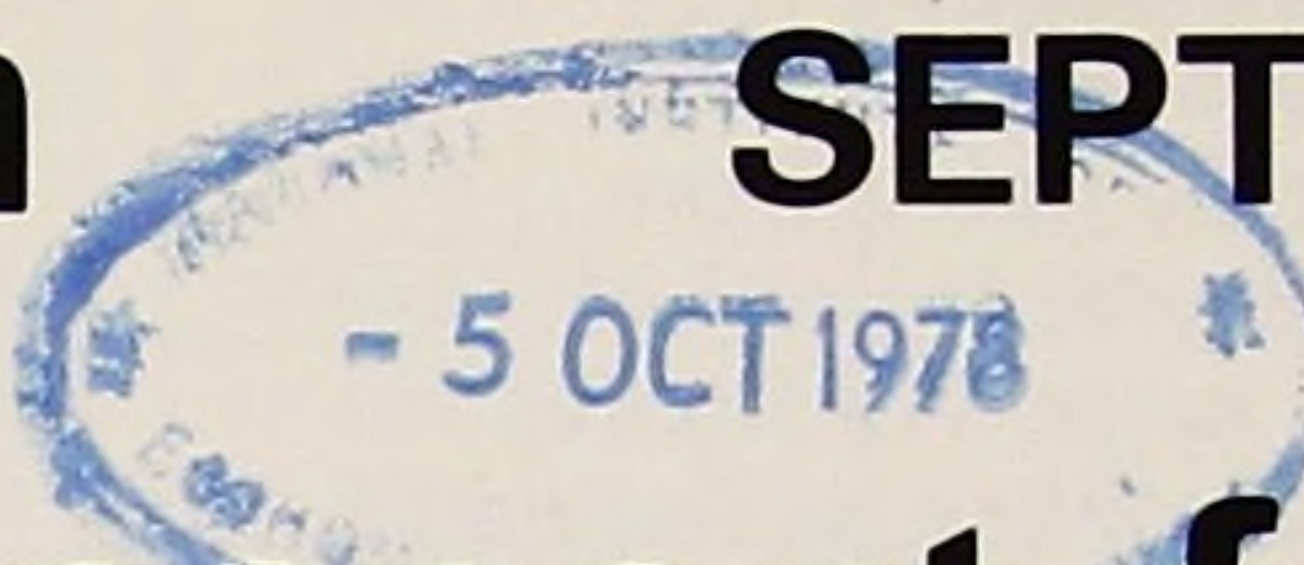


ENERGY TRENDS

A Statistical Bulletin

SEPTEMBER 1978



Sharp rise in transport fuels

Total energy

Recent slackening in natural gas growth

Total inland energy consumption on a primary fuel input basis during the three month period May to July was 72.8 million tonnes coal equivalent, the same as in the corresponding period of last year. Within this total, petroleum rose by 4.4 per cent but all other primary fuels were below last year's level with coal and natural gas lower by 2.8 and 2.4 per cent respectively.

After correction for temperature differences, the seasonally adjusted series indicates that total consumption in the period was running 0.6 per cent higher than a year previously, with natural gas showing only a marginal fall on last year's level.

Coal

Early retirement leads manpower decline

Deep-mined coal production during the three month period June to August was 22.1 million tonnes, marginally higher than in the corresponding period of 1977. Although opencast output fell away sharply in August the total for the three months was still 2.6 per cent higher than last year and brought total coal production to one per cent above last year's level.

Total inland coal consumption during the period was 3.1 per cent lower than a year ago. Power station use increased by 2.4 per cent but use at coke ovens and disposals to other industry were down by 18.1 and 15 per cent respectively. There was a rise of 5.7 per cent in colliery disposals of anthracite and dry steam coal for the domestic market although this was not matched by house coal disposals which fell away by six per cent. Total coal stocks fell by 0.3 million tonnes in August wholly as a result of the normal seasonal decline in coke oven stocks.

The total number of wage earners on colliery books fell by 3,400 men in August. Wastage of over 5,000 included more than 3,000 men leaving under the National Coal Board's early retirement scheme.

Gas

Reduced supplies to power stations

Total gas sent out in the three month period June to August was 2,410 million therms, 2.6 per cent less than during the comparable period of last year. Although there were marked fluctuations in the temperature differences these are thought to have played only a small part in the recent decline in growth. A more substantial cause was the much lower use of natural gas for electricity generation. After allowing for these factors other demand appears to be close to, or slightly above last year's level.

Electricity

Increased use of coal and oil

Total electricity supplied in the UK was 2.3 per cent higher in the three month period May to July than in the corresponding period of 1977, nearly all of the increase occurring in the most recent month which was markedly colder than a year ago.

Fuel used for generation increased in total by 1.4 per cent with oil use rising to almost a fifth above last year's low level. Coal consumption increased by nearly a quarter of a million tonnes, a rise of 1.4 per cent, with most of the increased burn taking place in July.

Petroleum

Motor spirit deliveries up 10 per cent

During the three month period May to July, gross indigenous production of crude oil totalled 13.7 million tonnes compared with 10 million tonnes in the corresponding period a year ago, an increase of over a third. Net arrivals of overseas crude oil fell by over 30 per cent.

Inland deliveries of petroleum products during this period totalled 19 million tonnes, 5.5 per cent higher than in the comparable months of 1977. With the exception of naphtha, deliveries of which fell by nearly 15 per cent, all major products shared in the increase. Transport fuels were in greatest demand with increases of 10.3, 5.6 and 5.1 per cent respectively for motor spirit, aviation turbine fuel and derv fuel. Fuel oil deliveries were 3.7 per cent above last year's level, a slightly greater rise than the increase in the year to date. Most of the higher deliveries of fuel oil this year are attributable to a greater use at power stations; demand by manufacturing industry in general is slightly lower than last year.

Supplementary data

Industrial fuel prices

The average price of coal delivered to large industrial consumers rose by about 4.5 per cent between the first and second quarters of 1978 following the increase in list prices in March but heavy fuel oil and gas oil prices fell by around two per cent, influenced by variations in exchange rates and the lack of growth in industrial demand. Prices realised from new and renewed contracts for these oils followed a similar trend.

The average price paid for gas by large industrial users continued to rise, but the indicator of prices realised on new or renewed contracts showed a slight decline between the first and second quarters. As in previous years, prices paid by large industrial consumers for electricity exhibited a decline between the first and second quarters. This is believed to be a seasonal effect caused by the changing mix of consumption levels and maximum demand tariffs.

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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 difference, 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 ³ gas	Nuclear electricity	Hydro-electricity
<i>Million tonnes of coal or coal equivalent</i>						
1974	337.5	117.9	152.5	52.9	12.1	2.1
1975	324.8	120.0	136.5	55.4	10.9	2.0
1976	329.8	122.0	134.2	58.8	12.9	1.9
1977	338.4	122.7	136.6	62.8	14.3	2.0
Per cent change	+2.6	+0.6	+1.7	+6.8	+11.0	+7.2
1977 Jan–Jul	198.4	73.9	78.1	37.0	8.3	1.1
1978 Jan–Jul p	198.9	70.2	80.6	38.8	8.2	1.1
Per cent change	+0.3	–5.1	+3.3	+5.0	–1.4	+3.3
1977 May	24.9	9.5	9.9	4.3	1.0	0.2
Jun*	27.7	10.2	11.7	4.5	1.2	0.1
Jul	20.2	8.0	8.3	2.9	0.9	0.1
Total	72.8	27.7	29.9	11.7	3.1	0.4
1978 May	24.6	9.2	10.3	4.2	0.8	0.1
Jun *	27.1	9.8	11.9	4.2	1.1	0.1
July p	21.1	8.0	9.0	3.1	0.9	0.1
Total	72.8	27.0	31.2	11.5	2.8	0.3
Per cent change	–	–2.8	+4.4	–2.4	–7.4	–11.5
<i>Seasonally adjusted and temperature corrected⁴ (annual rates)</i>						
1977 Jan–Jul	338.4	124.9	135.5	61.9	14.2	1.9
1978 Jan–Jul p	337.1	117.9	139.5	63.7	14.0	2.0
Per cent change	–0.4	–5.6	+3.0	+3.0	–1.3	+2.2
1977 May	345.3	125.2	140.2	62.4	14.5	3.0
Jun*	336.1	118.7	138.2	62.1	15.2	1.9
Jul	335.5	123.7	132.9	62.9	14.4	1.6
Average	338.7	122.2	137.1	62.4	14.8	2.2
1978 May	345.9	120.3	149.5	61.6	12.2	2.3
Jun*	337.3	117.8	141.0	62.2	14.4	1.9
Jul p	339.4	117.6	142.4	62.8	14.7	1.9
Average	340.6	118.5	144.1	62.2	13.8	2.0
Per cent change	+0.6	–3.0	+5.0	–0.4	–6.4	–7.3

Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro-electricity
<i>Million tonnes of oil or oil equivalent</i>					
198.6	69.3	89.7	31.2	7.1	1.3
191.1	70.6	80.3	32.6	6.4	1.2
194.0	71.8	78.9	34.6	7.6	1.1
199.0	72.2	80.3	36.9	8.4	1.2
+2.6	+0.6	+1.7	+6.8	+11.0	+7.2
116.7	43.5	45.9	21.7	4.9	0.7
117.0	41.3	47.4	22.8	4.8	0.7
+0.3	–5.1	+3.3	+5.0	–1.4	+3.3
14.6	5.6	5.8	2.5	0.6	0.1
16.4	6.0	6.9	2.7	0.7	0.1
11.8	4.8	4.8	1.7	0.5	–
42.8	16.4	17.5	6.9	1.8	0.2
14.5	5.4	6.0	2.5	0.5	0.1
15.9	5.8	7.0	2.4	0.6	0.1
12.4	4.7	5.4	1.8	0.5	–
42.8	15.9	18.4	6.7	1.6	0.2
–	–2.8	+4.4	–2.4	–7.4	–11.5

199.1	73.5	79.7	36.4	8.4	1.1
198.3	69.3	82.0	37.5	8.3	1.2
–0.4	–5.6	+3.0	+3.0	–1.3	+2.2
203.2	73.7	82.5	36.7	8.5	1.8
197.7	69.8	81.3	36.5	9.0	1.1
197.2	72.7	78.1	37.0	8.5	0.9
199.3	71.9	80.7	36.7	8.7	1.3
203.4	70.7	88.0	36.2	7.1	1.4
198.4	69.3	83.0	36.6	8.4	1.1
199.7	69.2	83.7	37.0	8.7	1.1
200.3	69.7	84.7	36.6	8.1	1.2
+6.0	–3.0	+5.0	–0.4	–6.4	–7.3

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. Coal, petroleum and natural gas are temperature corrected.

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

Million tonnes
coal equivalent

Million tonnes
oil equivalent

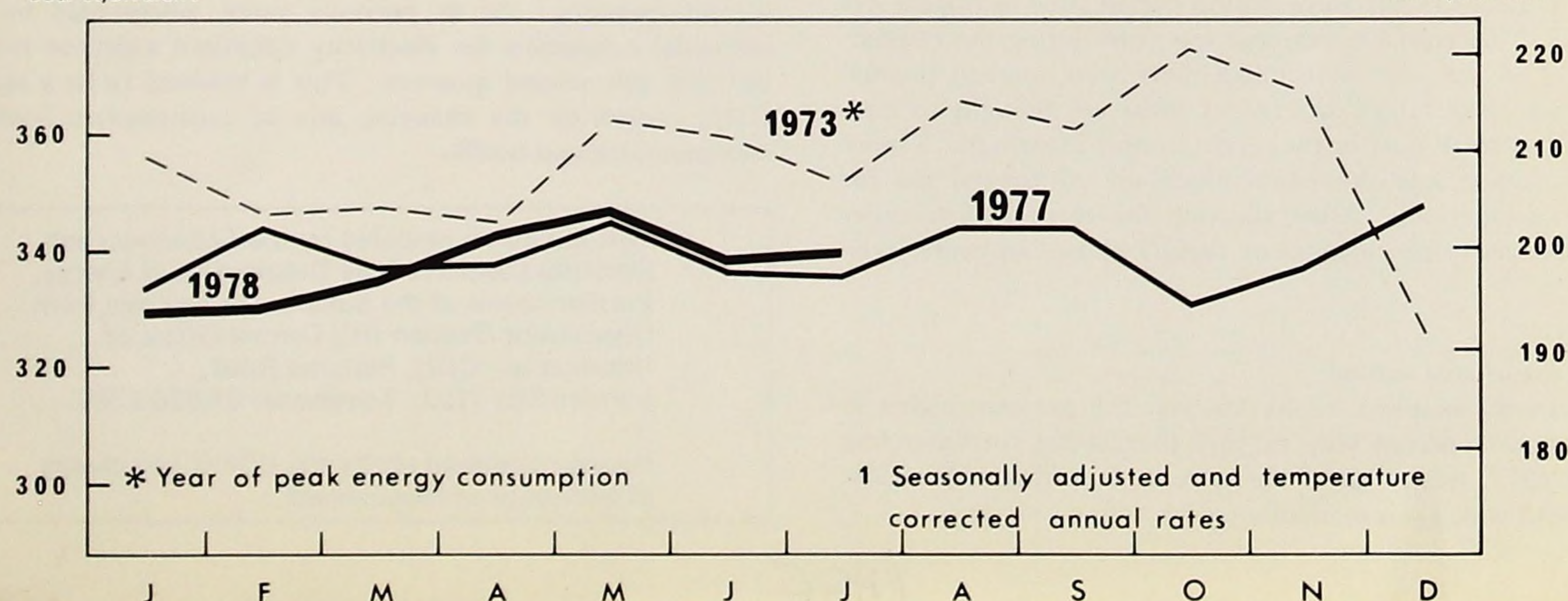


TABLE 2. Supply and use of fuels

Million therms

	1976	1977	Per cent change	1976				1977				1978 p	Per ¹ cent change
				1st quarter	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	30,166	29,682	−1.6	8,006	7,635	6,378	8,147	7,604	7,514	6,405	8,159	7,536	−0.9
Petroleum ²	5,206	16,350	(+)	574	1,020	1,335	2,277	3,305	4,214	4,337	4,494	4,839	+46.4
Natural gas ³	14,379	15,024	+4.5	4,727	2,962	2,173	4,517	4,916	3,459	2,497	4,152	4,909	−0.1
Primary electricity	3,411	3,761	+10.3	926	786	770	929	1,070	877	852	962	11,044	+6.9
Total	53,162	64,817	+21.9	14,233	12,403	10,656	15,870	16,895	16,064	14,091	17,767	18,428	+9.1
Arrivals. Petroleum ⁴	43,174	35,730	−17.2	10,992	10,949	10,160	11,073	9,615	9,116	8,253	8,746	8,892	−7.5
Other	1,183	1,366	+15.5	351	336	270	226	195	199	371	601	641	(+)
Shipments	9,176	13,841	+50.8	1,745	2,068	2,507	2,856	2,973	3,651	3,886	3,331	3,408	+14.6
Bunkers	1,468	1,168	−20.4	371	346	381	370	316	309	292	251	246	−22.2
Stock change ⁵													
Solid fuels	−634	+238	..	+312	−820	−388	+262	+1,252	−385	−194	−435	+477	..
Crude Petroleum	−378	+555	..	+354	−196	−25	−511	+375	−352	+253	+279	+92	..
Petroleum products	+240	+424	..	+648	−431	−367	+390	+564	−225	−309	+394	+185	..
Non-energy use	4,448	4,373	−1.7	1,138	1,111	1,159	1,040	1,123	1,110	1,109	1,031	1,016	−9.5
Statistical difference ⁶	+54	−68	..	+58	−23	−2	+21	−337	+319	−10	−40	+119	..
Total primary ⁷ energy input	81,709	83,680	+2.4	23,694	18,693	16,257	23,065	24,147	19,666	17,168	22,699	24,164	+0.1
Conversion losses etc. ⁸	24,382	25,148	+3.2	6,913	5,597	4,905	6,967	7,274	5,854	5,263	6,757	7,014	−3.6
FINAL CONSUMPTION BY USER													
Iron and steel industry													
Coal	66	66	—	23	14	9	20	23	15	10	18	16	−30.4
Other solid fuel ⁹	2,723	2,394	−12.1	631	719	670	703	663	593	600	538	553	−16.6
Other coal-derived fuels ^{1 0}	401	362	−9.7	98	109	97	97	94	89	95	84	81	−13.8
Gas ^{1 1}	438	485	+10.7	108	112	99	119	128	125	113	119	118	−7.8
Electricity	395	389	−1.5	100	96	90	109	104	96	92	97	97	−6.7
Petroleum	1,279	1,205	−5.8	354	306	273	346	352	286	256	311	334	−5.1
Total	5,302	4,901	−7.6	1,314	1,356	1,238	1,394	1,364	1,204	1,166	1,167	1,199	−12.1
Other industries													
Coal	2,277	2,295	+0.8	547	564	470	696	618	530	483	664	623	+0.8
Other solid fuel ⁹	126	156	+23.8	38	24	27	37	38	38	35	45	51	+34.2
Other coal-derived fuels ^{1 0}	76	74	−2.6	13	23	25	15	19	23	19	13	17	−10.5
Gas ^{1 1}	5,241	5,458	+4.1	1,456	1,236	1,083	1,466	1,431	1,373	1,171	1,483	1,536	+7.3
Electricity	2,364	2,411	+2.0	617	563	546	638	645	599	559	608	658	+2.0
Petroleum	7,441	7,520	+1.1	2,555	1,696	1,400	2,090	2,245	1,774	1,428	2,073	2,148	−4.3
Total	17,525	17,914	+2.2	4,926	4,106	3,551	4,942	4,996	4,337	3,695	4,886	5,033	+0.7
Transport sector													
Coal and other solid fuel	21	20	−4.8	7	4	2	8	6	4	3	7	6	—
Electricity	98	100	+2.0	26	24	22	26	26	26	23	25	27	+3.9
Petroleum	12,597	12,931	+2.7	2,889	3,198	3,333	3,177	2,988	3,218	3,420	3,305	3,048	+2.0
Total	12,716	13,051	+2.6	2,922	3,226	3,357	3,211	3,020	3,248	3,446	3,337	3,081	+2.0
Domestic sector													
Coal	3,140	3,230	+2.9	931	764	634	811	850	773	703	904	761	−10.5
Other solid fuel ⁹	869	843	−3.0	277	196	208	188	227	204	223	189	197	−13.2
Gas ^{1 1}	6,194	6,590	+6.0	2,403	1,055	686	2,050	2,413	1,371	771	2,035	2,808	+16.4
Electricity	2,905	2,932	+0.9	993	585	464	863	972	638	511	811	967	−0.5
Petroleum	1,435	1,450	+1.1	519	268	176	472	518	295	205	432	520	+0.4
Total	14,543	15,045	+3.5	5,123	2,868	2,168	4,384	4,980	3,281	2,413	4,371	5,253	+5.5
Other final users ^{1 2}													
Coal	516	544	+5.4	172	113	73	158	166	118	83	177	167	+0.6
Other solid fuel ⁹	166	166	—	51	44	37	34	50	36	45	35	43	−14.0
Gas ^{1 1}	1,521	1,587	+4.3	571	317	169	464	561	380	180	466	643	+14.6
Electricity	1,597	1,689	+5.8	479	345	308	465	495	386	346	462	519	+4.8
Petroleum	3,441	3,635	+5.6	1,223	721	451	1,046	1,241	822	531	1,041	1,212	−2.3
Total	7,247	7,621	+5.2	2,496	1,540	1,038	2,167	2,513	1,742	1,185	2,181	2,584	+2.8
Total final users	57,327	58,532	+2.1	16,781	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,150	+1.6
FINAL CONSUMPTION BY FUEL													
Coal	6,019	6,154	+2.2	1,680	1,459	1,188	1,692	1,663	1,440	1,282	1,769	1,573	−5.4
Other solid fuel ⁹	3,885	3,560	−8.4	997	983	942	963	978	871	903	808	844	−13.7
Other coal-derived fuels ^{1 0}	477	436	−8.6	111	132	122	112	113	112	114	97	98	−13.3
Gas ^{1 1}	13,394	14,120	+5.4	4,538	2,720	2,037	4,099	4,533	3,249	2,235	4,103	5,105	+12.6
Electricity	7,359	7,521	+2.2	2,215	1,613	1,430	2,101	2,242	1,745	1,531	2,003	2,268	+1.2
Petroleum	26,193	26,741	+2.1	7,240	6,189	5,633	7,131	7,344	6,395	5,840	7,102	7,262	−1.1
Total all fuels	57,327	58,532	+2.1	16,781	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,150	+1.6

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 1978 Tables 9 and 13. 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 tonnes

	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
1974	112,132	110,451	99,992	9,231	+1,681	3,546	1,865	10,518	16,253
1975	131,583	128,682	117,411	10,414	+2,901	5,083	2,182	12,300	352
1976	125,201	123,800	110,264	11,944	+1,401	2,837	1,436	12,345	1,157
1977	122,623	122,150	107,123	13,551	+473	2,414	1,941	12,457	814
Per cent change	-2.1	-1.3	-2.8	+13.5	-66.2	-14.9	+35.2	+0.9	-29.6
1977 Jan-Aug	77,770	77,665	68,464	8,321	+105	1,452	1,347	10,794	512
1978 Jan-Aug p	78,186	77,754	67,632	8,920	+432	1,735	1,303	11,189	1,079
Per cent change	+0.5	+0.1	-1.2	+7.2		+19.5	-3.3	+3.7	(+)
1977 Jun*	10,576	10,591	9,052	1,409	-15	167	182	2,297	92
Jul	8,892	8,796	7,427	1,169	+96	294	198	1,593	53
Aug	6,797	6,654	5,469	1,005	+143	275	132	3,310	26
Total	26,265	26,041	21,948	3,583	+224	736	512	7,200	171
1978 Jun*	10,796	10,838	9,177	1,511	-42	116	158	2,008	133
Jul	9,178	8,999	7,558	1,231	+179	347	168	1,498	120
Aug p	6,505	6,460	5,334	934	+45	206	161	3,497	58
Total	26,479	26,297	22,069	3,676	+182	669	487	7,003	311
Per cent change	+0.8	+1.0	+0.6	+2.6	-18.8	-9.1	-4.9	-2.7	+81.9

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 only.

TABLE 4. Inland consumption of coal

Thousand tonnes

	Total inland consumption	Fuel producers					Final users ¹			
		Primary	Secondary				Colliery disposals			
						Other ³ conversion industries		Domestic ⁵		
		Collieries	Power stations ²	Coke ovens	Gas works		Industry ⁴	House coal ⁶	Other ⁷	Other ⁸
1974	117,887	1,256	67,025	18,461	107	3,788	11,077	11,981	1,687	2,505
1975	122,216	1,238	74,569	19,085	10	4,063	9,685	9,915	1,703	1,948
1976	123,603	1,132	77,818	19,401	8	3,405	8,970	9,450	1,374	2,045
1977	123,978	1,124	79,956	17,406	7	3,166	9,033	9,635	1,502	2,149
Per cent change	+0.3	-0.7	+2.7	-10.3	-12.5	-7.0	+0.7	+2.0	+9.3	+5.1
1977 Jan-Aug	81,173	737	52,629	11,942	5	1,983	5,632	6,059	895	1,291
Jan-Aug p	77,029	701	51,707	9,639	4	1,986	5,286	5,453	929	1,324
Per cent change	-5.1	-4.9	-1.8	-19.3	-20.0	+0.2	-6.1	-10.0	+3.8	+2.6
1977 Jun*	10,198	108	6,333	1,692	-	296	714	790	121	144
Jul	8,053	78	4,892	1,360	-	233	614	667	129	80
Aug	7,263	49	4,535	1,326	-	230	480	471	83	89
Total	25,514	235	15,760	4,378	-	759	1,808	1,928	333	313
1978 Jun*	9,822	98	6,276	1,446	-	300	674	755	143	130
Jul	8,035	78	5,156	1,159	-	235	530	629	139	109
Aug p	6,872	48	4,703	982	-	224	333	428	70	84
Total	24,729	224	16,135	3,587	-	759	1,537	1,812	352	323
Per cent change	-3.1	-4.7	+2.4	-18.1	-	-	-15.0	-6.0	+5.7	+3.2

1. Disposals by collieries and opencast sites. 2. Public supply and railway and transport power stations. 3. Low temperature carbonisation and patent fuel plants. 4. Prior to October 1973 the figures related 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 and commerce.

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

Thousand tonnes

	Total	Distributed					Undistributed		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1972	30,459	19,350	17,060	1,920	51	319	11,109	7,679	3,430
1973	27,885	17,035	14,770	1,968	27	270	10,850	7,650	3,200
1974	21,806	15,827	13,629	1,851	3	344	5,979	4,009	1,970
1975	31,157	20,540	17,951	2,333	2	254	10,617	8,908	1,709
1976	33,115	22,457	19,598	2,684	2	173	10,658	9,295	1,363
1977	31,534	21,704	19,128	2,368	2	206	9,830	8,290	1,540
1977 Jun	29,210	19,783	17,340	2,262	2	179	9,427	8,005	1,422
Jul	29,882	20,772	18,334	2,258	1	179	9,110	7,600	1,510
Aug	29,604	20,701	18,541	2,005	1	154	8,903	7,343	1,560
1978 Jun	31,909	20,890	18,988	1,711	2	189	11,019	9,142	1,877
Jul	32,922	21,868	19,785	1,888	1	194	11,054	9,084	1,970
Aug p	32,645	21,563	19,794	1,598	1	170	11,082	9,015	2,067
Absolute change: in latest month	-277	-305	+9	-290	-	-24	+28	-69	+97
On a year ago	+3,041	+862	+1,253	-407	-	+16	+2,179	+1,672	+507

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								
1972	266	210	13,255	26,114	16.6	3.9	12.7	2.21	7.33
1973	245	193	17,402	37,961	18.0	4.1	13.9	2.29	7.62
1974	246	194	26,436	25,133	16.3	4.1	12.2	2.18	7.56
1975	245	194	21,347	22,451	16.2	4.0	12.2	2.28	7.92
1976	241	192	17,061	21,239	17.4	3.7	13.7	2.23	7.75
1977	239	189	29,361	31,647	17.6	3.9	13.7	2.18	7.77
1977 Jan—Aug	242 ⁽⁴⁾	193 ⁽⁴⁾	20,025	22,938	17.5	3.7	13.8	2.20	7.86
1978 Jan—Aug p	239 ⁽⁴⁾	189 ⁽⁴⁾	14,770	18,830	17.2	4.1	13.1	2.24	8.52
Per cent change	—1.2	—2.1	—26.2	—17.9	—	—	—	+1.8	+8.4
1977 Jun*	244	194	2,821	3,002	16.0	3.1	12.9	2.12	7.80
Jul	244	194	2,140	1,899	16.7	3.4	13.3	2.05	7.42
Aug	238	188	2,409	8,243	15.5	3.1	12.4	1.95	7.58
1978 Jun*	239	190	1,745	2,277	16.1	3.6	12.5	2.17	8.54
Jul	238	189	1,274	2,268	15.9	3.7	12.2	2.12	8.20
Aug p	235	186	1,633	5,033	15.1	3.3	11.8	1.99	8.27

1. At end of period. 2. The definition was changed from 1973. 3. Excluding capital working and tip coal. 4. Average number during the period.

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 ³	Total	Town gas	Natural ⁴ gas for direct supply
		Indigenous	Imported ²					
	Million therms			Thousand tonnes		Million therms		
1974	13,102	12,861	241	107	1,276	13,451	1,598	11,853
1975	13,692	13,367	325	9	588	13,822	752	13,070
1976	14,420	14,030	390	8	245	14,445	226	14,219
1977	15,373	14,734	639	7	166	15,323	75	15,248
Per cent change	+6.6	+5.0	+63.8	−5.3	−32.2	+6.1	−66.8	+7.2
1977 Jan–Aug	9,819	9,635	184	5	97	9,798	61	9,737
1978 Jan–Aug p	10,327	9,485	842	4	199	10,333	26	10,307
Per cent change	+5.2	−1.6	(+)	−22.0	(+)	+5.5	−57.4	+5.9
1977 Jun*	1,069	1,036	33	1	7	1,064	7	1,057
Jul	701	675	26	—	5	693	2	691
Aug	723	701	22	—	5	718	3	715
Total	2,493	2,412	81	1	17	2,475	12	2,463
1978 Jun*	960	870	90	—	22	964	3	961
Jul	767	713	54	—	18	758	2	756
Aug p	698	646	52	1	16	688	2	686
Total	2,425	2,229	196	1	56	2,410	7	2,403
Per cent change	−2.7	−7.6	(+)	−9.8	(+)	−2.6	−41.7	−2.4

1. Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system.
 2. Includes imports from the Norwegian sector of the Frigg gasfield. 3. Mainly naphtha (LDF), liquefied petroleum gases (LPG) and refinery gases.
 4. Includes Substitute Natural Gas (SNG).

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
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
1977	14,579	519	485	5,398	6,590	1,587
Per cent change	+4.2	–21.6	+10.7	+4.2	+6.4	+4.3
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	4,634	118	128	1,414	2,413	561
2nd quarter	3,317	82	125	1,359	1,371	380
3rd quarter	2,372	153	113	1,155	771	180
4th quarter	4,256	166	119	1,470	2,035	466
1978 1st quarter p	5,257	165	118	1,523	2,808	643
Per cent change	+13.4	+39.8	–7.8	+7.7	+16.4	+14.6

1. Public supply and transport power stations. 2. Public administration and 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 tonnes of coal or coal equivalent						TWh					
United Kingdom												
1974	112.26	67.03	28.97	3.92	10.44	1.84	250.47	29.40	215.70	18.07	232.40	236.68
1975	110.72	74.57	21.48	3.42	9.44	1.67	251.26	26.52	219.69	18.02	233.24	237.30
1976	110.51	77.82	17.05	2.55	11.40	1.64	254.92	32.42	217.50	19.16	235.76	239.47
1977	113.98	79.56	17.98	1.76	12.88	1.73	262.04	36.42	220.06	19.56	242.48	246.02
Per cent change	+3.1	+2.2	+5.5	−31.0	+13.0	+5.5	+2.8	+12.3	+1.2	+2.1	+2.9	+2.7
1977 Jan — Jul	66.64	47.40	9.97	0.80	7.51	0.93	154.03	21.18	129.88	11.47	142.56	144.51
1978 Jan — Jul p	67.55	46.75	11.82	0.64	7.35	0.93	156.76	20.58	133.30	11.15	145.61	147.83
Per cent change	+1.4	−1.4	+18.6	−20.0	−2.1	—	+1.8	−2.8	+2.6	−2.8	+2.1	+2.3
1977 May	8.07	5.79	1.12	0.09	0.93	0.14	18.69	2.59	15.71	1.38	17.31	17.53
Jun*	8.93	6.26	1.35	0.16	1.07	0.09	20.64	3.01	17.29	1.63	19.01	19.31
Jul	6.65	4.70	0.96	0.16	0.78	0.04	15.38	2.23	12.97	1.22	14.16	14.41
Total	23.65	16.75	3.43	0.41	2.78	0.27	54.71	7.83	45.97	4.23	50.48	51.25
1978 May	8.11	5.78	1.48	—	0.75	0.09	18.76	2.11	16.34	1.33	17.43	17.68
Jun*	8.92	6.29	1.51	0.02	1.02	0.07	20.77	2.88	17.61	1.53	19.24	19.51
Jul p	6.95	4.92	1.12	0.06	0.79	0.05	16.14	2.20	13.72	1.18	14.96	15.21
Total	23.98	16.99	4.11	0.08	2.56	0.21	55.67	7.19	47.67	4.04	51.63	52.40
Per cent change	+1.4	+1.4	+19.8	(—)	−7.9	−22.2	+1.8	−8.2	+3.7	−4.5	+2.3	+2.2
England and Wales												
1974	97.63	59.57	24.39	3.92	9.58	0.12	218.85	26.93	190.43	15.89	202.96	205.55
1975	96.14	65.71	18.24	3.42	8.53	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976	95.80	69.06	14.06	2.55	10.00	0.08	222.12	28.30	193.11	15.94	206.18	207.62
1977	98.34	70.59	14.93	1.76	10.88	0.11	226.99	30.71	195.10	16.26	210.73	213.19
Per cent change	+2.7	+2.2	+6.2	−31.0	+8.8	+37.5	+2.2	+8.5	+1.0	+2.0	+2.2	+2.7
1977 Jan — Jul	57.69	42.32	8.26	0.80	6.22	0.06	133.75	17.52	115.68	9.50	124.25	125.35
1978 Jan — Jul p	58.46	41.56	9.87	0.64	6.27	0.06	136.13	17.55	118.05	9.36	126.77	128.36
Per cent change	+1.3	−1.8	+19.5	−20.0	+0.8	—	+1.8	+0.2	+2.0	−1.5	+2.0	+2.4
1977 May	7.01	5.26	0.93	0.09	0.72	0.01	16.30	2.01	14.22	1.15	15.15	15.25
Jun*	7.78	5.66	1.15	0.16	0.81	—	17.99	2.28	15.65	1.31	16.68	16.85
Jul	5.87	4.27	0.82	0.16	0.61	—	13.56	1.75	11.80	1.00	12.56	12.74
Total	20.66	15.19	2.90	0.41	2.14	0.01	47.85	6.04	41.67	3.46	44.39	44.84
1978 May	7.01	5.14	1.19	—	0.66	0.01	16.29	1.85	14.36	1.13	15.16	15.33
Jun*	7.76	5.64	1.28	0.02	0.81	—	18.06	2.29	15.72	1.27	16.79	16.99
Jul p	6.19	4.53	0.98	0.06	0.60	0.01	14.31	1.68	12.58	0.97	13.34	13.42
Total	20.96	15.31	3.45	0.08	2.07	0.02	48.66	5.82	42.66	3.37	45.29	45.74
Per cent change	+1.5	+0.8	+19.0	−80.5	−3.3	(+)	+1.7	−3.6	+2.4	−2.6	+2.0	+2.0

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 in 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
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
1977	225,655	12,310 ²	76,561 ²	85,902	50,882
Per cent change	+2.2	-2.4	+2.1	+0.9	+5.7
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	67,181	3,273	20,458	28,564	14,886
2nd quarter	52,535	3,054 ²	18,993 ²	18,803	11,685
3rd quarter	46,077	2,911 ²	17,793 ²	14,938	10,435
4th quarter	59,862	3,072 ²	19,317 ²	23,597	13,876
1978 1st quarter p	67,847	3,369 ²	20,514 ²	28,380	15,584
Per cent change	+1.0	+2.9	+0.3	-0.6	+4.7

1. Mainly commerce, public administration and agriculture. 2. Contains a small degree of estimation.

Petroleum

TABLE 11. Production, arrivals and shipments¹

Thousand tonnes

	Crude Petroleum						Petroleum Products				
	Gross ² Indigenous Production	Supply				Arrivals ^{4,5}	Shipments ^{4,5}	Arrivals ⁴	Shipments ⁴	Net Arrivals	Bunkers ⁶
		Total	Indigenous ²	Net arrivals	Other ³						
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
1977	37,879	92,260	37,540	+54,038	682	70,697	16,659	12,716	13,928	-1,212	2,829
Per cent change	(+)	-6.2	(+)	-37.3	-1.4	-21.9	(+)	+22.0	-11.4	(-)	-20.7
1977 Jan-Jul	20,625	55,043	20,390	+34,382	271	43,125	8,743	6,971	8,381	-1,410	1,747
1978 Jan-Jul p	28,717	55,092	28,544	+25,992	556	39,424	13,432	7,005	6,903	+102	1,467
Per cent change	+39.2	+0.1	+40.0	-24.4	(+)	-8.6	+53.7	+0.5	17.6		-16.0
1977 May	3,495	8,786	3,751	+4,973	62	6,725	1,752	1,153	1,254	-101	271
Jun	3,337	7,700	3,445	+4,186	69	5,974	1,788	907	1,136	-229	232
Jul	3,208	7,346	3,146	+4,138	62	5,421	1,283	889	1,262	-373	233
Total	10,040	23,832	10,342	+13,297	193	18,120	4,823	2,949	3,652	-703	736
1978 May	4,626	7,759	4,568	+3,112	79	5,546	2,434	1,067	1,055	+12	232
Jun	4,494	7,401	4,298	+3,038	65	4,901	1,863	763	937	-174	239
Jul p	4,553	7,652	4,535	+3,007	110	5,481	2,474	803	1,276	-473	213
Total	13,673	22,812	13,401	+9,157	254	15,928	6,771	2,633	3,268	-635	684
Per cent change	+36.2	-4.3	+29.6	-31.1	+30.6	-12.1	+40.4	-10.7	-10.5		-7.1

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 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				
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	32,695	1,310	1,897
1977	93,615	6,238	1,039	86,338	1,539	142	4,488	14,805	4,004	2,462	23,476	30,481	1,380	1,882
Per cent change	-4.3	-1.6	-10.3	-4.4	-2.3	-10.1	-2.1	-2.8	-3.8	+0.2	-3.0	-6.8	+5.3	-0.8
1977 Jan—Jul	55,009	3,558	667	50,784	872	81	2,617	8,514	2,390	1,364	13,879	18,211	793	1,081
1978 Jan—Jul p	54,712	3,702	535	50,475	926	86	2,610	8,837	2,736	1,523	13,718	17,253	691	1,118
Per cent change	-0.5	+4.1	-19.7	-0.6	+6.3	+6.4	-0.3	+3.8	+14.5	+11.7	-1.2	-5.3	-13.0	+3.4
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	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
1978 May	7,646	528	45	7,073	150	14	356	1,314	392	177	1,917	2,305	99	195
Jun	7,049	477	70	6,502	105	11	268	1,240	439	127	1,672	2,182	117	199
Jul p	7,586	532	65	6,989	122	13	340	1,344	484	105	1,921	2,175	125	183
Total	22,281	1,537	180	20,564	377	38	964	3,898	1,315	409	5,510	6,662	341	577
Per cent change	-0.6	-0.4	-37.3	-0.1	+10.6	+22.9	-12.4	+5.2	+5.4	+5.1	-2.7	-2.8	-4.0	+9.9

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			Derv fuel	Other			
						Premier	Standard						
							Domestic	Other ⁶					
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
1977	81,918	1,320	5,179	17,336	4,165	559	1,677	391	5,711	13,914	27,772	1,029	1,847
Per cent change	+2.0	−0.8	−4.2	+2.7	+4.4	−3.0	−0.5	−5.3	+2.1	+7.2	−0.2	+1.8	−1.1
1977 Jan—Jul	47,494	785	3,140	9,709	2,387	339	1,002	225	3,275	8,183	16,226	606	1,061
1978 Jan—Jul p	49,242	788	2,966	10,392	2,521	340	984	259	3,341	8,221	16,774	603	1,067
Per cent change	+3.7	+0.4	−5.5	+7.0	+5.6	+0.4	−1.8	+14.9	+2.0	+0.5	+3.4	−0.4	+0.6
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	5,522	84	432	1,490	423	6	59	20	453	643	1,609	81	163
Total	18,061	285	1,325	4,365	1,216	44	238	72	1,398	2,417	5,735	265	515
1978 May	6,879	112	376	1,585	395	25	108	33	494	1,032	2,284	95	182
Jun	6,167	91	367	1,600	431	6	70	25	505	725	1,895	94	197
Jul p	6,002	83	390	1,630	457	8	71	22	470	696	1,767	89	165
Total	19,048*	286	1,133	4,815	1,283	39	249	80	1,469	2,453	5,946	278	544
Per cent change	+5.5	+0.9	−14.6	+10.3	+5.6	−10.3	+4.0	+11.0	+5.1	+1.5	+3.7	+4.6	+5.5

1. Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial and white spirits, and paraffin wax. 3. Excluding refinery fuel (and miscellaneous products prior to 1978). 4. Including very small amounts for petro-chemicals. 5. Now mainly for petro-chemical feed stock. 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
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
1977	73,043	10,875	292	2,938	17,701	29,359	3,263	8,615
Per cent change	+2.2	+4.2	-20.1	-6.1	+1.2	+2.7	-0.2	+5.3
1977 Jan - Jun	37,440	5,358	150	1,554	9,563	14,094	1,831	4,890
1978 Jan - Jun p	38,570	6,065	176	1,516	9,498	14,772	1,808	4,735
Per cent change	+3.0	+13.2	+17.4	-2.4	-0.7	+4.8	-1.3	-3.2
1977 Apr	6,132	777	19	234	1,575	2,347	329	851
May	5,766	774	18	243	1,393	2,475	201	662
Jun	5,237	793	15	220	1,157	2,484	131	437
Total	17,135	2,344	52	697	4,125	7,306	661	1,950
1978 Apr	6,579	1,108	25	243	1,584	2,476	303	840
May	6,095	921	29	249	1,388	2,674	202	632
Jun p	5,376	787	25	204	1,144	2,699	121	396
Total	18,050	2,816	79	696	4,116	7,849	626	1,868
Per cent change	+5.3	+20.1	+51.4	-0.1	-0.2	+7.4	-5.3	-4.2

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
1977 Jun	20.3	101	0.83
Jul	20.8	98	0.88
Aug	21.0	89	0.94
1978 Jun	18.4	88	0.95
Jul	18.9	83	1.01
Aug p	19.3	77	1.04

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 tonnes coal equiv.	Million tonnes oil equiv.	Million therms	TWh electrical energy	TWh electricity generated
Million tonnes coal equivalent	1	1.7	0.004	0.135 ¹	0.500 ²
Million tonnes oil equivalent	0.60	1	0.00235	0.0800 ¹	0.280 ²
Million therms	250	425	1	34.0	115
TWh electrical energy	7.35	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 fuel shown.
The *Digest of UK Energy Statistics 1978* 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 contracts ³		
	Coal	Heavy Fuel Oil	Gas Oil	Gas	Electricity	Heavy Fuel Oil ³	Gas Oil ³	Gas ⁴
	£ per tonne			Pence per therm	Pence per KWh	£ per tonne		Pence per therm
1975 2nd quarter	14.9	37.6	53.4	4.15	1.178	39.9	54.6	..
3rd quarter	14.6	36.9	49.9	4.43	1.249	38.7	53.2	..
4th quarter	15.3	38.1	53.0	4.84	1.354	45.6	69.2	..
1976 1st quarter	17.1	41.5	63.0	5.73	1.453	44.6	69.7	..
2nd quarter	17.5	40.8	61.0	5.72	1.447	43.5	68.4	11.3
3rd quarter	17.7	42.4	60.7	6.74	1.461	44.5	69.5	11.3
4th quarter	19.1	47.1	67.1	7.58	1.592	54.3	80.8	11.6
1977 1st quarter	20.0	53.3	76.1	8.58	1.714	55.2	81.9	12.7
2nd quarter	21.2	56.1	79.8	9.12	1.656	59.1	87.2	13.0
3rd quarter	22.1	54.8	79.6	9.30	1.676	57.0	84.8	14.4
4th quarter	22.3	54.7	80.1	10.13	1.826	55.6	84.2	15.0
1978 1st quarter p	22.6	52.8	80.6	11.13	1.952	55.0	83.3	15.3
2nd quarter p	23.6	51.8	79.0	11.74	1.810	54.4	81.5	15.2

1. Prices for oil products include hydrocarbon oil duty. 2. Average prices paid by respondents to a Department of Energy survey covering some 800 establishments. The data relates to purchases received and can include business under contracts made in earlier times. Prices vary widely around the average values shown. 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. 4. British Gas Corporation estimates of the average price of new and renewed contracts (including commercial) in the quarter, both firm and interruptible supplies.