

February 1977



Small rise in 1976 energy consumption

Total Energy

Petroleum share declines in 1976

Inland energy consumption in 1976 measured on a primary fuel input basis was nearly 325 million tons coal equivalent (just over 194 million tonnes oil equivalent). This was 5 mtce (3 mtoe) higher than in the previous year, an increase of about 1½ per cent.

Compared with 1975, coal consumption (provisionally adjusted for net foreign trade and stock change in other solid fuels) rose by nearly 2½ mtce and marginally increased its share of total consumption. In contrast, petroleum consumption fell by 2½ mtce and registered its smallest share of total energy consumption since 1967. Natural gas consumption rose by over 3 mtce, an increase of about 5½ per cent, while nuclear electricity contributed the equivalent of almost 2 mtce more than in 1975, an increase of nearly 18 per cent.

Coal

Output and productivity decline in 1976

Deep-mined coal production in 1976 was 7 million tons lower than in 1975, a drop of over 6 per cent. This decline was partly compensated by an increase of 1½ million tons (nearly 15 per cent) in opencast output.

The volume of foreign trade in coal declined sharply during 1976. Compared with the previous year, imports fell by nearly half and exports by a third.

Colliery manpower declined steadily throughout 1976 and at the end of the year the number of wage earners on colliery books was over 4,000 lower than a year earlier. Productivity measured in terms of output per manshift has been at low levels during the year and on average was lower than at any time since 1969, with the exception of the two years affected by major strikes (1972 and 1974).

At the end of 1976 total coal stocks at 32½ million tons were 2 million tons higher than a year previously but by the end of January 1977 had fallen just below the level of end-January 1976.

Gas

Further gains

Total gas sent out during 1976 was nearly 14½ thousand million therms, an increase of 4½ per cent over the previous year. The manufacture of town gas continued to diminish during 1976 and by the end of the year over 99 per cent of total gas sent out consisted of natural gas supplied direct to consumers.

During the most recent three month period November to January, total gas sent out was nearly 10 per cent higher than in the comparable period a year ago, much of the increase being attributable to the substantially colder weather this winter.

Electricity

Record coal use

During 1976 the pattern of fuel use at power stations showed a substantial decline in the use of oil while coal use increased to a record level of nearly 77 million tons. Total fuel use during the year was only very slightly lower than in 1975 but this was accompanied by an

increase of over 1 per cent in electricity supplied, indicating a further improvement in overall thermal efficiency.

Total electricity generated in 1976 was nearly 1½ per cent higher than in the previous year with generation by nuclear stations, up by nearly a quarter, reflecting the gradual introduction during the year of the first two advanced gas cooled reactor stations.

During the final quarter of the year, total electricity supplied was about 3½ per cent higher than in the comparable period of 1975. While this was probably mainly due to the much colder weather, a small increase in demand by industry is indicated by the recent trend in sales to this sector.

Petroleum

Product exports increasing

In 1976 indigenous production of crude oil amounted to 12 million tonnes. Total inland deliveries of petroleum products during 1976 were just over 80 million tonnes, about 1½ million tonnes less than in the previous year, a fall of nearly 2 per cent. Deliveries of naphtha rose by 5½ per cent and transport fuels — motor spirit, Avtur and Derv — by about 4½, 4 and 3 per cent respectively. In contrast, deliveries of fuel oil were lower by almost 9 per cent and domestic burning oil by over 2 per cent.

Total refinery output of products during 1976 was over 3½ million tonnes higher than in 1975, with the lighter products sharing the bulk of the increase. The combination of higher refinery output and lower total inland deliveries is reflected in the substantially greater net shipments of refined products from the UK, which during the year increased by over 4 million tonnes. This is particularly apparent in the October to December quarters where petroleum products moved from a net arrival position in 1975 to a net shipment position in 1976.

Value of fuel imports and exports

The final table this month shows the value of external trade in fuels. During 1976 the volume of crude oil imports was 1 per cent lower than in 1975 but in value terms imports increased by nearly a third. The increased price of crude oil implicit in this is due primarily to the depreciation in the value of sterling throughout the year, equivalent to a price increase of over 20 per cent. The value of petroleum exports increased during the year by nearly two-thirds reflecting an increase in volume of export of crude and products together amounting to nearly 5 million tonnes.

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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 Table 1. Monthly figures relate to four week periods except where otherwise indicated.

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.

All figures relate to the United Kingdom unless otherwise indicated.

Explanatory notes on the definitions and concepts used in the tables and on the relationship between some of the main series are given in the Supplement to the March issue of *Energy Trends* and on the first page of the August issue. Extra copies of that Supplement may be obtained from the Department of Energy.

Symbols used in the tables

- .. not available.
- nil or less than half the final digit shown.
- * five-week period.
- p provisional.

Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro-electricity	Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro-electricity
	Million tons of coal or coal equivalent						Million metric tonnes of oil or oil equivalent					
1971	325.7	137.1	148.8	28.4	9.7	1.7	194.9	82.0	89.0	17.0	5.8	1.1
1972	332.7	120.5	159.6	40.3	10.5	1.8	198.8	72.0	95.4	24.0	6.3	1.1
1973	347.9	130.8	161.6	43.6	9.9	2.0	207.9	78.2	96.6	26.0	5.9	1.2
1974	332.2	116.0	150.1	52.1	11.9	2.1	198.6	69.3	89.7	31.2	7.1	1.3
1975	319.7	118.1	134.4	54.5	10.8	1.9	191.1	70.6	80.3	32.6	6.4	1.2
1976 p	324.7	120.5	132.0	57.6	12.7	1.9	194.1	72.0	79.0	34.4	7.6	1.1
Per cent change	+1.6	+2.0	–1.7	+5.6	+17.8	–4.4	+1.6	+2.0	–1.7	+5.6	+17.8	–4.4
1975 Oct	26.0	9.5	10.7	4.7	0.9	0.2	15.5	5.7	6.4	2.8	0.5	0.1
Nov	27.6	10.0	10.8	5.8	0.9	0.1	16.5	6.0	6.4	3.5	0.5	0.1
Dec*	35.4	13.0	14.6	6.4	1.2	0.2	21.2	7.8	8.8	3.8	0.7	0.1
Total	89.0	32.5	36.1	16.9	3.0	0.5	53.2	19.5	21.6	10.1	1.7	0.3
1976 Oct	25.1	9.4	9.8	4.8	1.0	0.1	14.9	5.6	5.8	2.8	0.6	0.1
Nov	28.7	10.4	11.0	6.0	1.1	0.2	17.2	6.2	6.6	3.6	0.7	0.1
Dec p*	38.0	14.4	15.3	6.8	1.3	0.2	22.7	8.6	9.1	4.1	0.8	0.1
Total	91.8	34.2	36.1	17.6	3.4	0.5	54.8	20.4	21.5	10.5	2.1	0.3
Per cent change	+3.0	+5.2	–0.3	+3.9	+16.5	–11.2	+3.0	+5.2	–0.3	+3.9	+16.5	–11.2

Seasonally adjusted and temperature corrected⁴ (annual rates)

1975 Oct	318.6	116.3	130.9	56.5	12.0	2.9	190.4	69.5	78.2	33.8	7.2	1.7
Nov	311.3	117.5	122.0	57.9	11.8	2.1	186.1	70.2	73.0	34.6	7.0	1.3
Dec*	321.4	120.1	128.2	60.2	11.7	1.2	192.1	71.8	76.6	36.0	7.0	0.7
Average	317.5	118.2	127.2	58.3	11.8	2.0	189.7	70.6	76.0	34.8	7.1	1.2
1976 Oct	311.8	118.4	120.9	56.6	14.0	1.9	186.3	70.7	72.2	33.8	8.4	1.2
Nov	321.4	121.0	124.7	59.5	14.0	2.2	192.1	72.3	74.6	35.6	8.3	1.3
Dec p*	332.5	128.2	125.9	64.1	13.2	1.1	198.7	76.6	75.2	38.3	7.9	0.7
Average	322.7	122.9	124.0	60.4	13.7	1.7	192.9	73.5	74.1	36.1	8.2	1.0
Per cent change	+1.7	+4.1	–2.5	+3.5	+15.5	–12.9	+1.7	+4.1	–2.5	+3.5	+15.5	–12.9

1. Consumption by fuel producers plus colliery disposals to final users, plus (for annual figures only) net foreign trade and stock change in other solid fuels. 2. Refinery throughput of crude oil, plus net foreign trade and stock change in petroleum products, less deliveries of non energy products. 3. Excluding gas flared or reinjected. 4. Only coal and petroleum are temperature corrected.

Energy: Total inland consumption (primary fuel input basis)¹

Million tons
coal equivalent

Million tonnes
oil equivalent

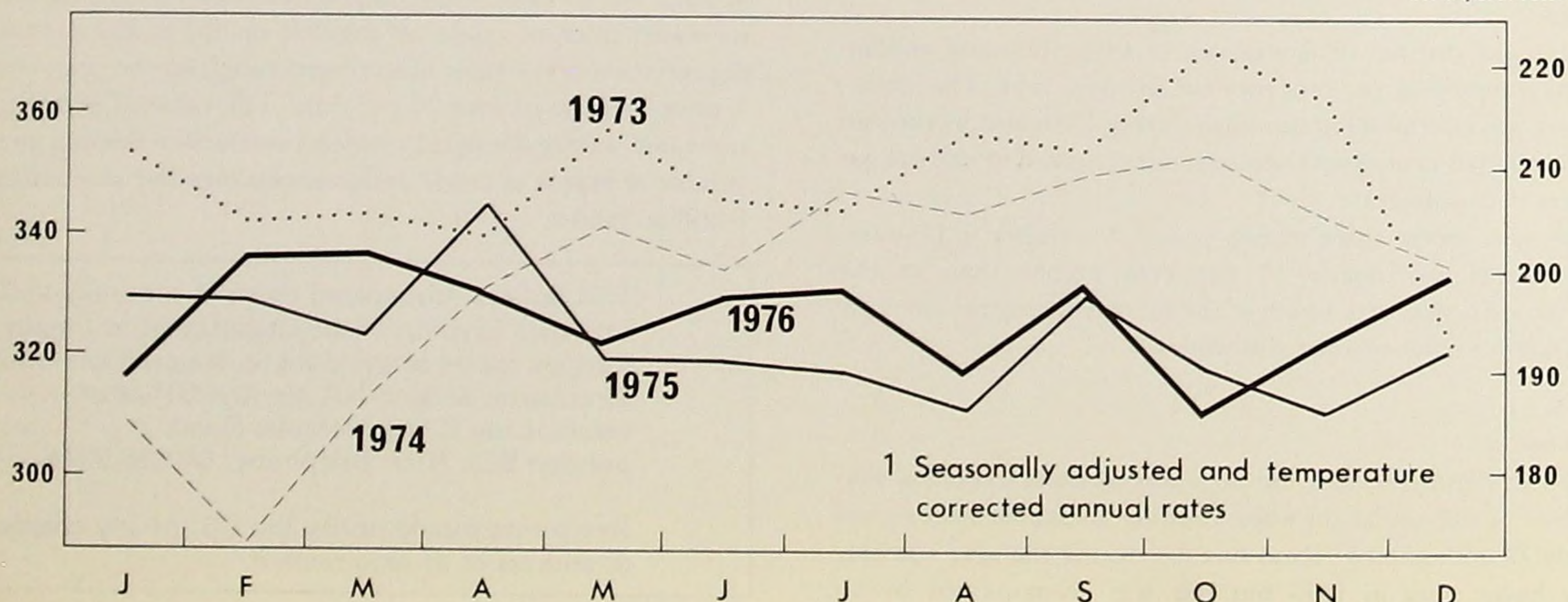


TABLE 2. Supply and use of fuels

Million therms

	1974	1975	Per cent change	1974		1975				1976p			Per ¹ cent change
				3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	27,245	31,430	+15.4	7,024	8,355	8,482	7,904	6,602	8,442	7,941	7,672	6,420	−2.8
Petroleum ²	174	665	(+)	31	51	56	57	137	415	564	1,003	1,311	(+)
Natural gas ³	13,040	13,578	+4.1	2,279	3,967	4,193	2,980	2,191	4,214	4,734	2,977	2,189	−0.1
Primary electricity	3,279	2,982	−9.1	657	867	944	617	580	841	925	779	767	+32.2
Total	43,738	48,655	+11.2	9,991	13,240	13,675	11,558	9,510	13,912	14,164	12,431	10,687	+12.4
Arrivals. Petroleum ⁴	54,067	44,216	−18.2	12,300	13,394	11,378	11,200	10,521	11,117	10,967	10,924	10,200	−3.1
Other	1,171	1,616	+38.0	289	323	389	417	380	430	325	310	252	−33.7
Shipments	7,628	7,243	−5.0	2,230	2,051	1,730	1,638	1,993	1,882	1,724	2,044	2,478	+24.3
Bunkers	1,954	1,418	−27.4	499	450	375	345	354	344	372	346	381	+7.6
Stock change ⁵													
Solid fuels	+1,921	−2,576	. .	−159	+104	+103	−1,085	−891	−703	+323	−859	−395	. .
Crude petroleum	−959	+475	. .	−113	+256	+425	−248	+220	+78	+353	−196	−251	. .
Petroleum products	−1,081	+978	. .	−345	+349	+754	+20	−503	+707	+649	−431	−367	. .
Non energy use	5,233	4,106	−21.5	1,306	1,146	1,055	956	960	1,135	1,132	1,111	1,122	+16.9
Statistical difference ⁶	−203	−176	. .	−41	−9	−168	+17	−13	−12	+83	+49	+61	. .
Total primary ⁷ energy input	83,839	80,421	−4.1	17,887	24,010	23,396	18,940	15,917	22,168	23,636	18,727	16,206	+1.8
Conversion losses etc. ⁸	25,550	24,547	−3.9	5,446	7,592	6,995	5,693	4,954	6,905	6,845	5,606	4,847	−2.2
FINAL CONSUMPTION BY USER:													
Iron and steel industry													
Coal	99	72	−27.3	16	26	25	18	10	19	23	15	9	−10.0
Other solid fuel ⁹	2,681	2,374	−11.5	718	673	746	575	482	571	617	703	655	+35.9
Other coal-derived fuels ¹⁰	374	372	−0.5	92	104	107	97	76	92	98	109	98	+28.9
Gas ¹¹	395	371	−6.1	86	97	101	91	79	100	108	112	99	+25.3
Electricity	345	344	−0.3	84	93	94	84	75	91	100	95	90	+20.0
Petroleum	1,648	1,357	−17.7	347	451	449	334	244	330	354	306	273	+11.9
Total	5,542	4,890	−11.8	1,343	1,444	1,522	1,199	966	1,203	1,300	1,340	1,224	+26.7
Other industries													
Coal	2,795	2,458	−12.1	733	746	660	613	528	657	547	564	470	−11.0
Other solid fuel ⁹	193	164	−15.0	53	51	47	47	40	30	38	23	28	−30.0
Other coal-derived fuels ¹⁰	63	78	+23.8	18	17	17	23	22	16	18	27	17	−22.7
Gas ¹¹	4,692	4,701	+0.2	1,041	1,273	1,295	1,091	1,007	1,308	1,457	1,236	1,083	+7.5
Electricity	2,247	2,234	−0.6	553	618	589	542	510	593	619	563	544	+6.7
Petroleum	8,264	7,426	−10.1	1,567	2,367	2,140	1,770	1,299	2,217	2,268	1,708	1,404	+8.1
Total	18,254	17,061	−6.5	3,965	5,072	4,748	4,086	3,406	4,821	4,947	4,121	3,546	+4.1
Transport sector													
Coal	24	19	−20.8	4	8	6	3	3	7	7	4	2	−33.3
Electricity	92	99	+7.6	23	25	26	25	23	25	27	24	23	−
Petroleum	12,295	12,143	−1.2	3,289	3,136	2,771	3,104	3,225	3,043	2,889	3,198	3,333	+3.3
Total	12,411	12,261	−1.2	3,316	3,169	2,803	3,132	3,251	3,075	2,923	3,226	3,358	+3.3
Domestic sector													
Coal	3,957	3,381	−14.6	952	1,160	1,013	903	699	766	932	765	634	−9.3
Other solid fuel ⁹	1,102	962	−12.7	282	297	270	231	260	201	284	202	213	−18.1
Gas ¹¹	5,384	5,891	+9.4	696	1,698	2,329	1,119	615	1,828	2,403	1,054	686	+11.5
Electricity	3,161	3,035	−4.0	536	915	1,037	678	484	836	987	596	469	−3.1
Petroleum	1,482	1,434	−3.2	188	501	473	306	194	461	519	268	176	−9.3
Total	15,086	14,703	−2.5	2,654	4,571	5,122	3,237	2,252	4,092	5,125	2,885	2,178	−3.3
Other final users ¹²													
Coal	669	490	−26.8	125	213	129	123	78	160	172	112	73	−6.4
Other solid fuel ⁹	276	219	−20.7	65	65	64	49	63	43	55	47	40	−36.5
Gas ¹¹	1,269	1,347	+6.1	173	387	472	310	171	394	570	320	177	+3.5
Electricity	1,447	1,548	+7.0	307	455	460	347	302	439	479	350	310	+2.6
Petroleum	3,335	3,355	+0.6	493	1,042	1,081	764	474	1,036	1,220	720	453	−4.4
Total	6,996	6,959	−0.5	1,163	2,162	2,206	1,593	1,088	2,072	2,496	1,549	1,053	−3.2
Total final users	58,289	55,874	−4.1	12,441	16,418	16,401	13,247	10,963	15,263	16,791	13,121	11,359	+3.6
FINAL CONSUMPTION BY FUEL:													
Coal	7,544	6,420	−14.9	1,830	2,153	1,833	1,660	1,318	1,609	1,681	1,460	1,188	−9.9
Other solid fuel ⁹	4,252	3,719	−12.5	1,118	1,086	1,127	902	845	845	994	975	936	+10.8
Other coal-derived fuels ¹⁰	437	450	+3.0	110	121	124	120	98	108	116	136	115	+17.3
Gas ¹¹	11,740	12,310	+4.9	1,996	3,455	4,197	2,611	1,872	3,630	4,538	2,722	2,045	+9.2
Electricity	7,292	7,260	−0.4	1,503	2,106	2,206	1,676	1,394	1,984	2,212	1,628	1,436	+3.0
Petroleum	27,024	25,715	−4.8	5,884	7,497	6,914	6,278	5,436	7,087	7,250	6,200	5,639	+3.7
Total all fuels	58,289	55,874	−4.1	12,441	16,418	16,401	13,247	10,963	15,263	16,791	13,121	11,359	+3.6

1. Per cent change on the corresponding period of the previous year. 2. Crude petroleum and natural gas liquids. 3. Excluding gas flared or reinjected. 4. Crude petroleum, process oils and petroleum products. 5. Stock fall (+) stock rise (-). 6. Supply greater than recorded demand (-). 7. Thermal equivalent of total inland energy consumption in Table 1. A more detailed analysis of the annual figures is shown in the Digest of United Kingdom Energy Statistics 1976 Tables 8 and 10. 8. Losses in conversion and distribution and used by fuel industries. 9. Coke and other manufactured solid fuels. 10. Coke oven gas, creosote/pitch mixtures and other liquid fuels derived from coal. 11. Natural gas supplied direct, and town gas. 12. Mainly public administration, commerce and agriculture.

Coal

TABLE 3. Supply

Thousand tons

	Net inland supply	Production			Net Imports	Imports ²	Exports ²	Tonnage lost (deep-mined) ³	
		Total ¹	Deep-mined	Opencast				Recognised holidays and rest days	Disputes
1971	148,603	147,081	134,322	10,498	+1,522	4,174	2,652	11,045	4,734
1972	123,125	119,927	107,836	9,815	+3,198	4,919	1,721	10,244	22,400
1973	128,904	129,906	118,140	9,964	-1,002	1,649	2,651	10,313	5,569
1974	110,362	108,707	98,413	9,085	+1,655	3,491	1,836	10,352	15,996
1975	129,505	126,650	115,557	10,249	+2,855	5,003	2,148	12,105	347
1976 p	123,222	121,843	108,521	11,755	+1,379	2,792	1,413	12,150	1,139
Per cent change	-4.9	-3.8	-6.1	+14.7	-51.7	-44.2	-34.2	+0.4	(+)
1975 Nov	11,382	11,080	10,047	903	+302	425	123	—	31
Dec*	12,509	12,228	11,072	976	+281	435	154	1,434	23
1976 Jan	8,528	8,428	7,670	658	+100	200	100	2,180	33
Total	32,419	31,736	28,789	2,537	+683	1,060	377	3,614	87
1976 Nov	10,629	10,546	9,437	962	+83	216	133	3	89
Dec*	12,476	12,510	11,264	1,106	-34	115	149	573	38
1977 Jan p	7,472	7,285	6,638	608	+187	277	90	2,620	78
Total	30,577	30,341	27,339	2,676	+236	608	372	3,196	205
Per cent change	-5.7	-4.4	-5.0	+5.5	-65.5	-42.6	-1.3	-11.6	(+)

1. Includes an estimate for slurry, etc., recovered and disposed of otherwise than by the National Coal Board.

2. As recorded in the "Overseas Trade Statistics of the United Kingdom". 3. NCB mines only.

TABLE 4. Inland consumption of coal

Thousand tons

	Total inland consumption	Fuel producers					Final users ¹			
		Primary	Secondary				Colliery disposals			
		Collieries	Power stations ²	Coke ovens	Gas works	Other ³ conversion industries	Industry ⁴	Domestic ⁵		Other ⁸
								House Coal ⁶	Other ⁷	
1971	138,705	1,556	71,696	23,182	1,826	4,406	15,581	15,366	1,621	3,471
1972	120,945	1,383	65,611	20,152	566	4,475	11,478	12,569	1,756	2,955
1973	131,288	1,359	75,628	21,543	504	3,550	11,890	12,519	1,755	2,540
1974	116,043	1,236	65,967	18,169	105	3,728	10,902	11,848	1,623	2,465
1975	120,303	1,218	73,391	18,783	9	3,999	9,532	9,844	1,609	1,918
1976 p	121,753	1,115	76,599	19,171	8	3,353	8,828	9,377	1,289	2,013
Per cent change	+1.2	-8.5	+4.4	+2.1	-11.1	-16.2	-7.4	-4.7	-19.9	+5.0
1975 Nov	9,994	100	6,445	1,383	—	317	813	619	130	187
Dec*	13,002	133	8,572	1,709	1	375	922	886	133	271
1976 Jan	9,881	85	6,660	1,369	1	284	580	618	106	178
Total	32,877	318	21,677	4,461	2	976	2,315	2,123	369	636
1976 Nov	10,413	98	6,757	1,514	1	227	837	686	116	177
Dec*	14,407	128	9,643	1,884	1	274	1,075	999	123	280
1977 Jan p	10,981	74	7,729	1,479	1	206	602	645	71	174
Total	35,801	300	24,129	4,877	3	707	2,514	2,330	310	631
Per cent change	+8.9	-5.7	+11.3	+9.3	+13.0	-27.6	+8.6	+9.8	-16.0	-0.8

1. Disposals by collieries and opencast sites. 2. Public supply and railway and transport power stations. 3. Low temperature carbonisation & patent fuel plants. 4. Prior to October 1973 the figures relate to actual consumption. 5. Prior to April 1973 the figures relate to merchants' disposals to the domestic market. 6. Including miners' coal. 7. Anthracite, dry steam coal and imported naturally smokeless fuels. 8. Mainly public administration & commerce.

TABLE 5. Stocks of coal¹ at end of period: Great Britain

Thousand tons

	Total	Distributed					Undistributed		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1971	28,211	17,982	15,712	1,777	72	421	10,229	6,973	3,256
1972	29,979	19,045	16,791	1,890	50	314	10,934	7,558	3,376
1973	27,445	16,766	14,537	1,937	27	265	10,679	7,529	3,150
1974	21,462	15,577	13,414	1,822	3	338	5,885	3,946	1,939
1975	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976 p	32,580	22,090	19,288	2,630	2	170	10,490	9,148	1,342
1975 Nov	31,310	21,221	18,609	2,331	1	280	10,089	8,358	1,731
Dec	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976 Jan	29,743	18,865	16,416	2,207	2	240	10,878	9,264	1,614
1976 Nov	34,500	23,644	20,927	2,536	1	180	10,856	9,451	1,405
Dec	32,580	22,090	19,288	2,630	2	170	10,490	9,148	1,342
1977 Jan p	29,081	18,918	16,463	2,292	3	160	10,163	8,919	1,244
Absolute change:									
In latest month	-3,499	-3,172	-2,825	-338	+1	-10	-327	-229	-98
On a year ago	-662	+53	+47	+85	+1	-80	-715	-345	-370

1. Excluding distributed stocks held in merchants' yards, etc., mainly for the domestic market, and stocks held by the industrial sector.

TABLE 6. Colliery manpower and productivity at NCB mines

	Wage earners on colliery books ¹		Recruitment	Wastage	Absence percentage ²			Average output per manshift ³	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands	Number	Per cent	Cwt.					
1971	279	218	28,010	32,309	18.1	4.4	13.7	43.94	143.08
1972	266	210	13,255	26,114	16.6	3.9	12.7	43.60	144.35
1973	245	193	17,402	37,961	18.0	4.1	13.9	45.00	150.00
1974	246	194	26,436	25,133	16.3	4.1	12.2	42.83	..
1975	245	194	21,347	22,451	16.2	4.0	12.2	44.92	155.85
1976 p	241	192	17,057	21,235	17.4	3.7	13.7	43.81	152.58
1975 Nov	246	195	1,112	1,700	16.9	4.0	12.9	46.35	157.14
Dec*	245	194	874	2,151	16.2	3.9	12.3	45.24	156.22
1976 Jan	245	194	1,069	1,554	15.9	3.3	12.6	44.88	155.89
1976 Nov	241	191	1,538	1,806	17.8	4.1	13.7	44.94	155.60
Dec*	241	192	1,408	1,877	17.9	4.1	13.8	44.55	155.38
1977 Jan p	241	191	1,412	1,607	18.0	3.6	14.4	43.09	153.85

1. At end of period. 2. The definition was changed from 1973. 3. Excluding capital working and tip coal.

Gas

TABLE 7. Sources of supply and send-out by the public gas supply system

	Natural gas supply			Other fuel used		Gas sent out		
	Total into system	Source ¹		Coal	Oil ²	Total	Town gas	Natural gas for direct supply
		Indigenous	Imported					
Million therms				Thousand tons		Million therms		
1971	6,977	6,660	317	1,770	2,547	8,061	4,069	3,992
1972	10,071	9,775	296	559	2,170	10,614	3,415	7,199
1973	10,916	10,639	277	503	2,286	11,620	2,434	9,186
1974	13,102	12,861	241	105	1,256	13,451	1,598	11,853
1975	13,692	13,367	325	9	579	13,822	752	13,070
1976 p	14,420	14,029	391	8	242	14,445	226	14,219
Per cent change	+5.3	+5.0	+20.3	-11.1	-58.2	+4.5	-69.9	+8.8
1975 Nov	1,305	1,274	31	—	21	1,316	42	1,274
Dec*	1,828	1,795	33	1	35	1,848	55	1,793
1976 Jan	1,382	1,348	34	1	30	1,377	39	1,338
Total	4,515	4,417	98	2	86	4,541	136	4,405
1976 Nov	1,346	1,324	22	1	24	1,346	11	1,335
Dec*	2,006	1,975	31	1	25	2,001	14	1,987
1977 Jan p	1,647	1,623	24	1	28	1,644	12	1,632
Total	4,999	4,922	77	3	77	4,991	37	4,954
Per cent change	+10.7	+11.4	-21.4	+13.0	-10.5	+9.9	-72.8	+12.5

1. Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system.

2. Mainly naphtha (LDF), liquid petroleum gases and refinery gases.

TABLE 8. Sales of gas by the public supply system

Million therms

	Total	Power stations ¹	Iron and steel industry	Other industries	Domestic	Other ²
1970	5,780	60	244	1,172	3,542	762
1971	7,520	263	343	2,118	3,930	866
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
Per cent change	+3.5	-12.9	-6.1	+0.2	+9.4	+6.1
1974 3rd quarter	2,181	198	86	1,028	696	173
4th quarter	3,653	211	97	1,260	1,698	387
1975 1st quarter	4,390	207	101	1,281	2,329	472
2nd quarter	2,798	200	91	1,078	1,119	310
3rd quarter	2,067	208	79	994	615	171
4th quarter	3,857	243	100	1,292	1,823	394
1976 1st quarter p	4,765	240	108	1,444	2,403	570
2nd quarter p	2,864	158	112	1,220	1,054	320
3rd quarter p	2,150	122	99	1,066	686	177
Per cent change	+4.0	-41.3	+25.3	+7.2	+11.5	+3.5

1. Public supply power stations only. 2. Public administration & commerce.

Electricity

TABLE 9. Fuel used and electricity generated by the public supply system

	Fuel used						Electricity generated			Own ⁵ use	Electricity supplied	Total ⁶ electricity available
	Total ¹	Coal ²	Oil ^{2 3}	Natural gas	Nuclear electricity	Hydro electricity	Total ⁴	By steam plant				
								Nuclear	Other			
	Million tons of coal or coal equivalent							TWh				
United Kingdom												
1971	105.95	71.18	24.16	1.05	8.05	1.45	235.74	23.21	207.81	17.74	218.00	222.37
1972	109.37	65.25	31.25	2.48	8.89	1.47	242.75	25.30	212.20	18.05	224.70	229.23
1973	114.68	75.57	28.04	1.13	8.22	1.66	258.80	23.66	229.89	18.43	240.37	244.76
1974	110.49	65.97	28.51	3.86	10.28	1.81	250.47	29.40	215.70	18.07	232.40	236.68
1975	108.97	73.39	21.14	3.37	9.29	1.64	251.26	26.52	219.69	18.02	233.24	237.26
1976 p	108.76	76.60	16.76	2.51	11.23	1.61	254.87	32.42	217.48	19.16	235.71	239.34
Per cent change	-0.2	+4.4	-20.7	-25.4	+20.9	-2.0	+1.4	+22.2	-1.0	+6.3	+1.1	+0.9
1975 Oct	8.46	5.88	1.41	0.23	0.74	0.18	19.20	2.11	16.58	1.40	17.80	18.11
Nov	9.35	6.44	1.64	0.33	0.81	0.12	21.55	2.29	18.87	1.53	20.02	20.27
Dec*	12.44	8.57	2.26	0.39	1.05	0.16	28.98	2.99	25.48	2.01	26.97	27.38
Total	30.25	20.89	5.31	0.95	2.60	0.46	69.73	7.39	60.93	4.94	64.79	65.76
1976 Oct	8.10	5.76	1.17	0.16	0.91	0.10	19.00	2.63	16.03	1.45	17.55	17.82
Nov	9.46	6.75	1.41	0.15	1.00	0.14	22.20	2.86	18.93	1.63	20.57	20.84
Dec p*	13.39	9.64	2.21	0.16	1.22	0.15	31.29	3.51	27.23	2.28	29.01	29.39
Total	30.95	22.15	4.79	0.47	3.13	0.39	72.49	9.00	62.19	5.36	67.13	68.05
Per cent change	+2.3	+6.0	-9.8	-50.5	+20.4	-15.2	+4.0	+21.8	+2.1	+8.5	+3.6	+3.5
England and Wales												
1971	93.40	64.95	20.07	1.05	7.19	0.08	208.07	20.68	186.14	15.33	192.74	195.13
1972	95.63	58.21	26.74	2.48	8.08	0.09	212.91	23.01	187.95	15.71	197.20	200.24
1973	99.43	67.14	23.56	1.13	7.45	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	96.09	58.63	24.00	3.86	9.43	0.12	218.85	26.93	190.43	15.90	202.95	205.55
1975	94.62	64.67	17.95	3.37	8.40	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976 p	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.95	206.17	207.62
Per cent change	-0.4	+5.1	-22.9	-25.4	+17.2	-11.4	+1.3	+18.2	-0.6	+4.1	+1.1	+0.6
1975 Oct	7.34	5.24	1.17	0.23	0.67	0.01	16.71	1.90	14.72	1.19	15.52	15.67
Nov	8.14	5.68	1.37	0.33	0.74	0.01	18.85	2.08	16.71	1.29	17.56	17.56
Dec*	10.76	7.50	1.89	0.39	0.96	0.01	25.18	2.71	22.37	1.68	23.50	23.64
Total	26.24	18.42	4.43	0.95	2.37	0.03	60.74	6.69	53.80	4.16	56.58	56.87
1976 Oct	7.06	5.20	0.96	0.16	0.73	0.01	16.62	2.12	14.46	1.20	15.42	15.55
Nov	8.20	6.03	1.15	0.15	0.85	0.01	19.41	2.44	16.91	1.37	18.04	18.15
Dec p*	11.59	8.49	1.83	0.16	1.09	0.01	27.22	3.14	23.97	1.88	25.34	25.36
Total	26.85	19.72	3.94	0.47	2.67	0.03	63.25	7.70	55.34	4.45	58.80	59.06
Per cent change	+2.3	+7.1	-11.1	-50.5	+12.7	-3.7	+4.1	+15.1	+2.9	+7.0	+3.9	+3.9

1. Including coke. 2. Including quantities used in the production of steam for sale. 3. Including oil used in gas turbine and diesel plant and for lighting up coal fired boilers. 4. Including generation by gas turbine, diesel and hydro-electric plant. 5. Used on works and for pumping at pumped storage stations. 6. Includes net imports and purchases from outside sources mainly UKAEA and British Nuclear Fuels Ltd. The England and Wales figures include net exchanges with Scotland.

TABLE 10. Sales of electricity by the public supply system

GWh

	Total	Iron and steel industry	Other industries	Domestic	Other ¹
1970	197,751	12,004	67,573	77,038	41,136
1971	203,433	10,837	69,337	80,674	42,585
1972	210,417	10,774	68,967	86,889	43,787
1973	225,267	11,646	75,327	91,299	46,995
1974	218,552	11,292	70,967	92,626	43,667
1975	217,765	11,164	70,916	88,938	46,747
Per cent change	-0.4	-1.1	-0.1	-4.0	+7.1
1974 3rd quarter	45,295	2,727	17,522	15,707	9,339
4th quarter	63,009	3,026	19,521	26,804	13,658
1975 1st quarter	65,993	3,103	18,643	30,389	13,858
2nd quarter	50,309	2,732	17,225	19,855	10,497
3rd quarter	42,009	2,407	16,215	14,194	9,193
4th quarter	59,454	2,922	18,833	24,500	13,199
1976 1st quarter p	66,099	3,199	19,578	28,906	14,416
2nd quarter p	48,978	3,062	17,874	17,475	10,567
3rd quarter p	43,235	2,866	17,253	13,745	9,371
Per cent change	+2.9	+19.1	+6.4	-3.2	+1.9

1. Mainly commerce, public administration & agriculture

Petroleum

TABLE 11. Production, arrivals and shipments¹

Thousand tonnes

	Crude Petroleum							Petroleum products			
	Gross ² Indigenous Production	Refinery Receipts				Arrivals ^{4,5}	Shipments ^{4,5}	Arrivals ⁴	Shipments ⁴	Net Arrivals	Bunkers ⁶
		Total	Indigenous ²	Net arrivals	Other ³						
1971	212	107,031	138	+106,167	726	107,736	1,569	19,071	16,948	+2,123	5,655
1972	333	105,641	226	+104,148	1,267	107,706	3,558	20,440	15,775	+4,665	5,225
1973	373	114,032	235	+112,237	1,560	115,472	3,235	17,808	16,681	+1,127	5,499
1974	410	113,478	250	+111,418	1,810	112,822	1,404	14,256	14,396	-140	4,759
1975	1,564	92,273	1,156	+89,842	1,275	91,366	1,524	12,461	13,664	-1,203	3,444
1976 p	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,449	15,681	-5,232	3,554
Per cent change	(+)	+6.6	(+)	-4.1	-45.7	-1.0	(+)	-16.1	+14.8	(+)	+3.2
1975 Oct	246	7,423	56	+7,215	152	7,467	252	1,034	1,444	-410	263
Nov	334	7,376	326	+6,954	96	7,169	215	1,322	934	+388	264
Dec	394	7,919	345	+7,460	114	7,598	138	1,488	1,094	+394	316
Total	974	22,718	727	+21,629	362	22,234	605	3,844	3,472	+372	843
1976 Oct p	1,637	8,796	1,630	+7,150	16	7,682	532	612	1,482	-870	245
Nov p	1,641	9,193	1,632	+7,564	-3	8,128	564	566	1,421	-855	319
Dec p	1,988	8,995	1,821	+7,156	18	7,855	699	1,064	1,544	-480	322
Total	5,266	26,984	5,083	+21,870	31	23,665	1,795	2,242	4,447	-2,205	886
Per cent change	(+)	+18.8	(+)	+1.1	(-)	+6.4	(+)	-41.7	+28.1	(-)	+5.5

1. Calendar months. 2. Including natural gas liquids (condensates). 3. Mainly recycled products. 4. Foreign trade as recorded by the Petroleum Industry and may differ from figures published in Overseas Trade Statistics. 5. Including process (partly refined) oils. 6. International bunkers.

TABLE 12. Refinery throughput and output of petroleum products¹

Thousand tonnes

	Through- put of crude and process oils	Refinery use		Total output of petrol- eum pro- ducts ²	Gases		Naphtha (LDF)	Motor spirit	Kerosene		Gas/ diesel oil	Fuel oil	Lubri- cating oils	Bitumen
		Fuel	Losses		Butane and propane	Other petro- leum			Aviation turbine fuel	Burning oil ³				
1971	105,342	6,184	913	98,245	1,236	284	5,728	12,522	3,707	2,540	24,455	43,173	1,429	2,094
1972	106,980	6,420	1,192	99,368	1,463	369	5,728	13,632	4,180	2,649	25,536	41,002	1,333	2,004
1973	114,338	7,053	1,331	105,954	1,655	394	6,607	14,842	4,550	2,717	27,853	42,026	1,477	2,225
1974	111,217	6,946	1,211	103,060	1,602	272	6,448	14,520	4,475	2,564	27,641	40,022	1,455	2,129
1975	93,579	6,031	901	86,647	1,447	151	3,968	13,940	3,959	2,299	23,324	32,711	1,141	2,099
1976 p	97,784	6,342	1,158	90,284	1,575	158	4,583	15,232	4,163	2,458	24,198	32,696	1,310	1,897
Per cent change	+4.5	+5.2	+28.5	+4.2	+8.8	+4.4	+15.5	+9.3	+5.2	+6.9	+3.7	−0.0	+14.8	−9.6
1975 Oct	7,815	524	56	7,235	122	13	350	1,161	278	250	2,017	2,585	. 19	184
Nov	7,115	470	93	6,552	96	15	403	966	201	224	1,838	2,393	99	173
Dec	8,158	544	63	7,551	142	15	376	1,216	305	248	2,097	2,797	65	144
Total	23,088	1,538	212	21,338	360	43	1,129	3,343	784	722	5,952	7,775	283	501
1976 Oct	8,658	524	112	8,022	134	11	413	1,352	410	192	2,067	3,020	129	141
Nov	8,582	518	84	7,980	143	11	419	1,299	300	287	1,970	3,151	107	167
Dec p	8,833	561	184	8,088	151	13	485	1,298	292	292	2,105	3,081	120	108
Total	26,073	1,603	380	24,090	428	35	1,317	3,949	1,002	771	6,142	9,252	356	416
Per cent change	+12.9	+4.2	+79.7	+12.9	+18.8	−18.4	+16.7	+18.1	+27.8	+6.8	+3.2	+19.0	+25.9	−16.7

1. Calendar months. 2. Including output of products not shown separately, namely, aviation spirit, wide-cut gasoline, industrial and white spirits, paraffin wax and miscellaneous products. 3. Including vaporising oil.

TABLE 13. Deliveries of petroleum products for inland consumption¹

Thousand tonnes

	Total ^{2, 3}	Butane ⁴ and propane	Naphtha (LDF) ⁵	Motor spirit	Kerosene				Gas/diesel oil		Fuel oil	Lubri- cating oils	Bitumen
					Aviation turbine fuel	Burning oil							
						Premier	Standard						
							Domestic	Other ⁶					
1971	91,520	1,196	7,623	14,964	3,667	713	1,369	532	5,186	12,569	39,395	1,148	2,208
1972	97,700	1,455	7,391	15,899	3,929	778	1,663	528	5,254	15,113	41,307	1,113	2,203
1973	99,344	1,600	8,373	16,927	4,202	788	1,931	501	5,658	15,100	39,447	1,185	2,458
1974	92,342	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	81,667	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976 p	80,226	1,324	5,385	16,880	3,989	576	1,671	381	5,596	12,977	27,796	1,009	1,871
Per cent change	-1.8	+3.9	+5.3	+4.7	+4.0	+7.1	-2.1	-4.7	+3.4	-0.6	-8.8	+1.8	-10.4
1975 Oct	7,248	113	447	1,462	346	46	162	40	514	1,197	2,579	92	187
Nov	7,082	108	455	1,252	273	66	151	36	465	1,280	2,684	82	163
Dec	7,731	117	466	1,338	279	98	212	40	437	1,428	3,039	84	128
Total	22,061	338	1,368	4,052	898	210	525	116	1,416	3,905	8,302	258	478
1976 Oct	6,555	109	471	1,472	340	36	142	32	505	1,025	2,141	38	142
Nov	7,188	131	429	1,363	275	72	157	37	488	1,340	2,587	92	159
Dec p	7,893	128	394	1,449	284	113	231	38	469	1,526	3,021	83	103
Total	21,636	368	1,294	4,284	899	221	530	107	1,462	3,891	7,749	263	404
Per cent change	-1.9	+9.2	-5.4	+5.7	+0.1	+5.4	+0.8	-7.6	+3.2	-0.4	-6.7	+1.9	-15.5

1. Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial & white spirits, and paraffin wax.

3. Excluding refinery fuel and miscellaneous products. 4. Including very small amounts for petro-chemicals. 5. Now mainly for petrochemical feedstock.

6. Including vaporising oil.

TABLE 14. Inland deliveries of petroleum products used for energy^{1, 2}

Thousand tonnes

	Total	Power ³ Stations	Gas Works	Iron and steel industry	Other Industries	Transport ⁴	Domestic	Other ⁵
1973	88,196	16,993	2,355	4,995	22,045	28,971	3,812	9,025
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,345	693	3,309	17,251	27,582	3,270	7,935
Per cent change	-10.0	-22.6	-48.2	-17.7	-12.4	-1.2	-3.2	-0.1
1975 Jan-Nov	66,369	12,003	647	3,043	15,488	25,346	2,841	7,001
1976 Jan-Nov p	64,155	9,162	335	2,844	15,663	26,208	2,784	7,159
Per cent change	-3.3	-23.7	-48.2	-6.5	+1.1	+3.4	-2.0	+2.3
1975 Sept	5,506	938	36	239	1,184	2,431	226	452
Oct	6,489	1,067	42	268	1,589	2,508	306	709
Nov	6,352	1,095	47	271	1,658	2,169	318	794
Total	18,347	3,100	125	778	4,431	7,108	850	1,955
1976 Sept	5,286	690	19	250	1,192	2,511	178	446
Oct	5,820	739	29	263	1,415	2,497	260	617
Nov p	6,468	914	25	301	1,723	2,323	329	853
Total	17,574	2,343	73	814	4,330	7,331	767	1,916
Per cent change	-4.2	-24.4	-42.1	+4.6	-2.3	+3.1	-9.8	-2.0

1. Calendar months. 2. Excludes non-energy products and non-energy use of naphtha (LDF).

3. Public supply, railway and transport power stations. 4. Including fishing, coastal and inland shipping.

5. Mainly public administration, commerce and agriculture.

TABLE 15. Stocks of petroleum at end of month

	Held by oil companies ¹		Power stations ²
	Million tonnes	Estimated days' supply ³	Million tonnes
1975 Nov	22.0	87	0.97
Dec	21.6	85	1.02
1976 Jan	20.9	81	0.91
1976 Nov	22.4	85	0.91
Dec	21.7	83	0.84
1977 Jan p	21.0	81	0.90

1. Stocks of petroleum products plus the product equivalent of crude and process oils held at refineries, and products in the wholesale distribution system. 2. Fuel oil held at main oil burning stations in Great Britain.

3. Latest three months calculated on forecast deliveries for the ensuing months. Figures for earlier period calculated on actual deliveries.

APPROXIMATE CONVERSION FACTORS

(last digit rounded to nought or five)

To convert from one fuel to another, multiply by the factor shown

To \ From	Million tons coal equiv.	Million tonnes oil equiv.	Million therms	TWh Electrical energy	TWh Electricity generated
Million tons coal equivalent	1	1.65	0.00390	0.135 ¹	0.500 ²
Million tonnes oil equivalent	0.600	1	0.00235	0.0800 ¹	0.280 ²
Million therms	255	425	1	34.0	115
TWh Electrical energy	7.45	12.5	0.0295	1	..
TWh Electricity generated	2.00 ³	3.60 ³	0.00880 ³	..	1

1. The amount of fuel (average grade) equivalent to 1 TWh of energy.

2. The amount of primary fuel (power station grade) to generate 1 TWh.

3. The amount of electricity generated by one million units of the fuel shown.

The *Digest of UK Energy Statistics 1976* gives more detailed factors.

SUPPLEMENTARY DATA

Value of fuel imports and exports⁽¹⁾

£ million

	Imports (c.i.f.)							Exports (f.o.b.)				
	Coal	Other solid fuel ²	Natural gas	Petroleum		Electricity	Total	Coal	Other solid fuel ²	Petroleum ³	Electricity	Total
				Crude	Refined ³							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1971	39.2	8.2	10.4	955.7	232.7	0.4	1,246.6	13.2	11.6	211.5	—	236.3
1972	48.9	11.3	9.4	947.0	223.2	1.7	1,241.5	9.7	9.2	219.7	—	238.6
1973	21.3	7.9	9.4	1,336.3	348.3	0.4	1,723.6	15.2	13.8	341.0	—	370.0
1974	62.1	7.2	8.1	3,852.4	696.7	0.4	4,626.9	20.8	46.9	700.0	—	767.7
1975	105.6	7.8	13.9	3,462.9	718.6	1.1	4,309.9	36.1	54.6	722.9	0.1	813.7
1976	82.7	9.0	20.8	4,585.8	953.6	—	5,651.9	30.6	47.7	1,175.4	1.1	1,254.8
Per cent change	-21.7	+16.1	+49.8	+32.4	+32.7	(-)	+31.1	-15.0	-12.7	+62.6	(+)	+54.2
1974 4th quarter	20.1	1.3	2.3	1,020.9	186.4	—	1,231.0	9.6	18.8	180.8	—	209.2
1975 1st quarter	24.9	1.7	3.9	874.5	187.6	1.0	1,093.6	13.0	19.2	169.0	—	201.2
2nd quarter	27.0	1.8	2.5	834.8	144.0	0.1	1,010.2	8.7	13.0	151.9	0.1	173.7
3rd quarter	23.7	2.1	3.5	847.8	156.9	—	1,034.0	6.3	9.9	197.9	—	214.1
4th quarter	30.0	2.2	4.0	905.8	230.1	—	1,172.1	8.1	12.5	204.1	—	224.7
1976 1st quarter	19.7	2.3	6.7	1,096.7	243.9	—	1,369.3	6.5	11.8	222.9	—	241.2
2nd quarter	25.6	1.8	4.4	1,107.3	247.8	—	1,386.9	6.0	11.6	247.2	0.3	265.1
3rd quarter	18.7	2.7	5.2	1,143.5	230.3	—	1,400.4	8.5	11.4	324.6	0.1	344.6
4th quarter	18.7	2.2	4.5	1,238.3	231.6	—	1,495.3	9.6	12.9	380.7	0.7	403.9
Per cent change	-37.8	+4.4	+13.9	+36.7	+0.6	—	+27.6	+18.7	+3.2	+86.6	(+)	+79.8

1. The figures correspond to those published in Section 3 of the "Overseas Trade Statistics".

2. Including coke, breeze, briquettes and pitch. 3. Including liquefied gases other than natural gas and petroleum products not used as fuel, e.g., lubricants.