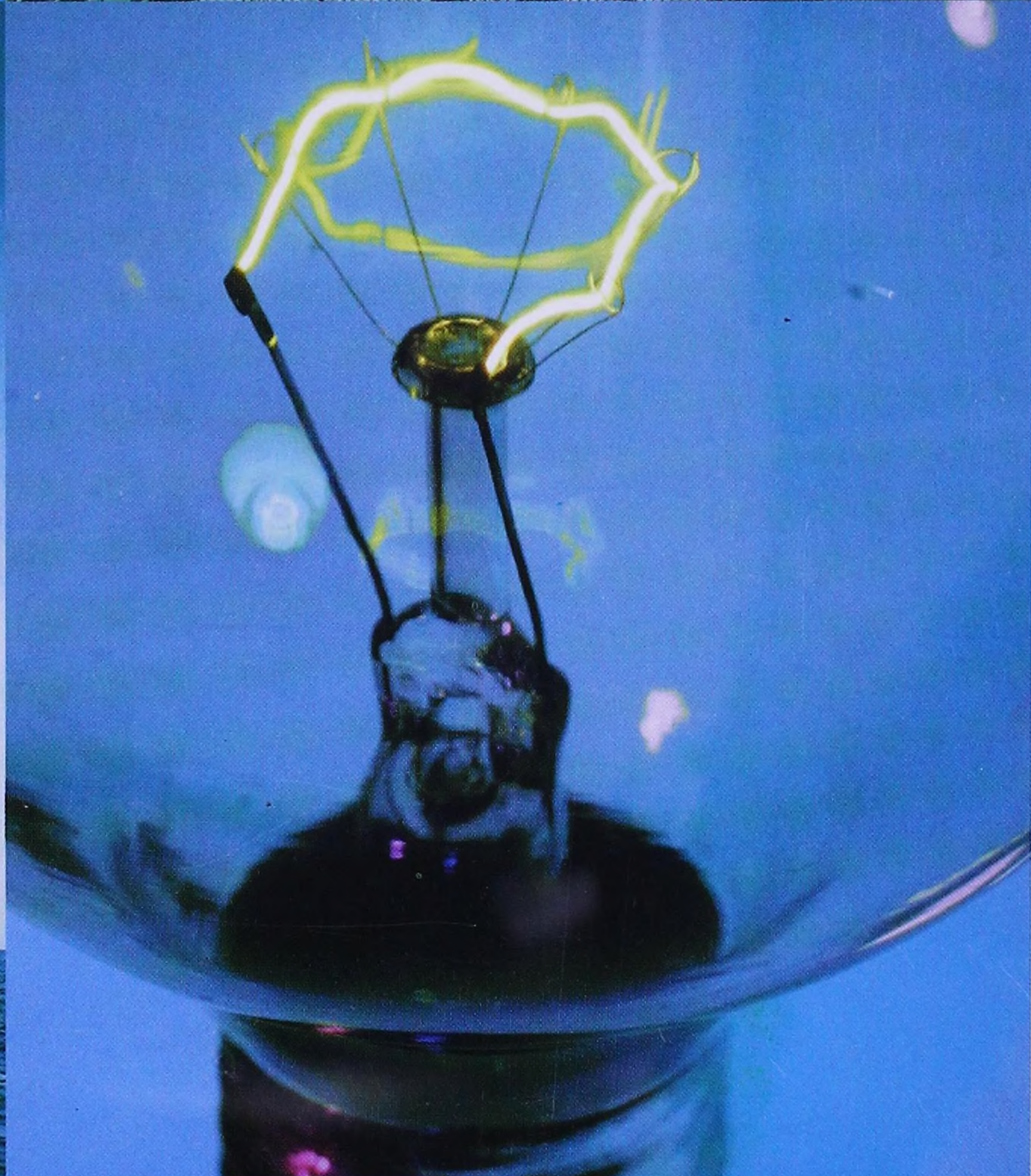
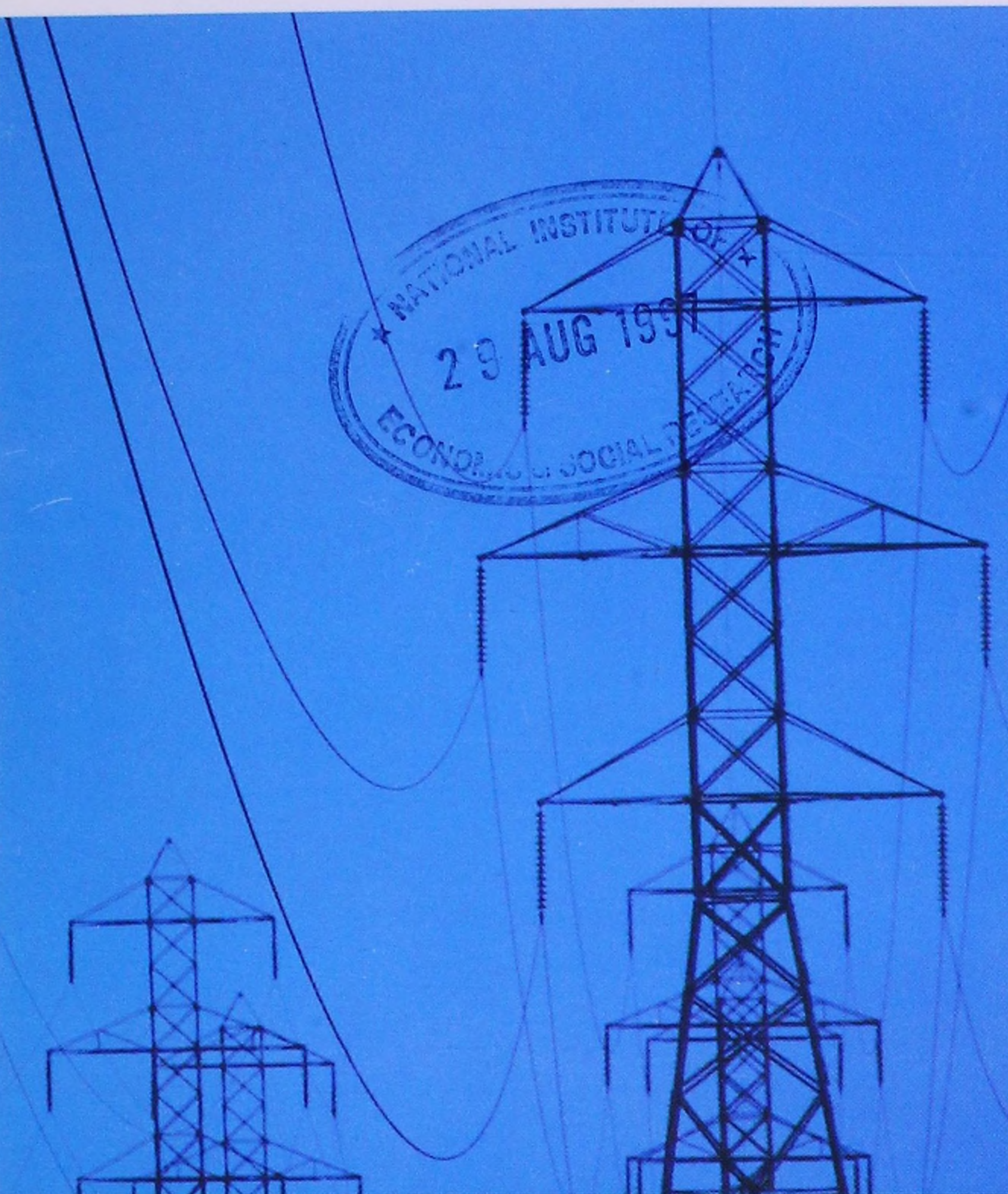


ENERGY *trends*

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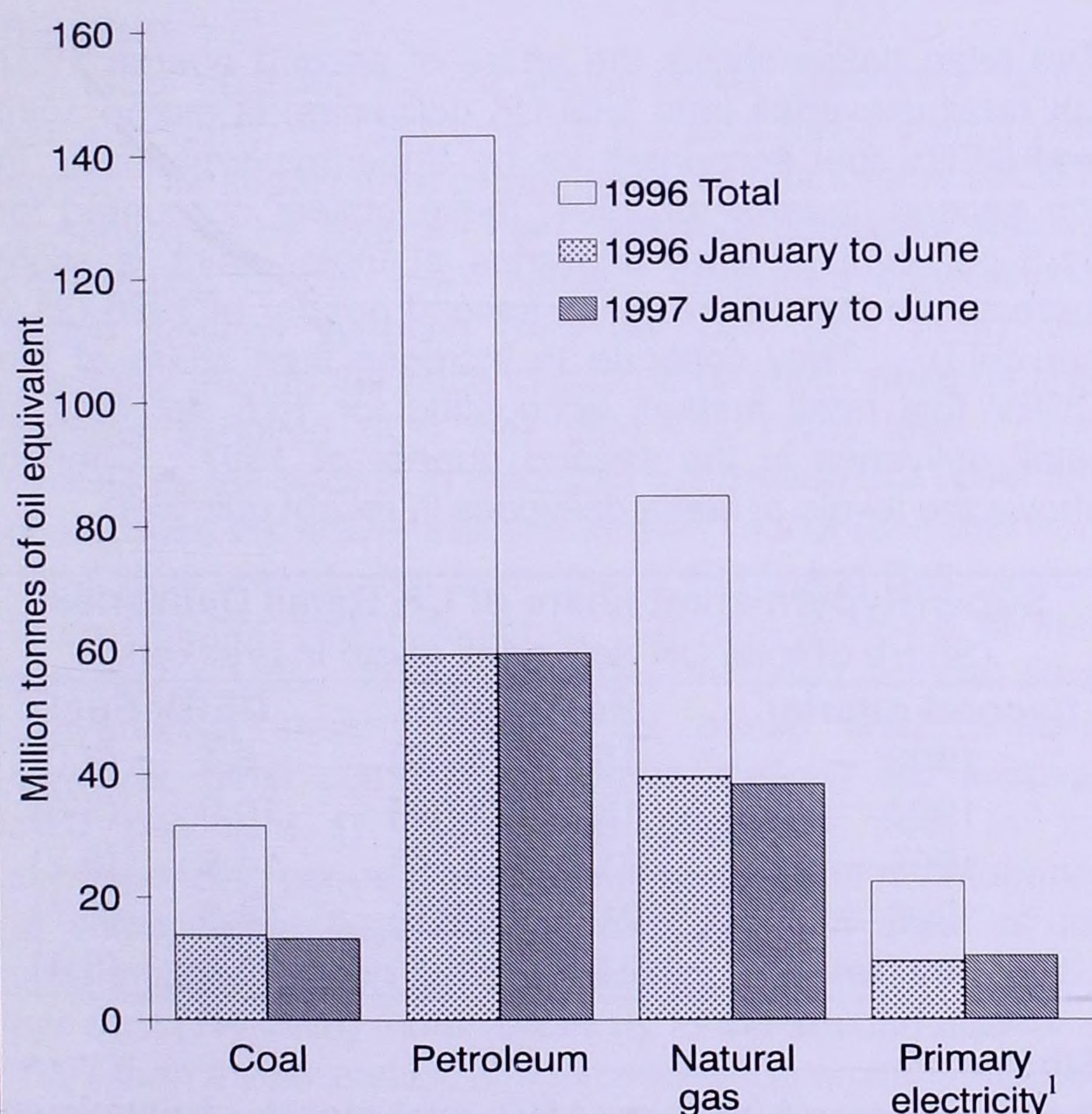
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MAIN POINTS

- * Energy production in the second quarter was ½ per cent lower than a year earlier with gas production rising by 5 per cent and nuclear electricity generation up 12 per cent. Production of crude oil is 4½ per cent down, due to an earlier than usual start to annual maintenance work in the North Sea.
- * Primary energy consumption in the second quarter of 1997, after temperature correction and seasonal adjustment, was 1½ per cent higher than in the same quarter of 1996 with natural gas consumption up by 10 per cent.
- * Average domestic prices for gas and electricity fell by 3 and 6 per cent respectively in real terms between Q2 1996 and Q2 1997.
- * Coal stocks at the end of June 1997 were 4 million tonnes up on three months earlier. This is because coal consumption (down 18 per cent on a year earlier in the last three months) has fallen faster than production (down 1 per cent) while net imports have risen (up 21 per cent).
- * Petroleum refinery throughput and output are both down by 2 per cent in the second quarter compared with 1996 due to the closure of a major refinery for maintenance work.
- * Nuclear's share of the fuel used for electricity generation in the second quarter of 1997 at 36 per cent was above coal's 33 per cent share for the first time. Gas' share was not far behind at 29 per cent.
- * An extended article, beginning on page 20, looks at Combined Heat and Power in the UK in 1996.

TOTAL ENERGY PRODUCTION (Table 1)

Chart 1: Production of indigenous primary fuels

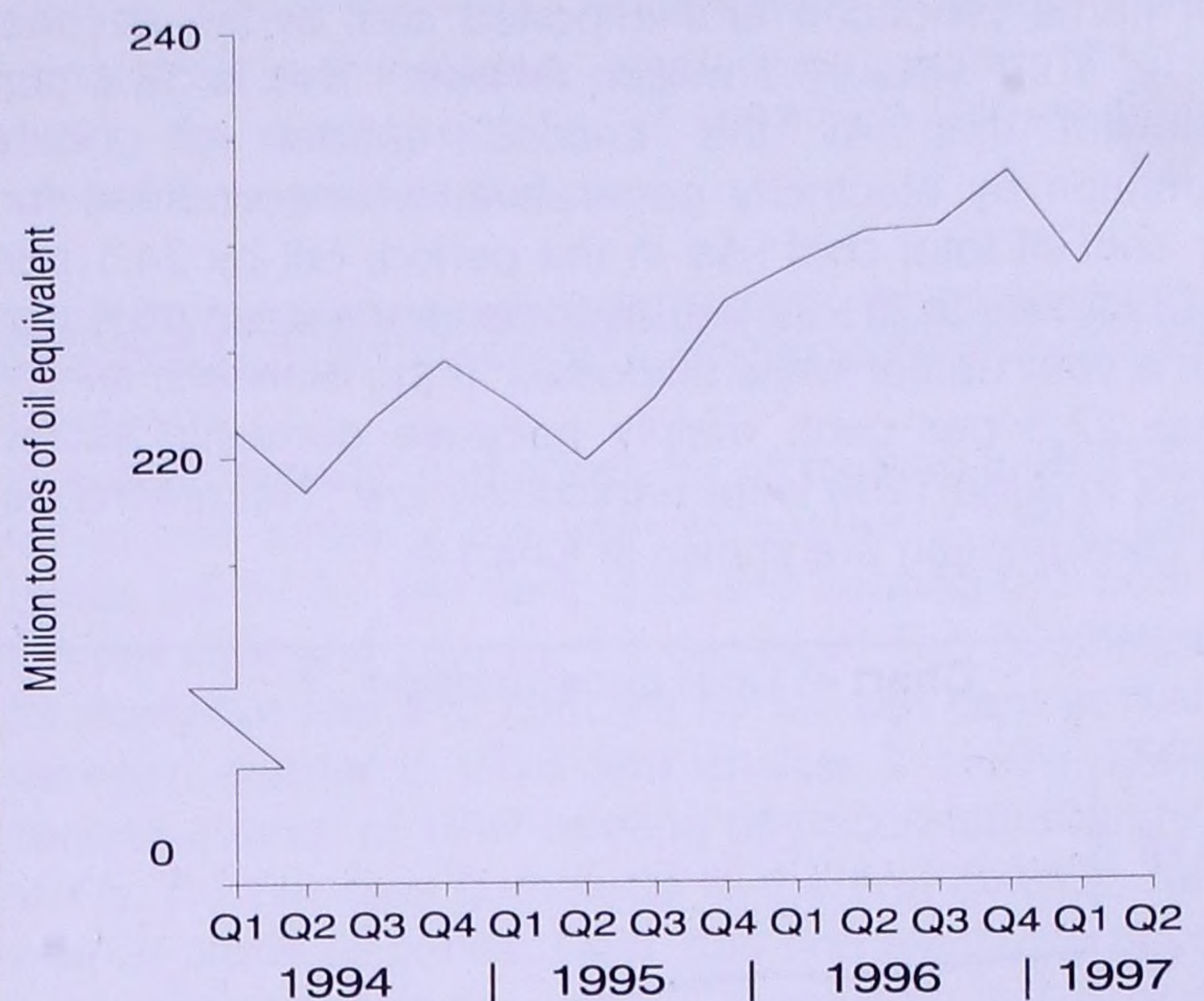


¹ Nuclear and natural flow hydro.

Indigenous production of primary fuels in the second quarter of 1997 at 65.3 million tonnes of oil equivalent, was 0.3 per cent less than in the corresponding period a year ago. Production of natural gas and nuclear electricity rose by 4.7 per cent and 11.9 per cent respectively, compared with the same period a year earlier. Oil and coal production fell by 4.6 per cent and 1.2 per cent respectively.

TOTAL ENERGY CONSUMPTION (Table 2)

Chart 2: Total inland consumption (primary fuel input basis)¹



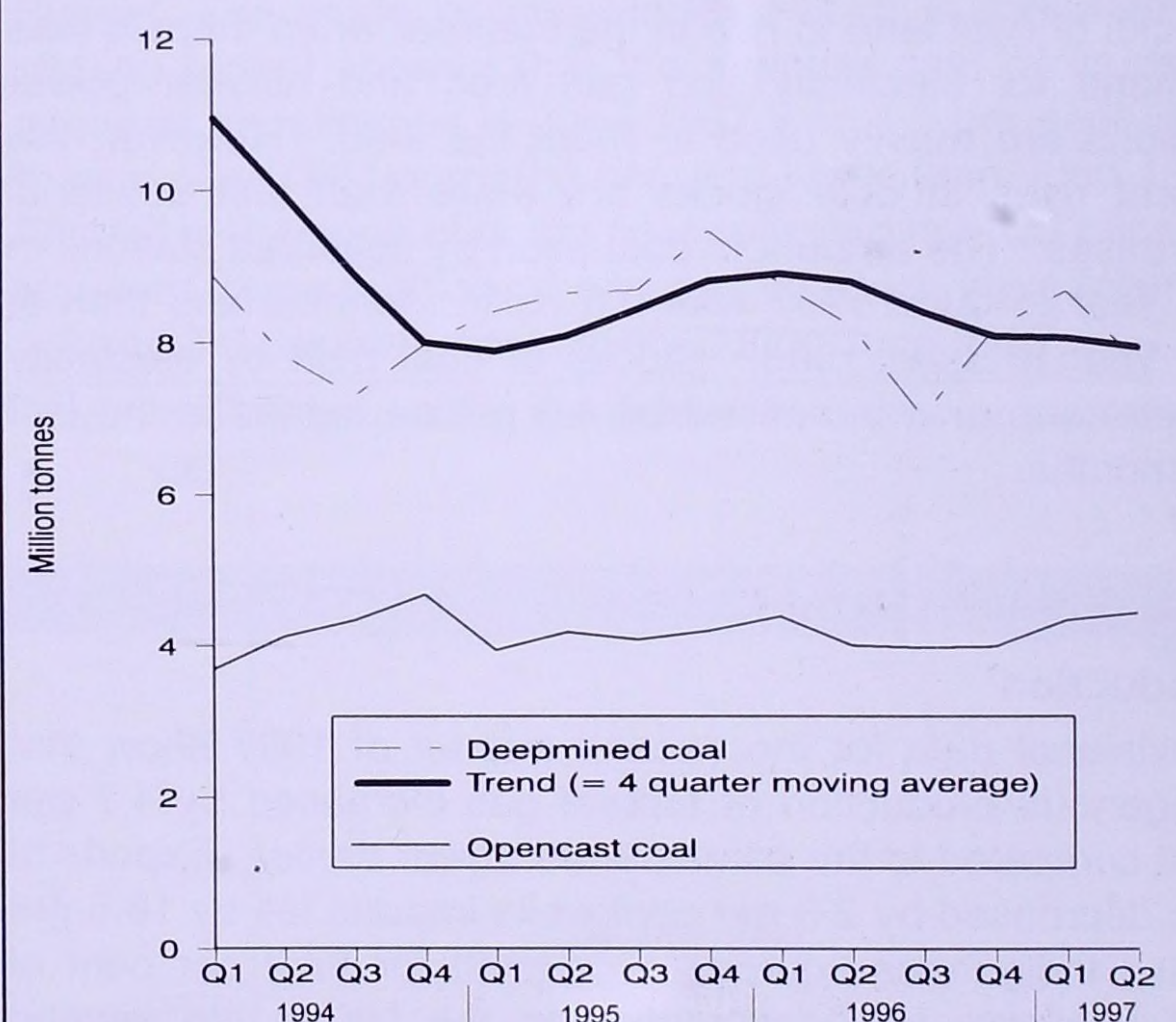
¹ Seasonally adjusted and temperature corrected annual rates.

Total inland energy consumption, on a primary fuel input basis, during the second quarter of 1997 was 51.8 million tonnes of oil equivalent, 1.7 per cent lower than in the corresponding quarter a year ago. Consumption of coal and petroleum fell by 18.2 per cent and 2.2 per cent respectively, while natural gas consumption rose by 4.8 per cent.

The average temperature during the period was 0.9 degrees celsius warmer than a year ago, and total energy consumption, on a seasonally adjusted and temperature corrected basis, was 1.4 per cent higher than in the same period a year earlier. On this basis, consumption of natural gas rose by 10.1 per cent, whilst consumption of petroleum and coal fell by 0.7 per cent and 14.4 per cent respectively.

COAL AND OTHER SOLID FUELS (Tables 4 to 7)

Chart 3: Coal production



Production and imports

Provisional figures for the second quarter of 1997 show that coal production (including an estimate for slurry) was 1.2 per cent lower than in the corresponding period a year earlier at 12.5 million tonnes. Deep mined production was down 5.9 per cent but opencast production was up 10.4 per cent. Imports of coal were 19.9 per cent higher than a year earlier with 5.5 million tonnes imported during the three

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
	<i>multiply</i>				
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

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., 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., Hydro-Electric, 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., 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

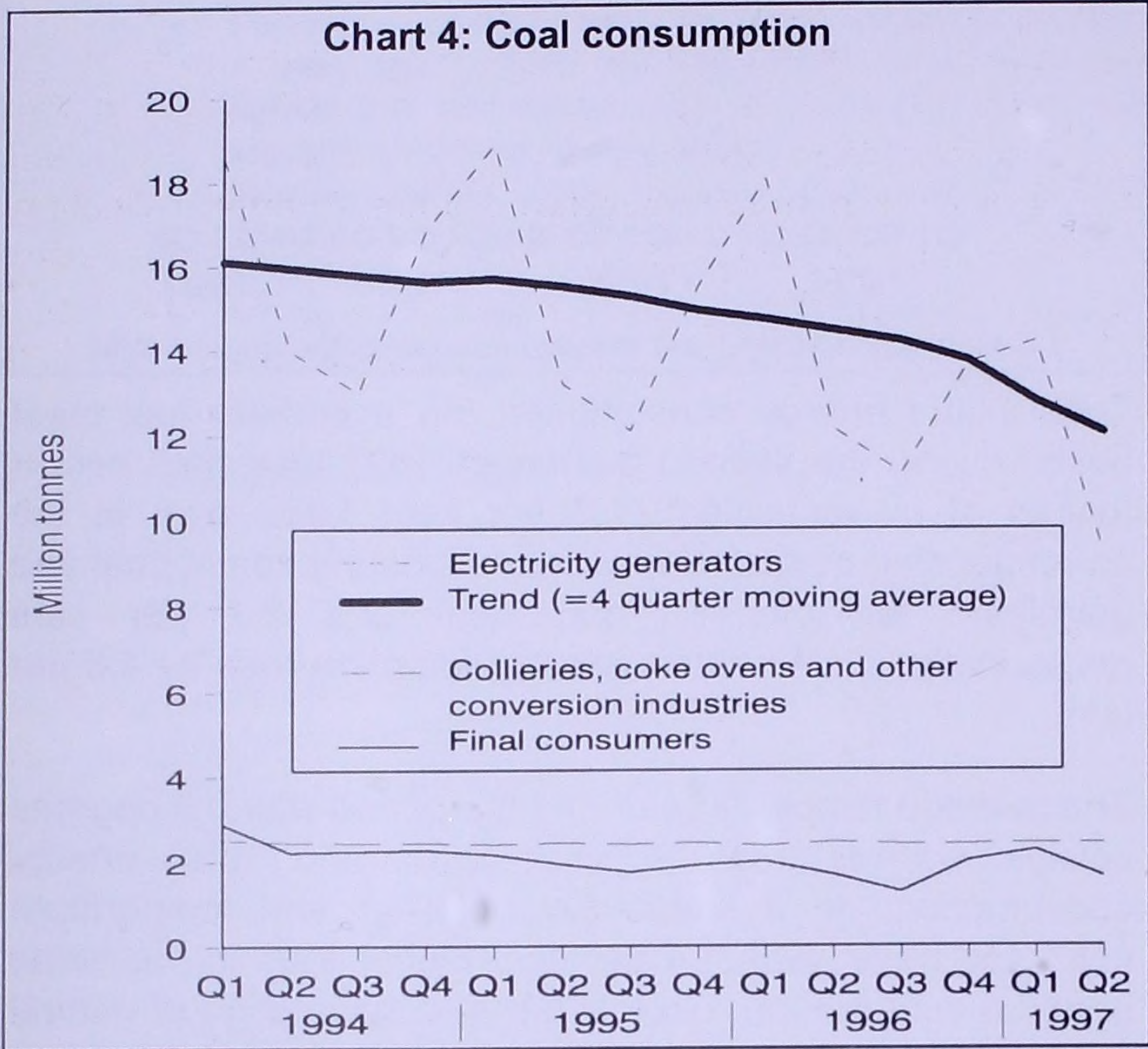
The categories for final consumption by user are defined by the Standard Industrial Classification 1992, as follows :

Fuel producers	10-12, 23, 40	Other final users	
Final consumers:		Agriculture	01, 02, 05
Iron and steel	27, <i>excluding</i> 27.4, 27.53 and 27.54	Commercial	50-52, 55, 64-67, 70-74
Other industry	13, 20, 25, 36, 37, 41	Public administration	75, 80, 85
		Other services	90-93, 99
Transport	60-63	Domestic	Not covered by SIC 1992

month period. Recent trends in coal production are shown in Chart 3.

Consumption

Use of home produced and imported coal in the second quarter of 1997 was 13.3 million tonnes. This is 18.4 per cent lower than in the second quarter of 1996. Consumption by electricity generators, who accounted for 69 per cent of total coal use in the period, fell by 24.1 per cent. Disposals to the industrial sector were down 10.4 per cent on a year earlier while disposals to the domestic sector were up 22.3 per cent, mainly because domestic sector disposals in June 1996 were particularly low. Recent trends in coal consumption are shown in Chart 4.



Stocks

Coal stocks rose in June by 0.9 million tonnes to stand at 18.0 million tonnes, 4.0 million tonnes higher than at the end of June 1996, and their highest level since November 1995. Stocks of coal tend to rise in the summer when there is less demand for electricity and gas fired and nuclear power stations are mainly used to meet the load. However, the recent rises in coal stocks are more than just seasonal increases. The amount of coal used by coal fired stations in the year to June 1997 was 9.6 million tonnes less than in the year to June 1996. Stocks of coal held by electricity generators have increased by 4.5 million tonnes in the last 12 months.

GAS (Tables 11 and 12)

Production

Provisional data for the second quarter of 1997 show that indigenous production of natural gas increased by 4.7 per cent compared to the same period a year earlier. Exports of gas decreased by 2.3 per cent while imports fell by 18.5 per cent. Indigenous sources accounted for 97.9 per cent of gas available for consumption in the UK in the second quarter of 1997. Gas output from the inland transmission system into the local distribution network was 6.1 per cent higher than a year ago. The increases in gas production and output partly reflect increasing demand for gas in electricity generation but are also the result of unseasonably cold weather at the end of June 1997 boosting demand for gas for space heating. This offset the impact of average temperatures in April and May 1997 being higher than in 1996.

PETROLEUM (Tables 13 to 17)

Production and refining

Comparing the second quarter of 1997 with the same period a year ago, total indigenous UK production of crude oil and NGLs decreased by 4.6 per cent, whilst exports of crude oil and NGLs fell by 12.6 per cent. These decreases are primarily due to annual maintenance programs being carried out on a significant proportion of fields during May and June 1997. Exports of petroleum products were 1.6 per cent higher during the period than in 1996, while imports were 16.4 per cent lower.

Total refinery output in the second quarter of 1997 was 2.1 per cent lower than in 1996, with decreases in the output of most petroleum products including motor spirit, aviation turbine fuel and gas/diesel oil (which includes DERV fuel) being down 1.2, 5.1 and 0.6 per cent respectively. This is primarily due to the closure of a major refinery for maintenance work during significant parts of May and June 1997.

Deliveries of products (consumption)

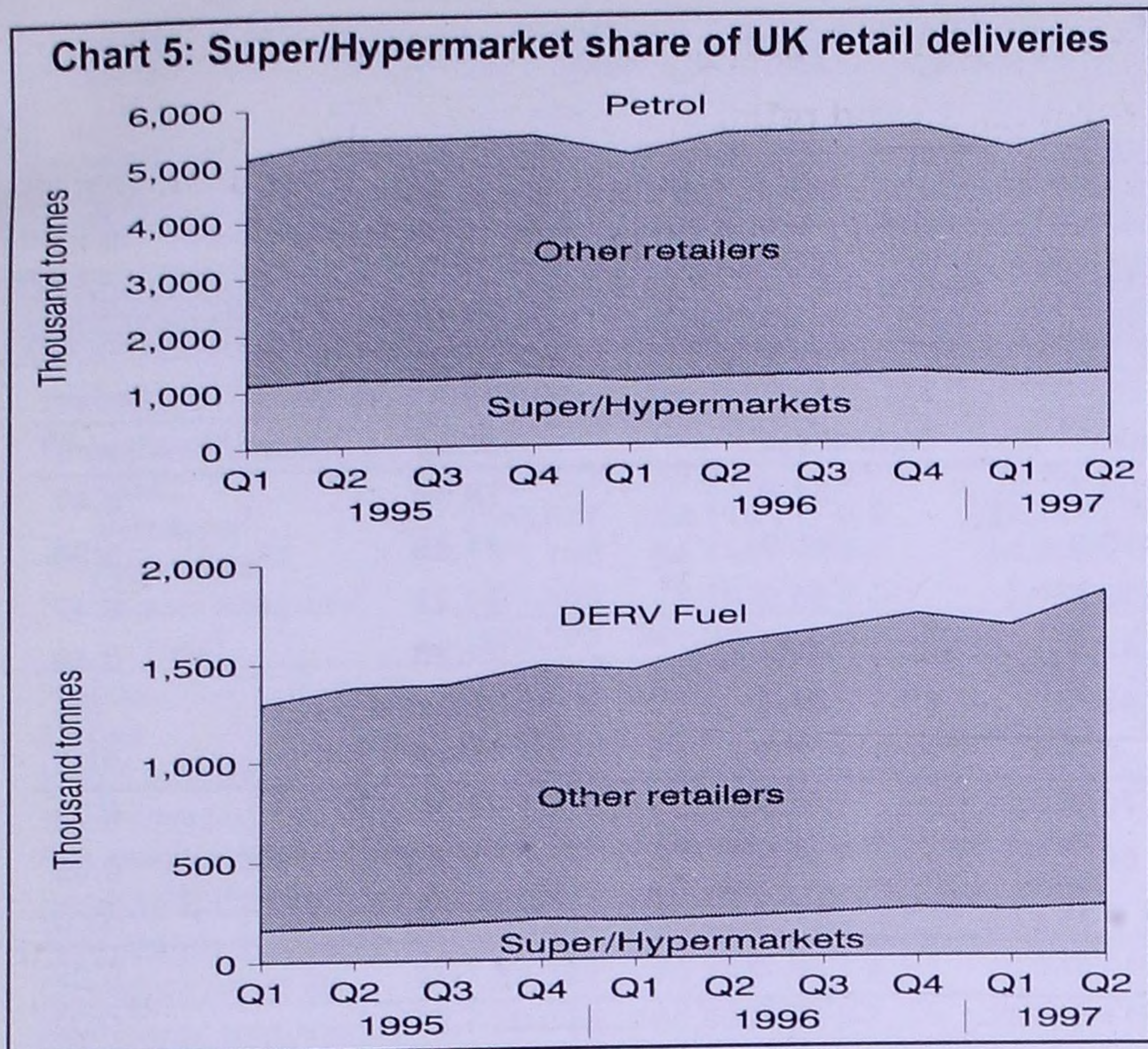
Overall deliveries of petroleum products for inland consumption for the second quarter of 1997 were 3.8 per cent lower than in the same period a year earlier. Deliveries of transport fuels were 4.5 per cent higher, with increases in deliveries of DERV fuel (8.2 per cent), aviation turbine fuel (4.7 per cent) and motor spirit (2.1 per cent). Within the motor spirit total, unleaded petrol represented 71.0 per cent of total motor spirit deliveries over the period, compared with 67.4 per cent a year ago. Deliveries of feedstock to petrochemical plants decreased by 14.9 per cent. Fuel oil deliveries decreased by 42.5 per cent and there were no deliveries of orimulsion in the quarter due to the moving of power stations and other industries away from these fuels as a source of energy.

The table below shows the share of second quarter 1997 UK retail deliveries (and total UK deliveries) of motor spirit and DERV fuel accounted for by Super/hypermarkets. In the second quarter of 1997, these outlets accounted for 21.5 per cent of retail deliveries of motor spirit, a slight increase on their share in the second quarter of 1996 (21.3 per cent). They continue to increase their share of the DERV fuel retail market, accounting for 15.6 per cent of retail deliveries in the second quarter of 1997. Chart 5 shows the levels of these deliveries in recent quarters.

Super/Hypermarket share of UK Retail Deliveries (Share of total UK deliveries given in brackets)			
Second quarter	Motor Spirit		DERV Fuel
1993	15.1	(14.9)	6.4 (2.0)
1994	18.0	(17.6)	10.9 (3.6)
1995	21.9	(21.4)	14.5 (5.2)
1996	21.3	(20.9)	14.8 (5.7)
1997(e)	21.5	(21.1)	15.6 (6.4)

Stocks

During the month of June 1997 total stocks of petroleum increased by 1.4 per cent, with stocks of crude oil and refinery process oils increasing by 2.8 per cent and stocks of petroleum products increasing by 0.3 per cent. Thus at the end of June 1997, total stocks of petroleum were 3.4 per cent higher than at the end of June 1996, with stocks of crude oil and refinery process oils being 7.7 per cent higher while stocks of petroleum products were relatively unchanged (0.2 per cent higher).



ELECTRICITY (Tables 18 to 23)

Fuel use

Fuel used by the major power producers in the second quarter of 1997 was 1.8 per cent lower than in the second quarter of 1996. For the statistical months used by the electricity industry, temperatures over this period were almost 1°C higher than a year earlier. Coal use was 25.3 per cent down on a year earlier. The volume of gas used was 39.6 per cent higher than a year earlier and the use of nuclear sources was up 11.2 per cent. A number of nuclear reactors were not available in this period of 1996. Coal's share of fuel used by generators was only 32.5 per cent and, for the first time, this was exceeded by nuclear's share at 36.5 per cent. Gas' share was 29.0 per cent.

Supplied

Electricity supplied by the major power producers in the second quarter of 1997 was 0.6 per cent lower than a year earlier. The supply from combined cycle gas turbine (CCGT) stations rose by 40.8 per cent, with four additional stations contributing to the 1997 figure. Coal-fired conventional steam stations supplied 34.9 per cent (6½ TWh) less electricity than in the second quarter of 1996, while oil fired stations supplied 66.4 per cent (½ TWh) less. This overstates the decline in electricity generation from coal and oil because the power stations at both Didcot (one unit from June 1996 and another from March 1997) and Ballylumford (from October 1996) began to burn gas in some of their generating sets. They are now included in the other conventional steam category as mixed fired stations. However, other conventional steam stations still supplied 16.8 per cent (1 TWh) less electricity than in the corresponding period a year earlier because of maintenance at some mixed fired stations and the shut down of the oil/Orimulsion station at Ince. Nuclear stations supplied 8.2 per cent (1½ TWh) more electricity in the second quarter of 1997 than a year earlier, and exceeded the amount supplied by coal fired stations in each month of the period. When electricity available from other UK sources (up 2.3 per cent on a year earlier) and net imports (5.7 per cent lower than a year ago) are included, total electricity available through the public distribution system was 0.9 per cent lower than a year earlier.

Sales

In the second quarter of 1997, sales of electricity through the public distribution system were provisionally 0.5 per cent

lower than a year earlier. Sales to industrial customers rose by 0.8 per cent and those to commercial customers by 1.7 per cent. Domestic sector sales were 3.3 per cent lower as a result of the milder weather during the quarter, described above. When estimates of electricity available from other generators are included, total consumption of electricity during the second quarter of 1997 was also 0.5 per cent lower than a year earlier.

PRICES (Tables 26 to 30)

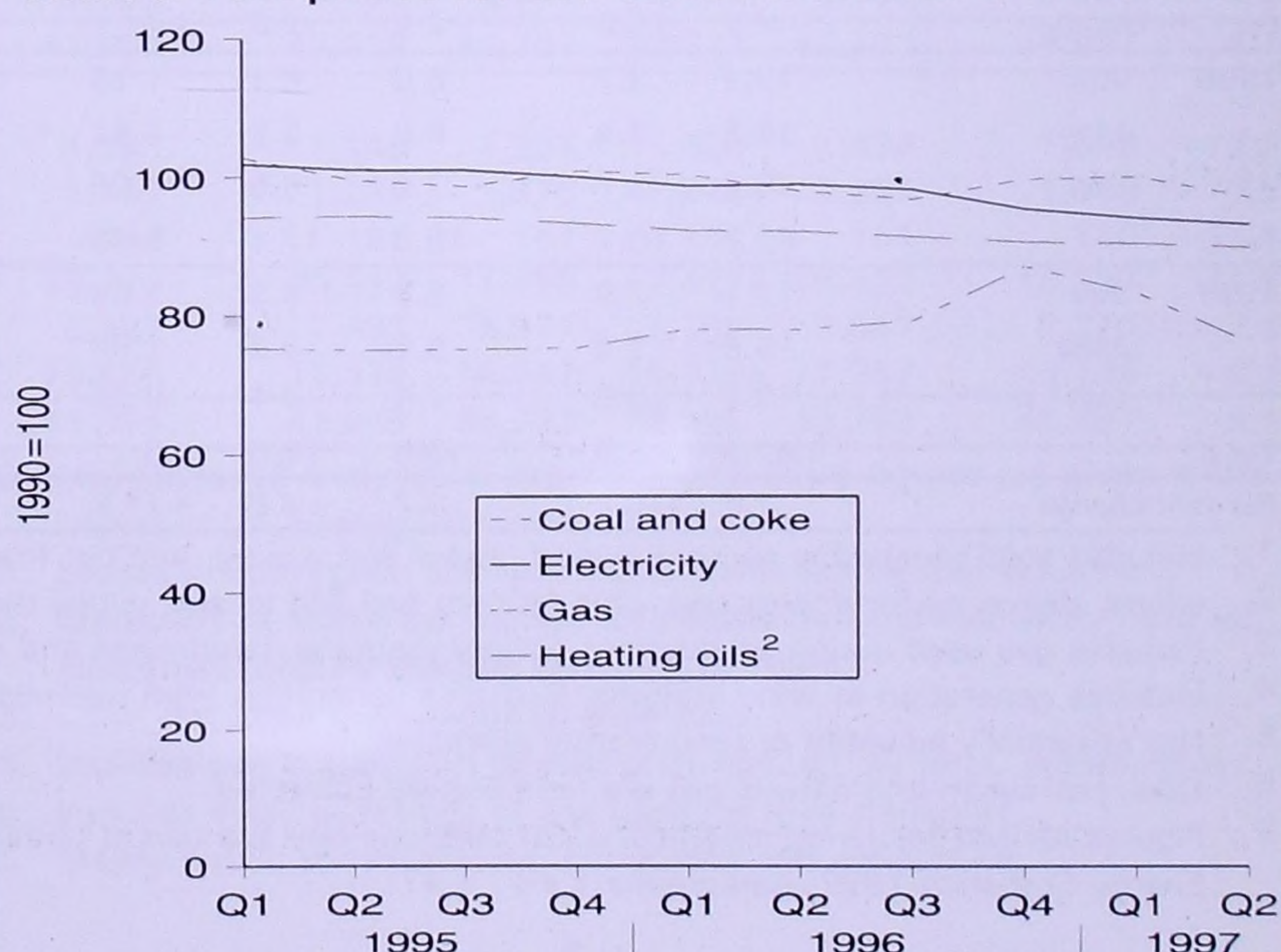
Domestic

Average domestic fuel prices for all heating fuels (Table 29), fell in real terms in the year to quarter 2 1997. Electricity prices fell by 6.1 per cent, gas and heating oils both fell by 2.8 per cent and coal by 1.1 per cent. The combined index for domestic fuel and light fell by 4.6 per cent in real terms between quarter 2 1996 and quarter 2 1997. During the second quarter of 1997 heating oil prices fell sharply in real terms, 8.7 per cent compared to the first quarter, reflecting weaker crude oil prices. Coal, gas and electricity prices also fell in real terms in the second quarter by 3, 0.6 and 1 per cent respectively. In general fuel prices fell in cash terms in quarter 2 1997 caused in part by reduced demand and the continuing impact of the reduction in the Fossil Fuel Levy for electricity. The index for petrol and oil shows prices generally falling between the first and second quarter of 1997, by 1.4 per cent, but this equates to an overall real term rise of 1.2 per cent since the recent competition driven price low point in quarter 2 1996.

Petroleum product prices

Prices for 4 star and unleaded petrol and DERV rose in the month to mid-June 1997 (Table 30). Between mid-May and mid-June the price of 4-star petrol and premium unleaded both fell by 0.5 pence per litre. Over the same period the price of DERV and super unleaded rose by 0.3 and 0.4 pence per litre respectively. Since June 1996 4 star prices have risen 9.6 per cent, unleaded by 9.5 per cent and DERV by 9 per cent. Petrol and DERV prices will rise further by up to 6 per cent in July following the Duty changes in the Budget. The crude oil price index (which is calculated in sterling terms) showed that the average cost of crude oil acquired by refineries in June 1997 was 4.5 per cent lower than in May 1997 and 10.9 per cent lower than June 1996. The fall in the price of crude oil is reflected in retail prices of standard grade burning oil and gas oil which have fallen by 1.2 and 3.6 per cent respectively during June 1997.

Chart 6: Fuel prices for the domestic sector in real terms¹



¹ Deflated using the GDP market price deflator.

² The heating oils are bottled gas and fuel oil.

CORRECTION: PLEASE REPLACE TABLE 22 IN AUGUST 1997 EDITION OF ENERGY TRENDS

TABLE 22. Electricity production and availability from the public supply system¹

TWh

		Electricity supplied (net) by type of plant										Purchases from other sources (net) ^{8,9}		Total Electricity available ⁹
		Electricity generated	Own use ²	Conventional steam plant							Net imports			
				Total conventional	Coal ³	Oil	Other conventional steam ⁴	CCGT ⁵	Nuclear	Hydro ⁶			Other ⁷	
				Total	steam									
1992		300.18	20.74	279.44	205.90	169.56	10.46	25.87	2.96	66.27	3.96	0.35	16.69	301.40
1993		300.51	19.34	281.17	178.31	144.03	8.30	25.97	22.61	76.84	2.95	0.46	16.72	305.20
1994		302.81	17.97	284.84	167.29	137.80	6.21	23.28	36.82	76.41	3.63	0.69	16.89	309.12
1995		310.29	18.08	292.21	162.08	132.96	4.35	24.77	48.52	77.64	3.27	0.69	16.31	314.66
1996		323.16	18.50	304.66	153.17	120.06	3.90	29.21	65.60	82.87	1.84	1.17	16.68	327.53
Per cent change		+4.1	+2.3	+4.3	-5.5	-9.7	-10.3	+17.9	+35.2	+6.7	-43.8	70.2	+2.3	+4.1
1996	Jan - Jun	166.48	9.67	156.81	82.20	67.00	2.38	12.83	31.54	41.56	0.74	0.77	8.58	168.51
1997	Jan - Jun p	163.64	9.33	154.31	64.12	49.89	0.74	13.50	42.68	45.59	1.43	0.49	8.32	165.81
Per cent change		-1.7	-3.5	-1.6	-22.0	-25.5	-69.0	+5.3	+35.3	+9.7	+93.0	-36.0	-3.0	-1.6
1996	Apr	24.15	1.40	22.75	11.68	9.37	0.26	2.06	4.32	6.50	0.15	0.10	1.34	24.55
	May	23.38	1.34	22.04	10.43	8.44	0.27	1.72	4.69	6.69	0.13	0.10	1.31	23.79
	Jun*	26.17	1.53	24.64	11.14	8.71	0.38	2.05	5.75	7.56	0.10	0.09	1.64	26.79
Total		73.70	4.26	69.43	33.25	26.51	0.91	5.84	14.77	20.75	0.38	0.29	4.30	75.13
1997	Apr	23.62	1.35	22.27	8.62	6.75	0.06	1.81	6.42	6.93	0.22	0.08	1.32	24.01
	May	22.81	1.32	21.49	7.59	5.81	0.11	1.67	6.45	7.24	0.15	0.06	1.28	23.24
	Jun p	26.83	1.60	25.23	8.86	7.35	0.14	1.37	7.93	8.28	0.07	0.09	1.46	27.22
Total		73.26	4.27	68.99	25.07	19.91	0.31	4.86	20.80	22.44	0.44	0.24	4.06	74.48
Per cent change		-0.6	+0.1	-0.6	-24.6	-24.9	-66.4	-16.8	+40.8	+8.2	+15.1	-17.0	-5.7	-0.9

1. Electricity generated by major power producers (see definitions inside front 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. Mixed and dual fired including sour gas and Orimulsion.
5. Combined Cycle Gas Turbine Stations.
6. Natural flow and net supply by pumped storage stations.
7. Including diesel and oil engines, gas turbines and wind power.
8. Purchases from the UKAEA, BNF and other generators.
9. Net of supplies direct from generators to final consumers.

TOTAL ENERGY

TABLE 1. Indigenous production of primary fuels

Million tonnes of oil equivalent

			Total	Coal ¹	Petroleum ^{2,3}	Natural gas ⁴	Primary electricity	
							Nuclear	Natural flow hydro ⁵
1992			226.5	52.1	103.7	51.8	18.45	0.47
1993			235.3	42.3	110.3	60.9	21.49	0.39
1994			257.0	30.6	139.8	65.0	21.22	0.47
1995 r			270.3	33.6	143.6	71.2	21.36	0.49
1996 r			282.0	31.7	143.1	84.7	22.1	0.3
Per cent change			+4.3	-5.8	-0.3	+19.0	+3.6	-32.2
1996	Jan - Jun		143.2	16.5	70.4	45.0	11.19	0.13
1997	Jan - Jun p		143.8	16.3	69.5	45.5	12.44	0.08
Per cent change			+0.4	-1.2	-1.4	+1.2	+11.1	-44.0
1996	Apr		22.0	2.5	11.5	6.2	1.78	0.02
	May		21.9	2.5	11.9	5.7	1.82	0.02
	Jun*		21.6	2.9	11.2	5.6	1.86	0.02
Total			65.5	8.0	34.5	17.5	5.46	0.07
1997	Apr		22.7	2.5	11.7	6.5r	1.88	0.03
	May		20.7r	2.5	10.7r	5.5r	1.98	0.02
	Jun* p		21.9	2.8	10.5	6.3	2.25	0.02
Total			65.3	7.9	32.9	18.3	6.11	0.08
Per cent change			-0.3	-1.2	-4.6	+4.7	+11.9	+13.6

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	gas	Nuclear	Natural flow hydro	Net imports
		Unadjusted ⁵							Seasonally adjusted and temperature corrected ^{6,7} (annualised rates)						
1992		216.8r	63.6	78.3	54.5r	18.45	0.47	1.44	219.8	64.6	78.8	56.1	18.33	0.49	1.44
1993		220.3	55.6	78.9	62.5	21.49	0.39	1.44	221.5	55.8	79.2	63.4	21.37	0.40	1.44
1994		218.1	52.2	78.0	64.8	21.22	0.47	1.45	222.3	53.0	78.8	67.3	21.21	0.48	1.45
1995		219.5r	49.9r	76.2	70.1r	21.37	0.49	1.40	224.2	50.9	77.3	72.7	21.40	0.48	1.40
1996 r		231.6	46.7	78.6	82.4	22.12	0.33	1.44	229.9	46.5	78.2	81.3	22.04	0.34	1.43
Per cent change		+5.5	-6.5	+3.2	+17.6	+3.5	-32.2	+2.4	+2.6	-8.5	+1.3	+11.8	+3.0	-28.5	+2.3
1996	Jan - Jun	121.4	25.3	38.8	45.3	11.19	0.13	0.74	229.7	48.4	77.1	80.4	22.03	0.25	1.48
1997	Jan - Jun p	116.1	21.1	37.7	44.1	12.44	0.08	0.69	231.3	42.7	76.7	85.6	24.49	0.35	1.37
Per cent change		-4.4	-16.6	-2.9	-2.6	+11.1	-44.0	-6.9	+0.7	-11.8	-0.5	+6.5	+11.2	+37.7	-7.0
1996	Apr	17.7	3.7	6.0	6.1	1.78	0.02	0.12	230.1	50.0	78.7	77.5	22.31	0.23	1.39
	May	16.8	3.4	6.0	5.5	1.82	0.02	0.11	229.0	46.4	79.3	77.9	23.70	0.32	1.36
	Jun*	18.2	3.7	7.0	5.5	1.86	0.02	0.14	232.6	46.8	76.0	87.1	20.69	0.32	1.69
Total		52.7	10.7	19.0	17.1	5.46	0.07	0.37	230.6	47.8	78.0	80.8	22.23	0.29	1.48
1997	Apr	17.1r	2.9	5.8	6.3r	1.88	0.03	0.11	226.4r	40.2	77.5r	83.6r	23.46	0.30	1.36
	May	15.6r	2.6	5.6r	5.2r	1.98	0.02	0.11	230.1r	40.2r	76.6r	85.9r	25.71	0.37	1.32
	Jun* p	19.2	3.2	7.1	6.4	2.25	0.02	0.13	245.0	42.2	78.3	97.6	25.08	0.30	1.50
Total		51.8	8.8	18.5	18.0	6.11	0.08	0.35	233.8	40.9	77.4	89.0	24.75	0.32	1.39
Per cent change		-1.7	-18.2	-2.2	+4.8	+11.9	+13.6	-5.8	+1.4	-14.4	-0.7	+10.1	+11.3	+10.6	-5.8

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. Figures revised following modification of methodology and use of updated adjustment factors. For further details see Digest of United Kingdom Energy Statistics 1997, paragraphs 1.46 - 1.47.

TABLE 3. Supply and use of fuels

Thousand tonnes of oil equivalent

	1995	1996	Per cent change	1995			1996				1997 p	Per cent change
				2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	
PRIMARY FUELS AND EQUIVALENTS												
Production of primary fuels												
Coal ¹	33,623	31,686	-5.8	8,393	8,327	8,851	8,509	7,997	7,265	7,915	8,552	+0.5
Petroleum ²	143,617	143,116	-0.3	32,744	35,828	38,026	35,929	34,532	34,554	38,101	37,096	+3.2
Natural gas ^{3,4}	71,186	84,718	+19.0	14,602	10,894	21,976	27,474	17,486	13,917	25,841	27,260	-0.8
Primary electricity ⁵	21,856	22,452	+2.7	5,443	5,386	5,804	5,705	5,438	4,988	6,321	5,845	+2.5
Total ⁶	270,290	281,982	+4.3	61,183	60,437	74,659	77,619	65,456	60,726	78,181	78,755	+1.5
Imports	78,356	80,645	+2.9	19,504	20,476	19,616	19,348	21,053	19,738	20,506	20,477	+5.8
Exports	118,350	116,537	-1.5	27,325	29,820	31,026	29,749	29,022	28,321	29,446	28,110	-5.5
Marine bunkers	2,596	2,806	+8.1	683	658	678	610	675	793	729	644	+5.6
Stock changes ⁷	+7,074	+1,736		+1,022	-1,779	+2,672	+3,587	-248	-1,646	+43r	-904	
Non-energy use ⁸	15,006	14,791	-1.4	3,790	3,608	3,776	3,609	3,625	3,758	3,798	3,606	-0.1
Statistical difference ⁹	-314	+1,369		-372	+361	-935	+2,013	-223	+943	-1,364	-1,900	
Total primary energy input ¹⁰	219,455	231,598	+5.5	49,539	45,410	60,532	68,599	52,717	46,890	63,392	64,069	-6.6
Conversion losses etc. ¹¹	68,782	70,798	+2.9	15,933	15,056	18,533	20,680	15,950	14,568	19,599	18,581	-10.2
Final energy consumption ¹²	150,673	160,800	+6.7	33,606	30,353	41,999	47,919	36,767	32,321	43,793	45,487	-5.1
FINAL CONSUMPTION BY USER												
Iron and steel industry												
Coal	44	83	+90.1	13	17	13	23	27	14	19	11	-50.4
Other solid fuel ¹³	3,572	3,805	+6.5	933	893	867	901	966	918	1,020	962	+6.7
Coke oven gas	563	623	+10.8	141	141	141	156	156	156	156	173	+10.7
Gas	1,779	1,889	+6.1	465	398	411	495	459	379	555	452	-8.7
Electricity	847	905	+6.8	216	199	212	235	231	213	226	235	-
Petroleum	916	770	-16.0	189	235	258	199	206	200	164	195	-2.1
Total	7,722	8,075	+4.6	1,957	1,883	1,901	2,009	2,045	1,880	2,141	2,028	+0.9
Other industries												
Coal	3,040	2,410	-20.7	830	692	719	612	600	489	709	645	+5.4
Other solid fuel ^{1,13}	269	382	+41.7	62	65	66	71	108	96	106	147	(+)
Coke oven gas	14	20	+48.7	3	3	3	5	5	5	5	7	+48.1
Gas ⁴	10,259	11,732	+14.4	2,179	2,052	3,214	2,850	2,140	2,502	4,240	3,001	+5.3
Electricity	7,745	7,964	+2.8	1,833	1,818	2,081	2,118	1,885	1,957	2,003	1,927	-9.0
Petroleum	7,017	7,005	-0.2	1,614	1,494	1,743	2,101	1,618	1,463	1,823	1,958	-6.8
Total	28,344	29,513	+4.1	6,522	6,125	7,827	7,757	6,358	6,512	8,887	7,685	-0.9
Transport												
Electricity ¹⁴	636	639	+0.3	162	149	159	165	162	151	161	180	+9.4
Petroleum	49,946	51,968	+4.0	12,549	12,955	12,769	12,074	13,060	13,556	13,279	12,390	+2.6
Total ¹⁵	50,584	52,608	+4.0	12,712	13,104	12,928	12,239	13,222	13,707	13,440	12,571	+2.7
Domestic sector												
Coal	2,078	2,084	+0.3	488	510	566	631	475	357	622	868	+37.6
Other solid fuel ^{1,13}	781	877	+12.2	216	193	172	219	248	217	193	205	-6.0
Gas	28,037	32,322	+15.3	4,716	2,650	9,121	13,814	6,190	3,169	9,150	11,670	-15.5
Electricity	8,790	9,246	+5.2	1,880	1,649	2,517	2,916	1,972	1,730	2,628	2,701	-7.4
Petroleum	3,015	3,540	+17.4	562	474	908	1,227	694	590	1,029	1,165	-5.1
Total ⁶	42,711	48,079	+12.6	7,865	5,478	13,287	18,809	9,582	6,065	13,623	16,611	-11.7
Other final users ¹⁶												
Coal	362	422	+16.7	41	37	70	183	105	46	88	121	-34.0
Other solid fuel ^{1,13}	160	173	+7.7	40	45	36	38	53	44	37	45	+16.5
Gas ⁴	9,505	10,372	+9.1	1,895	1,140	2,964	3,759	2,708	1,428	2,477	3,116	-17.1
Electricity	7,260	7,533	+3.8	1,675	1,678	1,968	2,049	1,727	1,729	2,028	2,232	+9.0
Petroleum	4,026	4,025	-	899	864	1,018	1,075	968	910	1,072	1,079	+0.3
Total	21,313	22,525	+5.7	4,551	3,764	6,056	7,105	5,561	4,157	5,702	6,593	-7.2
Total final consumption	150,673	160,800	+6.7	33,606	30,353	41,999	47,919	36,767	32,321	43,793	45,487	-5.1
FINAL CONSUMPTION BY FUEL												
Coal	5,523	4,999	-9.5	1,372	1,256	1,368	1,449	1,207	906	1,437	1,646	+13.6
Other solid fuel ^{1,13}	4,783	5,236	+9.5	1,250	1,196	1,141	1,229	1,375	1,275	1,357	1,359	+10.6
Coke oven gas	576	644	+11.7	144	144	144	161	161	161	161	180	+11.9
Gas ^{4,15}	49,582	56,317	+13.6	9,256	6,240	15,710	20,919	11,498	7,477	16,422	18,239	-12.8
Electricity	25,279	26,286	+4.0	5,767	5,493	6,937	7,483	5,977	5,780	7,047	7,276	-2.8
Petroleum	64,921	67,309	+3.7	15,813	16,023	16,696	16,676	16,547	16,719	17,367	16,786	+0.7
Total all fuels ⁶	150,673	160,800	+6.7	33,606	30,353	41,999	47,919	36,767	32,321	43,793	45,487	-5.1

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 1995 and 1996 figures are given in the Digest of UK Energy Statistics 1997.

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. Mainly public administration, commerce and agriculture.

COAL & OTHER SOLID FUELS

TABLE 4. Coal production and foreign trade

Thousand tonnes

			Production			Net imports	Imports ²	Exports
			Total ¹	Deep-mined	Opencast			
1992			84,493	65,800	18,187	+ 19,366	20,339	973
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
Per cent change			-5.4	-8.3	-0.3	+ 11.8	+ 12.0	+ 15.1
1996	Jan -	Jun	26,152	16,958	8,373	+ 8,221	8,668	448
1997	Jan -	Jun p	25,828	16,375	8,735	+ 10,893 e	11,528 e	635 e
Per cent change			-1.2	-3.4	+ 4.3	+ 32.5	+ 33.0	+ 41.8
1996	Apr		3,945r	2,590r	1,223r	+ 1,402	1,489	87
	May		3,995r	2,581r	1,277r	+ 1,347	1,409	62
	Jun*		4,687r	3,031r	1,497r	+ 1,612	1,671	58
Total			12,627	8,202	3,998	+ 4,362	4,569	207
1997	Apr		3,995r	2,591	1,306r	2,183r	2,241r	58
	May		4,002r	2,410	1,479r	+ 1,306r	1,385r	80
	Jun* p		4,479	2,720	1,628	+ 1,774 e	1,852 e	78 e
Total			12,476	7,721	4,413	+ 5,263	5,479	216
Per cent change			-1.2	-5.9	+ 10.4	+ 20.6	+ 19.9	+ 4.3

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			
			Primary		Secondary		collieries and opencast sites)			
			Total	Collieries	Electricity generators	Coke ovens	Other conversion industries ¹	Industry ²	Domestic ²	Other ³
1992			100,580	79	78,469	9,031	1,319	6,581	4,156	945
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
Per cent change			-7.2	-5.4	-7.9	-0.3	-3.7	-19.0	+0.6	+10.4
1996	Jan - Jun		38,631	5	30,169	4,322	473	1,837	1,432	395
1997	Jan - June*		32,122	4	23,398	4,394	446	1,769	1,879	231
Per cent change			-16.9	-6.8	-22.4	+1.7	-5.6	-3.7	+31.2	-41.5
1996	Apr		5,598	1	4,298	675	80	279	216	50
	May		5,129	1	3,788	671	82	313	216	58
	Jun*		5,526r	-	4,052r	838	94	319r	187r	36r
Total			16,253	2	12,137r	2,184	256	911r	619r	144r
1997	Apr		4,369r	1	3,097	678r	67	274	230	22
	May		3,979r	-	2,718	678	68	249r	248r	18
	June* p		4,915	1	3,399	849	78	294	279	15
Total			13,263	2	9,215	2,205	213	817	757	55
Per cent change			-18.4	-2.6	-24.1	+1.0	-17.0	-10.4	+22.3	-61.7

1. Low temperature carbonisation and patent fuel plants.

2. Includes estimates of imports.

3. Public administration, 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
1992		47,207	33,493	32,173	1,271	49	13,714
1993		45,860	29,872	28,579	1,218	75	15,989
1994		26,572	15,301	14,102	1,098	101	11,271
1995		17,820	10,716	9,677	961	77	7,104
1996		13,772	9,619	8,362	1,228	29	4,153
1996	Apr	12,700	7,418	6,190	1,169	58	5,283
	May	12,962	7,601	6,561	989	50	5,362
	Jun*	13,947r	8,717	7,393	1,278	46	5,230r
1997	Apr	15,705r	11,200r	10,044	1,128r	29	4,504
	May	17,110	12,279	10,999	1,253r	26	4,831
	June* p	18,031	13,005	11,846	1,134	26	5,026
Absolute change:							
in latest month		+922	+726	+847	-120	-0	+195
on a year ago		+4,085	+4,288	+4,453	-144	-21	-204

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 front cover).

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

Thousand tonnes

		Coke and breeze					Other manufactured solid fuels ¹					
		Consumption					Consumption					
		Iron and steel										
		Net	steel	Other		Total		Net		Total		
		Production	imports ²	industry ³	industry ^{4,5}	Domestic ⁵	use	Production	imports ²	Domestic	Industry ⁴	use
1992		6,528	+305	6,115	515	395	7,025	1,056	+55	1,068	21	1,089
1993		6,093	+514	5,928	546	285	6,760	1,111	+9	1,127	33r	1,160r
1994		6,202	+218	6,168	428	150	6,746	1,034	-27	904	69	973
1995		6,228	+509	6,225	348	178	6,751	841	-58	708	63	771
1996		6,222	+988	6,611	525	230	7,366	862	-41	815	54	868r
Per cent change		-0.1	+94.3	+6.2	+51.0	+29.0	+9.1	+2.6	-29.4	+15.2	-14.3	+12.6
1995	2nd quarter	1,573	+68	1,616	84	45	1,746	216	-5	207	14	221
	3rd quarter	1,570	+263	1,556	82	66	1,704	183	-16	158	17	175
	4th quarter	1,535	+160	1,517	88	27	1,632	259	-15	154	14	168
1996	1st quarter	1,536	+47	1,583	95	37	1,715	184	-17	218	12	230
	2nd quarter	1,568	+419	1,685	152	98	1,935	238	-11	220	14	234
	3rd quarter	1,562	+275	1,601	131	64	1,797	220	-8	195	13	208
	4th quarter	1,556	+247	1,742	146	31	1,919	220	-5	183	15	198
1997	1st quarter	1,564	+319r	1,688	142r	59r	1,889r	223	-1	187	15	202
	2nd quarter p	1,566	+221	1,692	168	28	1,888	197	-32	169	14	183
Per cent change		-0.1	-47.2	+0.4	+10.2	-71.2	-2.4	-17.0	(+)	-23.2	-	-21.9

1. These include Homefire, Ancit, Phurnacite 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 activity¹

Number of wells started

		Offshore				Onshore	
		Exploration & Development ²				Exploration & Development	
		Exploration	Appraisal	Appraisal	Development ²	Appraisal	Development
1992		74	57	131	167	6	8
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	265	7	28
Per cent change		+ 28.3	- 7.9	+ 14.3	+ 8.6	(+)	+ 47.4
1995	2nd quarter	19	14	33	52	-	3
	3rd quarter	11	12	23	54	-	5
	4th quarter	19	6	25	66	2	6
1996	1st quarter	21	10	31	66	3	4
	2nd quarter	15	7	22	81	2	12
	3rd quarter	19	9	28	52	-	7
	4th quarter	22	9	31	62	2	4
1997	1st quarter	22	15	37	61	1	7
	2nd quarter p	10	7	17	67	3	8
Per cent change		-33.3	-	-22.7	-17.3		

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
1992		12,237	3,316	1,508	6,847	1.5	5,420	22
1993		13,841	3,661	1,213	8,111	1.7	4,664	20
1994		15,941	3,876	939	9,709	2.0	3,547	16
1995		17,829	3,913	1,085	10,949	2.1	4,228	18
1996		20,998	3,981	1,097	14,373	2.5	4,375	18
Per cent change		+17.8	+1.7	+1.1	+31.3		+3.5	
1995	1st quarter	4,892	915	221	3,310	2.5	901	16
	2nd quarter	4,119	1,015	249	2,313	1.8	1,055	19
	3rd quarter	3,829	979	232	2,174	1.7	1,200	19
	4th quarter	4,989	1,005	384	3,152	2.3	1,072	16
1996	1st quarter	5,382	944	297	3,794	2.7	943	15
	2nd quarter	4,685	980	242	3,056	2.1	1,178	22
	3rd quarter	4,719	953	279	3,086	2.1	1,175	20
	4th quarter	6,212r	1,104	278	4,437r	2.9	1,078	16
1997	1st quarter p	5,560	984	285	4,061	2.6	942	16
Per cent change		+3.3	+4.2	-4.0	+7.0		-0.1	

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	Annual Capacity ¹	Number of years	Start date	Conditions the tariff allows for:											
	(pence/thousand cubic feet)															
Gas systems	Processing	Transport	Bundled services													
1 Sage	67.0			Large	20	1998	b	f	g	h	j	k	l	m	a	- Priority rights
2 Caister Murdoch system			39.5	Large	12	1998	c	e	f	g	h				n	b - Send or pay
3 Theddlethorpe gas terminal	16.1			Small	-	1998	b	f	g	h						c - Annual charge
4 Gannet processing and Segal systems			45.0	Large	11	1999	a	b	e	f	g	h		l	n	d - New capital expense
5 Frigg Transportation System (UK)			40.0	Small	6	1998	a	b	c	f	g					e - Processing offshore
6 Sage	67.0			Small	6	1998	b	c	d	f	g					f - Processing onshore
7 Tartan platform / MCP01 pipeline		34.3		Large	3	1998	b	d								g - NGLs
																h - Water
																i - Salt
																j - Sulphur
																k - CO2
																l - H2S
																m - N ₂
Oil systems	(pounds sterling/barrel)															n - Compression
8 Gannet processing and export systems			4.80	Large	11	1999	a	b	d	e	g	h				o - Other
9 Forties pipeline system			1.20	Large	8	2000	b		f	g	h	i	k	l		
10 Forties pipeline system			1.10	Large	7	1999	b		f	g	h	i	j	k	l	
11 Forties pipeline system			0.65	Large	19	1999	b	d	f	g	h	i	k	l		
12 Tartan to Claymore pipeline		0.04-0.06		Large	4	1998	b									
13 Ninian pipeline system			0.75-1.65	Large	10	1998	b		f	g	h					

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		Oil systems	
1.	No comments.	8.	Bundled tariff includes capital expenses and deferral of equity oil and gas production. It does not included Norpipe transportation charges.
2.	No comments.	9.	No comment.
3.	Price quoted at 15p/mmJ. Number of years required not specified. (N.B. figure printed in June issue was wrong by a factor of 10).	10.	No comment.
4.	Additional £34/tonne NGL processing and delivery. Capital expenses included in oil tarif. Segal includes Fulmar gas line, Flags, St Fergus and Mosmorran.	11.	Tariff inclusive of transportation via Bruce - FPS (Unity) spurline. Flexible capacity commitment by FPS.
5.	Capacity offered on a reasonable endeavours basis with a banking arrangement.	12.	£0.04 up to 27MM BBLS, £0.06 over 27 MM BBLS. The tariff is a minor element of a field development package, and only applies to a minority share of oil transported. As such, it is not reflective of arms length transportation arrangements.
6.	Subject to a minimum flowrate of blended gases in Sage of 90 mmcfd.	13.	£0.75/bbl for the first 3.5 million barrels, £1.20/bbl for all volumes between 3.5 and 9 million barrels, and £1.65/bbl for all volumes over 9 million barrels.
7.	Tariff quoted at 3.5p/therm. May be replaced by a cost sharing mechanism post 31/12/99.		

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 been 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 Mrs Mary Duff at room 2.H.4, Department of Trade and Industry, 1 Victoria Street, London SW1H 0ET (Tel: 0171 215 5262).

TABLE 11. Natural gas production and supply GWh

Upstream gas industry							Downstream gas industry					
		Gross gas production ¹	Less		Plus	Gas available at terminals ⁶	Gas input into transmission system ⁷	Less			Gas output from transmission system ¹¹	
			Producers own use ²	Exports ³	Stock change and other net losses ^{4 5}			Imports	Operators own use ⁸	Stock changes ⁹		Metering differences ¹⁰
1992		597,854	38,505	620	+ 698	61,255	619,286	620,388	2,651	+ 4,065	-6,249	619,921
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	778,638	3,311	-9,927	7,771	777,483
1996		979,440	55,656	14,944	+ 5,763	19,804	922,881	926,799r	4,576	+ 3,632	10,519	908,072
Per cent change		+ 19.0	+ 13.0	+ 33.0		+ 1.8	+ 18.7	+ 19.0	+ 38.2			+ 16.8
1996	Jan - Jun	519,953	28,195	10,355	+ 2,455	13,599	596,649	491,733	2,718	-10,403	5,920	599,859
1997	Jan - Jun p	526,262	32,451	11,243	+ 3,473	11,723	609,824	610,803	3,090	-3,137	5,441	605,409
Per cent change		+ 1.2	+ 15.1	+ 8.6		-13.8	+ 2.2	+ 24.2	+ 13.7			+ 0.9
1996	Apr	77,190	4,594	1,477	+ 293	2,084	72,910	72,600r	316	-180	1,169	71,295
	May	73,737	4,588	1,885	+ 557	1,893	68,600	68,662r	289	-203	1,115	67,461
	Jun	50,964	4,011	1,337	+ 390	1,062	46,288	46,146	142	+ 2,242	997	42,765
Total		201,891	13,193	4,699	+ 1,240	5,039	187,798	187,408	747	+ 1,859	3,281	181,521
1997	Apr	80,726r	4,217r	1,502	+ 834	1,838	76,011r	76,254r	320	-389	387	75,936
	May	68,857	3,698	1,769	+ 391	1,200	64,199	64,476	177	+ 95	575	63,629
	Jun p	61,799	3,671	1,319	+ 348	1,068	57,529	57,409	145	+ 4,043	259	52,962
Total		211,382	11,586	4,590	+ 1,573	4,106	197,739	198,139	642	+ 3,749	1,221	192,527
Per cent change		+ 4.7	-12.2	-2.3		-18.5	+ 5.3	+ 5.7	-14.1			+ 6.1

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 1997, Chapter 5, paragraphs 5.56 to 5.58 and Table 53.
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
1992		598,755	17,894	13,908	136,981	330,100	99,872
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
Per cent change		+16.2	+30.8	+6.1	+10.5	+15.3	+9.1
1995	1st quarter	256,245	34,506	5,876	41,399	134,293	40,171
	2nd quarter	147,731	31,891	5,411	33,510	54,841	22,078
	3rd quarter	115,106	34,137	4,624	31,933	30,818	13,594
	4th quarter	236,535	45,256	4,779	46,365	106,058	34,077
1996	1st quarter	299,121	47,869	5,757	41,325	160,624	43,546
	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 p	280,263	61,146	5,258	42,103	135,694	36,062
Per cent change		-6.3	+27.7	-8.7	+1.9	-15.5	-17.2

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 inside front cover).
3. Public administration, commerce and agriculture.

PETROLEUM

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

		Indigenous production ¹			Refinery receipts			Foreign trade ^{6,7}					
		Crude			Net foreign			Crude oil and NGLs		Process oils		Petroleum products	
		Total	oil	NGLs ²	Indigenous ³	Other ⁴	imports ⁵	Imports	Exports	Imports	Exports	Imports	Exports Bunkers ⁸
		Million tonnes			Thousand tonnes								
1992		94.3	89.2	5.1	35,472	832	56,485	46,753	54,779	10,930	1,198	10,567	21,899 2,546
1993		100.2	94.0	6.2	36,680	852	59,868	50,601	60,556	11,100	1,834	10,064	24,890 2,478
1994		126.9	119.0	7.9	42,174	427	51,170	42,898	77,899	10,198	1,926	10,441	24,644 2,313
1995		130.3	121.8	8.5	44,872	1,110	47,590	40,920	78,337	7,703	1,350	9,878	24,418 2,465
1996		129.8	121.8	8.1	47,029	997	48,275	41,896	76,406	8,203	1,824	9,230	26,018 2,664
Per cent change		-0.4	-	-5.5	+4.8	-10.2	+1.4	+2.4	-2.5	+6.5	+35.1	-6.6	+6.6 +8.1
1996	Jan - Jun	63.9	60.5	4.1	22,776	494	24,230	20,944	38,863	4,162	1,033	4,544	12,258 1,219
1997	Jan - Jun p	63.0	59.1	3.9	22,476	247	24,627	21,188	33,727	4,329	880	3,825	12,967 1,387
Per cent change		-1.4	-2.3	-4.8	-1.3	-50.0	+1.6	+1.2	-13.2	+4.0	-14.8	-15.8	+5.8 +13.8
1996	Apr	10.4	9.7	0.7	4,056	21	4,014	3,134	5,573	1,067	186	760	2,014 187
	May	10.8	10.2	0.7	2,998	59	4,876	4,205	6,812	760	249	516	2,059 251
	Jun	10.1	9.7	0.6	3,511	108	4,283	3,714	6,308	617	47	746	2,417 203
Total		31.3	29.6	2.0	10,565	188	13,173	11,053	18,693	2,444	482	2,022	6,490 641
1997	Apr	10.6	10.0	0.6	3,985	90	4,001	3,573	5,707r	654	226	615	2,345 249r
	May	9.7	9.1	0.6	3,324	-18	4,430	3,905	5,383	641	105	534	2,338 269
	Jun p	9.6	9.0	0.5	3,239	59	4,628	3,856	5,252	782	9	541	1,913 255
Total		29.9	28.2	1.7	10,548	131	13,059	11,334	16,342	2,077	340	1,690	6,596 773
Per cent change		-4.6	-4.9	-13.8	-0.2	-30.3	-0.9	+2.5	-12.6	-15.0	-29.5	-16.4	+1.6 +20.6

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 products becomes available.
8. International marine bunkers.

TABLE 14. Stocks of petroleum¹ 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 distillates ⁶	Kerosene & gas/diesel ⁷	Fuel oils ⁸	Other products ⁹	Total products	Net bilaterals ¹⁰	Stocks in UK ¹¹	Total stocks
1992		5,699	1,178	482	7,359	2,502	2,716	3,488	1,394	10,100	1,964	15,494	17,459
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	521	6,996	2,509	2,534	2,962	1,441	9,447	1,527	14,915	16,442
Per cent change		-2.1	+45.7	-11.4	+3.8	+1.1	+3.7	-0.4	-10.6	-0.7	-0.5	+1.3	+1.2
1996	Apr	5,591	1,490	526	7,670r	2,326	2,190	3,106	1,470	9,091	1,750r	15,011	16,761r
	May	5,309	1,346	579	7,297r	2,279	2,220	3,087	1,446	9,031	1,750r	14,578	16,326r
1996	Jun	5,292	1,162	400	6,917	2,328	2,334	2,976	1,524	9,163	1,750	14,330	16,080
1997	Apr	5,537	1,184	675r	7,436r	2,307	2,434	2,895	1,436	9,071r	1,473	15,034r	16,507r
	May	5,522	1,045	647	7,253	2,270	2,480	2,929	1,470	9,150	1,473	14,930	16,403
	Jun p	5,353	1,409	650	7,453	2,285	2,399	2,971	1,527	9,181	1,473	15,161	16,634
Per cent change		+1.2	+21.3	+62.5	+7.7	-1.8	+2.8	-0.2	+0.2	+0.2	-15.8	+5.8	+3.4

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		Total ¹ output of petroleum products	Gases		Naphtha (LDF)	Motor spirit	Kerosene		Gas/ diesel oil	Fuel oil	Lubricating oils	Bitumen
			Fuel	Losses/ (gains)		Butane and propane	Other petro- leum			Aviation turbine fuel	Burning oil				
1992		92,334	6,080	471	85,783	1,583	172	3,040	27,980	7,681	2,450	25,649	12,388	1,163	2,336
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		96,660	6,622	151	89,885	1,828	144	2,824	28,046	8,305	3,510	28,903	11,479	1,111	2,189
Per cent change		+4.2	+2.2	+17.1	+4.4	+0.7	+8.3	+4.2	+2.9	+6.0	+20.0	+6.4	+4.6	-11.9	-11.0
1996	Jan - Jun	46,966	3,255	127	43,584	919	65	1,417	13,361	4,018	1,886	13,795	5,747	579	1,015
1997	Jan - Jun p	47,020	3,196	58	43,773	968	62	1,485	13,556	4,120	1,659	13,959	5,625	587	1,082
Per cent change		+0.1	-1.8	-54.3	+0.4	+5.3	-4.6	+4.8	+1.5	+2.5	-12.0	+1.2	-2.1	+1.4	+6.6
1996	Apr	7,874	536	26	7,312	168	12	249	2,136	671	310	2,344	1,030	107	158
	May	8,200	545	29	7,626	170	10	241	2,360	789	257	2,419	961	96	202
	Jun	8,104	539	-3	7,568	175	11	236	2,388	734	232	2,359	1,032	81	200
Total		24,178	1,620	52	22,506	513	33	726	6,884	2,194	799	7,122	3,023	284	560
1997	Apr	8,045	518	23	7,503	153	9	250	2,318	664	236	2,500	953	110	200
	May	7,892	512	15	7,364	165	8	279	2,243	678	252	2,304	1,033	111	204
	Jun p	7,731	515	45	7,171	166	10	223	2,241	740	185	2,275	926	92	232
Total		23,668	1,545	83	22,038	484	27	752	6,802	2,082	673	7,079	2,912	313	636
Per cent change		-2.1	-4.6	+59.6	-2.1	-5.7	-18.2	+3.6	-1.2	-5.1	-15.8	-0.6	-3.7	+10.2	+13.6

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

		Naphtha (LDF) ⁵			Motor Spirit		Kerosene			Gas/diesel oil			Lubricating		
		Butane ⁴	and middle		of		Aviation	Burning oil		Derv					
		and	distillate		which		turbine	Standard							
		propane	feedstock	Total	Unleaded		fuel	Premier	domestic	fuel	Other	Fuel oil ⁶	Orimulsion	Bitumen	oils
Total ^{1,2,3}		75,472	1,890	3,965	24,044	11,268	6,666	39	1,875	11,132	7,871	10,195	1,286	2,555	788
1992		75,472	1,890	3,965	24,044	11,268	6,666	39	1,875	11,132	7,871	10,195	1,286	2,555	788
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 p		75,391	2,501	3,666	22,409	15,231	8,049	39	2,512	14,365	7,631	5,976	878	2,146	864
Per cent change		+2.3	-	+3.8	+2.1	+10.1	+5.1	+50.0	+21.1	+6.7	+5.6	-10.9	-30.6	-11.3	-3.5
1996	Jan - Jun	37,318	1,292	1,743	10,948	7,360	3,766	20	1,355	6,993	3,980	3,104	459	1,053	433
1997	Jan - Jun p	35,869	1,196	1,270	11,097	7,824	3,940	17	1,291	7,431	3,774	2,146	182	1,040	443
Per cent change		-3.9	-7.4	-27.1	+1.4	+6.3	+4.6	-15.0	-4.7	+6.3	-5.2	-30.9	-60.3	-1.2	+2.3
1996	Apr	6,203	244	275	1,888	1,275	612	3	218	1,163	623	509	55	166	74
	May	6,305	221	269	1,957	1,316	698	1	175	1,241	589	475	80	198	77
	Jun	5,895	209	235	1,819	1,225	719	0	101	1,161	514	462	110	200	69
Total		18,403	674	779	5,664	3,816	2,029	4	494	3,565	1,726	1,446	245	564	220
1997	Apr	5,991	206	242	1,903	1,349	652	2	208	1,278	629	276	0	190	79
	May	5,828	184	196	1,959	1,388	716	1	146	1,252	546	282	0	187	76
	Jun p	5,882	186	225	1,922	1,372	757	1	113	1,326	530	274	0	201	75
Total		17,701	576	663	5,784	4,109	2,125	4	467	3,856	1,705	832	0	578	230
Per cent change		-3.8	-14.5	-14.9	+2.1	+7.7	+4.7	-	-5.5	+8.2	-1.2	-42.5	-100.0	+2.5	+4.5

1. Including other petroleum gases, aviation spirit, industrial and white spirits, petroleum wax, non-domestic standard burning oil and miscellaneous products.

2. 1996 data are subject to further 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 uses¹

Thousand tonnes

			Electricity ²	Iron and steel ²		Other ²			
		Total	generators	Gas works	industry	industries	Transport ³	Domestic	Other ⁴
1992		64,839	6,405	42	678	7,136	43,788	2,579	4,211
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	3,669	47	881	6,512	44,818	2,696	3,751
1996		64,092	3,316	50	737	6,436	46,642	3,167	3,744
Per cent change		+2.8	-9.6	+6.4	-16.3	-1.2	+4.1	+17.5	-0.2
1995	1st quarter	15,930	1,078	16	225	2,017	10,476	956	1,162
	2nd quarter	15,090	826	9	182	1,472	11,259	504	838
	3rd quarter	15,315	842	8	226	1,384	11,625	426	804
	4th quarter	16,039	948	14	248	1,614	11,458	810	947
1996	1st quarter	16,164	839	16	189	1,922	10,949	1,098	1,151
	2nd quarter	15,648	766	11	199	1,514	11,683	620	855
	3rd quarter	15,773	779	8	192	1,336	12,130	528	800
	4th quarter	16,507	932	15	157	1,664	11,880	921	938
1997	1st quarter p	15,777	662	19	182	1,760	11,119	1,033	1,002
Per cent change		-2.4	-21.1	+18.8	-3.7	-8.4	+1.6	-5.9	-12.9

1. 1996 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 front 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	Nuclear	Other ²	Total	Coal	Nuclear	Other ²	Total	Coal	Oil	Gas	Nuclear	Hydro	Other	Total ³
1992		46.0	17.5	6.4	69.8	1.0	1.0	4.8	6.7	46.9	8.1	1.5	18.5	0.5	1.1	76.6
1993		38.3	20.2	11.0	69.5	1.3	1.3	3.2	5.8	39.6	5.8	7.0	21.5	0.4	1.0	75.3
1994		35.9	20.1	13.1	69.1	1.2	1.2	2.3	4.7	37.1	4.1	9.9	21.2	0.4	1.1	73.7
1995		35.0	20.4	15.0	70.4	1.1	1.0	2.7	4.8	36.2	3.6	12.5	21.4	0.5	1.1	75.3
1996		31.9	21.1	18.6	71.6	1.0	1.0	2.9	4.8	32.9	3.5	16.4	22.1	0.3	1.3	76.4
Per cent change		-9.0	+3.8	23.9	+1.7	-11.5	-2.3	+4.8	-0.5	-9.2	-3.3	+30.8	+3.5	-36.9	12.4	+1.6
1995	1st quarter	11.1	4.8	3.9	19.8	0.3	0.3	0.7	1.3	11.4	1.3	2.9	5.0	0.2	0.3	21.1
	2nd quarter	7.7	5.1	3.2	16.1	0.3	0.2	0.8	1.3	8.0	0.8	2.8	5.3	0.1	0.3	17.3
	3rd quarter	7.1	5.1	3.3	15.5	0.2	0.2	0.6	1.0	7.3	0.7	2.9	5.3	0.1	0.2	16.5
	4th quarter	9.1	5.4	4.6	19.1	0.3	0.3	0.6	1.2	9.4	0.9	3.9	5.7	0.1	0.3	20.3
1996	1st quarter	10.5	5.3	4.7	20.6	0.3	0.3	0.8	1.3	10.8	1.1	4.1	5.6	0.1	0.3	21.9
	2nd quarter	7.0	5.3	4.1	16.4	0.2	0.2	0.7	1.1	7.3	0.7	3.7	5.5	0.1	0.3	17.6
	3rd quarter	6.4	4.7	4.5	15.6	0.2	0.2	0.6	1.1	6.6	0.8	4.0	4.9	0.0	0.3	16.7
	4th quarter	7.9	5.9	5.2	19.0	0.3	0.3	0.8	1.3	8.2	0.8	4.6	6.1	0.1	0.4	20.3
1997	1st quarter p	8.2	6.1	5.7	19.9	0.3	0.3	0.7	1.2	8.5	0.6	5.3	6.3	0.1	0.3	21.2
Per cent change		-22.0	+14.6	19.3	-3.0	+9.7	-6.1	-9.5	-5.0	-21.3	-40.0	+28.3	+13.6	(+)	14.8	-3.2

1. See definitions inside front cover; Humber Power Ltd and Indian Queens Power Ltd should additionally be included in the list of major power producers.
2. Oil, including oil used in gas turbine and diesel plant or for lighting up coal fired boilers, and Orimulsion, hydro, gas, wind and refuse derived fuel.
3. Does **not** include imports of electricity from France.

TABLE 19. Fuel used in electricity generation by major producers¹

Million tonnes of oil equivalent

		Total ²	Coal ³	Oil ^{3,4}	Gas ⁵	Nuclear	Hydro
1992		69.83	45.96	4.96	1.00	17.50	0.39
1993		69.47	38.26	4.41	6.27	20.17	0.30
1994		69.05	35.89	3.58	9.08	20.05	0.37
1995		70.41	35.02	3.11	11.44	20.37	0.34
1996		71.61	31.86	2.99	15.19	21.14	0.25
Per cent change		+1.7	-9.0	-3.8	+32.8	+3.8	-26.9
1996	Jan - Jun	37.01	17.57	1.58	7.07	10.60	0.11
1997	Jan - Jun p	36.09	13.47	0.78	9.63	11.96	0.19
Per cent change		-2.5	-23.3	-50.5	+36.2	+12.9	+68.6
1996	Apr	5.38	2.50	0.19	1.00	1.66	0.02
	May	5.19	2.20	0.21	1.05	1.71	0.02
	Jun*	5.87	2.34	0.26	1.31	1.93	0.02
Total		16.43	7.03	0.66	3.35	5.30	0.05
1997	Apr	5.13	1.77	0.06	1.45	1.82	0.03
	May	5.03	1.54	0.06	1.50	1.90	0.02
	Jun p	5.98	1.95	0.11	1.73	2.17	0.02
Total		16.14	5.25	0.23	4.68	5.89	0.06
Per cent change		-1.8	-25.3	-65.1	+39.6	+11.2	+17.8

1. See definitions inside front cover.
2. Including wind power, and refuse derived fuel and other renewables.
3. Including quantities used in the production of steam for sale.
4. Including oil used in gas turbine and diesel plant or for lighting up coal fired boilers, and Orimulsion.
5. Including sour gas, refinery gas, etc.

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
1992		300.18	20.74	279.44	20.86	1.75	19.11	321.02	22.49	298.53	16.69	315.24
1993		300.51	19.34	281.17	22.59	1.90	20.69	323.10	21.24	301.87	16.72	318.58
1994		302.81	17.97	284.84	22.59	1.58	21.01	325.40	19.55	305.85	16.89	322.73
1995		310.29	18.08	292.21	23.75	1.59	22.16	334.05	19.67	314.37	16.31	330.69
1996		323.16	18.50	304.66	24.21	1.66	22.55	347.37	20.16	327.21	16.68	343.89
Per cent change		+4.1	+2.3	+4.3	+1.9	+4.5	+1.7	+4.0	+2.5	+4.1	+2.2	+4.0
1995	1st quarter	87.63	4.88	82.75	6.35	0.47	5.88	93.98	5.35	88.63	4.36	93.00
	2nd quarter	70.63	4.28	66.35	5.73	0.49	5.24	76.36	4.77	71.59	4.03	75.62
	3rd quarter	67.65	4.24	63.41	5.40	0.38	5.02	73.05	4.62	68.43	4.27	72.70
	4th quarter	84.72	4.96	79.76	6.28	0.26	6.03	91.00	5.20	85.79	3.65	89.44
1996	1st quarter	92.78	5.41	87.37	6.47	0.49	5.98	99.25	5.89	93.36	4.28	97.63
	2nd quarter	73.70	4.26	69.43	5.83	0.50	5.33	79.53	4.77	74.76	4.30	79.06
	3rd quarter	70.49	4.06	66.44	5.49	0.39	5.10	75.99	4.45	71.54	4.03	75.57
	4th quarter	86.18	4.77	81.41	6.42	0.28	6.14	92.60	5.05	87.56	4.07	91.63
1997	1st quarter p	90.38	5.06	85.32	5.92	0.31	5.61	96.30	5.37	90.92	5.08	96.00
Per cent change		-2.6	-6.4	-2.4	-8.6	-36.5	-6.3	-3.0	-8.8	-2.6	+18.8	-1.7

1. See definitions inside front cover; Humber Power Ltd and Indian Queens Power Ltd should additionally be included in the list of major power producers.
2. Used in works and for pumping at pumped storage stations.

TABLE 21. Electricity supplied by other generating companies

GWh

		Industry									
		Electricity supplied (net) Total	Total industry	Nuclear power stations ¹	Petroleum refineries	Iron and steel	Chemicals	Engineering and other metal trades	Food, drink and tobacco	Paper, printing and stationery	Transport under- takings
1992		19,112	18,465	2,866	2,728	1,790	3,828	3,699	678	998	647
1993		20,693	19,934	4,141	2,754	1,752	4,156	3,461	725	1,253	759
1994		21,007	20,301	3,550	2,932	1,693	4,258	3,620	771	1,300	706
1995		22,163	21,352	2,955	3,150	2,032	4,342	4,243	908	1,763	811
1996		22,550	21,702	2,949	3,215	2,116	4,583	4,135	890	2,110	848
Per cent change		+1.7	+1.6	-0.2	+2.1	+4.1	+5.6	-2.5	-1.9	+19.7	+4.5
1995	1st quarter	5,883	5,654	770	785	518	1,182	1,078	345	448	229
	2nd quarter	5,245	5,040	664	760	528	1,074	897	154	461	205
	3rd quarter	5,005	4,824	725	789	488	998	819	121	467	181
	4th quarter	6,030	5,834	796	816	498	1,088	1,449	288	387	196
1996	1st quarter	5,963	5,761	820	807	479	1,255	1,059	341	539	202
	2nd quarter	5,335	5,138	642	791	494	1,157	893	154	562	196
	3rd quarter	5,142	4,923	706	797	556	1,043	791	117	553	219
	4th quarter	6,110	5,880	781	820	587	1,129	1,392	278	456	230
1997	1st quarter p	5,607	5,412	770	690	509	1,022	1,214	242	432	195
Per cent change		-6.0	-6.1	-6.1	-14.4	+6.3	-18.6	+14.6	-29.1	-19.9	-3.5

1. Generated by UKAEA and British Nuclear Fuels (BNF) for the public electricity supply system. The UKAEA has ceased to contribute with the closure of its power station in 1994.

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 system¹

TWh

		Total ²	Coal ³	Oil ^{3,4}	Gas ⁵	Nuclear	Hydro
1992		69.83	45.96	4.96	1.00	17.50	0.39
1993		69.47	38.26	4.41	6.27	20.17	0.30
1994		69.05	35.89	3.58	9.08	20.05	0.37
1995		70.41	35.02	3.11	11.44	20.37	0.34
1996		71.61	31.86	2.99	15.19	21.14	0.25
Per cent change		+1.7	-9.0	-3.8	+32.8	+3.8	-26.9
1996	Jan - Jun	37.01	17.57	1.58	7.07	10.60	0.11
1997	Jan - Jun p	36.09	13.47	0.78	9.63	11.96	0.19
Per cent change		-2.5	-23.3	-50.5	+36.2	+12.9	+68.6
1996	Apr	5.38	2.50	0.19	1.00	1.66	0.02
	May	5.19	2.20	0.21	1.05	1.71	0.02
	Jun*	5.87	2.34	0.26	1.31	1.93	0.02
Total		16.43	7.03	0.66	3.35	5.30	0.05
1997	Apr	5.13	1.77	0.06	1.45	1.82	0.03
	May	5.03	1.54	0.06	1.50	1.90	0.02
	Jun p	5.98	1.95	0.11	1.73	2.17	0.02
Total		16.14	5.25	0.23	4.68	5.89	0.06
Per cent change		-1.8	-25.3	-65.1	+39.6	+11.2	+17.8

1. See definitions inside front cover.

2. Including wind power, and refuse derived fuel and other renewables.

3. Including quantities used in the production of steam for sale.

4. Including oil used in gas turbine and diesel plant or for lighting up coal fired boilers, and Orimulsion.

5. Including sour gas, refinery gas, etc.

TABLE 23. Availability and consumption of electricity

TWh

		Public distribution system							Other generators			All electricity suppliers		
		Transmission		Sales of electricity to consumers					Losses and			Losses and		
		Electricity available	distribution and other losses ¹	Total ²	Industrial ³	Commercial ⁴	Domestic	Other ⁵	Electricity available ⁶	statistical differences	Consumption of electricity ⁷	Electricity available	statistical differences	Consumption of electricity
1992		301.40	22.97	278.43	92.84	77.89	99.48	8.22	13.84	0.82	13.02	315.24	23.79	291.45
1993		305.20	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		309.12	29.10	280.03	91.79	77.96	101.41	8.86	13.61	1.85	11.76	322.73	30.95	291.78
1995		314.66	27.05	287.61	92.73	83.71	102.21	8.96	16.02	1.01	14.62	330.68	28.45	302.23
1996		327.53	28.66	298.88	94.59	87.35	107.51	9.42	16.35	0.94	15.41	343.89	29.60	314.29
Per cent change		+4.1	+5.9	+3.9	+2.0	+4.3	+5.2	+5.2	+2.1	-6.7	+5.4	+4.0	+4.0	+4.0
1996	Jan - Jun	168.51	15.62	152.90	47.45	43.62	56.84	4.99	8.06	0.35	7.71	176.58	15.97	160.61
1997	Jan - Jun p	165.81	14.63	151.18	47.08	46.28	53.59	4.21	7.89	0.35	7.55	173.71	14.98	158.73
Per cent change		-1.6	-6.3	-1.1	-0.8	+6.1	-5.7	-15.6	-2.1	-1.6	-2.1	-1.6	-6.2	-1.2
1996	Apr	24.55	2.58	21.97	6.87	6.48	7.98	0.63	1.19	0.03	1.16	25.74	2.62	23.12
	May	23.79	2.58	21.22	7.01	6.36	7.27	0.57	1.20	0.05	1.16	25.00	2.62	22.37
	Jun*	26.79	2.17	24.62	8.62	7.66	7.68	0.67	1.54	0.09	1.45	28.33	2.26	26.07
Total		75.13	7.33	67.80	22.50	20.49	22.94	1.88	3.94	0.17	3.76	79.07	7.50	71.57
1997	Apr	24.01	2.04	21.97	6.97	6.94	7.49	0.57	1.18	0.06	1.12	25.19	2.10	23.09
	May	23.24r	2.31r	20.93r	7.07r	6.40r	6.92r	0.54r	1.18r	0.08r	1.10r	24.42r	2.39r	22.03r
	Jun* p	27.22	2.66	24.56	8.64	7.50	7.78	0.64	1.56	0.07	1.50	28.78	2.73	26.06
Total		74.48	7.01	67.46	22.68	20.84	22.19	1.76	3.92	0.21	3.71	78.39	7.22	71.18
Per cent change		-0.9	-4.3	-0.5	+0.8	+1.7	-3.3	-6.4	-0.5	+18.0	-1.3	-0.9	-3.8	-0.5

1. Losses on the grid system and local networks 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 over the next two months.
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 1996).

TEMPERATURES

TABLE 24. Average temperatures and deviations from the long term mean¹

Degrees Celsius

	Long term mean	Average daily temperature			Deviation from the long term mean		
	1961 to 1990	1995	1996	1997	1995	1996	1997
Statistical month ²							
January	3.8	5.4	5.2	2.4	+1.6	+1.4	-1.4
February	4.0	6.3	2.6	6.1	+2.3	-1.4	+2.1
March*	5.4	5.6	3.7	8.3	+0.2	-1.7	+2.9
April	7.6	8.2	8.6	8.5	+0.6	+1.0	+0.9
May	10.2	10.1	8.3	11.2	-0.1	-1.9	+1.0
June*	13.4	13.1	14.0	13.9	-0.3	+0.6	+0.5
July	15.7	17.9	16.1		+2.2	+0.4	
August	15.9	19.8	17.5		+3.9	+1.6	
September*	14.0	15.5	13.9		+1.5	-0.1	
October	11.1	13.3	12.2		+2.2	+1.1	
November	7.6	9.1	7.4		+1.5	-0.2	
December*	4.9	5.6	3.9		+0.7	-1.0	
Year ³		9.5	10.8	9.4	+1.3	-0.1	
Calendar month							
January	3.9	4.9	4.8	2.9	+1.0	+0.9	-1.0
February	3.9	6.7	3.1	6.9	+2.8	-0.8	+3.0
March	5.7	5.6	4.6	8.4	-0.1	-1.1	+2.7
April	7.8	8.9	8.7	9.1	+1.1	+0.9	+1.3
May	10.9	11.6	9.3	11.5	+0.7	-1.6	+0.6
June	13.9	14.0	14.4	14.0	+0.1	+0.5	+0.1
July	15.8	18.4	16.4		+2.6	+0.6	
August	15.6	18.9	16.7		+3.3	+1.1	
September	13.5	13.8	13.7		+0.3	+0.2	
October	10.6	13.2	11.8		+2.6	+1.2	
November	6.6	8.1	6.2		+1.5	-0.4	
December	4.7	2.8	3.5		-1.9	-1.2	
Year		9.5	10.6	9.5	+1.1	-0.1	

1. Based on data provided by the Meteorological Office. Information on the methodology used is given in footnotes to Table 11 of the Digest of UK Energy Statistics 1997.
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 materials¹

		Coal and other solid fuel	Coal and other solid fuel	Petroleum Crude	Petroleum Products ²	Natural gas	Electricity	Total	Coal and other solid fuel	Petroleum Crude	Petroleum Products ³	Natural gas	Electricity	Total	Total fob ⁴
		Quantity - million tonnes of oil equivalent						Value - £ million							
IMPORTS (cif):															
1992		14.2	51.3	22.3	5.5	1.4	94.7	744	3,745	1,711	397	369	6,965	6,620	
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	1,822	117	391	7,059	6,648	
Per cent change		+10.8	+1.7	+2.2	+2.9	+1.5	+3.2	+15.4	24.7	+18.2	+11.7	-4.3	+19.8	+19.3	
1995	2nd quarter	2.7	9.6	5.1	0.3	0.3	18.1	134	740	456	28	69	1,427	1,356	
	3rd quarter	2.8	12.1	4.8	0.3	0.4	20.3	151	856	408	24	76	1,515	1,449	
	4th quarter	3.1	11.4	3.4	0.2	0.3	18.5	168	831	340	19	95	1,453	1,345	
	1st quarter	2.9	10.8	4.5	0.5	0.4	19.0	165	883	431	39	112	1,631	1,525	
1996	2nd quarter	3.3	11.5	4.7	0.4	0.4	20.3	189	1,027	480	37	83	1,816	1,707	
	3rd quarter	3.0	11.7	4.3	0.2	0.4	19.5	159	1,028	408	21	94	1,709	1,602	
	4th quarter	3.5	10.9	4.3	0.2	0.3	19.3	181	1,098	504	19	101	1,903	1,814	
	1st quarter p	4.4	10.4	3.8	0.3	0.4	19.2	208	903	354	23	118	1,606	1,513	
Per cent change		+49.2	-3.8	-16.3	-39.3	-0.5	+0.6	+25.8	+2.3	-17.8	-41.2	+4.6	-1.5	-0.8	
EXPORTS (fob):															
1992		0.8	58.6	26.1	-	-	85.5	63	4,413	2,401	2	-	6,879	6,879	
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	84.0	29.9	1.4	-	116.2	82	7,485	3,289	65	2	10,923	10,923	
Per cent change		+8.5	-2.8	+16.6	43.6	-	+2.0	+17.2	16.4	+25.5	+20.2	-	+19.1	+19.1	
1995	2nd quarter	0.2	20.9	6.1	0.2	-	27.4	15	1,617	628	13	-	2,273	2,273	
	3rd quarter	0.2	20.8	5.7	0.2	-	27.0	16	1,486	565	14	-	2,081	2,081	
	4th quarter	0.3	21.5	6.8	0.3	-	28.8	21	1,617	713	13	-	2,365	2,365	
	1st quarter	0.3	21.9	6.4	0.3	-	29.0	21	1,806	738	17	-	2,582	2,582	
1996	2nd quarter	0.2	19.9	8.8	0.4	-	29.4	17	1,749	791	20	-	2,578	2,578	
	3rd quarter	0.2	20.2	7.3	0.2	-	27.8	18	1,758	825	12	1	2,613	2,613	
	4th quarter	0.3	22.0	7.4	0.3	-	30.0	26	2,171	935	17	1	3,150	3,150	
	1st quarter p	0.3	21.2	6.6	0.4	-	28.5	25	1,981	790	19	-	2,816	2,816	
Per cent change		+28.4	-3.6	+2.8	17.9	-	-1.6	+18.0	+9.7	+7.1	+12.7	-	+9.0	+9.0	
NET EXPORTS:															
1992		-13.4	7.3	3.8	-5.5	-1.4	-9.2	-681	668	690	-395	-369	-87	258	
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	39.2	12.1	-	-1.4	38.1	-611	3,450	1,467	-52	-389	3,864	4,275	
1995	2nd quarter	-2.5	11.3	1.0	-0.1	-0.3	9.3	-119	877	172	-16	-69	845	916	
	3rd quarter	-2.6	8.8	0.9	-0.1	-0.4	6.6	-136	630	157	-10	-76	565	631	
	4th quarter	-2.9	10.2	3.4	-	-0.3	10.3	-147	787	373	-6	-95	912	1,020	
	1st quarter	-2.7	11.1	1.9	-0.1	-0.4	9.9	-144	924	307	-23	-112	952	1,058	
1996	2nd quarter	-3.1	8.4	4.1	-	-0.4	9.1	-172	723	311	-18	-83	762	871	
	3rd quarter	-2.8	8.5	3.0	-	-0.4	8.3	-141	730	417	-9	-94	904	1,011	
	4th quarter	-3.2	11.1	3.1	0.1	-0.3	10.8	-155	1,073	431	-2	-100	1,247	1,336	
	1st quarter p	-4.0	10.8	2.8	0.1	-0.4	9.3	-183	1,079	436	-4	-117	1,210	1,303	

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. The monthly data used in this table has been updated which has resulted in a number of revisions to the 1995 and 1996 figures.
3. SITC divisions 334, 335, 342, 344, plus Orimulsion from division 278.
4. '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.

Fuel	Range of annual purchases of which:				
	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 Britain¹

Fuel	Size of consumer	1994	1995				1996				1997
		4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter p
COAL (£ per GJ)	Small	2.31	2.33	2.23	2.07	2.12	2.15	2.07	2.19	2.09	2.05
	Medium	2.05	1.92	1.91	1.89	1.89	1.90	1.82	1.80	1.71	1.66
	Large	1.36	1.33	1.34	1.29	1.21	1.25	1.24	1.23	1.23	1.24
	All consumers: Average	1.46	1.42	1.43	1.38	1.31	1.35	1.33	1.32	1.30	1.31
	10% decile ²	1.56	1.45	1.44	1.52	1.43	1.48	1.46	1.42	1.44	1.44
	median ²	2.09	2.15	1.92	1.89	1.87	1.85	1.86	1.85	1.86	1.84
	90% decile ²	2.75	2.76	2.68	2.57	2.65	2.75	2.63	2.37	2.49	2.46
HEAVY FUEL OIL (£ per tonne) ³	Small	87.1	97.9	96.1	89.9	93.6	101.8	106.0	102.7	110.2	108.7
	Medium	81.0	93.5	92.8	86.2	87.4	98.5	97.6	95.3	102.1	99.8
	Large	78.2	85.6	88.1	76.7	77.3	86.8	90.7	86.1	100.2	93.3
	Of which: Extra large	77.1	82.9	86.2	73.5	72.8	83.6	87.7	83.0	99.4	90.6
	Moderately large	80.1	90.5	91.7	82.5	85.5	92.7	96.3	91.7	101.6	98.3
	All consumers: Average	80.3	89.9	90.8	81.7	83.0	92.8	95.1	91.5	102.2	97.6
	10% decile ²	74.3	85.0	86.3	79.8	81.9	91.7	88.0	87.0	98.4	90.2
	median ²	84.9	97.3	95.2	87.4	90.3	101.8	101.9	100.9	106.3	105.8
	90% decile ²	95.0	105.6	104.6	104.8	111.2	121.3	125.0	113.5	127.5	120.8
GAS OIL (£ per tonne) ³	Small	154.1	154.1	153.4	149.8	157.0	164.7	171.0	172.9	186.0	185.6
	Medium	144.6	142.0	142.6	145.0	150.3	156.9	161.2	163.5	177.9	175.4
	Large	127.1	126.5	131.0	130.5	137.3	149.8	152.3	156.7	171.9	167.6
	All consumers: Average	130.4	129.5	133.3	133.1	139.7	151.2	154.1	158.1	173.1	169.2
	10% decile ²	124.0	126.5	129.7	128.9	131.0	139.7	140.6	140.6	152.1	153.2
	median ²	140.4	140.6	142.3	140.9	147.0	161.7	163.7	165.1	183.3	177.6
	90% decile ²	165.4	162.3	164.1	161.7	167.7	175.7	184.2	190.7	200.0	197.5
ELECTRICITY (Pence per kWh)	Small	6.51	6.51	5.88	5.97	6.36	6.34	5.84	5.93	6.08	6.05
	Medium	4.95	5.00	4.44	4.39	4.83	4.83	4.49	4.43	4.52	4.51
	Large	3.87	3.83	3.43	3.39	3.67	3.80	3.32	3.31	3.55	3.58
	Of which: Extra large	3.59	3.34	2.97	2.89	3.14	3.35	2.86	2.85	3.12	3.20
	Moderately large	4.08	4.21	3.78	3.77	4.08	4.15	3.68	3.66	3.88	3.88
	All consumers: Average	4.29	4.28	3.83	3.79	4.12	4.21	3.76	3.74	3.94	3.96
	10% decile ²	4.39	4.38	4.01	4.07	4.32	4.35	4.04	4.01	4.16	4.18
	median ²	6.13	6.15	5.59	5.65	5.98	5.92	5.45	5.53	5.61	5.64
	90% decile ²	8.10	8.63	7.31	7.41	8.23	7.93	7.09	7.23	7.63	7.66
GAS (Pence per kWh) ⁴	Small	1.167	1.143	1.109	1.146	1.038	0.960	0.949	0.960	0.882	0.886
	Medium	0.918	0.930	0.925	0.821	0.758	0.673	0.664	0.639	0.654	0.679
	Large	0.741	0.739	0.666	0.584	0.564	0.451	0.427	0.420	0.432	0.444
	All consumers: Average	0.776	0.784	0.703	0.613	0.600	0.494	0.455	0.437	0.462	0.480
	Firm	0.861	0.889	0.807	0.740	0.714	0.546	0.504	0.480	0.507	0.529
	Interruptible	0.682	0.668	0.602	0.505	0.503	0.433	0.409	0.402	0.417	0.418
	Tariff	1.344	1.315	1.305	1.377	1.330	1.373	1.298	1.393	1.334	1.348
	10% decile ²	0.850	0.848	0.824	0.708	0.601	0.542	0.516	0.495	0.510	0.517
	median ²	1.143	1.073	1.066	1.058	0.980	0.883	0.815	0.786	0.790	0.807
	90% decile ²	1.486	1.477	1.513	1.520	1.496	1.434	1.449	1.425	1.441	1.420
MEDIUM FUEL OIL (£ per tonne) ³											
All consumers: Average ⁶		87.7	95.5	98.0	86.3	91.0	98.4	101.3	89.9	104.5	96.7
LIQUEFIED PETROLEUM GASES (£ per tonne)											
All consumers: Average ⁶		141.0	147.4	155.4	139.2	144.9	154.5	151.0	148.1	172.9	196.6
HARD COKE (£ per tonne) ⁷											
All consumers: Average ⁶		89.0	105.5	107.6	116.8	119.6	128.5	128.5	122.9	125.6	121.3
Realised in new and renewed contracts:											
HEAVY FUEL OIL (£ per tonne) ^{3,8}		87.2	93.0	91.6	83.7	89.0	..	..	..	..	..
GAS OIL (£ per tonne) ^{3,8}		129.1	130.8	134.0	136.0	140.9	..	..	..	..	..

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" (SO).
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 is 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 first quarter of 1997 the rates per tonne are £19.59 for Heavy Fuel Oil, £20.10 for Medium Fuel Oil and £29.30 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. Prices by type of supply cover consumers of all sizes.
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.
8. Derived from prices reported by nine main oil marketing companies and relate to average prices (excluding VAT) realised on medium sized contracts or contracts renewed at a changed price.

TABLE 27. Average prices of fuels purchased by the major UK power producers¹ and of gas at UK delivery points²

Major power producers ¹			Natural gas at UK delivery points ⁸	
	Coal ³	Oil ^{4,5}	Natural gas ^{6,7}	
	£ per tonne	£ per tonne	pence per kWh	
			Including levy ⁹	Excluding levy ⁹
			pence per kWh	pence per kWh
1992	45.84	57.76	0.595	0.549
1993	42.44	55.91	0.556	0.523
1994	36.35	67.90	0.588	0.564
1995	35.11	81.12	0.584	0.561
1996	35.22	84.15	0.592	0.571
1995 1st quarter	32.94	86.70	0.554	0.533
2nd quarter	37.12	79.89	0.603	0.577
3rd quarter	35.41	77.75	0.618	0.590
4th quarter	35.14	77.45	0.593	0.571
1996 1st quarter	35.45	85.12	0.582	0.559
2nd quarter	36.02	79.69	0.567	0.548
3rd quarter	35.25	80.05	0.591	0.573
4th quarter	34.41	88.98	0.620	0.597
1997 1st quarter p	33.77	90.86	0.609	0.580

1. See definitions 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 Government's tax on indigenous supplies introduced in 1981.

TABLE 28. Fuel price indices for the industrial sector¹

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									
1992		99.8	84.5	104.5	109.0	104.2			
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			
Per cent change		-4.9	+10.4	-26.8	-3.5	-5.3			
1995	1st quarter	88.6	118.1	104.6	117.1	113.6	100.2	111.0	108.9
	2nd quarter	89.0	119.2	94.2	104.2	103.7	95.4	109.2	107.0
	3rd quarter	86.1	107.3	82.7	100.9	97.6	86.8	107.3	102.4
	4th quarter	81.7	108.9	79.9	112.9	104.5	79.1	107.6	101.1
1996	1st quarter	83.8	121.9	72.3	113.6	105.4	69.4	107.5	101.0
	2nd quarter	82.7	124.9	64.4	100.8	96.3	65.3	105.6	99.5
	3rd quarter	82.2	120.1	61.7	98.4	93.6	64.6	104.7	98.0
	4th quarter	81.2	134.2	66.2	107.7	102.2	65.2	102.7	98.9
1997	1st quarter p	81.7	128.2	68.7	108.3	102.2	66.0	102.3	98.0
Per cent change		-2.5	+5.1	-4.9	-4.7	-3.0	-4.9	-4.8	-3.0
Fuel price index numbers relative to the GDP deflator									
									GDP deflator ⁴
1992		89.5	75.8	93.8	97.9	93.6			111.4
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	101.8	53.6	85.3	80.6			123.4
Per cent change		-7.7	+7.2	-29.0	-6.3	-8.1			+3.0
1995	1st quarter	74.6	99.5	88.2	98.7	95.7	84.4	93.5	91.8
	2nd quarter	74.4	99.7	78.8	87.1	86.7	79.7	91.3	89.5
	3rd quarter	71.9	89.6	69.1	84.3	81.5	72.5	89.6	85.5
	4th quarter	67.6	90.1	66.1	93.4	86.4	65.4	89.0	83.6
1996	1st quarter	68.5	99.6	59.1	92.8	86.1	56.7	87.8	82.5
	2nd quarter	67.4	101.9	52.5	82.2	78.6	53.2	86.2	81.1
	3rd quarter	66.5	97.2	49.9	79.7	75.7	52.2	84.7	79.3
	4th quarter	65.1	107.5	53.0	86.3	81.9	52.2	82.3	79.3
1997	1st quarter p	65.3	102.5	55.0	86.6	81.7	52.8	81.8	78.3
Per cent change		-4.6	+2.9	-7.0	-6.7	-5.1	-6.9	-6.8	-5.1
									+2.2

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.

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								
1992		110.5	106.8	115.8	84.7	110.3	110.5	110.4
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
Per cent change		+1.0	+0.2	-0.4	+10.1	+0.3	+5.1	+2.8
1995	2nd quarter	119.0	112.7	120.7	89.7	116.0	132.3	123.4
	3rd quarter	118.2	112.7	120.9	89.8	116.1	131.9	123.2
	4th quarter	121.7	112.7	120.7	90.9	116.2	130.7	122.7
1996	1st quarter	122.5	112.7	120.6	95.3	116.4	134.5	124.8
	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 p	121.6	112.6	116.7	95.1	114.1	146.2	129.8
Per cent change		+1.6	-0.1	-3.6	-0.1	-2.1	+8.8	+4.0
Fuel price index numbers relative to the GDP deflator								
								GDP deflator ⁴
1992		99.2	95.9	103.9	76.0	99.0	99.2	99.1
1993		96.6	89.3	100.3	78.2	94.7	103.7	98.6
1994		101.1	93.1	102.0	77.0	97.2	106.7	101.5
1995		100.4	93.9	100.9	75.1	96.9	109.5	102.6
1996		98.4	91.3	97.5	80.3	94.3	111.7	102.3
Per cent change		-2.0	-2.8	-3.3	+6.9	-2.7	+2.0	-0.2
1995	2nd quarter	99.5	94.3	101.0	75.0	97.0	110.6	103.2
	3rd quarter	98.6	94.1	100.9	75.0	96.9	110.1	102.8
	4th quarter	100.7	93.2	99.9	75.2	96.1	108.1	101.5
1996	1st quarter	100.1	92.1	98.5	77.8	95.1	109.9	102.0
	2nd quarter	97.7	91.9	98.7	77.7	95.1	109.7	101.8
	3rd quarter	96.5	91.1	97.9	78.9	94.3	110.7	101.9
	4th quarter	99.4	90.3	95.0	86.7	92.8	116.7	103.9
1997	1st quarter	99.6	90.0	93.6	82.8	91.9	118.0	104.6
	2nd quarter p	96.6	89.4	92.7	75.6	90.7	116.1	103.1
Per cent change		-1.1	-2.8	-6.1	-2.8	-4.6	+5.9	+1.2
								+2.7

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.

3. Bottled gas and oil fuel.

4. GDP deflator (market prices, seasonally adjusted).

TABLE 30. Typical retail prices of petroleum products and a crude oil price index¹

		Motor spirit ¹				Standard		Crude oil acquired - by refineries ⁴ 1990 = 100
		4 star	Super unleaded	Premium unleaded	Derv ¹	grade burning oil ^{1,2}	Gas oil ^{1,3}	
		Pence per litre						
1992	January	46.93	45.57	43.43	43.19	12.47	12.02	79.7
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
1996	Apr	60.35	60.19	55.24	56.42	16.57	17.05	112.3
	May	60.28	62.92	55.13	56.23	15.26	15.78	103.8
	Jun	59.64	62.89	54.67	55.60	14.45	15.05	97.4
	Jul	59.49	62.89	54.34	55.22	14.63	15.43	101.3
	Aug	61.51	65.26	56.77	57.62	14.93	15.52	105.7
	Sep	63.04	66.64	58.24	58.79	17.05	17.51	113.6
	Oct	63.71	66.78	58.78	60.67	17.99	18.71	120.4
	Nov	64.26	67.34	59.25	60.85	16.79	17.62	110.0
	Dec	66.33	69.58	61.25	62.59	17.02	17.88	114.7
	1997	Jan	65.46	69.24	61.09	62.02	17.13	18.14	113.8
Feb		65.44	68.95	60.16	61.38	15.96	17.01	106.2
Mar		64.24	68.17	58.97	60.33	14.62	15.40	96.3
Apr		64.59	68.65	59.24	60.22	14.21	15.18	86.0
May		64.91	68.98	59.41	60.30	13.94	15.44	90.9r
June p		65.39	69.37	59.86	60.60	13.77	14.88	86.8

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.

2. These estimates are for deliveries of up to 1,000 litres; such deliveries attract 8 per cent VAT from 1 April 1994.

3. These estimates are for deliveries of 2,000 to 5,000 litres; such deliveries attract 8 percent VAT from 1 April 1994.

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.

Combined heat and power in the UK in 1996

Combined Heat and Power (CHP) or Cogeneration, is the simultaneous generation of power, usually electricity, and useful heat from a single plant. CHP has been in use in industrial applications in the UK and other industrialised countries since the last century and is one of the oldest forms of electricity generation. CHP can achieve efficiencies of over 80 per cent (compared with 35 - 50 per cent for most existing non-CHP power generation).

The continuing development of CHP includes:

- The use of absorption chillers to provide power, heat and cooling.
- The application of CHP where the heat transfer medium is air, holding the potential for more complete heat recovery and higher efficiencies.
- Distributed CHP (where CHP units are located at different parts of the premises) which reduces the need for capital investment in heat distribution systems and reduces standing losses.

ETSU has collated this supplement of the contribution made to the UK energy sector by CHP through a project overseen by a Steering Group. The group comprises officials from the Department of Trade and Industry, the Energy, Environment and Waste Directorate of the Department of the Environment, Transport and the Regions, the Office of Electricity Regulation and the Combined Heat and Power Association. All of these organisations have an interest in the collection of information on CHP schemes and the promotion of the wider use of CHP throughout the UK economy.

Further information on CHP statistics has been published in Chapter 7, "Combined Heat and Power" in the 1997 Digest of UK Energy Statistics (DUKES). The information contained in DUKES provides a detailed examination of installations in the UK, in time series format. This supplement picks out a number of specific energy trends in the use of CHP. The main points to note are:

- The uptake of CHP in the UK continues, with 6 per cent of UK electricity generated from CHP installations in 1996.
- The chemical, oil refining, paper & board, and food & drink sectors continue to have the major share of CHP installed capacity and generation.
- New or retrofitted gas turbine CHP plant in simple cycle or combined cycle mode have lower heat to power ratios and higher electrical efficiencies. This allows better matching to site requirements through the optimum provision of electricity (the more valuable commodity) and the appropriate amount of heat.
- There has been encouraging growth in the buildings sector, especially community heating schemes with CHP.
- CHP fired by renewable fuels has shown a small increase in capacity.
- The energy savings due to CHP continue to emphasise this technology's importance in stabilising emissions levels, and helping to meet national environmental targets.

Overview of CHP in the UK in 1996

Numerically, CHP installations are dominated by schemes with an installed electrical capacity of less than 100 kWe (50 per cent of sites), and between 100 kWe and 999 kWe (34 per cent of sites). However, schemes larger than 10 MWe represent 79 per cent of the total electrical capacity. It is estimated that the total number of sites with CHP in the UK in 1996 was 1,336 with a total installed capacity of 3,562 MWe (see Table 1). Of these, 304 sites (86 per cent of capacity) are in the industrial sector and 1,032 sites (14 per cent of capacity) are in the commercial, public and residential sectors.

The electricity generated by CHP schemes in 1996 was in excess of 19,081 GWh. This represents 6 per cent of the electricity used by the fuel industries and final users in 1996. CHP plants supplied 63,978 GWh of heat, at a heat to power ratio (in capacity terms) of 4.21:1. The

Table 1 Summary of published CHP surveys

	1977 ⁽¹⁾	1983 ⁽¹⁾	1988 ⁽¹⁾	1991	1993	1994	1995	1996
Total CHP capacity (MWe)	2,793	2,254	1,793	2,312	2,893	3,141	3,487	3,562
Electricity generated (GWh)	10,450	7,500	8,700	11,017	14,171	12,152	17,761	19,081
Average load factor (per cent)	42.7	38.0	55.3	54.3	55.9	44.2	58.1	61.1
Capacity of plant by sector								
								MWe
Chemicals	972	962	654	949	919	965	1,228	1,147
Refineries	464	504	400	414	433	441	460	495
Paper and board	550	311	210	262	211	277	331	337
Food and drink	210	205	171	221	201	211	196	207
Iron and steel	243	142	131	135	130	130	130	130
Other industrial sectors	354	130	227	52	702	750	750	752
Other sectors	..	..	..	279	297	367	392	494

(1) Data for 1977, 1983 and 1988 are not directly comparable with later surveys as the coverage and methods for collection and analysis are different. Surveys prior to 1991 exclude all plant owned by public supply system, CHP/Community heating schemes, small scale CHP plants with less than 500 kWe, larger scale CHP plants operating on some renewable energy fuels.

Table 2 CHP usage by sector in 1996

Sector	Electrical capacity (MWe)	Heat capacity (MWth)	Load factor (%)	Electrical output (GWh)	Heat output (GWh)
Chemical industry	1,147	5,939	61.8	6,208	21,006
Oil refineries	495	2,758	64.3	2,788	15,167
Paper, publishing and printing	337	1,701	66.2	1,953	9,610
Food drink & tobacco	208	1,441	49.0	892	5,164
Iron steel & non ferrous metals	130	871	81.4	924	3,452
Extraction, mining & agglom. of solid fuels	37	196	45.0	147	895
Metal machinery & equipment	30	80	56.2	148	385
Other industrial branches (1)	685	879	69.1	4,144	4,875
Transport, commerce and administration etc.	185	299	50.5	819	1,432
Other (2)	309	820	39.0	1,054	1,995
Total	3,562	14,983	61.1	19,081	63,978

(1) Including public electricity supply.

(2) Sectors included under "Other": Community heating; leisure; landfill and incineration.

averaged annual load factor of CHP capacity of 61 per cent for electricity production is a function of the plants' part load operation, the number of hours run per year (usually between 6,000 and 8,500 hours) and the maintenance down time. The average load factor has increased from that recorded in 1995 (58 per cent) and is due primarily to a greater utilisation of some of the large CHP schemes.

Sectoral breakdown of CHP installations

The industrial sectors accounted for 86 per cent of total installed CHP electrical capacity with chemicals, oil refining, paper and board, and food and drink sectors jointly having over 60 per cent of the installed capacity. 'Other industrial branches' includes the public electricity supply industry. There has been a significant CHP capacity increase of almost 100 MWe in the non-industrial 'other' category which includes CHP community heating schemes, and buildings applications.

CHP installation by type

By electrical capacity, the largest proportion of CHP installations remains based on back pressure steam turbine plant, 35 per cent of the capacity in 1996, although this has decreased from 39 per cent of capacity in 1995. The amount of combined cycle gas turbine based plant installed has significantly increased and now accounts for 27 per cent of the total capacity. Approximately 52 per cent of CHP electrical capacity is now either simple cycle or combined cycle gas turbine. Over the last ten years there has been a trend to replace steam plant with gas turbine based units. These machines have lower heat to power ratios and improved efficiencies, and have allowed sites to use smaller and better matched machines to meet electrical and heat requirements. This is shown in the 8 per cent increase in electricity generation from CHP between 1995 and 1996, for a corresponding capacity increase of only 2 per cent. In terms of numbers of installations, the largest segment is for reciprocating engines, though the average size of these installations is less than 1 MWe.

Table 3 Fuel use by CHP plant type in 1996

Fuel type (3)	GWh				
	Prime mover				Total
	BP steam turbine (1)	POCO (2) steam turbine	Gas turbine	Reciprocating engine	Combined cycle
Natural gas	14,280	421	13,694	3,143	19,337
Coal	17,892	1,877	179	85	170
Fuel oil	14,681	149	2,763	363	129
Refinery gas	3,097	-	8,084	-	-
Blast furnace gas	3,020	1,179	-	-	-
Renewable fuels (4)	415	-	23	1,542	-
Coke oven gas	871	432	123	-	-
Gas oil	1	-	152	241	140
Other fuels (5)	1,947	-	656	176	37
Total	56,204	4,057	25,675	5,550	19,813
					111,299

(1) Back pressure steam turbine.

(2) Pass-out condensing steam turbine.

(3) In the cases where the CHP installation uses a number of fuels and where individual fuel consumption data are not available, the quantities consumed have been proportioned equally between fuels. In some installations additional fuel is consumed in the exhaust stream of the prime mover (e.g. supplementary firing of gas turbines) and this fuel is included within the table.

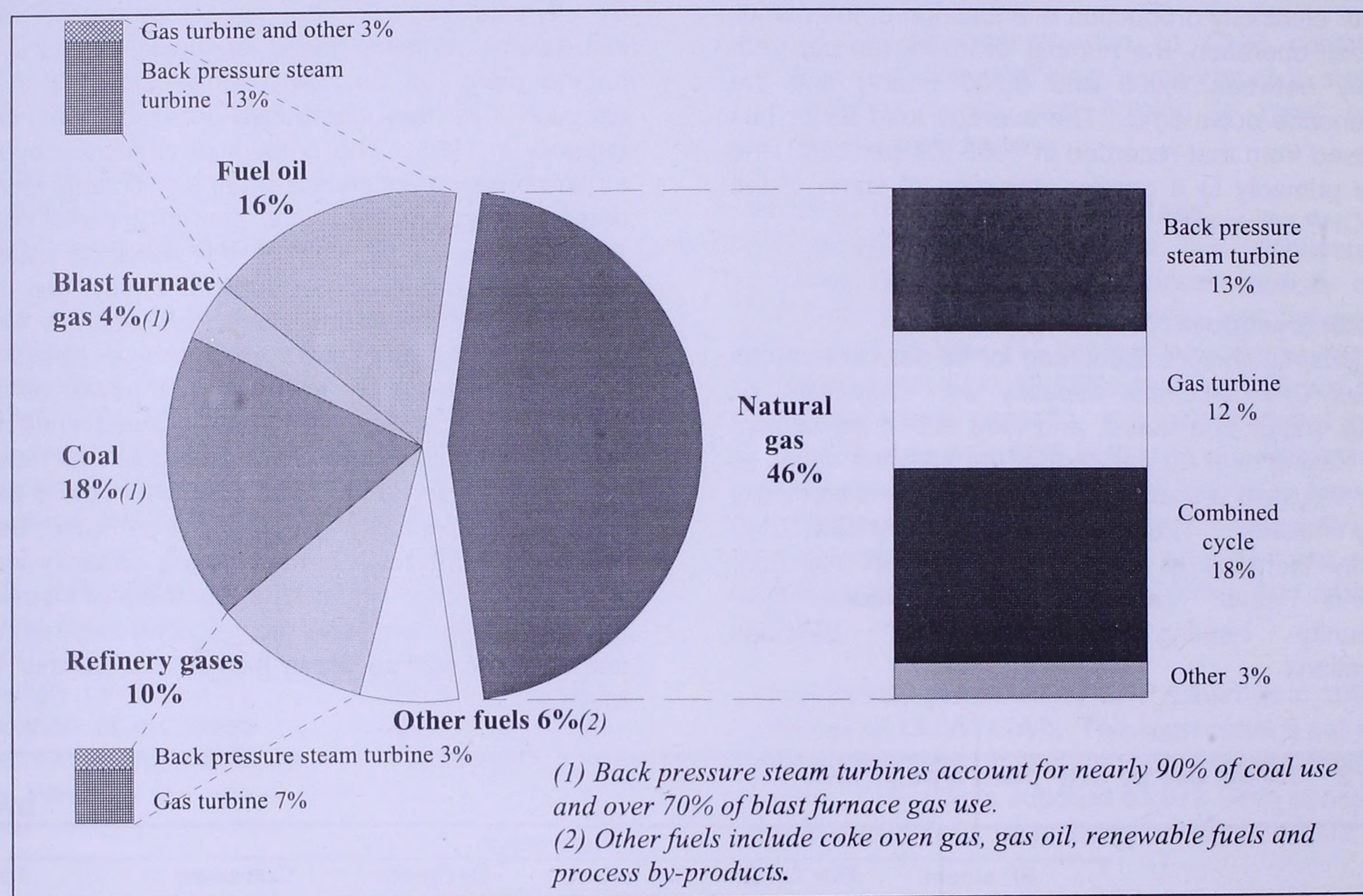
(4) Renewable fuels include: sewage gas; other biogases; clinical waste; municipal waste.

(5) Other fuels include: process by-products; uranium.

Table 4 Number and capacity of CHP schemes installed in buildings by sector in 1996

Sector	Number of sites	Electrical capacity (MWe)	Heat capacity (MWth)
Leisure	334	25.8	44.6
Hotel	267	28.9	47.5
Health	232	82.2	137.2
Residential group heating	47	58.8	194.7
Offices	42	14.2	15.0
Education	29	1.9	3.1
Universities	16	17.4	46.8
Government estate	11	5.1	8.0
Retail	4	5.2	4.2
Other (1)	11	27.2	31.0
Total	993	266.7	532.0

(1) Other includes: agriculture; airports; domestic buildings.

Chart 1 Types of fuel used by CHP plants in 1996

CHP in buildings

Table 4 gives a summary of the 993 schemes installed in the commercial, public sector and residential buildings. The installed electrical capacity was 266 MWe in 1996 with an average heat to power ratio of 2:1. The majority of these schemes (98 per cent) are based on spark ignition reciprocating engines fuelled with natural gas, though the larger schemes use compression ignition reciprocating engines and gas turbines. In terms of capacity the largest sectors are health and residential heating with 31 per cent and 22 per cent of electrical capacity respectively. In terms of number of sites the market is dominated by three sectors: health with 23 per cent of sites; hotels with 27 per cent of sites (11 per cent of capacity); and leisure with 34 per cent of sites (10 per cent of capacity).

CHP fired from renewable sources

Table 5 shows that in 1996 two renewable fuel sources were predominant, these being: sewage gas fired CHP in waste water treatment works and Municipal Solid Waste (MSW) for Community Heating schemes. A total of 92.6 MWe of electrical capacity was installed on 121 sewage treatment sites in the UK with a plant load factor of around 48 per cent and a heat to power ratio of 1.68:1. A total of 15.1 MWe of electrical capacity is installed in MSW fired Community Heating CHP schemes. The utilisation of these plants in 1996 was 59 per cent with a heat to power ratio of 6.75:1. However, it should be noted that both the MSW fired plant use a proportion of coal (jointly about a tenth of total fuel use) alongside the municipal waste.

Table 5 CHP fired on renewable sources

	Number of sites	Electricity capacity (MWe)	Heat capacity (MWth)	Renewable fuel input (GWh)	Electricity output (2) (GWh)	Heat output (GWh)
Renewable energy source:						
Sewage treatment	121	92.6	155.4	1,517.1	400.0	686.7
Municipal solid waste						
Community heating	2	15.1	102.0	414.7	79.0	200.4
Other biofuels (1)	4	7.5	22.0	47.8	51.1	67.2
Total	127	115.1	279.4	1,979.6	530.2	954.3

(1) Includes landfill gas; chicken litter; sewage disposal on industrial sites.
(2) Proportion of electricity and heat generated by the renewable fuel input.

Emissions savings from CHP

Emissions savings from CHP are significant to the UK as a whole, and this technology has a central role in the UK's commitment to stabilise emissions. As Table 6 shows, in 1995 estimated annual savings due to CHP

were 12,108,000 tonnes of CO₂, 43,000 tonnes of NO_x, and 246,000 tonnes of SO₂ based on the assumption that electricity from CHP displaced electricity generated from conventional coal fired stations. The savings would be less if CHP displaced generation by CCGTs.

Table 6 Emissions from operational CHP plants, 1996

Fuel Type	Primary Fuel (GWh)	CO ₂ thousand tonnes	NO _x thousand tonnes	SO ₂ thousand tonnes
Coal	20,204	6,741	12.8	85.2
Heavy fuel oil	18,084	4,818	11.4	76.1
Natural gas	50,875	9,158	8.2	-
Renewables	1,980	397	0.4	-
Other fuels	20,155	3,520	3.1	-
Total	111,299	24,634	35.8	161.3

Note: 'Other' fuels are assumed to generate the same emissions as natural gas.

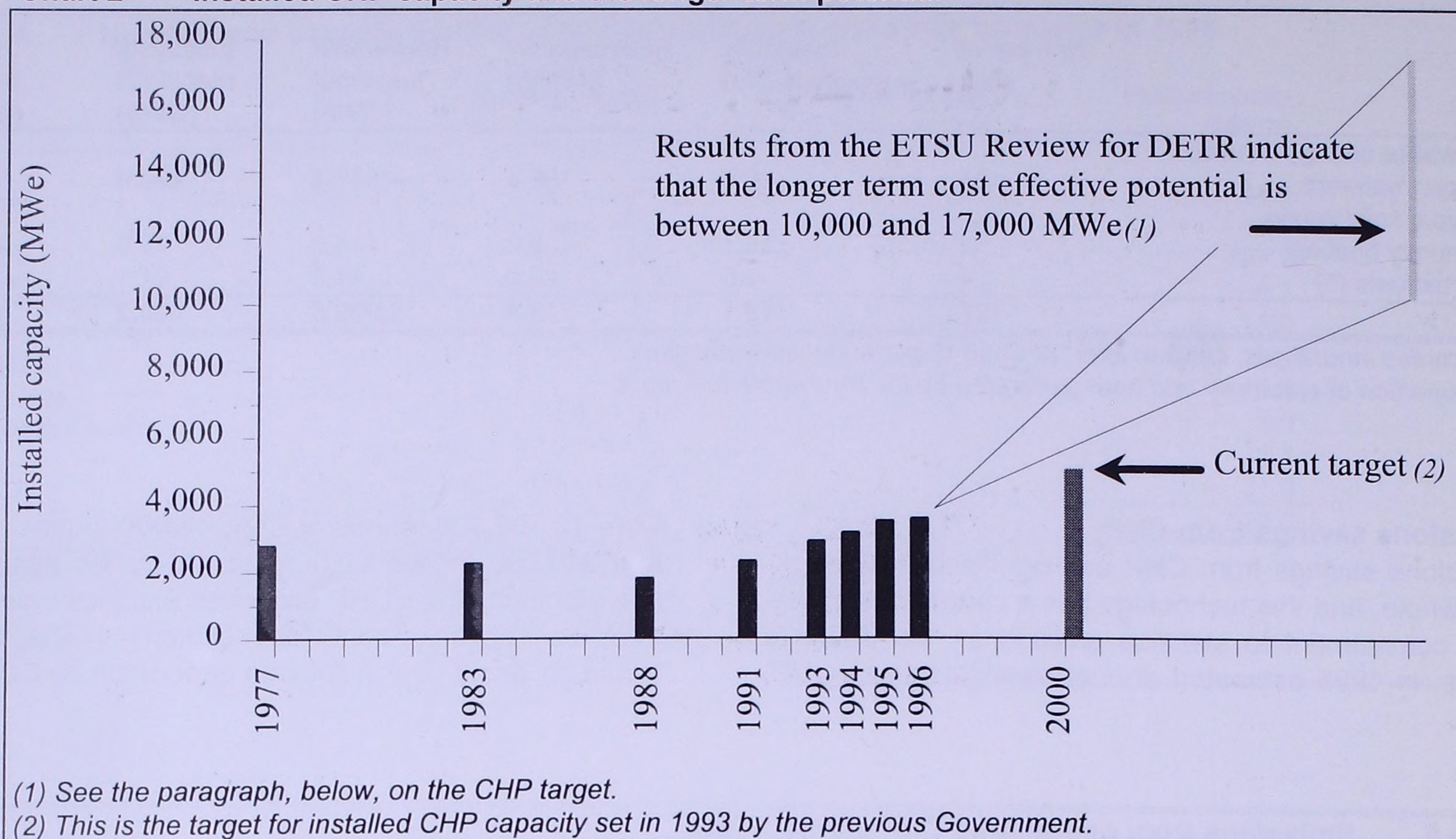
Table 7 Emission savings in comparison to centralised generation and heat-only boilers

	CO ₂ thousand tonnes	NO _x thousand tonnes	SO ₂ thousand tonnes
E1 - Emissions equivalent to electricity generated by CHP, replaces major power producers' coal burning plant	18,890	52	286
E2 - Emissions equivalent from boilers using same fuel as CHP	17,852	27	121
Sum E1 and E2	36,742	79	407
E3 - Emissions from CHP plants	24,634	36	161
Emissions savings from operational CHP plants	12,108	43	246

- To estimate the amount of emissions saved through the installation of CHP the following assumptions were made:
- All the electricity generated by CHP plants replaced the equivalent of that generated by coal burning power stations operated by major power producers.
 - All the heat generated by CHP replaced the equivalent from boilers using the same fuel split.
 - Any non-traded fuels (eg fuels derived from wastes and by products arising within the site) used by CHP plants are assumed to have emissions equivalent to those for natural gas.

Using these assumptions emission savings are calculated as:
Emissions equivalent to electricity generated by CHP (E1 in Table 7) **plus** Emissions equivalent from boilers using the same fuel as CHP (E2 in Table 7) **minus** Emissions from CHP plants (E3 in Table 7).

Chart 2 Installed CHP capacity and the longer term potential



CHP target

The government is committed to increasing the UK's CHP capacity beyond the previous administration's target of 5,000 MWe by 2000. A detailed review of the potential for CHP carried out for the Department of the Environment, Transport and the Regions (DETR) by ETSU has now been published. This review indicates that the cost effective potential for CHP in industry, commerce and the public sector is between 10,000 and 17,000 MWe, depending on assumptions made about future energy prices, users' required rate of return on investment, and other factors. This review does not cover additional CHP in the housing and community heating sectors, nor the growth in renewable fuelled CHP, both of which are being separately reviewed. The Government is now reviewing its detailed CHP target for 2010 and will be consulting the Combined Heat and Power Association and others with an interest.

For further information on all aspects of CHP the following are the people to contact:

Mr Mahmoud Abu-Ebid or Dr David Swan
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 Department of the Environment, Transport and the Regions
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The report of the recently conducted review of the survey of electricity generated by companies that are not classified as major power producers has now been published. The survey contributes to the electricity statistics in Tables 18, 20, 21, 22 and 23 of Energy Trends and is a major source of information on Combined Heat and Power (see article on page 20 of this issue).

The report is entitled "Survey Control Review of the Annual and Quarterly Inquiries into Electricity Generated" and is available from:

Mari Scullion, DTI, 1.D.47, 1 Victoria Street, LONDON SW1H 0ET, Telephone 0171-215-2177.

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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.

ENERGY*trends*



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