

DEPARTMENT OF ENERGY

ENERGY TRENDS

A Statistical Bulletin

DECEMBER 1978



Mild Autumn cuts consumption

Total Energy

Petroleum consumption continues to rise

During the three month period August to October, total inland energy consumption on a primary fuel input basis was 0.9 per cent lower than during the comparable period a year earlier. Of the individual fuels, petroleum consumption was higher by 4.2 per cent but this was offset by lower consumption of coal and natural gas, down by 2.9 and 4.5 per cent respectively, while the nuclear contribution fell by almost a fifth.

The months of August to October were warmer than a year previously and after allowance is made for temperature differences, the seasonally adjusted statistics indicate that total energy consumption was only 0.3 per cent below last year's level.

Coal

Stocks still rising

Deep-mined coal production during the three month period September to November was 3.1 per cent higher than in the comparable period of 1977. Opencast output rose by 1.5 per cent, mainly as a result of a sharp increase in November.

Although total coal consumption during the three month period rose by 0.5 per cent, the increase was wholly attributable to greater use at power stations. All other sectors consumed less than a year ago with colliery disposals to industry down by 7.5 per cent and disposals of housecoal for the domestic market by 7.9 per cent.

Coal stocks continued to increase in November, rising by nearly a million tonnes, to total 35.5 million tonnes at the end of the month, 3.4 million tonnes higher than a year ago.

Gas

Demand lower in warm November

Total gas sent out in the period September to November was 6.3 per cent lower than in the comparable months last year. By far the greater part of the decline can be attributed to the very mild weather in November when gas sent out was 12 per cent lower than in November 1977.

Electricity

Continuing slow growth

Total electricity supplied during the three month period August to October was 1.8 per cent higher than in the comparable period

of 1977, continuing the small but steady increase in demand which has been apparent since the early part of the year.

Total fuel used for generation in the period was just under 25 million tonnes coal equivalent, marginally higher than last year. Coal use rose by 2.6 per cent and oil by over 17 per cent but the use of natural gas was more than halved.

Petroleum

Refinery output well up

Output of refined products during the three months August to October totalled 23.1 million tonnes an increase of 10.7 per cent on the comparable period of 1977. Of the individual products, output of aviation turbine fuel rose by over a quarter and there were increases of 11.3, 12.9, and 16.6 per cent in motor spirit, fuel oil and naphtha respectively.

During the period, deliveries of all principal products were higher than a year ago with the exception of naphtha and gas diesel oil which fell by 2.9 and 2.8 per cent. Fuel oil deliveries were up by 5.7 per cent and of the transport fuels, motor spirit deliveries rose by six per cent, derv fuel by 4.2 per cent and aviation turbine fuel by 12.9 per cent.

Supplementary data

Industrial fuel prices

Oil prices in the industrial market continued to fall during the third quarter, both on the basis of overall average deliveries and on the new and renewed contracts basis. All other fuels showed small price increases compared with the second quarter.

This Bulletin is prepared by the Economics and Statistics Division of the Department of Energy. Further copies of the Bulletin are available from Distribution 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 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 gas ³	Nuclear electricity	Hydro-electricity
Million tonnes of coal or coal equivalent						
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—Oct	272.4	101.2	108.9	48.9	11.9	1.5
1978 Jan—Oct p	272.1	96.6	112.6	50.3	11.0	1.6
Per cent change	−0.1	−4.5	+3.4	+2.8	−7.0	+3.5
1977 Aug	19.9	7.3	8.5	3.0	1.0	0.1
Sept*	29.2	10.6	12.4	4.6	1.5	0.1
Oct	24.9	9.4	9.9	4.4	1.0	0.2
Total	74.0	27.3	30.8	12.0	3.5	0.4
1978 Aug	19.9	6.9	9.1	2.9	0.9	0.1
Sept*	28.0	10.3	12.5	4.1	1.0	0.1
Oct p	25.4	9.3	10.5	4.5	0.9	0.2
Total	73.3	26.5	32.1	11.5	2.8	0.4
Per cent change	−0.9	−2.9	+4.2	−4.5	−19.7	+5.7
Seasonally adjusted and temperature corrected ⁴ (annual rates)						
1977 Jan—Oct	338.9	124.2	135.8	62.4	14.6	1.9
1978 Jan—Oct p	337.4	118.3	140.6	62.9	13.6	2.0
Per cent change	−0.4	−4.7	+3.5	+0.8	−7.1	+3.1
1977 Aug	344.5	122.3	140.1	64.5	16.1	1.5
Sept*	344.0	121.6	140.7	63.3	16.5	1.9
Oct	331.2	123.6	128.2	63.9	13.5	2.0
Average	340.2	122.4	136.7	63.9	15.4	1.8
1978 Aug	341.6	117.1	148.6	60.5	13.8	1.6
Sept*	336.7	120.6	144.1	58.4	11.5	2.1
Oct p	339.8	121.1	138.7	65.5	12.3	2.2
Average	339.1	119.7	143.8	61.2	12.4	2.0
Per cent change	−0.3	−2.2	+5.2	−4.1	−19.5	+9.4

	Total	Coal ¹	Petroleum ²	Natural gas ³	Nuclear electricity	Hydro-electricity
Million tonnes of oil or oil equivalent						
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	
160.2	59.5	64.0	28.8	7.0	0.9	
160.0	56.8	66.2	29.6	6.5	0.9	
−0.1	−4.5	+3.4	+2.8	−7.0	+3.5	
11.8	4.3	5.0	1.8	0.6	0.1	
17.2	6.2	7.3	2.7	0.9	0.1	
14.6	5.5	5.8	2.6	0.6	0.1	
43.6	16.0	18.1	7.1	2.1	0.3	
11.7	4.1	5.3	1.7	0.5	0.1	
16.5	6.0	7.4	2.4	0.6	0.1	
14.9	5.5	6.2	2.6	0.5	0.1	
43.1	15.6	18.9	6.7	1.6	0.3	
−0.9	−2.9	+4.2	−4.5	−19.7	+5.7	

199.4	73.0	79.9	36.8	8.6	1.1
198.5	69.6	82.7	37.0	8.0	1.2
−0.4	−4.7	+3.5	+0.8	−7.1	+3.1
202.6	71.9	82.4	37.9	9.5	0.9
202.3	71.5	82.7	37.3	9.7	1.1
194.8	72.7	75.4	37.6	7.9	1.2
200.1	72.0	80.4	37.5	9.1	1.1
200.9	68.9	87.4	35.6	8.1	0.9
198.0	70.9	84.8	34.4	6.7	1.2
199.9	71.3	81.6	38.5	7.2	1.3
199.5	70.4	84.6	36.0	7.3	1.2
−0.3	−2.2	+5.2	−4.1	−19.5	+9.4

- 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.
- Refinery throughput of crude oil, plus net foreign trade and stock change in petroleum products, less deliveries of non-energy products.
- Excluding gas flared, or reinjected.
- Coal, petroleum and natural gas are temperature corrected.

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

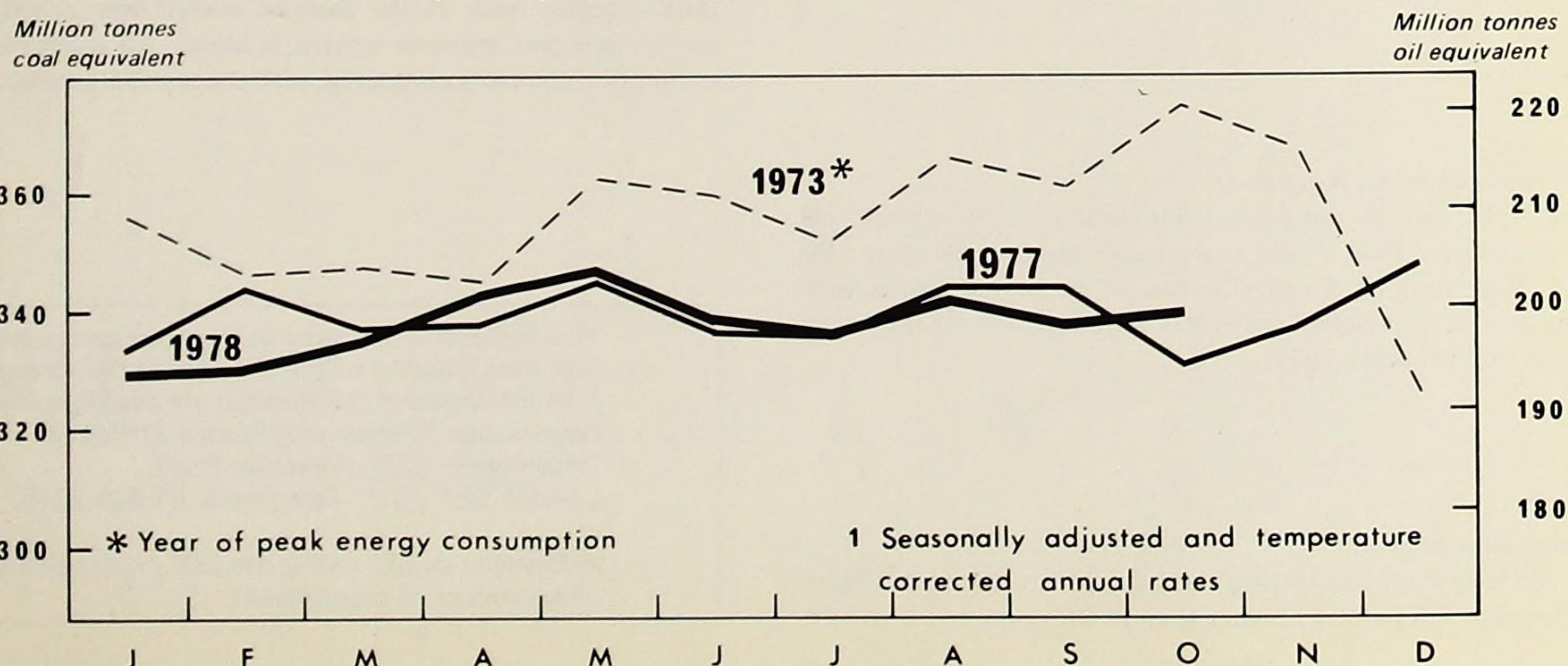


TABLE 2. Supply and use of fuels

Million therms

				1976			1977				1978 p		
	1976	1977	Per cent change	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	Per cent change
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	30,166	29,682	-1.6	7,635	6,378	8,147	7,604	7,514	6,405	8,159	7,643	7,427	-1.2
Petroleum ²	5,206	16,350	(+)	1,020	1,335	2,277	3,305	4,214	4,337	4,494	4,839	5,701	+35.3
Natural gas ³	14,379	15,024	+4.5	2,962	2,173	4,517	4,916	3,459	2,497	4,152	4,939	3,228	-6.7
Primary electricity	3,411	3,761	+10.3	786	770	929	1,070	877	852	962	1,144	906	+3.3
Total	53,162	64,817	+21.9	12,403	10,656	15,870	16,895	16,064	14,091	17,767	18,565	17,262	+7.5
Arrivals, Petroleum ⁴	43,174	35,730	-17.2	10,949	10,160	11,073	9,615	9,116	8,253	8,746	8,892	8,243	-9.6
Other	1,183	1,366	+15.5	336	270	226	195	199	371	601	641	456	(+)
Shipments	9,176	13,841	+50.8	2,068	2,507	2,856	2,973	3,651	3,886	3,331	3,405	3,999	+9.5
Bunkers	1,468	1,168	-20.4	346	381	370	316	309	292	251	240	279	-9.7
Stock change ⁵													
Solid fuels	-634	+238	..	-820	-388	+262	+1,252	-385	-194	-435	+459	-483	..
Crude Petroleum	-378	+555	..	-196	-25	-511	+375	-352	+253	+279	+92	-427	..
Petroleum products	+240	+424	..	-431	-367	+390	+564	-225	-309	+394	+185	+215	..
Non-energy use	4,448	4,373	-1.7	1,111	1,159	1,040	1,123	1,110	1,109	1,031	1,016	1,018	-8.3
Statistical difference ⁶	+54	-68	..	-23	-2	+21	-337	+319	-10	-40	+6	-190	..
Total primary ⁷ energy input	81,709	83,680	+2.4	18,693	16,257	23,065	24,147	19,666	17,168	22,699	24,179	19,780	+0.6
Conversion losses etc. ⁸	24,382	25,148	+3.2	5,597	4,905	6,967	7,274	5,854	5,263	6,757	7,024	5,840	-0.2
Final energy consumption	57,327	58,532	+2.1	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,155	13,940	+0.9
FINAL CONSUMPTION BY USER													
Iron and steel industry													
Coal	66	66	-	14	9	20	23	15	10	18	16	10	-33.3
Other solid fuel ⁹	2,723	2,394	-12.1	719	670	703	663	593	600	538	553	603	+1.7
Other coal-derived fuels ¹⁰	401	362	-9.7	109	97	97	94	89	95	84	81	80	-10.1
Gas ¹¹	438	485	+10.7	112	99	119	128	125	113	119	118	110	-12.0
Electricity	395	389	-1.5	96	90	109	104	96	92	97	106	107	+11.5
Petroleum	1,279	1,205	-5.8	306	273	346	352	286	256	311	336	285	-0.4
Total	5,302	4,901	-7.6	1,356	1,238	1,394	1,364	1,204	1,166	1,167	1,210	1,195	-0.7
Other industries													
Coal	2,277	2,295	+0.8	564	470	696	618	530	483	664	623	507	-4.3
Other solid fuel ⁹	126	156	+23.8	24	27	37	38	38	35	45	51	29	-23.7
Other coal-derived fuels ¹⁰	76	74	-2.6	23	25	15	19	23	19	13	17	15	-34.8
Gas ¹¹	5,241	5,458	+4.1	1,236	1,083	1,466	1,431	1,373	1,171	1,483	1,536	1,429	+4.1
Electricity	2,364	2,411	+2.0	563	546	638	645	599	559	608	648	594	-0.8
Petroleum	7,441	7,520	+1.1	1,696	1,400	2,090	2,245	1,774	1,428	2,073	2,150	1,706	-3.8
Total	17,525	17,914	+2.2	4,106	3,551	4,942	4,996	4,337	3,695	4,886	5,025	4,280	-1.3
Transport sector													
Coal and other solid fuel	21	20	-4.8	4	2	8	6	4	3	7	6	4	-
Electricity	98	100	+2.0	24	22	26	26	26	23	25	27	25	-3.9
Petroleum	12,597	12,931	+2.7	3,198	3,333	3,177	2,988	3,218	3,420	3,305	3,048	3,458	+7.5
Total	12,716	13,051	+2.6	3,226	3,357	3,211	3,020	3,248	3,446	3,337	3,081	3,487	+7.4
Domestic sector													
Coal	3,140	3,230	+2.9	764	634	811	850	773	703	904	761	724	-6.3
Other solid fuel ⁹	869	843	-3.0	196	208	188	227	204	223	189	197	197	-3.4
Gas ¹¹	6,194	6,590	+6.0	1,055	686	2,050	2,413	1,371	771	2,035	2,808	1,393	+1.6
Electricity	2,905	2,932	+0.9	585	464	863	972	638	511	811	969	637	-0.2
Petroleum	1,435	1,450	+1.1	268	176	472	518	295	205	432	520	277	-6.1
Total	14,543	15,045	+3.5	2,868	2,168	4,384	4,980	3,281	2,413	4,371	5,255	3,228	-1.6
Other final users ¹²													
Coal	516	544	+5.4	113	73	158	166	118	83	177	167	118	-
Other solid fuel ⁹	166	166	-	44	37	34	50	36	45	35	43	39	+8.3
Gas ¹¹	1,521	1,587	+4.3	317	169	464	561	380	180	466	643	403	+6.1
Electricity	1,597	1,689	+5.8	345	308	465	495	386	346	462	519	403	+4.4
Petroleum	3,441	3,635	+5.6	721	451	1,046	1,241	822	531	1,041	1,212	787	-4.3
Total	7,247	7,621	+5.2	1,540	1,038	2,167	2,513	1,742	1,185	2,181	2,584	1,750	+0.5
Total final users	57,327	58,532	+2.1	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,155	13,940	+0.9
FINAL CONSUMPTION BY FUEL													
Coal	6,019	6,154	+2.2	1,459	1,188	1,692	1,663	1,440	1,282	1,769	1,573	1,363	-5.4
Other solid fuel ⁹	3,885	3,560	-8.4	983	942	963	978	871	903	808	844	868	-0.3
Other coal derived fuels ¹⁰	477	436	-8.6	132	122	112	113	112	114	97	98	95	-15.2
Gas ¹¹	13,394	14,120	+5.4	2,720	2,037	4,099	4,533	3,249	2,235	4,103	5,105	3,335	+2.6
Electricity	7,359	7,521	+2.2	1,613	1,430	2,101	2,242	1,745	1,531	2,003	2,269	1,766	+1.2
Petroleum	26,193	26,741	+2.1	6,189	5,633	7,131	7,344	6,395	5,840	7,102	7,266	6,513	+1.9
Total all fuels	57,327	58,532	+2.1	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,155	13,940	+0.9

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–Nov	109,552	109,166	95,766	12,150	+386	2,146	1,760	12,367	745
1978 Jan–Nov p	110,550	110,348	95,782	12,851	+202	2,226	2,024	12,603	1,353
Per cent change	+0.9	+1.1	—	+5.8	-47.7	+3.7	+15.0	+1.9	+81.6
1977 Sept*	11,030	10,908	9,356	1,502	+122	315	193	1,499	82
Oct	10,220	10,226	8,906	1,160	-6	132	138	74	64
Nov	10,532	10,366	9,039	1,167	+166	250	84	—	87
Total	31,782	31,500	27,301	3,829	+282	697	415	1,573	233
1978 Sept*	11,178	11,267	9,679	1,405	-89	115	204	1,275	116
Oct	10,189	10,350	9,004	1,203	-161	105	266	134	76
Nov p	10,952	10,932	9,466	1,279	+20	272	252	5	82
Total	32,319	32,549	28,149	3,887	-230	492	722	1,414	274
Per cent change	+1.7	+3.3	+3.1	+1.5	—	-29.4	+74.0	-10.1	+17.6

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 only.

TABLE 4. Inland consumption of coal

Thousand tonnes

	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	Domestic		Other ⁶
								House coal ⁴	Other ⁵	
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–Nov	110,492	992	70,993	15,952	6	2,819	7,985	8,599	1,331	1,815
1978 Jan–Nov p	106,527	891	70,934	13,520	5	2,792	7,463	7,793	1,364	1,765
Per cent change	-3.6	-10.2	-0.1	-15.2	-16.7	-1.0	-6.5	-9.4	+2.5	-2.8
1977 Sep*	10,628	79	6,600	1,605	—	329	791	903	167	154
Oct	9,402	85	5,926	1,235	1	259	744	845	131	176
Nov	9,289	91	5,839	1,171	—	247	817	792	138	194
Total	29,319	255	18,365	4,011	1	835	2,352	2,540	436	524
1978 Sep*	10,298	68	6,647	1,472	—	300	711	808	150	142
Oct	9,264	61	6,018	1,181	—	264	700	762	134	144
Nov p	9,915	61	6,563	1,190	—	260	765	770	151	155
Total	29,477	190	19,228	3,843	—	824	2,176	2,340	435	441
Per cent change	+0.5	-25.5	+4.7	-4.2	—	-1.3	-7.5	-7.9	-0.2	-15.8

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. Including miners' coal. 5. Anthracite, dry steam coal and imported naturally smokeless fuels. 6. 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 Sep	29,892	20,813	18,717	1,899	1	196	9,079	7,466	1,613
Oct	30,809	21,667	19,409	2,024	1	233	9,142	7,584	1,558
Nov	32,077	21,829	19,389	2,196	1	243	10,248	8,682	1,566
1978 Sep	33,561	22,172	20,422	1,572	1	177	11,389	9,211	2,178
Oct	34,510	22,867	21,106	1,556	1	204	11,643	9,361	2,282
Nov p	35,497	23,401	21,585	1,594	2	220	12,096	9,595	2,501
Absolute change: in latest month	+987	+534	+479	+38	+1	+16	+453	+234	+219
On a year ago	+3,420	+1,572	+2,196	-602	+1	-23	+1,848	+913	+935

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—Nov	241 ⁽⁴⁾	192 ⁽⁴⁾	27,545	29,603	17.5	3.8	13.7	2.18	7.76
1978 Jan—Nov p	237 ⁽⁴⁾	188 ⁽⁴⁾	19,185	25,672	17.2	4.1	13.1	2.25	8.51
Per cent change	—1.7	—2.1	—30.4	—13.3				+3.2	+9.7
1977 Sep*	239	189	3,206	2,330	17.0	3.9	13.1	2.05	7.34
Oct	239	189	2,200	2,450	17.8	4.2	13.6	2.18	7.65
Nov	239	189	2,114	1,885	17.5	4.2	13.3	2.16	7.65
1978 Sep*	234	185	1,649	2,797	17.0	4.3	12.7	2.17	8.24
Oct	233	184	1,316	2,196	17.6	4.5	13.1	2.28	8.49
Nov p	232	184	1,450	1,849	17.3	4.5	12.8	2.34	8.75

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—Nov	13,425	12,964	461	7	145	13,382	71	13,311
1978 Jan—Nov p	13,697	12,189	1,508	5	260	13,693	36	13,657
Per cent change	+2.0	-6.0	(+)	-28.6	+79.3	+2.3	-49.3	+2.6
1977 Sep*	1,098	1,045	53	1	10	1,089	3	1,086
Oct	1,074	968	106	—	19	1,063	3	1,060
Nov	1,434	1,316	118	—	18	1,432	4	1,428
Total	3,606	3,329	277	1	47	3,584	10	3,574
1978 Sep*	1,050	850	200	—	19	1,040	3	1,037
Oct	1,054	845	209	—	20	1,057	3	1,054
Nov p	1,266	1,010	256	—	21	1,261	4	1,257
Total	3,370	2,705	665	—	60	3,358	10	3,348
Per cent change	-6.5	-18.7	(+)	—	+27.7	-6.3	-2.2	-6.3

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 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	110	1,470	2,035	466
1978 1st quarter p	5,257	165	118	1,523	2,808	643
2nd quarter p	3,344	25	110	1,413	1,393	403
Per cent change	+0.8	-69.5	-12.0	+4.0	+1.6	+6.1

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-Oct	91.56	64.80	13.43	1.32	10.71	1.25	211.11	30.27	176.82	15.94	195.17	198.03
1978 Jan-Oct p	92.53	64.60	15.90	0.88	9.80	1.26	214.42	27.47	183.03	15.25	199.17	202.34
Per cent change	+1.1	-0.3	+18.4	-33.3	-8.5	+0.8	+1.6	-9.3	+3.5	-4.3	+2.0	+2.2
1977 Aug	6.76	4.76	0.76	0.22	0.97	0.05	15.73	2.75	12.77	1.28	14.45	14.74
Sept*	9.68	6.74	1.35	0.16	1.31	0.12	22.02	3.72	17.92	1.72	20.30	20.66
Oct	8.48	5.90	1.36	0.15	0.91	0.15	19.33	2.62	16.25	1.47	17.86	18.12
Total	24.92	17.40	3.47	0.53	3.19	0.32	57.08	9.09	46.94	4.47	52.61	53.52
1978 Aug	6.89	4.88	1.12	0.02	0.81	0.05	16.01	2.28	13.50	1.23	14.78	15.02
Sept*	9.53	6.78	1.65	0.12	0.85	0.12	21.91	2.38	19.15	1.49	20.42	20.81
Oct p	8.54	6.19	1.30	0.09	0.79	0.16	19.72	2.23	17.05	1.38	18.34	18.66
Total	24.96	17.85	4.07	0.23	2.45	0.33	57.64	6.89	49.70	4.10	53.54	54.49
Per cent change	+0.2	+2.6	+17.3	-56.6	-23.2	+3.1	+1.0	-24.2	+5.9	-8.3	+1.8	+1.8
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-Oct	79.26	57.70	11.09	1.32	9.02	0.08	183.42	25.44	157.20	13.24	170.18	171.93
1978 Jan-Oct p	80.15	57.69	13.17	0.88	8.24	0.08	186.30	23.13	162.47	12.79	173.51	175.71
Per cent change	+1.1	(-)	+18.8	-33.3	-8.6	+2.5	+1.6	-9.1	+3.4	-3.4	+2.0	+2.2
1977 Aug	5.92	4.28	0.61	0.22	0.81	-	13.82	2.31	11.48	1.06	12.76	12.89
Sept*	8.33	5.90	1.12	0.16	1.14	0.01	19.06	3.21	15.77	1.43	17.63	17.94
Oct	7.32	5.20	1.10	0.15	0.85	0.01	16.79	2.40	14.27	1.25	15.54	15.75
Total	21.57	15.38	2.83	0.53	2.80	0.02	49.67	7.92	41.52	3.74	45.93	46.58
1978 Aug	6.04	4.45	0.88	0.02	0.68	-	14.03	1.92	12.05	1.01	13.02	13.11
Sept*	8.25	6.13	1.35	0.12	0.63	0.01	18.98	1.77	17.14	1.24	17.74	18.10
Oct p	7.40	5.55	1.08	0.09	0.66	0.01	17.16	1.88	15.22	1.18	15.98	16.13
Total	21.69	16.13	3.31	0.23	1.97	0.02	50.17	5.57	44.41	3.43	46.74	47.34
Per cent change	+0.6	+4.9	+17.0	-56.6	-29.6	+5.6	+1.0	-29.7	+7.0	-8.3	+1.8	+1.6

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 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 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
2nd quarter p	53,050	3,375 ²	18,852 ²	18,674	12,149
Per cent change	+1.0	+10.5	-0.7	-0.7	+4.0

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-Oct	31,007	77,616	30,817	+46,357	442	60,070	13,713	9,816	12,185	-2,369	2,428
1978 Jan-Oct p	42,559	79,482	41,793	+36,919	770	56,467	19,548	9,417	11,148	-1,731	2,098
Per cent change	+37.3	+2.4	+35.6	-20.4	+74.0	-6.0	+42.6	-4.1	-8.5		-13.6
1977 Aug	3,422	7,127	3,422	+3,640	65	5,635	1,995	953	1,480	-527	234
Sept	3,443	7,280	3,418	+3,820	42	5,316	1,496	987	1,111	-124	240
Oct	3,517	8,163	3,586	+4,513	64	5,993	1,480	906	1,214	-308	207
Total	10,382	22,570	10,426	+11,974	171	16,944	4,971	2,846	3,805	-959	681
1978 Aug	4,602	8,044	4,515	+3,431	98	5,263	1,832	779	1,337	-558	174
Sept	4,387	7,311	4,062	+3,184	65	5,234	2,050	800	1,645	-845	204
Oct p	4,854	9,035	4,672	+4,312	51	6,546	2,234	853	1,263	-410	239
Total	13,843	24,390	13,249	+10,927	214	17,043	6,116	2,432	4,245	-1,813	617
Per cent change	+33.3	+8.1	+27.1	-8.7	+24.9	+0.6	+23.0	-14.5	+11.6		-9.5

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				
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—Oct	77,656	5,144	862	71,650	1,275	117	3,708	12,329	3,421	1,935	19,498	25,204	1,139	1,601
1978 Jan—Oct p	79,611	5,296	743	73,572	1,326	121	3,882	13,081	4,052	2,053	19,822	25,148	1,072	1,624
Per cent change	+2.5	+3.0	-13.9	+2.7	+3.9	+3.2	+4.7	+6.1	+18.4	+6.1	+1.7	-0.2	-10.6	+1.4
1977 Aug	7,687	531	75	7,081	128	11	415	1,313	416	111	1,921	2,330	116	177
Sept	7,450	528	82	6,840	134	14	327	1,265	343	209	1,797	2,309	111	164
Oct	7,510	527	38	6,945	142	11	349	1,237	273	251	1,901	2,354	118	179
Total	22,647	1,586	195	20,866	404	36	1,091	3,815	1,032	571	5,619	6,993	345	520
1978 Aug	8,278	540	100	7,638	129	15	398	1,450	490	107	2,111	2,450	121	189
Sept	8,212	525	34	7,653	139	12	428	1,408	410	206	2,051	2,574	95	172
Oct p	8,409	530	72	7,807	131	8	445	1,386	415	218	1,943	2,871	111	145
Total	24,899	1,595	206	23,098	399	35	1,271	4,244	1,315	531	6,105	7,895	327	506
Per cent change	+9.9	+0.6	+5.9	+10.7	-1.1	-3.9	+16.6	+11.3	+27.6	-7.2	+8.6	+12.9	-5.2	-2.8

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—Oct	66,176	1,077	4,382	14,334	3,537	406	1,316	306	4,706	10,956	21,898	864	1,571
1978 Jan—Oct p	68,802	1,074	4,159	15,298	3,822	402	1,326	339	4,835	10,886	22,722	855	1,611
Per cent change	+4.0	-0.2	-5.1	+6.7	+8.0	-1.0	+0.8	+10.6	+2.7	-0.6	+3.8	-1.0	+2.5
1977 Aug	5,728	85	455	1,631	404	10	69	21	452	695	1,592	80	161
Sept	6,390	98	419	1,526	377	28	125	29	491	999	1,923	93	185
Oct	6,563	109	369	1,468	369	31	120	31	488	1,080	2,157	85	165
Total	18,681	292	1,243	4,625	1,150	69	314	81	1,431	2,774	5,672	258	511
1978 Aug	6,146	85	468	1,702	446	9	79	20	467	738	1,708	83	177
Sept	6,417	94	354	1,596	449	18	114	27	493	887	1,965	83	181
Oct p	7,055	109	384	1,606	404	34	148	32	531	1,072	2,321	87	184
Total	19,618	288	1,206	4,904	1,299	61	341	79	1,491	2,697	5,994	253	542
Per cent change	+5.0	-1.5	-2.9	+6.0	+12.9	-8.9	+8.8	-2.4	+4.2	-2.8	+5.7	-2.1	+6.2

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-Sept	52,813	7,347	192	2,181	12,801	21,854	2,285	6,153
1978 Jan-Sept p	54,691	8,386	249	2,091	12,743	23,017	2,262	5,943
Per cent change	+3.6	+14.2	+29.8	-4.1	-0.5	+5.3	-1.0	-3.4
1977 Jul	4,797	672	13	188	943	2,525	108	348
Aug	4,967	566	13	193	1,044	2,659	126	366
Sept	5,609	751	16	246	1,252	2,576	221	547
Total	15,373	1,989	42	627	3,239	7,760	455	1,261
1978 Jul	5,170	730	24	196	1,003	2,729	125	363
Aug	5,281	725	25	165	1,051	2,804	137	374
Sept p	5,670	867	24	214	1,190	2,712	192	471
Total	16,121	2,322	73	575	3,244	8,245	454	1,208
Per cent change	+4.9	+16.7	+74.2	-8.2	+0.2	+6.3	-0.1	-4.3

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 Sept	20.9	83	1.02
Oct	20.9	80	0.98
Nov	19.3	73	0.82
1978 Sept	18.7	72	1.04
Oct	18.9	69	1.14
Nov p	19.9	72	1.14

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				
	Coal	Heavy Fuel Oil	Gas Oil	Gas	Electricity
	£ per tonne			Pence per therm	Pence per kWh
1975 3rd quarter	14.6	36.9	49.9	4.43	1.249
4th quarter	15.3	38.1	53.0	4.84	1.354
1976 1st quarter	17.1	41.5	63.0	5.73	1.453
2nd quarter	17.5	40.8	61.0	5.72	1.447
3rd quarter	17.7	42.4	60.7	6.74	1.461
4th quarter	19.1	47.1	67.1	7.58	1.592
1977 1st quarter	20.0	53.3	76.1	8.58	1.714
2nd quarter	21.2	56.1	79.8	9.12	1.656
3rd quarter	22.1	54.8	79.6	9.30	1.676
4th quarter	22.3	54.7	80.1	10.13	1.826
1978 1st quarter	22.6	52.8	80.6	11.13	1.952
2nd quarter	23.6	51.8	79.0	11.74	1.810
3rd quarter p	24.8	50.7	77.7	11.96	1.825

Realised in new and renewed contracts ³		
Heavy Fuel Oil ³	Gas Oil ³	Gas ⁴
£ per tonne		Pence per therm
38.7	53.2	..
45.6	69.2	..
44.6	69.7	..
43.5	68.4	11.3
44.5	69.5	11.3
54.3	80.8	11.6
55.2	81.9	12.7
59.1	87.2	13.0
57.0	84.8	14.4
55.6	84.2	15.0
55.0	83.3	15.3
54.4	81.5	15.2
53.4	81.1	15.3

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.