19,180	3,292	2,116	4,733	4,235	890	2,110	1,804	848
1997		20,234	19,355	3,153	2,095	4,717	4,521	904	2,116	1,849	879
Per cent change		*+1.0*	*+0.9*	*-4.2*	*-1.0*	*-0.3*	*+6.7*	*+1.5*	*+0.3*	*+2.5*	*+3.7*
1996	2nd quarter	4,785	4,588	808	494	1,182	918	154	562	470	196
	3rd quarter	4,531	4,312	817	556	1,068	816	117	553	384	219
	4th quarter	5,449	5,219	840	587	1,179	1,417	278	456	463	230
1997	1st quarter	4,994	4,781	709	533	1,050	1,248	249	444	548	213
	2nd quarter	4,736	4,549	735	511	1,268	980	130	491	434	188
	3rd quarter	4,794	4,579	815	538	1,147	936	156	606	379	216
	4th quarter	5,710	5,447	894	513	1,252	1,357	369	574	488	263
1998	1st quarter	5,008	4,795	735	407	1,050	1,230	256	534	583	213
	2nd quarter p	4,925	4,729	774	515	1,266	1,047	142	521	464	196
Per cent change		*+4.0*	*+4.0*	*+5.3*	*+0.9*	*-0.2*	*+6.9*	*+8.8*	*+6.1*	*+7.1*	*+4.5*

1. Nuclear power stations are included within the public supply system on Table 22 now that the merger of BNFL and Magnox Electric is underway.
2. Including water-works and companies within the service sector.
3. Includes electricity supplied from renewable sources that cannot be attributed to any of the other industrial groups.

TABLE 22. **Electricity production and availability from the public supply system[1]**

TWh

			Electricity supplied (net)												
					By type of fuel							of which			
			Electricity generated	Own use[2]	Total	Coal[3]	Oil[4]	Gas	Nuclear[6]	Hydro[7]	Other[8]	Conventional Steam Stations	CCGT[5] Stations	Net imports	Purchases from other sources (net)	Total Electricity available
1993			305.43	20.12	285.32	157.29	14.11	29.84	80.98	2.95	0.14	178.31	22.61	16.72	3.17	305.21
1994			306.73	18.75	287.98	148.40	10.72	44.82	79.96	3.63	0.46	166.88	36.82	16.89	3.92	308.78
1995			313.96	18.79	295.17	144.73	9.24	56.82	80.60	3.27	0.51	162.08	48.53	16.31	3.20	314.67
1996			326.29	19.11	307.18	134.29	10.33	74.36	85.82	1.84	0.53	153.17	65.60	16.68	3.25	327.11
1997			324.14	17.88	306.26	110.15	4.89	99.08	89.34	2.26	0.54	127.08	86.61	16.57	3.35	326.19
Per cent change			*-0.7*	*-6.4*	*-0.3*	*-18.0*	*-52.7*	*+33.2*	*+4.1*	*+23.0*	*+1.3*	*-17.0*	*+32.0*	*-0.6*	*+3.1*	*-0.3*
1997	January -	August	209.03	11.64	197.39	67.90	3.79	63.59	60.23	1.52	0.35	79.25	55.58	10.85	2.18	210.42
1998	January -	August p	214.08	12.49	201.60	73.21	1.91	66.32	57.88	1.94	0.33	84.37	57.69	8.46	2.11	212.16
Per cent change			*+2.4*	*+7.2*	*+2.1*	*+7.8*	*-49.6*	*+4.3*	*-3.9*	*+27.9*	*-6.7*	*+6.5*	*+3.8*	*-22.1*	*-3.3*	*+0.8*
1997	June*		27.02	1.48	25.53	7.72	0.51	8.67	8.51	0.07	0.04	8.86	7.93	1.46	0.29	27.28
	July		22.39	1.28	21.12	6.52	0.35	7.37	6.79	0.04	0.04	7.73	6.46	1.25	0.22	22.59
	August		21.58	1.19	20.39	6.43	0.28	7.19	6.41	0.05	0.04	7.69	6.14	1.27	0.22	21.88
Total			70.99	3.96	67.04	20.67	1.14	23.23	21.71	0.16	0.12	24.29	20.53	3.99	0.73	71.75
1998	June*		27.44	1.10	26.33	8.56	0.30	9.21	8.19	0.04	0.03	10.12	7.93	1.42	0.29	28.04
	July		23.28	1.28	22.00	8.14	0.17	7.77	5.84	0.04	0.04	9.22	6.84	0.29	0.22	22.50
	August p		22.90	1.32	21.58	7.08	0.16	7.54	6.57	0.18	0.05	8.18	6.60	-0.03	0.22	21.77
Total			73.62	3.71	69.91	23.78	0.62	24.52	20.61	0.26	0.12	27.52	21.37	1.68	0.73	72.31
Per cent change			*+3.7*	*-6.2*	*+4.3*	*+15.1*	*-45.3*	*+5.6*	*-5.1*	*+60.5*	*-4.4*	*+13.3*	*+4.1*	*-58.0*	*+0.1*	*+0.8*

1. Electricity generated by major power producers (see definitions inside back cover) and available through the grid in England and Wales and from distribution companies in Scotland and Northern Ireland.
2. Used in works and for pumping at pumped storage stations.
3. Including Slurry.
4. Including orimulsion.
5. Combined Cycle Gas Turbine Stations.
6. Includes nuclear generated by UKAEA and BNFL. The UKAEA has ceased to contribute with the closure of its power station in 1994.
7. Natural flow and net supply by pumped storage stations.
8. Wastes and renewable sources other than hydro.

TABLE 23. **Availability and consumption of electricity**

TWh

	Public distribution system							Other generators			All electricity suppliers		
			Sales of electricity to consumers										
	Electricity available	Transmission distribution and other losses[1]	Total[2]	Industrial[3]	Commercial[4]	Domestic	Other[5]	Electricity available[6]	Losses and statistical differences	Consumption of electricity[7]	Electricity available	Losses and statistical differences	Consumption of electricity
1993	305.21	22.20	283.00	94.59	79.89	100.46	8.07	13.38	0.64	12.75	318.58	22.84	295.75
1994	308.78	29.10	280.03	91.79	77.96	101.41	8.86	13.54	1.85	11.76	322.32	30.95	291.78
1995	314.68	27.05	287.61	92.73	83.71	102.21	8.96	16.01	1.01	14.62	330.69	28.46	302.23
1996	327.11	28.23	298.88	94.59	87.35	107.51	9.42	16.78	1.37	15.41	343.89	29.60	314.29
1997	326.19	24.93	301.26	94.62	93.50	104.46	8.68	16.88	0.66	16.23	343.07	25.58	317.49
Per cent change	*-0.3*	*-11.7*	*+0.8*	-	*+7.0*	*-2.8*	*-7.9*	*+0.6*	*-52.0*	*+5.3*	*-0.2*	*-13.6*	*+1.0*
1997 January - August	210.42	16.18	194.24	61.73	61.09	66.02	5.39	10.68	0.40	10.29	221.11	16.58	204.53
1998 January - August p	212.16	17.11	195.05	61.22	59.14	69.09	5.59	10.71	0.51	10.20	222.88	17.63	205.25
Per cent change	*+0.8*	*+5.8*	*+0.4*	*-0.8*	*-3.2*	*+4.6*	*+3.7*	*+0.3*	*+29.7*	*-0.8*	*+0.8*	*+6.4*	*+0.4*
1997 June*	27.28	1.72	25.56	8.58	8.41	7.90	0.67	1.62	0.04	1.59	28.90	1.76	27.15
July	22.59	1.89	20.70	7.43	6.57	6.14	0.55	1.26	0.09	1.17	23.85	1.98	21.87
August	21.88	1.47	20.41	6.97	6.82	6.01	0.60	1.23	0.12	1.11	23.11	1.59	21.52
Total	71.75	5.08	66.66	22.98	21.81	20.06	1.82	4.12	0.25	3.87	75.87	5.33	70.54
1998 June	28.04	1.83r	26.21r	8.67	8.32	8.51r	0.71	1.69	0.04	1.65	29.73	1.87r	27.87r
July	22.50r	2.24r	20.26r	6.86r	6.52	6.34	0.55	1.39	0.10	1.29	23.89	2.33r	21.56r
August p	21.77	1.26	20.51	7.08	6.50	6.34	0.58	1.23	0.10	1.13	23.00	1.36	21.64
Total	72.31	5.33	66.99	22.61	21.34	21.19	1.85	4.31	0.23	4.08	76.62	5.56	71.06
Per cent change	*+0.8*	*+4.8*	*+0.5*	*-1.6*	*-2.2*	*+5.7*	*+1.3*	*+4.7*	*-5.5*	*+5.3*	*+1.0*	*+4.3*	*+0.8*

1. Losses on the grid system and local netwoks and other differences between data collected on sales and data collected on availability. The increases in losses and statistical differences in 1994 reflect the temporary reduction in data quality accompanying the metering and billing procedures that followed the reduction of the franchise limit from 1MW to 100kW in April 1994.
2. The allocation of sales between the four constituent sectors is highly provisional and subject to change in the two months after initial publication.
3. Manufacturing industry, construction, energy and water supply industries.
4. Commercial premises, transport and other service sector consumers.
5. Agriculture, public lighting and combined domestic/commercial premises.
6. Net electricity supplied less transfers to the public distribution system.
7. The majority of this consumption is by the industrial and fuel sectors (89% in 1997).

TEMPERATURES

TABLE 24. **Average temperatures and deviations from the long term mean[1]**

Degrees Celsius

	Long term mean	Average daily temperature			Deviation from the long term mean		
	1961 to 1990	1996	1997	1998	1996	1997	1998
Statistical month[2]							
January	3.8	5.2	2.4	6.2	+1.4	-1.4	+2.4
February	4.0	2.6	6.1	6.6	-1.4	+2.1	+2.6
March*	5.4	3.7	8.3	7.7	-1.7	+2.9	+2.3
April	7.6	8.6	8.5	7.9	+1.0	+0.9	+0.3
May	10.2	8.3	11.2	12.4	-1.9	+1.0	+2.2
June*	13.4	14.0	13.9	13.7	+0.6	+0.5	+0.3
July	15.7	16.1	16.6	15.3	+0.4	+0.9	-0.4
August	15.9	17.5	19.0	16.5	+1.6	+3.1	+0.6
September*	14.0	13.9	15.3		-0.1	+1.3	
October	11.1	12.2	11.8		+1.1	+0.7	
November	7.6	7.4	8.5		-0.2	+0.9	
December*	4.9	3.9	6.6		-1.0	+1.7	
Year[3]	9.5	9.4	10.7		-0.1	+1.2	
Calendar month							
January	3.9	4.8	2.9	5.5	+0.9	-1.0	+1.6
February	3.9	3.1	6.9	7.7	-0.8	+3.0	+3.8
March	5.7	4.6	8.4	8.0	-1.1	+2.7	+2.3
April	7.8	8.7	9.1	7.8	+0.9	+1.3	-
May	10.9	9.3	11.5	12.9	-1.6	+0.6	+2.0
June	13.9	14.4	14.0	14.1	+0.5	+0.1	+0.2
July	15.8	16.4	16.9	15.5	+0.6	+1.1	-0.3
August	15.6	16.7	18.6	15.9	+1.1	+3.0	+0.3
September	13.5	13.7	14.5		+0.2	+1.0	
October	10.6	11.8	10.5		+1.2	-0.1	
November	6.6	6.2	8.9		-0.4	+2.3	
December	4.7	3.5	6.1		-1.2	+1.4	
Year	9.5	9.5	10.7		-0.1	+1.2	

1. Based on data provided by the Meteorological Office. Information on the methodology used is given in footnotes to Table 1.11 of the Digest of UK Energy Statistics 1998.
2. Months with 4 or 5 weeks. Months marked * contain 5 weeks.
3. Weighted average (based on 52 weeks).

FOREIGN TRADE

TABLE 25. Imports and exports of fuels and related materials[1]

		Coal and other solid fuel	Petroleum: Crude	Petroleum: Products	Natural gas	Electricity	Total	Coal and other solid fuel	Petroleum: Crude	Petroleum: Products[2]	Natural gas	Electricity	Total	Total fob[3]
		Quantity - million tonnes of oil equivalent						*Value - £ million*						
IMPORTS (cif):														
1993		13.0	53.6	21.8	4.3	1.4	94.2	731	4,078	1,766	327	426	7,328	6,997
1994		10.8	46.7	20.9	3.0	1.5	82.9	598	3,241	1,689	231	388	6,148	5,810
1995		11.5	44.1	17.4	1.3	1.4	75.7	601	3,236	1,542	105	408	5,892	5,571
1996		12.7	44.8	17.8	1.4	1.4	78.2	694	4,035	1,821	117	391	7,058	6,604
1997		14.2	45.3	15.3	1.3	1.4	77.6	714	3,647	1,441	103	406	6,311	5,874
Per cent change		*+11.6*	*+1.1*	*-14.2*	*-2.1*	*-0.8*	*-0.8*	*+2.9*	*-9.6*	*-20.9*	*-11.7*	*+3.9*	*-10.6*	*-11.1*
1996	3rd quarter	3.0	11.7	4.3	0.2	0.4	19.5	159	1,028	408	21	94	1,709	1,593
	4th quarter	3.5	10.9	4.3	0.2	0.3	19.3	181	1,098	503	19	101	1,902	1,786
1997	1st quarter	4.3	10.0	4.0	0.4	0.4	19.1	208	902	376	32	118	1,636	1,529
	2nd quarter	3.6	12.9	3.8	0.4	0.3	21.0	181	995	342	28	98	1,644	1,521
	3rd quarter	3.2	12.1	3.4	0.2	0.3	19.2	166	924	302	12	73	1,477	1,365
	4th quarter	3.0	10.3	4.2	0.4	0.4	18.3	159	825	422	31	118	1,555	1,460
1998	1st quarter	3.3	10.2	4.0	0.2	0.4	18.1	158	667	345	18	144	1,332	1,222
	2nd quarter p	3.9	12.9	3.7	0.1	0.3	21.0	181	713	271	19	105	1,288	1,155
Per cent change		*+8.0*	*+0.2*	*-2.5*	*-61.7*	*-1.9*	*-*	*-0.2*	*-28.4*	*-20.6*	*-32.9*	*+7.0*	*-21.6*	*-24.0*
EXPORTS (fob):														
1993		1.0	67.0	30.9	0.6	-	99.5	73	5,147	3,149	28	-	8,397	8,397
1994		1.2	86.0	30.1	1.0	-	118.3	75	6,095	2,776	45	-	8,991	8,991
1995		0.9	86.4	25.7	0.9	-	113.9	70	6,428	2,621	54	-	9,174	9,174
1996		1.0	83.4	27.8	1.4	-	113.5	82	7,426	3,268	65	2	10,843	10,843
1997p		1.1	76.7	29.2	1.7	-	108.6	82	6,334	3,214	80	1	9,711	9,711
Per cent change		*+9.9*	*-8.0*	*+5.1*	*+22.5*	*-*	*-4.3*	*+0.6*	*-14.7*	*-1.6*	*+22.9*	*-*	*-10.4*	*-10.4*
1996	3rd quarter	0.2	19.9	7.2	0.2	-	27.6	18	1,738	818	12	1	2,586	2,586
	4th quarter	0.3	21.6	7.3	0.3	-	29.6	26	2,135	924	17	1	3,102	3,102
1997	1st quarter	0.4	20.5	6.6	0.4	-	27.9	27	1,930	787	20	-	2,764	2,764
	2nd quarter	0.2	18.7	6.9	0.5	-	26.3	18	1,447	759	20	-	2,244	2,244
	3rd quarter	0.2	18.9	7.7	0.3	-	27.1	17	1,475	853	15	-	2,360	2,360
	4th quarter	0.3	18.6	8.0	0.5	-	27.4	21	1,482	815	25	-	2,344	2,344
1998	1st quarter	0.3	22.5	5.6	0.4	-	28.7	20	1,404	504	18	-	1,946	1,946
	2nd quarter p	0.2	19.2	5.8	0.3	-	25.5	14	1,094	473	17	-	1,598	1,598
Per cent change		*-16.0*	*+3.1*	*-15.9*	*-36.5*	*-*	*-2.8*	*-21.3*	*-24.4*	*-37.7*	*-12.3*	*-*	*-28.8*	*-28.8*
NET EXPORTS:														
1993		-12.0	13.4	9.1	-3.7	-1.4	5.3	-658	1,069	1,383	-299	-426	1,069	1,400
1994		-9.7	39.3	9.2	-2.1	-1.5	35.4	-523	2,853	1,087	-185	-388	2,843	3,181
1995		-10.6	42.4	8.2	-0.4	-1.4	38.2	-531	3,192	1,080	-51	-408	3,281	3,602
1996		-11.8	38.6	10.0	-	-1.4	35.3	-612	3,391	1,446	-52	-389	3,784	4,238
1997p		-13.2	31.4	13.9	0.3	-1.4	31.1	-632	2,687	1,773	-23	-405	3,400	3,837
1996	3rd quarter	-2.8	8.3	2.9	-	-0.4	8.0	-141	710	410	-9	-94	877	993
	4th quarter	-3.2	10.8	3.0	0.1	-0.3	10.3	-155	1,038	421	-2	-100	1,200	1,316
1997	1st quarter	-4.0	10.5	2.6	-	-0.4	8.8	-181	1,027	411	-12	-117	1,128	1,235
	2nd quarter	-3.4	5.8	3.1	0.1	-0.3	5.3	-163	452	417	-8	-98	600	723
	3rd quarter	-3.0	6.8	4.3	0.2	-0.3	7.9	-149	551	551	3	-72	883	995
	4th quarter	-2.8	8.3	3.9	0.1	-0.4	9.1	-138	657	394	-6	-118	789	884
1998	1st quarter	-3.0	12.3	1.5	0.2	-0.4	10.6	-137	738	159	0	-144	615	725
	2nd quarter p	-3.7	6.3	2.1	0.2	-0.3	4.6	-167	381	201	-1	-105	310	443

1. The figures generally correspond to those published under SITC section 3 of the OTS. They do however include some unpublished revisions and additional amendments. The quantity figures differ from those in Table 3, which are partly based on other sources of information.
2. SITC divisions 334, 335, 342, 344, plus Orimulsion from division 278.
3. 'Free on board'- imports adjusted to exclude estimated costs of insurance, freight etc.

NOTE ON SIZEBANDS USED IN TABLE 26

For coal, heavy fuel oil, gas oil, electricity and gas prices are shown in table 26 for various sizes of consumers. These sizebands are defined in terms of the approximate annual purchases by the consumers within them. These are shown below.

	Range of annual purchases of which:				
Fuel	**Large**	**Extra large**	**Moderately large**	**Medium**	**Small**
	Greater than	**Greater than**			**Less than**
Coal (tonnes)	7,600	n/a	n/a	760 to 7,600	760
Heavy fuel oil (tonnes)	4,900	15,000	4,900 to 15,000	490 to 4,900	490
Gas oil (tonnes)	175	n/a	n/a	35 to 175	35
Electricity (thousand kWh)	8,800	150,000	8,800 to 150,000	880 to 8,800	880
Gas* (thousand kWh)	8,800	n/a	n/a	1,500 to 8,800	1,500

* Respondents purchasing more than one type of supply (tariff, firm contract and interruptible contract) are treated as separate entities in respect of each type of supply.

PRICES

TABLE 26. Prices of fuels purchased by manufacturing industry in Great Britain[1]

Fuel	Size of consumer	1996 1st quarter	1996 2nd quarter	1996 3rd quarter	1996 4th quarter	1997 1st quarter	1997 2nd quarter	1997 3rd quarter	1997 4th quarter	1998 1st quarter	1998 2nd quarter p
COAL	Small	2.15	2.07	2.19	2.09	2.09	2.04	2.05	2.17	2.07	2.08
(£per GJ)	Medium	1.90	1.82	1.80	1.71	1.67	1.63	1.59	1.68	1.67	1.71
	Large	1.25	1.24	1.23	1.23	1.24	1.19	1.22	1.26	1.22	1.26
All consumers:	Average	1.35	1.33	1.32	1.30	1.31	1.26	1.28	1.33	1.30	1.33
	10% decile[2]	1.48	1.46	1.42	1.44	1.44	1.42	1.42	1.42	1.43	1.46
	median[2]	1.85	1.86	1.85	1.86	1.83	1.83	1.78	1.90	1.88	1.92
	90% decile[2]	2.75	2.63	2.37	2.49	2.46	2.47	2.48	2.57	2.38	2.41
HEAVY FUEL OIL	Small	101.8	106.0	102.7	110.2	106.2	98.5	95.7	100.6	94.8	87.0
(£ per tonne)[3]	Medium	98.5	97.6	95.3	102.1	99.8	91.4	90.8	95.6	89.0	82.9
	Large	86.8	90.7	86.1	100.2	92.1	81.1	82.7	89.0	72.7	69.7
Of which:	Extra large	83.6	87.7	83.0	99.4	90.8	79.5	80.9	87.1	68.8	65.7
	Moderately large	92.7	96.3	91.7	101.6	94.4	84.1	86.0	92.5	79.7	77.0
All consumers:	Average	92.8	95.1	91.5	102.2	96.6	87.0	87.3	92.8	81.3	76.6
	10% decile[2]	91.7	88.0	87.0	98.4	89.5	81.4	81.7	86.1	72.6	70.3
	median[2]	101.8	101.9	100.9	106.3	102.4	94.9	93.0	96.5	91.0	86.0
	90% decile[2]	121.3	125.0	113.5	127.5	120.8	114.4	108.7	112.0	108.0	106.0
GAS OIL	Small	164.7	171.0	172.9	186.0	184.3	169.0	167.0	168.1	163.2	157.1
(£ per tonne)[3]	Medium	156.9	161.2	163.5	177.9	175.3	159.5	157.3	159.4	148.7	140.1
	Large	149.8	152.3	156.7	171.9	167.5	150.9	145.2	146.2	131.9	126.3
All consumers:	Average	151.2	154.1	158.1	173.1	169.1	152.6	147.6	148.7	135.2	129.1
	10% decile[2]	139.7	140.6	140.6	152.1	154.5	142.3	140.3	142.1	128.0	123.1
	median[2]	161.7	163.7	165.1	183.3	177.7	159.4	157.3	159.4	147.3	140.1
	90% decile[2]	175.7	184.2	190.7	200.0	196.7	186.0	183.2	184.7	176.0	173.9
ELECTRICITY	Small	6.34	5.84	5.93	6.08	6.14	5.50	5.45	5.77	5.72	5.33
(Pence per kWh)	Medium	4.83	4.49	4.43	4.52	4.50	4.17	4.08	4.38	4.40	4.10
	Large	3.80	3.32	3.31	3.55	3.58	3.12	3.03	3.46	3.58	3.12
Of which:	Extra large	3.35	2.86	2.85	3.12	3.22	2.69	2.58	3.12	3.33	2.73
	Moderately large	4.15	3.68	3.66	3.88	3.86	3.45	3.39	3.72	3.78	3.41
All consumers:	Average	4.21	3.76	3.74	3.94	3.96	3.52	3.44	3.82	3.91	3.49
	10% decile[2]	4.35	4.04	4.01	4.16	4.19	3.72	3.70	3.91	3.94	3.70
	median[2]	5.92	5.45	5.53	5.61	5.68	5.11	5.13	5.49	5.46	5.11
	90% decile[2]	7.93	7.09	7.23	7.63	7.75	6.73	6.66	7.04	7.02	6.50
GAS	Small	0.960	0.949	0.960	0.882	0.881	0.884	0.904	0.922	0.922	0.915
(Pence per kWh)[4]	Medium	0.673	0.664	0.639	0.654	0.687	0.674	0.696	0.723	0.748	0.731
	Large	0.451	0.427	0.420	0.432	0.459	0.467	0.471	0.517	0.529	0.524
All consumers:[5]	Average	0.494	0.455	0.437	0.462	0.497	0.493	0.492	0.549	0.569	0.555
	Firm[5]	0.546	0.504	0.480	0.507	0.560	0.554	0.540	0.593	0.640	0.628
	Interruptible	0.433	0.409	0.402	0.417	0.428	0.440	0.452	0.495	0.501	0.494
	Tariff[5]	1.373	1.298	1.393	1.334	1.345	1.289	1.257	1.208	..	..
	10% decile[2]	0.542	0.516	0.495	0.510	0.517	0.523	0.538	0.576	0.592	0.583
	median[2]	0.883	0.815	0.786	0.790	0.812	0.812	0.835	0.864	0.873	0.850
	90% decile[2]	1.434	1.449	1.425	1.441	1.368	1.309	1.300	1.315	1.172	1.161
MEDIUM FUEL OIL (£ per tonne)[3]											
All consumers:	Average[6]	98.4	101.3	89.9	104.5	98.7	84.1	87.2	92.2	87.3	84.5
LIQUEFIED PETROLEUM GASES (£ per tonne)											
All consumers:	Average[6]	154.5	151.0	148.1	172.9	194.1	168.7	167.1	169.0	160.9	150.9
HARD COKE (£ per tonne)[7]											
All consumers:	Average[6]	128.5	128.5	122.9	125.6	121.3	117.6	118.5	118.7	117.1	116.8

1. Average prices paid (exclusive of VAT) by respondents to a Department of Trade and Industry survey of some 1,200 manufacturing sites. The average price for each size of consumer is obtained by dividing the total quantity of purchases, for each fuel, into their total value. Prices vary widely around the average values shown (see footnote 2). Purchases of fuels used as raw materials in manufacturing are excluded. For further details, see the annual "Digest of United Kingdom Energy Statistics" available from the Stationery Office..
2. The 10% decile is the point within the complete range of prices below which the bottom 10% of those prices fall. Similarly the 90% decile is the point above which the top 10% of prices occur. The median in the midway point. Thus, these values show the spread of prices paid. The deciles and the median are calculated by giving equal 'weight' to each purchaser, whereas the average prices, for each size-band and all consumers are given 'weight' according to the quantity purchased.
3. Oil product prices include hydrocarbon oil duty. From the 17 March 1998 the effective duty rates per tonne are £22.02 for Heavy Fuel Oil, £22.41 for Medium Fuel Oil and £32.99 for Gas Oil.
4. Covers all supplies of natural gas including, for example, those purchased direct from onshore/offshore gas fields. Respondents purchasing more than one type of supply (tariff, firm contract and interruptible contract) are treated as separate entities in respect of each type of supply.
5. From quarter one 1998 tariff gas prices are not collected separately and are included in the firm contract prices. The 90% decile and average firm contract price will be affected by contributors who previously had separate contracts for tariff and firm contract gas. In quarter four 1997 tariff gas represented a weight of around 1% of the sample.
6. No further details of prices can be given to the small number of respondents purchasing this fuel.
7. Excludes breeze and blast furnace supplies.

FOR NOTE ON SIZEBANDS USED IN TABLE 26 PLEASE SEE PREVIOUS PAGE

TABLE 27. Average prices of fuels purchased by the major UK power producers[1] and of gas at UK delivery points[2]

		Major power producers[1]			Natural gas at UK delivery points[8]	
		Coal[3]	Oil[4,5]	Natural gas[6,7]	Including levy[9]	Excluding levy[9]
		£ per tonne	£ per tonne	pence per kWh	pence per kWh	pence per kWh
1993		42.44	55.91	0.706	0.556	0.523
1994		36.35	67.90	0.667	0.588	0.564
1995		35.11	81.12	0.643	0.584	0.561
1996		35.22	84.15	0.628	0.592	0.571
1997		33.74	89.75	0.647	0.593	0.576
1996	2nd quarter	36.02	79.69	0.578	0.567	0.548
	3rd quarter	35.25	80.05	0.568	0.591	0.573
	4th quarter	34.41	88.98	0.665	0.620	0.597
1997	1st quarter	33.48	90.86	0.707	0.618	0.593
	2nd quarter	33.20	79.99	0.610	0.554	0.540
	3rd quarter	34.62	94.20	0.564	0.560	0.547
	4th quarter	33.80	93.82	0.705	0.614	0.600
1998	1st quarter	32.92	78.98	0.696	0.606	0.589
	2nd quarter p	29.98	65.34	0.594	0.552	0.552

1. See definitons inside front cover; Humber Power Ltd and Indian Queens Power Ltd should additionally be included in the list of major power producers.
2. The series represents gas supplied by UKCS licensees to the UK (i.e exports are excluded) and gas imported from the Norwegian sector of the continental shelf.
3. Includes slurry.
4. Includes oil for burning, for gas turbines and for internal combustion engines (other than for use in road vehicles). Excludes any natural gas liquids burnt at Peterhead power station.
5. Includes hydrocarbon oil duty.
6. Prior to 1993 gas prices are not available for reasons of confidentiality.
7. Includes sour gas.
8. A quarterly series consistent with the annual series is available back to quarter two 1987. An article describing this series was published in *Energy Trends* in November 1996.
9. The levy is the Goverment's tax on indigenous supplies introduced in 1981 and was abolished on 1 April 1998. The levy was reduced from 4 to 3 pence per therm for 1997/8 and this rate is reflected in the above data.

TABLE 28. Fuel price indices for the industrial sector[1]

1990 = 100

		Unadjusted					*Seasonally adjusted*			
		Coal[2]	Heavy fuel oil[2]	Gas[3]	Electricity[3]	Total fuel	Gas[3]	Electricity[3]	Total fuel	
		Current fuel price index numbers								
1993		93.6	90.1	102.7	114.2	107.6				
1994		92.5	97.4	103.6	110.1	106.3				
1995		86.8	113.8	90.4	109.1	105.1				
1996		82.6	125.7	66.1	105.3	99.5				
1997		80.6	120.2	68.2	99.3	95.4				
Per cent change		*-2.3*	*-4.3*	*+3.1*	*-5.7*	*-4.2*				
1996	2nd quarter	82.7	124.9	64.5	100.8	96.3	65.3	106.2	99.8	
	3rd quarter	82.2	120.1	61.5	98.4	93.6	64.4	105.6	98.5	
	4th quarter	81.2	134.2	66.2	107.7	102.2	65.2	102.6	98.8	
1997	1st quarter	81.5	126.9	68.6	108.6	102.2	66.2	100.9	97.0	
	2nd quarter	78.6	114.2	67.2	93.3	90.5	67.9	98.8	94.1	
	3rd quarter	79.9	114.6	65.9	90.4	88.6	68.9	97.5	93.5	
	4th quarter	82.8	121.9	71.2	104.4	99.4	69.9	99.5	96.1	
	1st quarter	80.7	106.7	73.2	107.3	99.4	70.7	99.4	94.0	
	2nd quarter p	83.1	100.5	70.3	91.5	88.3	71.1	97.3	92.0	
Per cent change		*+5.8*	*-12.0*	*+4.7*	*-1.9*	*-2.5*	*+4.7*	*-1.6*	*-2.2*	
		Fuel price index numbers relative to the GDP deflator								GDP deflator[4]
1993		81.4	78.3	89.3	99.3	93.6				115.0
1994		79.2	83.4	88.7	94.2	90.9				116.9
1995		72.5	95.0	75.4	91.0	87.7				119.8
1996		66.9	101.7	53.6	85.3	80.6				123.5
1997		63.6	94.9	53.8	78.4	75.3				126.7
Per cent change		*-4.8*	*-6.7*	*+0.5*	*-8.1*	*-6.6*				*+2.6*
1996	2nd quarter	67.3	101.7	52.6	82.1	78.5	53.2	86.5	81.3	122.8
	3rd quarter	66.4	97.1	49.8	79.6	75.6	52.0	85.3	79.6	123.7
	4th quarter	65.0	107.3	52.9	86.2	81.7	52.1	82.1	79.0	125.0
1997	1st quarter	64.9	101.0	54.6	86.5	81.3	52.7	80.4	77.2	125.6
	2nd quarter	62.2	90.4	53.2	73.8	71.6	53.7	78.2	74.4	126.4
	3rd quarter	63.0	90.3	52.0	71.2	69.8	54.3	76.8	73.7	126.9
	4th quarter	64.8	95.4	55.7	81.8	77.9	54.7	77.9	75.3	127.7
1998	1st quarter	63.0	83.4	57.2	83.8	77.6	55.2	77.7	73.4	128.0
	2nd quarter p	64.5	78.0	54.6	71.0	68.5	55.2	75.5	71.4	128.9
Per cent change		*+3.7*	*-13.7*	*+2.7*	*-3.8*	*-4.4*	*+2.7*	*-3.5*	*-4.1*	*+2.0*

1. Index numbers shown represent the average for the period specified. VAT is excluded.
2. Indices based on a survey of the prices of fuels delivered to industrial consumers in Great Britain only as shown in Table 26.
3. Indices based on the average unit value of sales to industrial consumers.
4. GDP deflator at market prices and seasonally adjusted.

Please read prices section in text concerning proposed changes to Tables 28 and 29 in November.

TABLE 29. Fuel price indices for the domestic sector[1,2]

1990 = 100

		Coal and coke	Gas	Electricity	Heating oils[3]	Fuel and light	Petrol and oil	Fuel, light petrol and oil
		Current fuel price index numbers						
1993		111.1	102.7	115.4	89.9	108.9	119.3	113.4
1994		118.2	108.9	119.2	90.0	113.7	124.8	118.7
1995		120.2	112.5	120.8	89.9	116.1	131.2	122.9
1996		121.4	112.7	120.3	99.1	116.4	137.8	126.3
1997		122.4	111.6	114.5	96.5	112.7	151.5	131.6
Per cent change		*+0.9*	*-1.0*	*-4.8*	*-2.6*	*-3.1*	*+9.9*	*+4.2*
1996	2nd quarter	119.7	112.7	121.0	95.3	116.5	134.5	124.8
	3rd quarter	119.3	112.6	121.0	97.5	116.6	136.8	125.9
	4th quarter	124.1	112.6	118.6	108.2	115.9	145.6	129.6
1997	1st quarter	124.6	112.6	117.1	103.6	114.9	147.6	130.8
	2nd quarter	121.6	112.6	116.7	95.1	114.1	146.2	129.8
	3rd quarter	119.9	111.5	113.9	93.0	112.2	155.9	133.5
	4th quarter	123.7	109.5	110.4	94.3	109.7	156.4	132.4
1998	1st quarter	123.8	108.0	110.4	85.2	108.6	153.6	132.0
	2nd quarter p	122.0	107.8	110.1	81.4	108.2	161.5	135.9
Per cent change		*+0.3*	*-4.3*	*-5.7*	*-14.5*	*-5.2*	*+10.5*	*+4.7*
		Fuel price index numbers relative to the GDP deflator						GDP deflator[4]
1993		96.6	89.3	100.3	78.2	94.7	103.7	98.6	115.0
1994		101.1	93.1	102.0	77.0	97.2	106.7	101.5	116.9
1995		100.4	93.9	100.9	75.1	96.9	109.5	102.6	119.8
1996		98.3	91.2	97.4	80.2	94.2	111.6	102.3	123.5
1997		96.6	88.0	90.4	76.2	89.0	119.6	103.9	126.7
Per cent change		*-1.7*	*-3.5*	*-7.2*	*-5.0*	*-5.6*	*+7.1*	*+1.6*	*+2.6*
1996	2nd quarter	97.5	91.8	98.6	77.6	94.9	109.5	101.6	122.8
	3rd quarter	96.5	91.1	97.9	78.8	94.2	110.6	101.8	123.7
	4th quarter	99.3	90.1	94.9	86.6	92.7	116.5	103.7	125.0
1997	1st quarter	99.2	89.7	93.3	82.5	91.5	117.5	104.2	125.6
	2nd quarter	96.2	89.0	92.3	75.3	90.3	115.7	102.7	126.4
	3rd quarter	94.5	87.9	89.8	73.3	88.4	122.8	105.2	126.9
	4th quarter	96.9	85.7	86.5	73.8	85.9	122.5	103.7	127.7
1998	1st quarter	96.7	84.4	86.2	66.5	84.9	120.0	103.1	128.0
	2nd quarter p	94.6	83.6	85.4	63.1	84.0	125.3	105.5	128.9
Per cent change		*-1.7*	*-6.1*	*-7.5*	*-16.1*	*-7.0*	*+8.3*	*+2.7*	*+2.0*

1. Index numbers shown represent the average for the period specified.
2. Figures from the 2nd quarter of 1994 for coal and coke, gas, electricity and heating oils include VAT at 8 per cent. With effect from September 1997 the rate of VAT has been reduced to 5 per cent, hence 3rd quarter data contains both rates. Data from quarter 4 1997 is shown inclusive of VAT at 5%.
3. Bottled gas and oil fuel.
4. GDP deflator (market prices, seasonally adjusted).

Please read prices section in text concerning proposed changes to Tables 28 and 29 in November.

TABLE 30. Typical retail prices of petroleum products and a crude oil price index[1]

		Motor spirit[1]						
		4 star	Super unleaded	Premium unleaded	Derv[1]	Standard grade burning oil[1,2]	Gas oil[1,3]	Crude oil acquired by refineries[4]
		Pence per litre						*1990 = 100*
1993	January	51.27	49.76	47.13	47.05	14.10	13.52	98.7
1994	January	55.50	54.48	50.83	51.72	12.94	12.72	72.0
1995	January	59.11	58.00	53.44	54.13	13.32	13.93	83.7
1996	January	61.97	61.26	55.93	57.43	15.38	15.86	96.1
1997	January	65.46	69.24	61.09	62.02	17.13	18.14	113.8
1997	July	68.20	72.68	62.69	63.44	13.25	14.61	87.5
1997	August	69.51	73.58	64.07	64.48	13.86	15.20	92.3
	September	70.28	74.23	64.72	64.76	13.48	14.69	91.8
	October	69.75	73.71	64.21	64.31	14.27	15.10	96.0
	November	69.55	74.02	63.89	64.06	14.18	15.28	90.8
	December	69.29	74.10	63.53	63.76	13.60	14.48	83.8
1998	January	69.03	73.96	63.13	63.34	12.92	13.67	74.7
	February	68.64	73.79	62.63	62.84	12.53	13.68	69.1
	March	68.20	73.77	62.09	62.30	11.61	12.72	63.1
	April	72.38	78.74	65.77	66.81	11.67	12.94	63.6
	May	72.41	79.06	65.72	66.71	11.64	12.95	67.9
	June	72.21	78.80	65.62	66.59	11.15	12.34	58.8
	July	72.37	79.34	66.04	66.94	10.70	11.99	55.8r
	August	72.48r	79.39	66.14r	66.90r	10.29	11.72	58.6r
	September p	72.16	n/a	65.93	66.62	n/a	n/a	61.3

1. These estimates are generally representative of prices paid on or about the 15th of the month. Estimates are based on information provided by oil marketing companies until December 1994. From January 1995 data from super/hypermarket chains have been included. The very latest data for motor spirit and Derv are provisional, based on a smaller sample than used for preceding months.
2. These estimates are for deliveries of up to 1,000 litres; such deliveries attract 8 per cent VAT from 1 April 1994. With effect from 1 September 1997 the rate of VAT has been reduced to 5 per cent.
3. These estimates are for deliveries of 2,000 to 5,000 litres; such deliveries attract 8 per cent VAT from 1 April 1994. With effect from 1 September 1997 the rate of VAT has been reduced to 5 per cent.
4. Price index for supplies received by refineries in the UK from both indigenous and imported sources. It represents the average for the month calculated in sterling on a cif basis.

An update on developments in road transport fuels

Introduction

This article is an update on historic trends in the production and consumption of transport fuels in the UK first published in the September 1997 issue of *Energy Trends*. This article covers the use of petroleum based fuels for road-transport uses. Whilst other fuels such as electricity and liquefied gases are being used for transport purposes, their use is relatively small at the current time. The article does include some background information on the use of these other fuels, as well as some additional sources of information. Relevant data have been updated to cover 1997, but some of the background information previously included has been removed to save space.

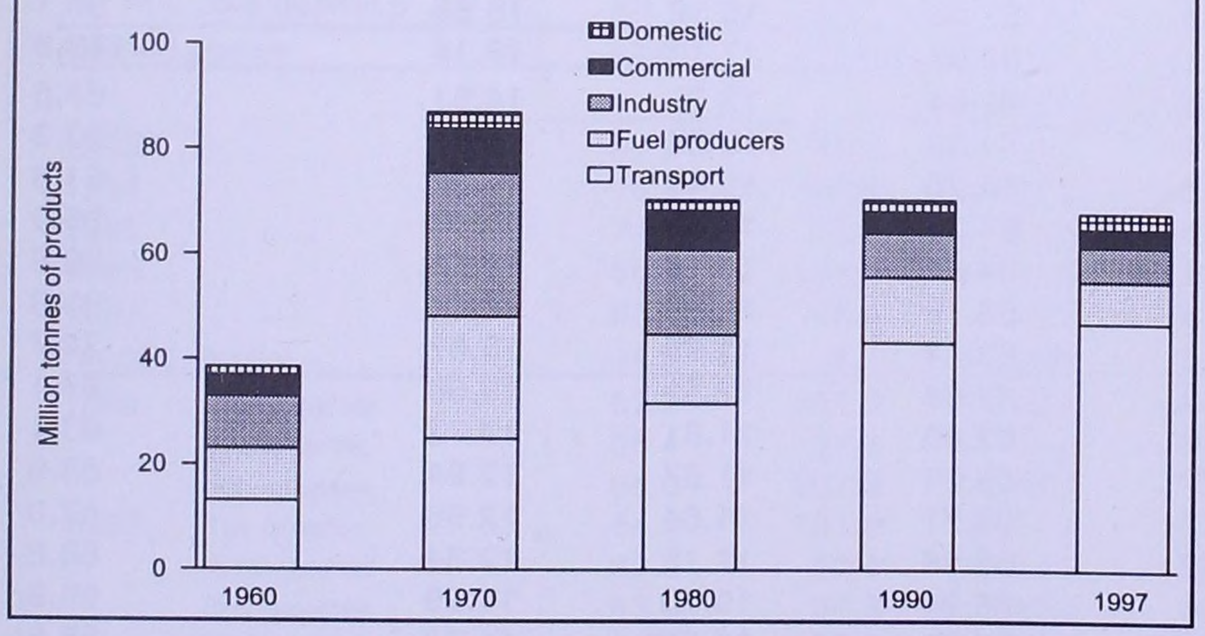
Data are taken from the UK Petroleum Industry Association (UKPIA) system where data are collected on the inland operations of the UK oil industry (i.e. information on the supply, refining and distribution of oil and oil products in the UK). This information is supplemented whenever necessary to allow for complete coverage within the statistics, with separate exercises carried out on special topics (for example, on sales carried out by supermarket and hypermarket retail stores).

Overall use of fuels in transport

Transport service industries such as road and rail freight operations, and industries associated with transport, such as the manufacture of motor vehicles, make a significant contribution towards the UK economy. They are implicitly involved in all of the UK's trade with other countries as well as with virtually all commercial operations within the UK. In line with the increasing importance of this sector to the economy, the use of transport fuels has similarly increased.

Chart 1 shows how transport use of petroleum products has changed between 1960 and 1997. Total consumption of petroleum products for transport uses in 1997 was 47.3 million tonnes, an increase of 254 per cent compared with the 13.4 million tonnes consumed in 1960. Use by the transport industry has increased from 37 per cent of total energy uses of petroleum in 1960 to 77 per cent in 1997.

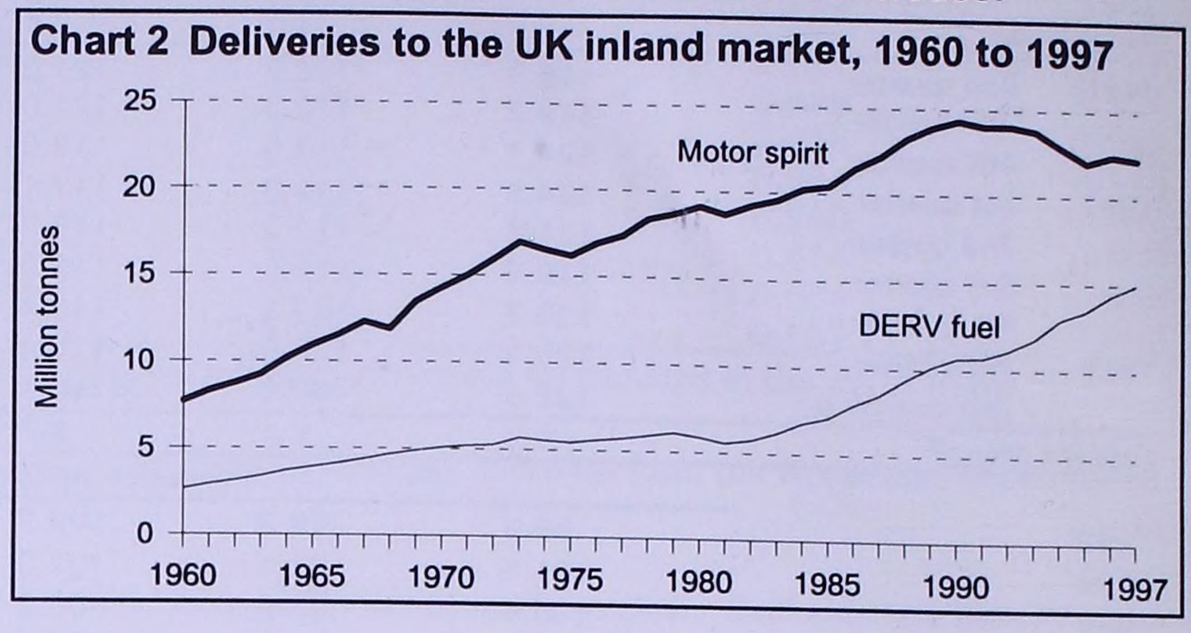
Chart 1 Use of petroleum products for energy by main sector, 1960 to 1997



Motor spirit and DERV fuel

The major fuels used for road transport purposes are motor spirit and DERV fuel, more commonly referred to as petrol and diesel. Whilst other fuels are used, these two form the major source of energy used for transporting goods and people within the UK, and are dealt with in more detail below. Chart 2 shows the long-term pattern of change in the amount of these two transport fuels delivered to the internal UK market. From 1960 to 1990, the amount of motor spirit consumed in the UK increased three-fold, from 7.7 million tonnes to 24.3 million tonnes. In the same period, DERV fuel use increased four-fold, from 2.6 million tonnes to 10.7 million tonnes. Since 1990, there has been a slight decline in the use of motor spirit while the use of DERV fuel has continued to increase.

Chart 2 Deliveries to the UK inland market, 1960 to 1997



Several factors are behind the differing trends seen for motor spirit and DERV fuel. There has been an increase in the number of diesel-engined vehicles in use in the UK. Improved technology resulted in vehicles with performance and characteristics that are more acceptable to the motorist. While diesel vehicles have also been priced at levels comparable with their petrol equivalents, they deliver better miles per gallon. In the National Travel Surveys for 1993 to 1995, carried out by the Department of the Environment, Transport and the Regions, diesel-engined cars averaged 41 miles per gallon of fuel, compared with 30 miles per gallon for petrol-engined cars.

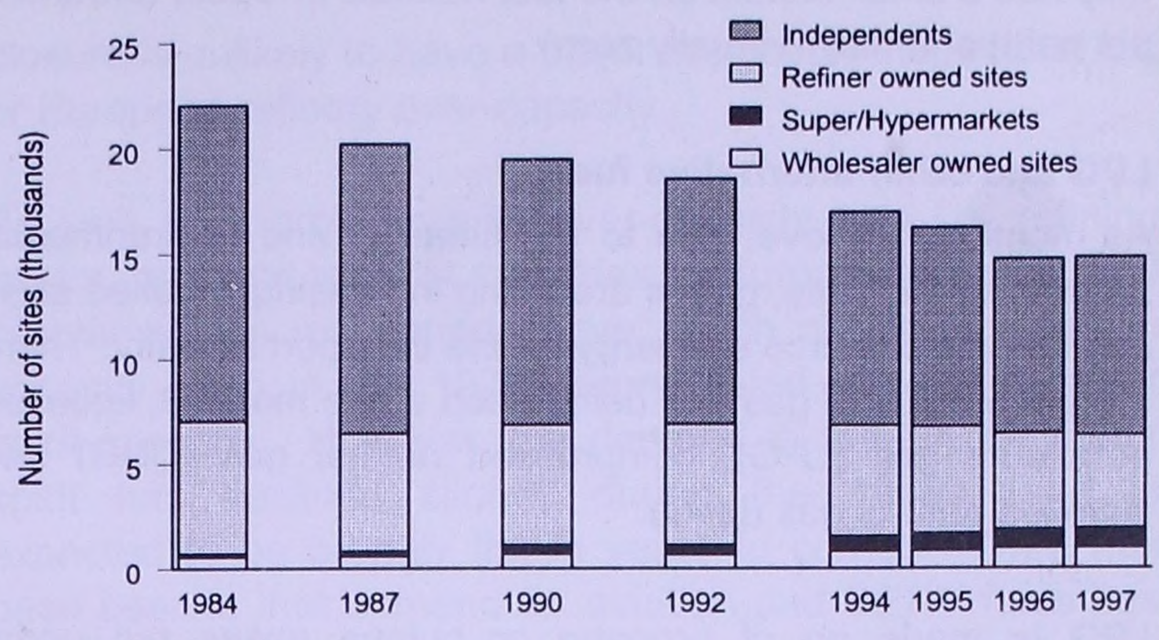
In addition, during the early 1990s there was a significant differential between DERV fuel and motor spirit prices, the majority of which was 4-star leaded petrol. For example, in 1990, a typical retail price for a litre of 4-star petrol would have been 44.87 pence, compared with 40.48 pence for a litre of DERV fuel, a 10 per cent saving. This difference was seen at a time when fuel prices were rising as the Gulf crisis had an adverse effect on world markets, increasing the attraction that the efficiency gains of diesel vehicles had for the customer.

The relatively low price for unleaded petrol during the early 1990s (primarily due to a beneficial rate of duty compared to 4-star) was a factor in its increased take-up by consumers in the UK, and the mandatory fitting of catalytic converters to new vehicles has sustained the upwards trend. It is significant that since duty rates harmonised in 1994, the price of premium grade unleaded petrol has generally been below that of DERV fuel. The government's current strategy is to reduce the consumption of all road transport fuels as part of the UK reducing its overall level of emissions of greenhouse gases and pollutants. As such, there will be a general increase of at least 6 per cent in real terms applied each year to all road fuel duties. As their combustion produces more particulates and nitrous oxide emissions that petrol, DERV fuels will be taxed at a higher rate than petrol fuels to encourage the use of low sulphur DERV fuel or petrol.

Using petroleum gases as fuels rather than petrol or DERV fuel produces lower emissions of carbon dioxide and other pollutants, and also reduces noise pollution. Due to their lower environmental impact the Government has in the past

encouraged the increased use of these gases as road fuels by reducing the rate of duty applicable on gas when used as a road fuel from 33.14 pence per kilogram in November 1994 to the current level of 21.13 pence per kilogram. Equivalent rates of duty for unleaded and leaded petrol are 53.65 and 61.38 pence per kilogram respectively, and 47.61 pence per kilogram for DERV fuel. It was also announced in the 1998 Budget that the duty rates for road gases would remain frozen, while those for other road fuels would increase. Because of these financial and environmental benefits to their use, gases are being increasingly looked at as an alternative source of energy for the transport industry, and more details on their use as road fuels are given later on in this article. An article on petrol and DERV fuel prices, including an international comparison, was published in the November 1997 edition of *Energy Trends*, and the most recent information are published on page 19.

Chart 3 Numbers of petrol retail sites in the UK, 1984 to 1997



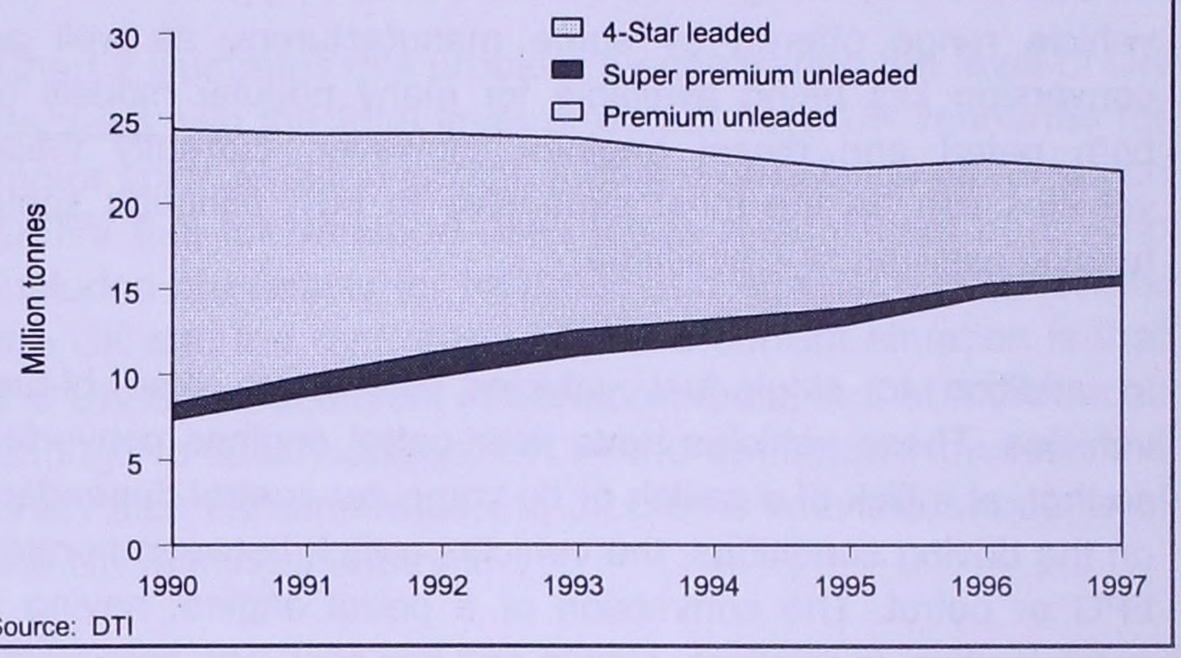
Source: Petroleum Review

Note: 1997 data includes 871 sites not previously included in the survey. If the impact of these is removed, the number of sites fell by 795 between 1996 and 1997.

The Motor Spirit and DERV Fuel Retail Markets

Table 1 shows the recent changes in the proportion of the retail market in motor spirit and DERV fuel accounted for by super/hypermarkets and other retailers. After rapidly increasing their market share during the early 1990s, progress has slowed recently. Of the 77 per cent of the motor spirit retail market in 1997 accounted for by retailers other than super/hypermarkets, some 65 to 70 per cent is estimated to be accounted for by companies that are UK-based refiners of fuel, (for example, BP, Esso, Shell, Texaco, etc.), with the remainder being accounted for by other companies acting solely as retailers in the UK or companies with refining facilities in other countries with a presence in the UK retail market.

Chart 4 UK deliveries of motor spirit by type, 1990 to 1997



Source: DTI

Table 1: Super/Hypermarket share of UK Retail Deliveries
(Share of total UK deliveries given in brackets)

	Motor Spirit		DERV Fuel	
1990	8	(8)	--	--
1991	11	(10)	2	(1)
1992	13	(13)	3	(1)
1993	15	(15)	7	(2)
1994	18	(18)	11	(4)
1995	22	(22)	15	(5)
1996	22	(21)	15	(6)
1997	23	(22)	17	(7)

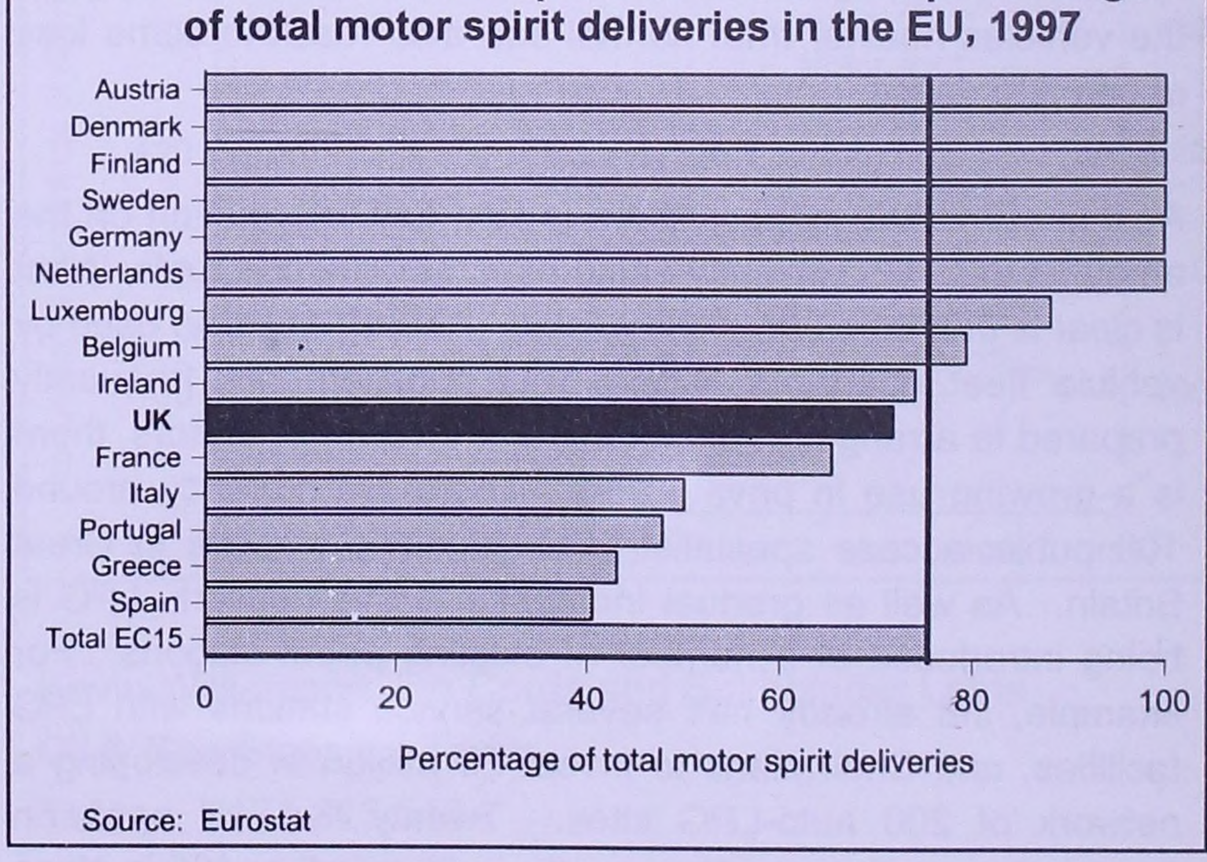
The increased competition in the retail market in recent years has led to falling profit margins. Whilst companies such as the major oil companies and the super/hypermarket chains can rely on a high volume of sales to maintain their level of profits, smaller oil companies and the independent retail sector have been put under great pressure. Chart 3 details the changes in the number of sites retailing motor spirit in the UK over recent years. Between 1990 and 1997, the total number of retail sites in the UK decreased by nearly a quarter, from 19,465 to 14,824 sites. Within this total change, the number of independent retail sites decreased by a third while refiner owned sites decreased by almost a quarter. In contrast, the number of super/hypermarket sites more than doubled in size while wholesaler owned sites increased by 40 per cent.

Chart 4 shows the trend in recent years for the total deliveries into the UK market for the two grades of unleaded fuel, premium grade and super premium unleaded (which has a higher specification than premium unleaded). Premium unleaded is the most common grade used. Deliveries of super premium unleaded have been declining in recent years.

International comparison

The pattern of consumption of motor spirit and DERV fuel for the 15 EU countries shows the same pattern as seen in the UK of a slight decline in the consumption of motor spirit in recent years, along with the increase in DERV fuel consumption. It is noteworthy that the top five fuel markets (Germany, Italy, France, Spain and the UK) together accounted for 80 per cent of motor spirit consumed in the EU in 1997, and 78 per cent of DERV fuel. As in the UK, there has also been a move towards the increased use of unleaded motor spirit in the EU. Chart 5 shows the proportion of total motor spirit sales in each member state accounted for by unleaded fuel in 1997. The UK at 71 per cent is slightly below the overall EU average of 75 per cent.

Chart 5 Unleaded motor spirit deliveries as a percentage of total motor spirit deliveries in the EU, 1997



Source: Eurostat

In the top five markets, hypermarket retailers have a significant share of the market - around 50 per cent of sales in France, 20

per cent in Germany, and 23 per cent in the UK. They have only had a small impact on the fuel markets in Spain (around 2 per cent) and Italy (virtually zero).

LPG and other alternative fuels

As mentioned above, due to the financial and environmental benefits to their use, gases are being increasingly looked at as an alternative source of energy for the transport industry. There are three types of gas fuel being used at the moment, liquefied petroleum gas (LPG), compressed natural gas (CNG) and liquefied natural gas (LNG).

LPG is made up of propane or butane gases put under pressure so that they liquefy. Vehicles can be made to run on LPG in a number of different ways. There are dedicated cars which use LPG as their only source of fuel and are spark ignited, similar to the way petrol is used. In addition, some new models are becoming available as standard types within the vehicle range offered by some manufacturers, as well as conversion kits being available for many popular models of both petrol and diesel engines. However, currently these vehicles can be the most expensive to buy, although some funding assistance is available.

In addition to single-fuel vehicles, there are also bi-fuel vehicles. These vehicles have their petrol engines converted so that, at a flick of a switch or by computer control dependent on the driving conditions, the vehicles switch between burning LPG or petrol. The conversion of a petrol engine, having a spark ignition, is relatively simple and low cost. The conversion of a diesel engine requires more fundamental and expensive modifications to the engine. Since these vehicles run on both LPG and petrol, the advantages associated with both fuels are achieved. The engines run more efficiently on petrol at higher speeds, but run with less emissions on LPG at lower speeds. In addition these hybrid vehicles are mostly cheaper to buy or convert than the dedicated alternative.

Assuming proper installation and use, LPG powered vehicles should be at least as reliable and durable as petrol or diesel models with similar performance being seen and in some cases maintenance intervals are extended. Conversion costs typically start at around £1,500 for a petrol engine in a light van with a single tank, and go up to £15,000 for a heavy commercial diesel engine. However, with both single and bi-fuel vehicles, the gas is stored in special fuel tanks that make the vehicles heavier than normal and also result in some loss of carrying space.

As it is still relatively new, there is little firm information on the amounts of LPGs currently being used as transport fuels. What is clear is that their use is increasing. As well as being used by vehicle fleet operators, where fuel suppliers are frequently prepared to arrange on-site storage of LPG for operators, there is a growing use in private cars. There are currently around 100 public access specialist LPG refuelling stations in Great Britain. As well as gradual increases to this network, LPG is being introduced at a number of existing petrol stations. For example, Jet already has several service stations with LPG facilities, and Shell plans to invest £6 million in developing a network of 200 auto-LPG sites. Twenty five will open on forecourts over the next five months, with a further 100 in place by the end of 1999. Shell auto-LPG will be sold under the new brand name *MotorGas*.

The use of LPG has increased quite significantly in recent years. No figures are available on the exact numbers of users, but there are frequent reports of companies and organisations changing over to LPG. Earlier this year Vauxhall launched Britain's first dual-fuel cars and vans commercially available as part of the normal range of vehicles they manufacture. These bi-fuel *Vectra* and *Omega* saloon cars and *Combo* light vans are now available, with a switch on the dashboard to change between fuels. Vauxhall is also using LPG in some of their saloon racing cars. Humberside Police Force has two Vauxhall *Astra* that run solely on LPG that have been in operation for more than 18 months. One of the Queen's Rolls Royce cars has been adapted to run on LPG, and John Prescott, the Deputy Prime Minister, announced earlier in 1998 that all ministerial cars should be able to run on LPG. There are also a number of buses, taxis and heavy goods vehicles across the country which run on alternative fuels. For example, some refuse collection lorries operating in central London operate on a combination of low sulphur diesel and LPG.

In addition to LPGs, natural gas is also being used, either in a compressed or liquefied form. As well as producing even less emissions when burned than LPGs, reducing its environmental impact and also reducing vehicle maintenance, in many countries natural gas represents a more readily available fuel than refined petroleum products. As such, it is often a lower priced fuel on an energy equivalent basis than petrol or DERV fuel. It is thus in its favour, in terms of its longer-term use, that the UK has significant reserves available from the North Sea. Its use can also be quite significant in some countries (over 400,000 vehicles use it in Argentina, and 290,000 in Italy), but its use is relatively limited in the UK.

Due to its highly volatile nature, to be able to carry useful quantities of gas on a vehicle, natural gas has to be placed under high pressure and, if in the liquid form, refrigerated as well. The vehicles also have to have more physical adaptations to cope with the higher pressures involved. These give natural gas two main disadvantages over LPG; the weight of the vehicle has to be that much greater (with corresponding implications for the payload that can be carried, passenger space and safety), and it requires specialised refuelling facilities. It is thus mostly being used in the UK in trials of fleet freight vehicles and some passenger vehicles rather than in cars.

Two useful Internet sites exist on the use of LPGs. General information about the features of each fuel and the benefits and technical information about what changing over to these fuels involves can be found at "**www.est.org.uk/powershift**". Similar information can be found at "**www.ecogas.co.uk**", including details of existing LPG and CNG filling stations in the UK. Three useful sites have been found related to natural gas vehicles. "**www.ngvc.org**" and "**www.iangv.org**" are sites related to organisations of companies with an interest in developing the use of natural gas as a road fuel. "**www.snafu.de/~innotec/NGVeurope**" is the site of an EU-funded project to increase the use of natural gas within the European Union.

Kevin Williamson and Sukhbinder Lalria
Oil and Gas Statistics Team
Tel. 0171 215 5184
e-mail: Kevin.Williamson@epad.dti.gov.uk

Trends in refinery capacity and production in the UK

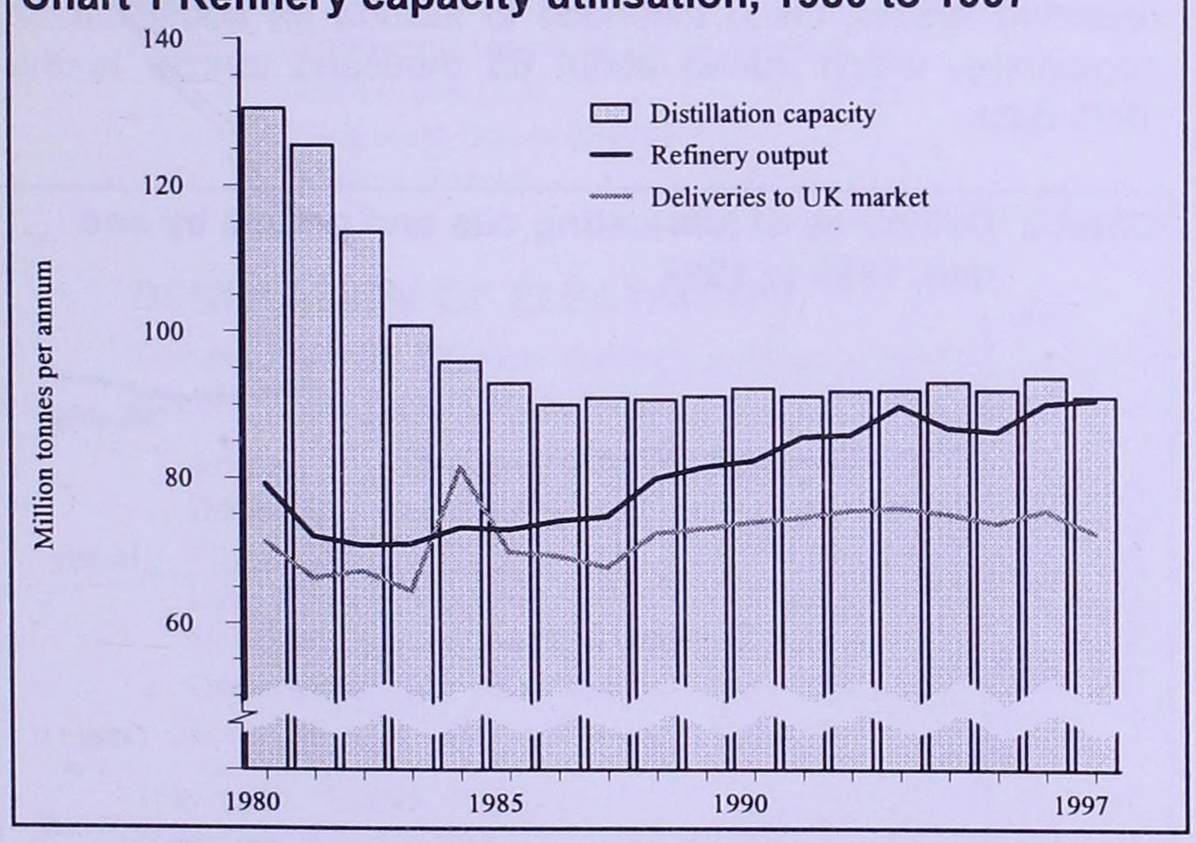
Historical information

For much of the 1960s total output from UK refineries was lower than the UK's demand for petroleum products. Refinery capacity expanded during the 1970s to allow the development of extra motor spirit production capacity in anticipation of an increase in demand and to take advantage of the high prices for oil products. However, the anticipated increase in demand did not occur. In 1973 and 1979 there were large price increases for crude oil. These worked directly to reduce demand due to the high prices for products that resulted, as well as acting as a trigger for economic recession. Both these factors led to reduced demand so that, at the start of the 1980s, UK refinery output was only around 62 per cent of distillation capacity.

Current trends in refinery capacity

Between 1980 and 1985 there was a steady reduction in refinery capacity in the UK (Chart 1). In 1980, there were 21 refineries operating in the UK whilst at the end of 1997 there were 13, of which 3 are relatively minor in size. Despite the reduction, there continues to be a surplus in refining capacity in the UK. It is important to note that despite the loss of the capacity caused by the closure of the Gulf Oil refinery in December 1997, the level of UK output from refineries is currently above the level seen in 1997 whilst this refinery was operating. Other refineries in the UK have increased their level of output to take advantage of the chance to start using capacity which was previously unused due to the low levels of profitability involved. Overall demand for products is forecast to grow relatively slowly over the next few years, so refinery profit margins are unlikely to improve in the short term unless there is a further reduction in refining capacity.

Chart 1 Refinery capacity utilisation, 1980 to 1997



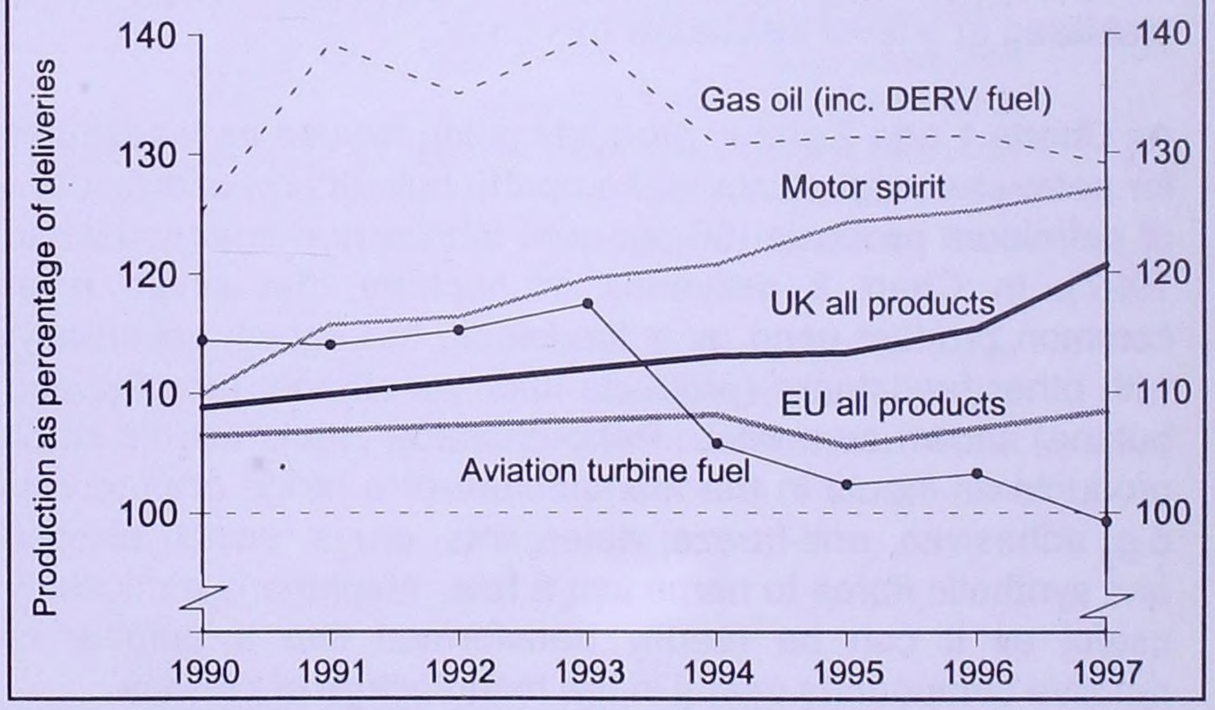
In common with most European refiners, UK refiners have undertaken rationalisation plans to reduce costs and improve margins. This started with the merger of BP and Mobil's downstream oil businesses in Europe, being followed by the closure of the Gulf refinery in Milford Haven last December. More recently there have been similar mergers announced between BP and Amoco, and Shell and Texaco, which are likely to result in further rationalisation of refinery capacity throughout Europe. In addition, Shell have announced plans to close the Shell Haven refinery in Essex by the end of 1999. As processing at Shell Haven represents under 5% of the UK's distillation capacity, its closure is unlikely to have a major impact on the level of UK or European refinery over-capacity.

As well as a problem with over-capacity, the UK refining sector, and that in most countries in Europe, has structural problems. As mentioned above, much of the increase in capacity seen in the 1970s represented increased motor spirit capacity. However, the demand in the UK for motor spirit has declined slightly during the 1990s (and is expected to be broadly flat in years to come). What has been seen is that demand for aviation and DERV fuels has increased and is expected to continue to do so in the future. As both of these fuels are produced from similar parts of the refining process, it is unlikely that UK refiners will be able to meet future UK demand for these middle distillates without investment in this particular type of production capacity.

Chart 2 illustrates this problem by comparing the level of UK demand with the total level of output from UK refineries for motor spirit, aviation turbine fuel and gas/diesel oil, of which DERV fuel for transport uses forms a significant part. Also included are details for total demand against production for the UK and the rest of the EU. The current situation is that the UK is self-sufficient in transport fuels, in that it produces enough to satisfy current UK inland demand. However, the chart also demonstrates the problems with the structure of the UK refining industry.

As the data for 1997 show, demand for aviation fuel has increased such that it is currently just being matched by UK production. Whilst separate details are not available on the production of, and trade in, DERV fuel to allow an accurate assessment to be made, estimates indicate that current UK production could only meet around 95% of current demand. Since demand for these two fuels is likely to increase in the future, unless the current structure of the UK refining industry changes, the UK is going to need to import more of these fuels in the future to allow demand to be met. Compared with this, motor spirit production remains in surplus by 27 per cent.

Chart 2 UK production as a percentage of total deliveries to the inland UK market, 1990 to 1997



Kevin Williamson, Ian Corrie and Sukhbinder Lalria
Oil & Gas Statistics Team
Tel. 0171 215 5184
e-mail: Kevin.Williamson@epad.dti.gov.uk

Non-energy use of petroleum products

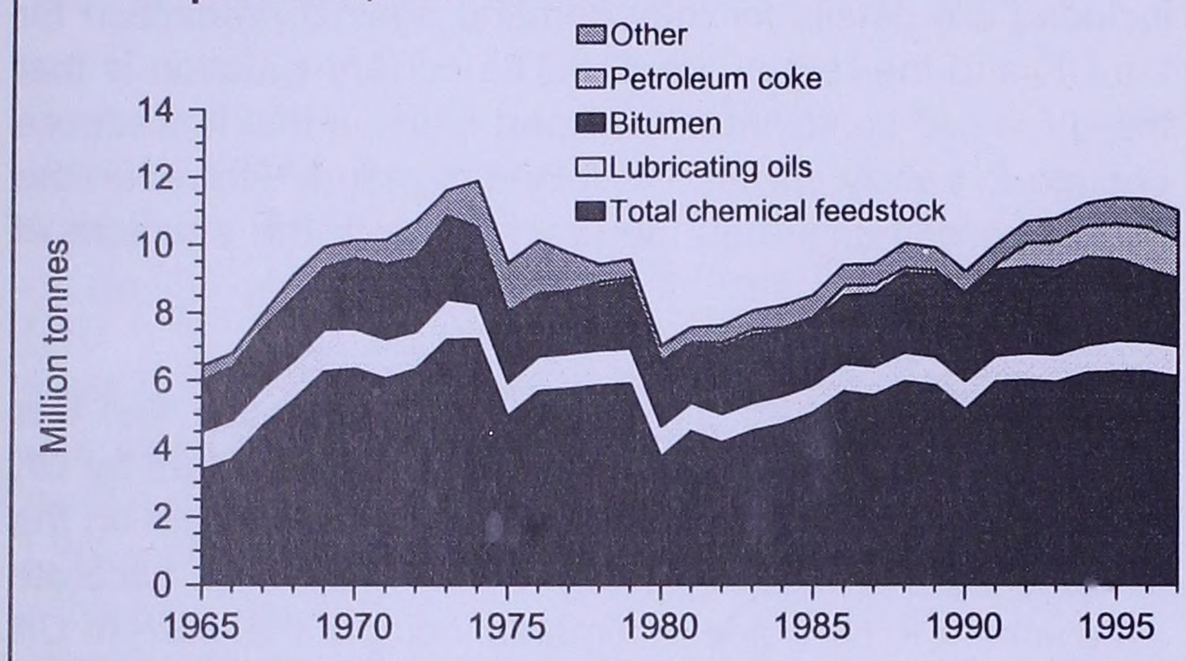
Introduction

This article highlights trends in the non-energy uses of petroleum products which are not often commented on in *Energy Trends*. Data come from the UK Petroleum Industry Association (UKPIA) system where data are collected on the inland operations of the UK oil industry (i.e. information on the supply, refining and distribution of oil in the UK). For more detailed data see the *Digest of UK Energy Statistics* (DUKES), published by the Stationery Office on behalf of the DTI.

Summary

Non-energy use of petroleum products in the UK is a significant and increasing proportion of the total level of products used. In 1997, 15.1 per cent (10.9 million tonnes) of total inland deliveries of petroleum products went for non-energy uses, compared with 10.1 per cent (6.4 million tonnes) in 1965. Chart 1 illustrates the trend in total inland deliveries for non-energy uses from 1965 to 1997. The pattern seen is in line with the pattern seen for energy uses of petroleum products over the same period.

Chart 1 Inland deliveries of non-energy use petroleum products, 1965 to 1997



"Other" includes solvents (e.g. industrial and white spirit), petroleum wax and other minor products.

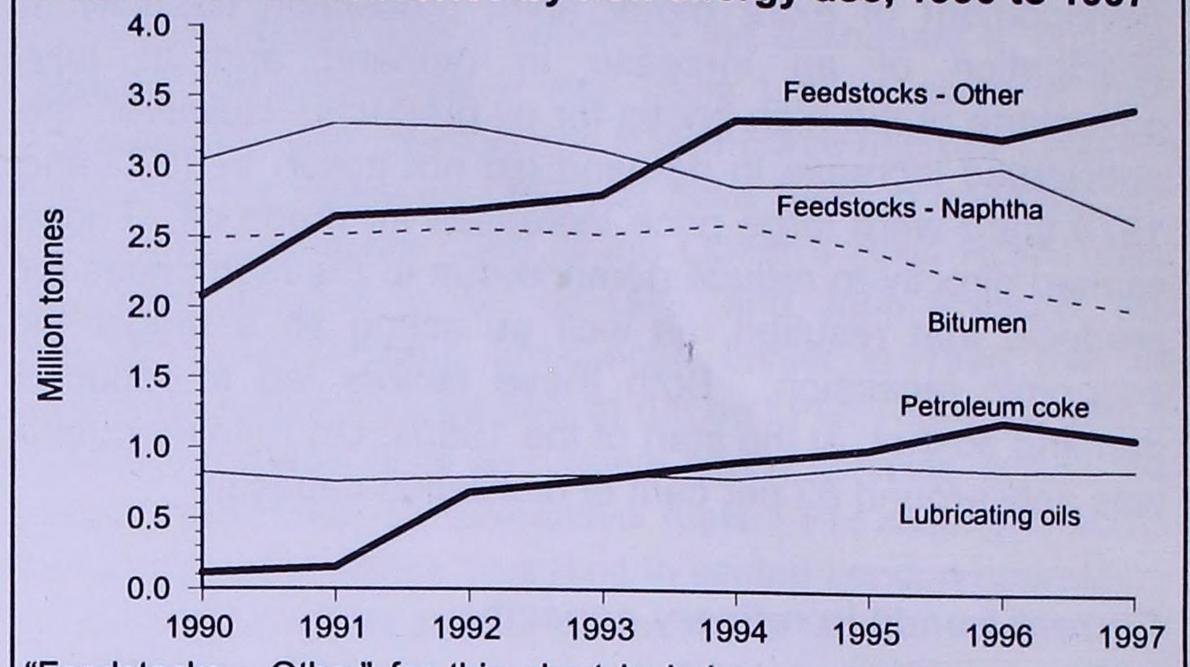
Inland deliveries for non-energy uses

Inland deliveries of non-energy petroleum products peaked in 1973. Falls in deliveries in 1975, 1976 and 1980 are related to OPEC price increases for crude oil, and in 1989 to the Gulf war. By the end of the 1980s deliveries for non-energy uses were not far off their peak of the early to mid-1970s. After rising in the early 1990s, deliveries in recent years have stabilised at a level just below this peak.

As Charts 1 and 2 show, products going for use as feedstocks for petro-chemical plants make up the bulk of non-energy uses of petroleum products (56 per cent of total non-energy uses in 1997). In Chart 2 deliveries of naphtha, the single most common product used as a feedstock, are shown separately, with other feedstocks (products such as ethane, propane and butane) shown as a total. Petro-chemical plants use these oil products as inputs in the manufacture of a range of products, e.g. adhesives, anti-freeze, detergents, drugs, paints, plastics and synthetic fibres to name just a few. Naphtha is particularly useful as it can be readily transformed into a number of reactive compounds useful in the manufacture of plastics.

Chart 2 also shows how the use of petroleum coke as a percentage of total non-energy use in the UK has increased between 1990 to 1997, from 1.2 to 10.0 per cent over the period. These increased deliveries do not represent a true increase in non-energy uses. Significant quantities of petroleum coke are used as a fuel in the manufacture of cement, by power generators and sold by fuel merchants in each year. Work is in progress to develop accurate estimates for this energy use, but current data suggests that around 50 per cent of inland deliveries of petroleum coke (500 thousand tonnes) are for energy rather than non-energy uses.

Chart 2 Inland deliveries by non-energy use, 1990 to 1997

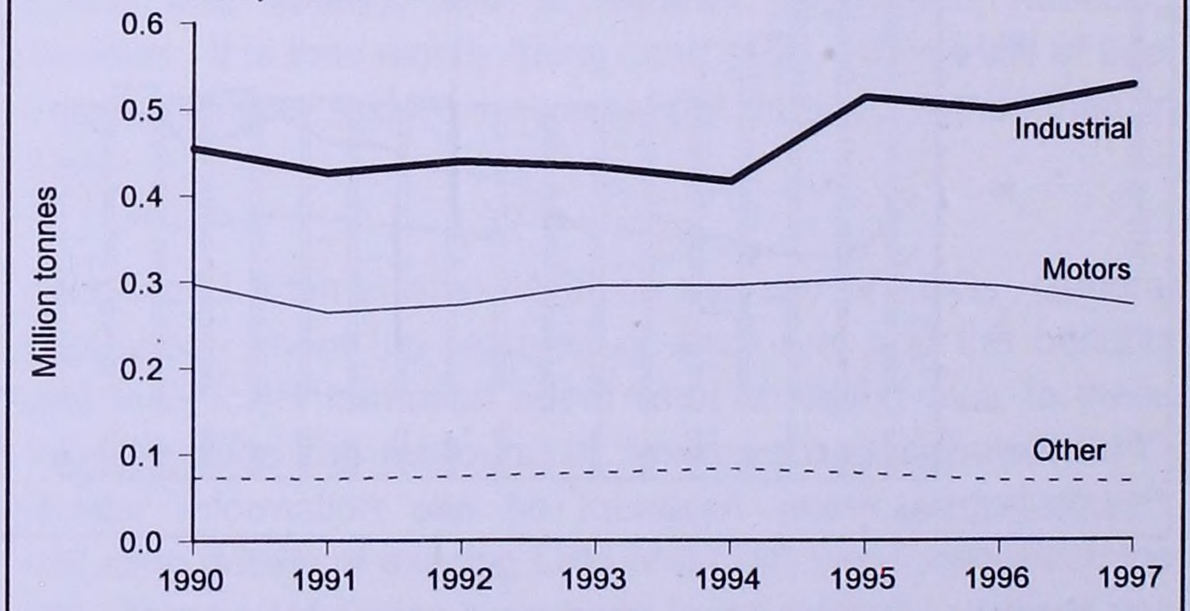


"Feedstocks - Other" for this chart includes propane, butane, middle distillate feedstock and other products but excludes naphtha.

Related to this, research has also shown that although classified as being used for non-energy purposes, a proportion of lubricating oils are consumed as fuels. This occurs when lubricants are consumed whilst being used during the normal operation of engines, or after used lubricants have been re-refined to remove the impurities they contain, allowing them to be burnt as fuel oils. Estimates suggest that these two factors may mean that around 40 per cent of lubricating oils used each year (around 340 thousand tonnes) should be regarded as being consumed as fuels.

Lubricating oils represent the highest value-added of the non-energy products. Chart 3 details available data on end-uses of lubricating oils. Deliveries of lubricating oils and grease have remained fairly constant across all uses since 1990. The change in the industrial deliveries figure in 1995 was due to the reporting system being extended to include an additional 12 companies, which added about 65 thousand tonnes to the 1995 data

Chart 3 Deliveries of lubricating oils and grease by end use, 1990 to 1997



"Other" includes aviation, marine, agricultural uses and fuel oil sold as lubricant

Kevin Williamson and Sukhbinder Lalria
Oil & Gas Statistics Team
Tel. 0171 215 5184
e-mail: Kevin.Williamson@epad.dti.gov.uk

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 in Tables 2 and 28. 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.
- Monthly figures relate to four week periods except where otherwise indicated. Figures in the Gas and Petroleum sections relate to calendar months.
- All figures relate to the United Kingdom unless otherwise indicated.

ABBREVIATIONS

CCGT	-	Combined Cycle Gas Turbine
LDF	-	Light distillate feedstock
OTS	-	Overseas Trade Statistics of the United Kingdom
UKAEA	-	United Kingdom Atomic Energy Authority
BNF	-	British Nuclear Fuels plc
GDP	-	Gross domestic product
NGLs	-	Natural gas liquids
UKCS	-	United Kingdom Continental Shelf
VAT	-	Value added tax

SYMBOLS USED IN THE TABLES

..	not available.
-	nil or less than half the final digit shown.
*	five-week period.
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
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
1 petawatt (PW)	=	1,000 terawatts

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 the Digest of UK Energy Statistics.

CONVERSION MATRIX

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	Gigawatt hours	Million therms
	multiply				
From:	Thousand tonne of oil equivalent	1	41.87	11.63	0.3968
	Terajoules (TJ)	0.02388	1	0.2778	0.009478
	Gigawatt hours (GWh)	0.08598	3.6	1	0.03412
	Million therms	2.52	105.5	29.31	1

GENERATION OF ELECTRICITY

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". They are :

Anglian Power Generation, Barking Power Ltd., British Nuclear Fuels plc., Coolkeeragh Power Ltd., Corby Power Ltd., Derwent Cogeneration Ltd., Eastern Merchant Generation Ltd., Elm Energy & Recycling (UK) Ltd., Fellside Heat and Power Ltd., Fibrogen Ltd., Fibropower Ltd., First Hydro Ltd., Humber Power Ltd., Hydro-Electric, Indian Queens Power Ltd., Keadby Generation Ltd., Lakeland Power Ltd., Magnox Electric Plc, Medway Power Ltd., Midlands Power (UK) Ltd., National Power, NIGEN, Nuclear Electric, Peterborough Power Ltd., PowerGen, Premier Power Ltd., Regional Power Generators Ltd., Rocksavage Power Company Ltd., Scottish Nuclear, Scottish Power, South East London Combined Heat & Power Ltd., South Western Electricity, Teesside Power Ltd.

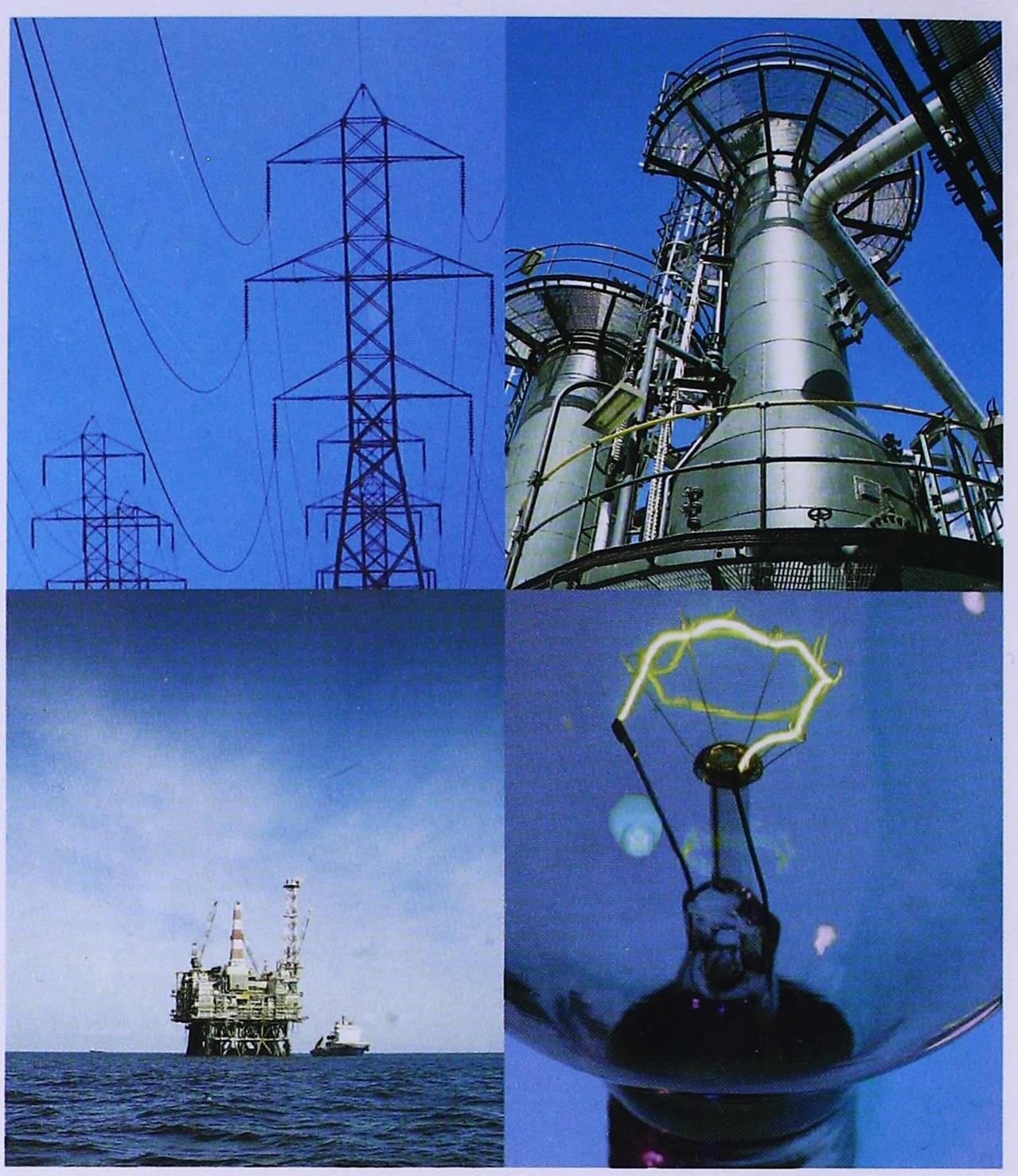
The term "Other Generators" is used for companies who produce electricity as part of their manufacturing or other commercial activities, but whose main business is not electricity generation. Because in most cases the majority of this electricity is used by the businesses themselves the term "autogenerators" is sometimes used to describe "Other Generators". Electricity consumed by industry and commerce from its own generation is included as part of final consumption, in line with the practice in international energy statistics.

SECTORIAL BREAKDOWNS

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

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

ENERGY*trends*



Energy is a major natural resource and a key factor in the economy and environment of the United Kingdom. Data on energy supply and demand, energy prices and values and trade in energy are essential components of this country's main economic and environmental indicators.

ENERGY*trends* is a monthly publication produced by the Department of Trade and Industry which began in the 1960s. With tables, charts and commentary covering all the major aspects of energy, it provides a comprehensive picture of energy production and use over recent months. It allows readers to monitor trends during the year and as such complements the annual publications "Digest of United Kingdom Energy Statistics" and "The Energy Report" volumes 1 and 2. The **'Digest of United Kingdom Energy Statistics'** provides detailed annual data and analysis, going back, in some cases, to before 1960. The **'Energy Report Volume 1'** provides an update on Government policy and details the evolution of the energy sector towards full competition whilst **Volume 2,** often referred to as the **'Brown Book'**, gives details of oil and gas resources in the United Kingdom.

ENERGY*trends* provides essential information for everyone, from economists to environmentalists, and from energy suppliers to energy users.

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