

DEPARTMENT OF ENERGY

ENERGY TRENDS

A Statistical Bulletin

SEPTEMBER 1977

Higher consumption continues

Total Energy

All fuels above last year

Total inland energy consumption on a primary fuel input basis during the three month period May to July was 4.7 per cent higher than in the comparable period last year. All component fuels contributed to the rise.

There were, however, significant differences in temperature between the periods, with May to July of this year being cooler than normal and the comparable three months of last year being particularly warm. After seasonal adjustment and allowing for the temperature effects, total energy consumption in the period was only 2.2 per cent above last year's level and coal and petroleum fell by 3.7 and 0.5 per cent respectively.

Coal

Big drop in manpower

Total production of coal during the period June to August was slightly higher than in the corresponding period a year ago with an 18 per cent increase in output from opencast mines compensating for the 2 per cent decline in deep-mined coal production.

Total inland consumption of coal during the three month period was 1.5 per cent higher than in the same period last year. Increased use at power stations continued, with demand 4.6 per cent above last year's level. For the third successive month disposals to domestic consumers were higher than a year ago and for June to August as a whole were 9.5 and 13.1 per cent above the corresponding period of 1976.

The total number of wage earners on colliery books fell by nearly 6,000 in August with a wastage of over 8,000 men during the month. Nearly 7,000 of these, however, left under the National Coal Board's early retirement scheme which came into effect in August.

Gas

Growth continues

Total gas sent out during the three month period June to August was nearly 2,500 million therms, 17.6 per cent higher than in the corresponding period of 1976. Demand was stimulated, however, by the lower temperatures this year when each month of the period was cooler than a year ago.

Electricity

Weather increases demand

Electricity supplied during the period May to July was over 5 per cent higher than in the similar period of last year. Higher levels of demand

were recorded for each month of the period, compared with a year ago, partly as a reflection of the comparatively cooler weather this year.

Total fuel used for generation, in terms of coal equivalent, was 1 million tons higher this year than for May to July of 1976, an increase of 4.5 per cent. The continued higher use of coal and the growing contribution of nuclear electricity accounted for most of the increase, although oil consumption was also above last year's levels, a reversal of the recent trend.

Petroleum

Higher deliveries

Total deliveries of products during the three month period May to July were nearly 3 per cent higher than in the corresponding period of 1976. All the major products shared the increase, with the exception of motor spirit, deliveries of which were slightly below last year's levels. The other major transport fuels, derv and aviation turbine fuel were both in greater demand than a year ago, with deliveries increasing by 0.9 and 9.4 per cent respectively.

Refinery output of all products for May to July of this year was 4.7 per cent below last year's levels with most of the decrease being attributable to fuel oil, output of which fell by 10.6 per cent compared with the same three months of 1976.

Supplementary Data

Industrial fuel prices

Provisional results for the second quarter are now available and are shown in the final table of this month's bulletin. Increases have occurred for all fuels except electricity, which exhibits a decline similar to those noted previously at this time of year. This is probably a seasonal effect caused by reduced rates of consumption during the second quarter rather than a genuine price reduction.

This Bulletin is prepared by the Economics and Statistics Division of the Department of Energy. Further copies of the Bulletin are available from Circulation Section (H), Central Office of Information (COI), Hercules Road, London SE1 7DU. Telephone: 01-928-2345.

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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. These comparisons can be affected by calendar differences, especially during periods of rapid change. 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 1976 issue of *Energy Trends* and on the first page of the August 1976 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 gas ³	Nuclear electricity	Hydro-electricity	Total	Coal ¹	Petroleum ²	Natural gas ³	Nuclear electricity	Hydro-electricity
	Million tons of coal or coal equivalent						Million metric tonnes of oil or oil equivalent					
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	324.7	120.1	132.1	57.9	12.7	1.9	194.0	71.8	78.9	34.6	7.6	1.1
Per cent change	+1.5	+1.7	–1.7	+6.1	+17.8	–4.4	+1.5	+1.7	–1.7	+6.1	+17.8	–4.4
1976 Jan-Jul	188.8	70.5	76.6	33.6	6.9	1.2	112.9	42.1	45.8	20.1	4.2	0.7
1977 Jan-Jul p	195.0	72.8	76.5	36.4	8.2	1.1	116.5	43.5	45.7	21.8	4.9	0.6
Per cent change	+3.2	+3.3	–0.1	+8.4	+17.6	–12.7	+3.2	+3.3	–0.1	+8.4	+17.6	–12.7
1976 May	23.0	9.0	9.0	4.0	0.9	0.1	13.7	5.4	5.3	2.4	0.5	0.1
Jun*	25.5	10.1	11.4	2.9	1.0	0.1	15.2	6.0	6.8	1.7	0.6	0.1
Jul	19.6	7.7	8.4	2.6	0.8	0.1	11.7	4.6	5.0	1.6	0.5	–
Total	68.1	26.8	28.8	9.5	2.7	0.3	40.6	16.0	17.1	5.7	1.6	0.2
1977 May	24.7	9.4	9.6	4.5	1.0	0.2	14.8	5.6	5.8	2.7	0.6	0.1
Jun*	26.5	10.0	11.5	3.7	1.2	0.1	15.9	6.0	6.9	2.2	0.7	0.1
Jul p	20.1	7.9	8.1	3.1	0.9	0.1	12.0	4.7	4.9	1.9	0.5	–
Total	71.3	27.3	29.2	11.3	3.1	0.4	42.7	16.3	17.6	6.8	1.8	0.2
Per cent change	+4.7	+1.8	+1.8	+19.2	+13.9	+6.2	+4.7	+1.8	+1.8	+19.2	+13.9	+6.2

Seasonally adjusted and temperature corrected⁴ (annual rates)

1976 Jan-Jul	328.4	123.3	134.8	56.4	11.8	2.1	196.3	73.7	80.6	33.7	7.0	1.3
1977 Jan-Jul p	334.4	123.1	133.7	61.5	14.0	2.1	199.8	73.6	79.9	36.8	8.3	1.2
Per cent change	+1.8	–0.1	–0.8	+9.0	+18.5	–2.4	+1.8	–0.1	–0.8	+9.0	+18.5	–2.4
1976 May	323.9	120.5	134.0	54.8	12.2	2.4	193.6	72.0	80.1	32.7	7.3	1.5
Jun*	328.2	122.9	139.4	51.0	12.6	2.3	196.1	73.4	83.3	30.5	7.5	1.4
Jul	329.8	127.8	136.6	50.4	13.3	1.7	197.1	76.4	81.6	30.2	7.9	1.0
Average	327.4	123.6	136.9	52.0	12.7	2.2	195.7	73.9	81.8	31.1	7.6	1.3
1977 May	340.7	121.7	140.4	61.1	14.1	3.4	203.6	72.7	83.9	36.5	8.5	2.0
Jun*	334.6	114.2	137.9	65.0	15.4	2.1	200.0	68.2	82.4	38.9	9.2	1.3
Jul p	328.4	122.6	130.2	59.7	14.2	1.7	196.3	73.3	77.8	35.7	8.5	1.0
Average	334.5	119.1	136.2	62.2	14.6	2.4	199.9	71.2	81.4	37.2	8.7	1.4
Per cent change	+2.2	–3.7	–0.5	+19.6	+15.4	+9.8	+2.2	–3.7	–0.5	+19.6	+15.4	+9.8

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

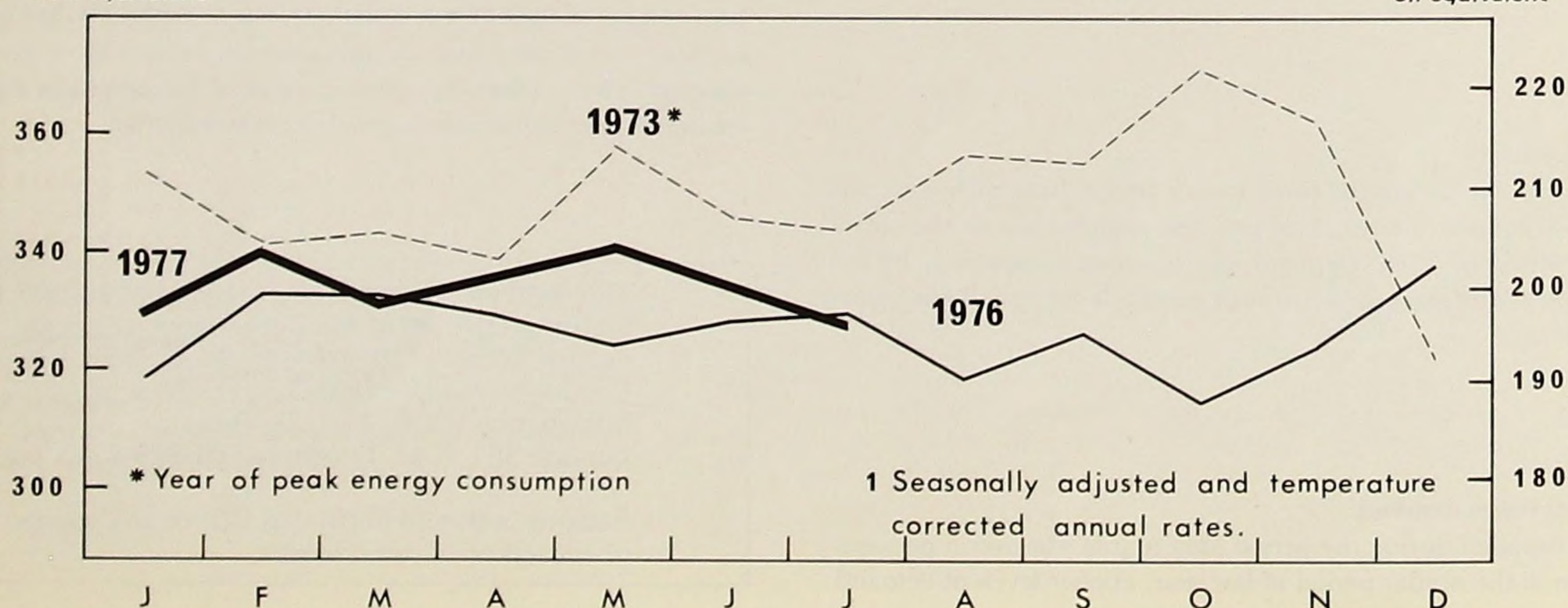


TABLE 2. Supply and use of fuels

Million therms

				1975					1976				1977p	Per ¹
	1975	1976	Per cent change	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	cent change	
PRIMARY FUELS AND EQUIVALENTS:														
Production of primary fuels														
Coal	31,430	30,166	-4.0	8,482	7,904	6,602	8,442	8,006	7,635	6,378	8,147	7,567	-5.5	
Petroleum ²	665	5,206	(+)	56	57	137	415	574	1,020	1,335	2,277	3,301	(+)	
Natural gas ³	13,578	14,379	+5.9	4,193	2,980	2,191	4,214	4,727	2,962	2,173	4,517	4,910	+3.9	
Primary electricity	2,982	3,411	+14.4	944	617	580	841	926	786	770	929	1,070	+15.6	
Total	48,655	53,162	+9.3	13,675	11,558	9,510	13,912	14,233	12,403	10,656	15,870	16,848	+18.4	
Arrivals. Petroleum ⁴	44,216	43,174	-2.4	11,378	11,200	10,521	11,117	10,992	10,949	10,160	11,073	9,611	-12.6	
Other	1,616	1,183	-26.8	389	417	380	430	351	336	270	226	193	-45.0	
Shipments	7,243	9,176	+26.7	1,730	1,638	1,993	1,882	1,745	2,068	2,507	2,856	3,103	+77.8	
Bunkers	1,418	1,468	+3.5	375	345	354	344	371	346	381	370	319	-14.0	
Stock change ⁵														
Solid fuels	-2,576	-634	..	+103	-1,085	-891	-703	+312	-820	-388	+262	+1,193	..	
Crude petroleum	+475	-378	..	+425	-248	+220	+78	+354	-196	-25	-511	+375	..	
Petroleum products	+978	+240	..	+754	+20	-503	+707	+648	-431	-367	+390	+560	..	
Non energy use	4,106	4,448	+8.3	1,055	956	960	1,135	1,138	1,111	1,159	1,040	929	-18.4	
Statistical difference ⁶	-176	+54	..	-168	+17	-13	-12	+58	-23	-2	+21	-301	..	
Total primary ⁷ energy input	80,421	81,709	+1.6	23,396	18,940	15,917	22,168	23,694	18,693	16,257	23,065	24,128	+1.8	
Conversion losses etc. ⁸	24,545	24,380	-0.7	6,995	5,693	4,954	6,905	6,913	5,596	4,905	6,966	7,254	+4.9	
FINAL CONSUMPTION BY USER:														
Iron and steel industry														
Coal	72	66	-8.3	25	18	10	19	23	14	9	20	23	-	
Other solid fuel ⁹	2,374	2,723	+14.7	746	575	482	571	631	719	670	703	655	+3.8	
Other coal-derived fuels ¹⁰	372	401	+7.8	107	97	76	92	98	109	97	97	95	-3.1	
Gas ¹¹	371	438	+18.1	101	91	79	100	108	112	99	119	128	+18.5	
Electricity	344	395	+14.8	94	84	75	91	100	96	90	109	102	+2.0	
Petroleum	1,357	1,279	-5.7	449	334	244	330	354	306	273	346	351	-0.8	
Total	4,890	5,302	+8.4	1,522	1,199	966	1,203	1,314	1,356	1,238	1,394	1,354	+3.0	
Other industries														
Coal	2,458	2,277	-7.4	660	613	528	657	547	564	470	696	617	+12.8	
Other solid fuel ⁹	164	126	-23.2	47	47	40	30	38	24	27	37	39	+2.6	
Other coal-derived fuels ¹⁰	78	76	-2.6	17	23	22	16	13	23	25	15	17	+30.8	
Gas ¹¹	4,701	5,241	+11.5	1,295	1,091	1,007	1,308	1,456	1,236	1,083	1,466	1,431	-1.7	
Electricity	2,228	2,364	+6.1	588	540	508	592	617	563	546	638	646	+4.7	
Petroleum	7,434	7,441	+0.1	2,140	1,770	1,300	2,224	2,255	1,696	1,400	2,090	2,256	-	
Total	17,063	17,525	+2.7	4,747	4,084	3,405	4,827	4,926	4,106	3,551	4,942	5,006	+1.6	
Transport sector														
Coal and other solid fuel	19	21	+10.5	6	3	3	7	7	4	2	8	6	-14.3	
Electricity	99	98	+1.0	26	25	23	25	26	24	22	26	27	+3.8	
Petroleum	12,143	12,597	+3.7	2,771	3,104	3,225	3,043	2,889	3,198	3,333	3,177	2,988	+3.4	
Total	12,261	12,716	+3.7	2,803	3,132	3,251	3,075	2,922	3,226	3,357	3,211	3,021	+3.4	
Domestic sector														
Coal	3,381	3,143	-7.0	1,013	903	699	766	932	765	634	812	851	-8.7	
Other solid fuel ⁹	962	869	-9.7	270	231	260	201	277	196	208	188	231	-16.6	
Gas ¹¹	5,891	6,194	+5.1	2,329	1,119	615	1,828	2,403	1,055	686	2,050	2,412	+0.4	
Electricity	3,045	2,905	-4.6	1,041	681	485	838	993	585	464	863	972	-2.1	
Petroleum	1,434	1,435	-0.1	473	306	194	461	519	268	176	472	513	-1.2	
Total	14,713	14,546	-1.1	5,126	3,240	2,253	4,094	5,124	2,869	2,168	4,385	4,979	-2.8	
Other final users ¹²														
Coal	490	516	+5.3	129	123	78	160	172	113	73	158	165	-4.1	
Other solid fuel ⁹	219	166	-24.2	64	49	63	43	51	44	37	34	52	+2.0	
Gas ¹¹	1,347	1,521	+12.9	472	310	171	394	571	317	169	464	561	-1.8	
Electricity	1,546	1,596	+3.2	462	347	300	437	478	345	308	465	497	+4.0	
Petroleum	3,347	3,441	+2.8	1,081	764	474	1,028	1,223	721	451	1,046	1,239	+1.3	
Total	6,949	7,240	+4.2	2,208	1,593	1,086	2,062	2,495	1,540	1,038	2,167	2,514	+0.8	
Total final users	55,876	57,329	+2.6	16,406	13,248	10,961	15,261	16,781	13,097	11,352	16,099	16,874	+0.6	
FINAL CONSUMPTION BY FUEL:														
Coal	6,420	6,022	-6.2	1,833	1,660	1,318	1,609	1,681	1,460	1,188	1,693	1,662	-1.1	
Other solid fuel ⁹	3,719	3,885	+4.5	1,127	902	845	845	997	983	942	963	977	-2.0	
Other coal-derived fuels ¹⁰	450	477	+6.0	124	120	98	108	111	132	122	112	112	+0.9	
Gas ¹¹	12,310	13,394	+8.8	4,197	2,611	1,872	3,630	4,538	2,720	2,037	4,099	4,532	-0.1	
Electricity	7,262	7,358	+1.3	2,211	1,677	1,391	1,983	2,214	1,613	1,430	2,101	2,244	+1.4	
Petroleum	25,715	26,193	+1.9	6,914	6,278	5,437	7,086	7,240	6,189	5,633	7,131	7,347	+1.5	
Total all fuels	55,876	57,329	+2.6	16,406	13,248	10,961	15,261	16,781	13,097	11,352	16,099	16,874	+0.6	

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 1977 Tables 8 and 11. 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
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	123,224	121,845	108,523	11,755	+1,379	2,792	1,413	12,150	1,140
Per cent change	-4.9	-3.8	-6.1	+14.7	-51.7	-44.2	-34.2	+0.4	(+)
1976 Jan-Aug	79,359	78,040	69,372	7,585	+1,319	2,173	854	10,204	568
1977 Jan-Aug p	76,541	76,438	67,383	8,189	+103	1,429	1,326	10,623	503
Per cent change	-3.6	-2.1	-2.9	+8.0	-92.2	-34.2	+55.3	+4.1	-11.4
1976 Jun*	10,743	10,616	9,257	1,162	+127	224	97	2,116	31
Jul	8,515	8,413	7,394	901	+102	276	174	1,585	35
Aug	6,619	6,452	5,385	919	+167	236	69	3,438	153
Total	25,877	25,481	22,036	2,982	+396	736	340	7,139	219
1977 Jun*	10,408	10,423	8,909	1,386	-15	164	179	2,260	90
Jul	8,752	8,657	7,309	1,151	+95	290	195	1,567	52
Aug p	6,690	6,549	5,383	989	+141	271	130	3,257	25
Total	25,850	25,629	21,601	3,526	+221	725	504	7,084	167
Per cent change	-0.1	+0.6	-2.0	+18.2	-44.2	-1.5	+48.2	-0.8	-23.7

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	
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	121,665	1,115	76,589	19,095	8	3,351	8,828	9,377	1,289	2,013
Per cent change	+1.1	-8.5	+4.4	+1.7	-11.1	-16.2	-7.4	-4.7	-19.9	+5.0
1976 Jan-Aug	77,268	720	48,326	12,402	5	2,312	5,331	6,105	815	1,252
1977 Jan-Aug p	79,847	725	51,766	11,771	5	1,924	5,543	6,022	831	1,260
Per cent change	+3.3	+0.7	+7.1	-5.1	+4.0	-16.8	+4.0	-1.4	+2.0	+0.6
1976 Jun*	10,137	90	6,058	1,865	-	346	779	768	102	129
Jul	7,736	68	4,579	1,474	1	249	619	567	111	68
Aug	6,820	48	4,156	1,470	-	208	387	417	61	73
Total	24,693	206	14,793	4,809	1	803	1,785	1,752	274	270
1977 Jun*	10,038	106	6,233	1,665	1	291	703	786	112	141
Jul	7,918	77	4,795	1,350	-	229	604	665	120	78
Aug p	7,106	48	4,451	1,312	-	199	473	467	78	78
Total	25,062	231	15,479	4,327	1	719	1,780	1,918	310	297
Per cent change	+1.5	+12.1	+4.6	-10.0	-	-10.5	-0.3	+9.5	+13.1	+10.0

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	32,592	22,102	19,288	2,642	2	170	10,490	9,148	1,342
1976 Jun	32,566	21,192	18,410	2,541	1	240	11,374	9,824	1,550
Jul	33,254	22,230	19,450	2,539	1	240	11,024	9,475	1,549
Aug	33,185	22,462	19,955	2,266	1	240	10,723	9,105	1,618
1977 Jun	28,752	19,474	17,066	2,227	1	180	9,278	7,879	1,399
Jul	29,480	20,514	18,045	2,268	1	200	8,966	7,480	1,486
Aug p	29,173	20,410	18,248	1,981	1	180	8,763	7,227	1,536
Absolute change:									
In latest month	-307	-104	+203	-287	-	-20	-203	-253	+50
On a year ago	-4,012	-2,052	-1,707	-285	-	-60	-1,960	-1,878	-82

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	241	192	17,061	21,239	17.4	3.7	13.7	43.81	152.59	
1976 Jun*	243	193	1,573	2,012	15.4	3.1	12.3	42.56	151.29	
Jul	242	192	999	1,777	16.3	3.4	12.9	40.62	144.14	
Aug	242	192	1,807	1,347	14.9	2.9	12.0	39.12	148.98	
1977 Jun*	244	194	2,821	3,002	16.0	3.1	12.9	41.72	153.45	
Jul	244	194	2,140	1,899	16.7	3.4	13.3	40.27	146.10	
Aug p	238	188	2,409	8,243	15.5	3.1	12.4	38.46	149.27	

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		
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	14,420	14,030	390	8	241	14,445	226	14,219
Per cent change	+5.3	+5.0	+20.0	-11.1	-58.4	+4.5	-69.9	+8.8
1976 Jan-Aug	9,092	8,804	288	5	163	9,104	180	8,924
1977 Jan-Aug p	9,819	9,635	184	5	95	9,798	61	9,737
Per cent change	+8.0	+9.4	-36.1	+4.1	-41.7	+7.6	-66.1	+9.1
1976 Jun*	897	868	29	—	9	896	11	885
Jul	596	571	25	—	9	605	6	599
Aug	597	560	37	1	10	604	6	598
Total	2,090	1,999	91	1	28	2,105	23	2,082
1977 Jun*	1,069	1,036	33	1	6	1,064	7	1,057
Jul	700	674	26	—	5	693	2	691
Aug p	723	701	22	—	5	718	3	715
Total	2,492	2,411	81	1	16	2,475	12	2,463
Per cent change	+19.2	+20.6	-11.0	—	-42.9	+17.6	-47.8	+18.3

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
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
1976	13,997	662	438	5,182	6,194	1,521
Per cent change	+6.8	-22.8	+18.1	+11.6	+5.1	+12.9
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	1,828	394
1976 1st quarter	4,765	240	108	1,443	2,403	571
2nd quarter	2,865	160	112	1,221	1,055	317
3rd quarter	2,149	129	99	1,066	686	169
4th quarter	4,218	133	119	1,452	2,050	464
1977 1st quarter p	4,633	118	128	1,414	2,412	561
Per cent change	-2.8	-50.8	+18.5	-2.0	+0.4	-1.8

1. Public supply and transport power stations. 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												
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	237.30
1976	108.76	76.59	16.78	2.51	11.22	1.61	254.92	32.42	217.50	19.16	235.76	239.47
Per cent change	-0.2	+4.4	-20.6	-25.4	+20.8	-2.0	+1.5	+22.2	-1.0	+6.3	+1.1	+0.9
1976 Jan-Jul	63.08	44.17	9.99	1.69	6.10	1.11	147.71	17.65	126.85	10.93	136.78	138.91
1977 Jan-Jul p	65.59	46.63	9.84	0.78	7.40	0.91	154.03	21.18	129.88	11.47	142.56	144.45
Per cent change	+4.0	+5.6	-1.5	-53.8	+21.3	-18.0	+4.3	+20.0	+2.4	+4.9	+4.2	+4.0
1976 May	7.60	5.34	1.22	0.17	0.77	0.10	17.86	2.25	15.30	1.34	16.52	16.80
Jun*	8.30	6.06	1.07	0.18	0.87	0.12	19.42	2.55	16.52	1.50	17.92	18.17
Jul	6.38	4.58	0.87	0.13	0.74	0.06	14.81	2.12	12.44	1.23	13.58	13.78
Total	22.28	15.98	3.16	0.48	2.38	0.28	52.09	6.92	44.26	4.07	48.02	48.75
1977 May	7.94	5.70	1.10	0.08	0.91	0.14	18.68	2.59	15.71	1.37	17.31	17.53
Jun*	8.79	6.16	1.33	0.16	1.05	0.08	20.64	3.01	17.29	1.63	19.01	19.30
Jul p	6.55	4.60	0.97	0.16	0.77	0.04	15.38	2.23	12.97	1.23	14.15	14.40
Total	23.28	16.46	3.40	0.40	2.73	0.26	54.70	7.83	45.97	4.23	50.47	51.23
Per cent change	+4.5	+3.0	+7.6	-16.7	+14.7	-7.1	+5.0	+13.2	+3.9	+3.9	+5.1	+5.1
England and Wales												
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	15.89	202.96	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	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.94	206.18	207.62
Per cent change	-0.4	+5.1	-22.9	-25.4	+17.2	-11.4	+1.3	+18.2	-0.6	+4.0	+1.1	+0.6
1976 Jan-Jul	54.64	39.09	8.33	1.69	5.47	0.05	128.59	15.72	112.46	9.14	119.45	120.32
1977 Jan-Jul p	56.78	41.65	8.13	0.78	6.12	0.06	133.75	17.52	115.68	9.50	124.25	125.35
Per cent change	+3.9	+6.5	-2.4	-53.8	+11.9	+20.0	+4.0	+11.5	+2.9	+3.9	+4.0	+4.2
1976 May	6.58	4.69	1.03	0.17	0.69	—	15.58	2.02	13.53	1.14	14.44	14.56
Jun*	7.20	5.42	0.87	0.18	0.73	—	16.91	2.13	14.74	1.25	15.66	15.73
Jul	5.63	4.15	0.71	0.13	0.64	—	13.09	1.85	11.21	1.00	12.09	12.16
Total	19.41	14.26	2.61	0.48	2.06	—	45.58	6.00	39.48	3.39	42.19	42.45
1977 May	6.89	5.17	0.92	0.08	0.71	0.01	16.30	2.01	14.22	1.15	15.15	15.25
Jun*	7.66	5.57	1.13	0.16	0.79	—	17.99	2.28	15.65	1.31	16.68	16.85
Jul p	5.78	4.20	0.81	0.16	0.60	—	13.56	1.75	11.80	0.99	12.57	12.74
Total	20.33	14.94	2.86	0.40	2.10	0.01	47.85	6.04	41.67	3.45	44.40	44.84
Per cent change	+4.7	+4.8	+9.6	-16.7	+1.9	(+)	+5.0	+0.7	+5.5	+1.8	+5.2	+5.6

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
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	217,924	11,164	70,854	89,214	46,692
1976	220,841	12,607	74,986	85,117	48,131
Per cent change	+1.3	+12.9	+5.8	-4.6	+3.1
1975 1st quarter	66,040	3,103	18,601	30,511	13,825
2nd quarter	50,344	2,732	17,196	19,940	10,476
3rd quarter	42,042	2,407	16,219	14,218	9,198
4th quarter	59,498	2,922	18,838	24,545	13,193
1976 1st quarter	66,235	3,208	19,559	29,089	14,379
2nd quarter	48,537	3,071	17,910	17,148	10,408
3rd quarter	43,112	2,875	17,314	13,584	9,339
4th quarter	62,957	3,453	20,203	25,296	14,005
1977 1st quarter p	67,165	3,268	20,445	28,488	14,964
Per cent change	+1.4	+1.9	+4.5	-2.1	+4.1

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						
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	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,422	15,726	-5,304	3,569
Per cent change	(+)	+6.6	(+)	-4.1	-45.7	-1.0	(+)	-16.4	+15.1	(+)	+3.2
1976 Jan-Jul	4,442	55,959	4,258	+51,019	682	52,525	1,506	6,911	8,496	-1,585	2,051
1977 Jan-Jul p	20,623	55,043	20,390	+34,382	271	43,125	8,743	6,909	8,376	-1,467	1,741
Per cent change	(+)	-1.6	(+)	-32.6	(-)	-17.9	(+)	-0.2	-1.4	-7.4	-15.1
1976 May	767	8,494	769	+7,619	106	7,890	271	992	1,269	-277	298
Jun	944	7,767	921	+6,808	38	6,999	191	820	1,225	-405	271
Jul	755	7,758	713	+7,009	36	7,349	340	815	1,446	-631	308
Total	2,466	24,019	2,403	+21,436	180	22,238	802	2,627	3,940	-1,313	877
1977 May	3,495	8,786	3,751	+4,973	62	6,725	1,752	1,123	1,254	-131	266
Jun	3,337	7,700	3,445	+4,186	69	5,974	1,788	922	1,136	-214	226
Jul p	3,208	7,346	3,146	+4,138	62	5,421	1,283	862	1,261	-399	244
Total	10,040	23,832	10,342	+13,297	193	18,120	4,823	2,907	3,651	-744	736
Per cent change	(+)	-0.8	(+)	-38.0	+7.8	-18.5	(+)	+10.7	-7.3	-43.3	-16.1

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 prod- ucts 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				
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	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
1976 Jan-Jul	56,020	3,679	658	51,683	908	94	2,529	8,624	2,357	1,398	14,264	18,335	773	1,173
1977 Jan-Jul p	55,009	3,558	667	50,784	872	81	2,617	8,514	2,390	1,364	13,879	18,211	793	1,081
Per cent change	-1.8	-3.3	+1.3	-1.7	-4.0	-14.2	+3.5	-1.3	+1.4	-2.5	-2.7	-0.7	+9.7	-7.8
1976 May	8,051	503	118	7,430	119	10	311	1,272	341	139	2,082	2,677	87	196
Jun	7,953	505	111	7,337	106	12	405	1,294	365	146	1,923	2,607	99	180
Jul	7,447	507	104	6,836	109	15	219	1,312	377	95	1,877	2,381	108	180
Total	23,451	1,515	333	21,603	334	37	935	3,878	1,083	380	5,882	7,665	294	556
1977 May	7,766	518	98	7,150	110	10	366	1,231	380	164	2,003	2,478	106	169
Jun	7,501	500	113	6,888	103	7	403	1,186	417	122	1,922	2,294	129	183
Jul p	7,141	524	76	6,541	128	13	333	1,289	451	103	1,738	2,083	121	173
Total	22,408	1,542	287	20,579	341	30	1,102	3,706	1,248	389	5,663	6,855	356	525
Per cent change	-4.4	+1.7	-13.4	-4.7	+2.0	-17.5	+17.7	-4.4	+15.1	+2.7	-3.7	-10.6	+21.0	-5.6

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		Derv fuel	Other			
							Domestic	Other ⁶					
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	80,291	1 330	5,404	16,879	3,989	576	1,686	372	5,594	12,984	27,825	1,011	1,867
Per cent change	-1.7	+4.3	+5.6	+4.7	+4.0	+7.1	-1.3	-7.2	+3.3	-0.5	-8.7	+1.9	-10.6
1976 Jan-Jul	47,120	770	3,114	9,642	2,302	325	1,007	221	3,238	7,695	16,610	578	1,153
1977 Jan-Jul p	47,501	789	3,141	9,712	2,387	340	1,002	225	3,275	8,183	16,220	607	1,060
Per cent change	+0.8	+2.5	+0.9	+0.7	+3.7	+4.6	-0.5	+1.8	+1.2	+6.3	-2.3	+4.9	-8.0
1976 May	6,017	102	397	1,363	350	17	95	26	445	870	2,051	82	169
Jun	5,819	99	367	1,476	362	9	90	24	476	729	1,856	86	190
Jul	5,715	88	439	1,534	399	9	81	24	465	657	1,678	93	174
Total	17,551	289	1,203	4,373	1,111	35	266	74	1,386	2,256	5,585	261	533
1977 May	6,565	107	467	1,417	399	27	107	29	483	1,025	2,161	95	177
Jun	5,974	94	426	1,458	394	11	72	23	462	749	1,965	89	175
Jul p	5,528	85	433	1,493	423	7	60	19	454	643	1,604	82	162
Total	18,067	286	1,326	4,368	1,216	45	239	71	1,399	2,417	5,730	266	514
Per cent change	+2.9	-1.6	+10.3	-0.1	+9.4	+28.9	-10.1	-2.7	+0.9	+7.1	+2.6	+2.1	-3.7

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
1976	71,473	10,441	366	3,128	17,487	28,599	3,269	8,183
Per cent change	-2.6	-21.8	-47.3	-5.5	+1.4	+3.7	-0.0	+3.1
1976 Jan-Jun	37,027	5,566	231	1,612	9,373	13,822	1,803	4,620
1977 Jan-Jun p	37,444	5,358	150	1,551	9,574	14,092	1,831	4,888
Per cent change	+1.1	-3.8	-34.9	-3.8	+2.1	+2.0	+1.6	+5.8
1976 Apr	6,273	920	51	276	1,526	2,431	290	779
May	5,330	743	17	239	1,291	2,331	172	537
Jun	5,135	656	17	234	1,177	2,497	151	403
Total	16,738	2,319	85	749	3,994	7,259	613	1,719
1977 Apr	6,132	777	19	232	1,577	2,347	329	851
May	5,766	774	18	243	1,395	2,475	201	660
Jun p	5,241	793	16	220	1,160	2,484	131	437
Total	17,139	2,344	53	695	4,132	7,306	661	1,948
Per cent change	+2.4	+1.1	-38.7	-7.1	+3.5	+0.7	+7.7	+13.2

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
1976 Jun	20.8	105	0.89
Jul	21.1	101	0.99
Aug	22.0	96	1.00
1977 Jun	20.2	100	0.83
Jul	20.6	96	0.87
Aug p	20.8	89	0.94

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

From \ To	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

Prices of fuels used by Industry in Great Britain¹

	Delivered to large industrial consumers ²					Realised in new and renewed medium size contracts ³	
	Coal	Heavy Fuel Oil	Gas Oil	Gas	Electricity	Heavy Fuel Oil	Gas Oil
	£ per ton			Pence per therm	Pence per KWh	£ per ton	
1974 4th quarter	11.8	33.4	51.6	3.44	1.095	40.7	58.2
1975 1st quarter	13.3	38.8	55.0	3.65	1.179	41.1	59.4
2nd quarter	15.1	38.2	54.2	4.15	1.178	40.6	55.5
3rd quarter	14.9	37.5	50.7	4.43	1.249	39.4	54.0
4th quarter	15.6	38.7	53.9	4.84	1.354	46.4	70.3
1976 1st quarter	17.4	42.1	64.0	5.73	1.453	45.3	70.8
2nd quarter	17.8	41.5	62.0	5.72	1.447	44.2	69.5
3rd quarter	18.0	43.1	61.7	6.74	1.461	45.1	70.6
4th quarter	19.4	47.9	68.2	7.58	1.592	55.2	82.1
1977 1st Quarter p	20.3	54.2	77.3	8.58	1.714	56.1	83.2
2nd Quarter p	21.5	56.9	80.7	9.11	1.656	60.0	88.6

1. Prices for oil products include hydrocarbon oil duty.

2. Derived from data relating to purchases received; the data can include business under contracts made in earlier times. Prices vary widely around the average values shown above.

3. Derived from prices reported by the ten main oil marketing companies and relate to average net prices realised on medium sized new contracts or contracts which are renewed at a changed price. The coverage may extend beyond manufacturing industry and may include for example larger commercial users.