

# Small rise in final energy use

## Total Energy

### Rise in domestic gas use continues

During the three month period December to February total inland energy consumption on a primary fuel input basis was 4.9 per cent higher than in the comparable period a year ago. The more recent period was substantially colder however, and the seasonally adjusted and temperature corrected statistics suggest a much smaller rise in total consumption of 1.9 per cent. Provisional figures of the supply and use of fuels in terms of thermal content show that in the fourth quarter of 1978 total indigenous production of fuels was 11.6 per cent higher than in the fourth quarter of the previous year.

Final energy consumption in the fourth quarter, measured on a heat supplied basis, was 2.2 per cent higher than a year ago. Consumption in the iron and steel industry rose by 3.9 per cent and in other industries by 2.2 per cent. Domestic use of fuels was also higher by two per cent and in the transport sector by 4.8 per cent.

Provisional figures for 1978 as a whole indicate that total final energy consumption rose by 1.1 per cent as compared with 1977. Of the individual fuels, the largest increase was in natural gas consumption, the rise of 6.4 per cent being mainly due to greater use by domestic consumers. Petroleum consumption rose by 1.3 per cent in total but this was wholly attributable to increased use of transport fuels and consumption in all other sectors was lower than in 1977.

## Coal

### Power station use at record level

Deep-mined coal production in the first quarter of 1979 was 1.7 per cent lower than in the corresponding quarter of 1978. Opencast output was also lower in the quarter as a whole by 7.4 per cent but recovered to exceed last years level in March.

Total consumption of coal in the first quarter rose by 7.2 per cent compared with a year earlier. Power station use reached record levels, the rise in consumption of 2.8 million tonnes representing an increase of 12 per cent. Colliery disposals of housecoal for the domestic market rose by 2.2 per cent but disposals to industry were one per cent lower than last year despite a sharp increase in the last month of the period. Between lower output and higher consumption stocks which had been at a very high level of 35.5 million tonnes in November 1978 had fallen to 28.8 million tonnes by the end of March.

## Gas

### Sales growth continues

Total sales of gas in 1978 increased by over 700 million therms, a rise of five per cent. Sales to domestic consumers rose by over 10 per cent and accounted for the bulk of the increase. Sales to the commercial and public administration sector were

higher by 9.9 per cent and to industry other than iron and steel by 2.2 per cent. Power station demand for natural gas declined by over a third to the lowest level since 1973.

## Electricity

### Electricity supplied at record level in February

Total electricity supplied in the three month period December to February was 7.5 per cent higher than in the corresponding period a year earlier. The average weekly quantity of 6.43 terawatt hours of electricity supplied in February was a record for the industry.

Total sales of electricity in 1978 were two per cent higher than in the previous year. Sales to the iron and steel industry and to other industry increased by 6.1 and 1.7 per cent respectively and to the commercial and public administration sector by 5.2 per cent. Sales to domestic consumers remained fairly stable during 1978 and for the year as a whole were about 0.1 per cent below the level of the previous year.

## Petroleum

### Heating oil deliveries higher

Gross indigenous production of crude oil in the three months period December to February totalled 17.4 million tonnes, an increase of nearly 60 per cent on the comparable period a year earlier, while net arrivals of overseas crude oil fell by over six million tonnes.

Refinery output of petroleum products rose by 5.3 per cent and although all products except lubricating oil and bitumen shared the increase, the swing away from the heavier products continues. Output of motor spirit, aviation turbine fuel and gases were higher by 11.2, 9.2 and about eight per cent respectively while the rise in fuel oil was only 1.1 per cent.

Total deliveries of products were 3.5 per cent higher than in the corresponding period a year ago. Demand for heating oils was stimulated by the very cold weather; fuel oil and gas/diesel oil other than derv fuel each increased by five per cent and there was a sharp increase in demand for premium and standard grade burning oils for domestic heating.

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.

## Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural gas <sup>3</sup>	Nuclear electricity	Hydro-electricity
<i>Million tonnes of coal or coal equivalent</i>						
1973	353.5	133.0	164.2	44.2	10.1	2.0
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
1978 p	338.6	119.7	139.1	64.3	13.4	2.1
Per cent change	+0.1	-2.5	+1.9	+2.5	-6.2	+1.2
1977 Dec*	38.8	13.5	15.7	7.9	1.5	0.2
1978 Jan	31.2	10.8	11.7	7.2	1.3	0.2
Feb	32.1	11.2	12.2	7.1	1.4	0.2
Total	102.1	35.5	39.6	22.2	4.2	0.6
1978 Dec*	39.2	14.0	15.2	8.4	1.3	0.3
1979 Jan	33.2	10.9	12.4	8.4	1.3	0.2
Feb p	34.6	11.6	13.4	8.1	1.4	0.1
Total	107.0	36.5	41.0	24.9	4.0	0.6
Per cent change	+4.9	+2.7	+3.7	+12.3	-3.4	-1.8
<i>Seasonally adjusted and temperature corrected<sup>4</sup> (annual rates)</i>						
1977 Dec*	346.6	124.4	141.5	64.0	14.8	1.9
1978 Jan	329.9	115.5	133.3	64.5	15.1	1.5
Feb	329.2	117.3	133.2	62.1	15.1	1.5
Average	336.1	119.5	136.4	63.5	15.0	1.7
1978 Dec*	337.1	125.7	132.4	63.5	12.9	2.6
1979 Jan	342.8	119.3	136.2	70.1	15.7	1.5
Feb p	349.3	117.1	145.0	70.7	15.2	1.3
Average	342.6	121.1	137.4	67.8	14.4	1.9
Per cent change	+1.9	+1.3	+0.7	+6.6	-3.5	+11.8

So that short-term data can be more accurately compared, monthly coal figures for 1978 in the top half of Table 1 and in Tables 3-6 inclusive have been adjusted to account for certain calendar differences between 1978 and 1979.

### Symbols used in the tables

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

Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural gas <sup>3</sup>	Nuclear electricity	Hydro-electricity
Million tonnes of oil or oil equivalent					
207.9	78.2	96.6	26.0	5.9	1.2
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
199.2	70.4	81.8	37.9	7.9	1.2
+0.1	-2.5	+1.9	+2.5	-6.2	+1.2
22.9	8.0	9.2	4.7	0.9	0.1
18.4	6.4	6.9	4.2	0.8	0.1
18.8	6.6	7.2	4.1	0.8	0.1
60.1	21.0	23.3	13.0	2.5	0.3
23.1	8.2	8.9	5.0	0.8	0.2
19.5	6.4	7.3	4.9	0.8	0.1
20.4	6.8	7.9	4.8	0.8	0.1
63.0	21.4	24.1	14.7	2.4	0.4
+4.9	+2.7	+3.7	+12.3	-3.4	-1.8

203.8	73.2	83.2	37.6	8.7	1.1
194.0	67.9	78.4	37.9	8.9	0.9
193.7	69.0	78.4	36.5	8.9	0.9
197.7	70.3	80.2	37.4	8.8	1.0
198.3	73.9	77.9	37.4	7.6	1.5
201.7	70.2	80.2	41.2	9.2	0.9
205.5	68.9	85.3	41.6	8.9	0.8
201.5	71.2	80.8	39.9	8.5	1.1
+1.9	+1.3	+0.7	+6.6	-3.5	+11.8

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. Coal, petroleum and natural gas are temperature corrected.

### Energy: Total inland consumption (primary fuel input basis)<sup>1</sup>

Million tonnes  
coal equivalent

Million tonnes  
oil equivalent

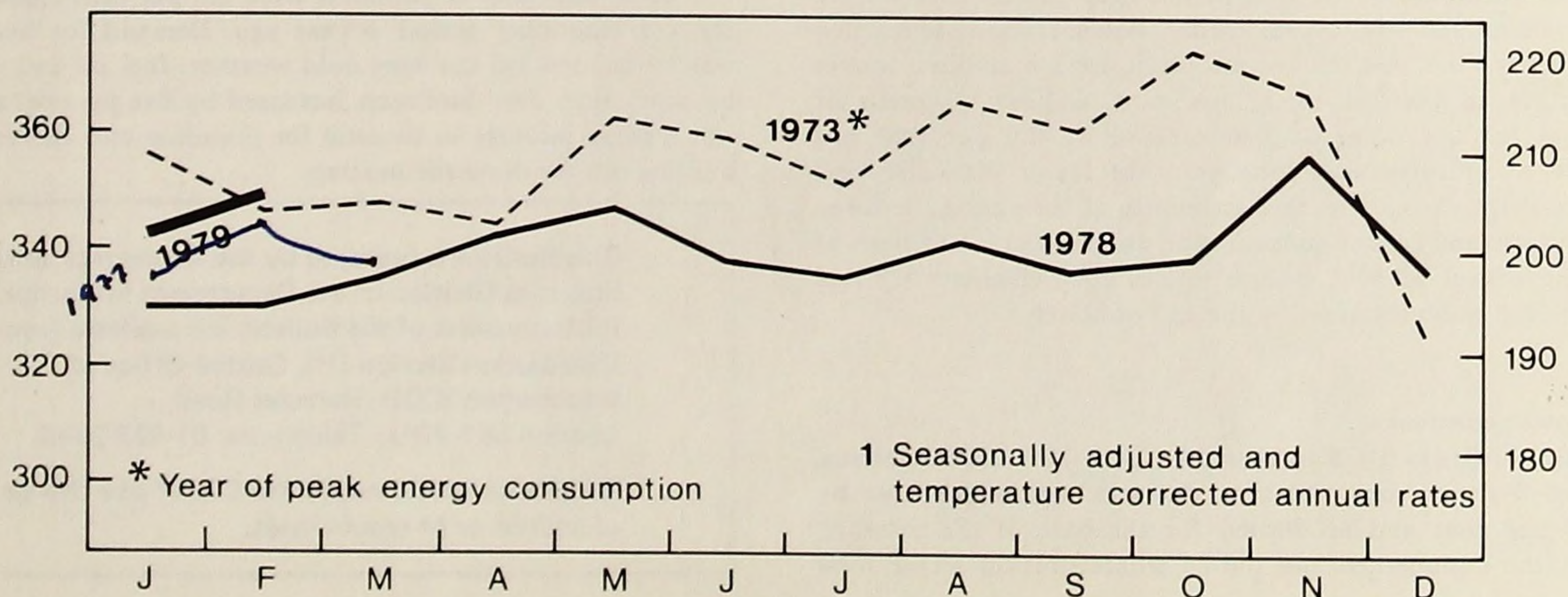




TABLE 2. Supply and use of fuels

Million therms

	1977	1978p	Per cent change	1976	1977				1978p				Per <sup>1</sup> cent change
				4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	29,682	29,930	+0.8	8,147	7,604	7,514	6,405	8,159	7,643	7,427	6,502	8,358	+2.4
Petroleum <sup>2</sup>	16,350	23,118	+41.4	2,277	3,305	4,214	4,337	4,494	4,839	5,701	5,846	6,732	+49.8
Natural gas <sup>3</sup>	15,024	14,184	-5.6	4,517	4,916	3,459	2,497	4,152	4,974	3,228	2,188	3,794	-8.6
Primary electricity	3,761	3,620	-2.7	929	1,070	877	852	962	1,144	806	732	938	-2.5
Total	64,817	70,852	+9.3	15,870	16,895	16,064	14,091	17,767	18,600	17,162	15,268	19,822	+11.6
Arrivals, Petroleum <sup>4</sup>	35,730	33,995	-4.8	11,073	9,615	9,116	8,253	8,746	8,892	8,243	7,860	9,000	+8.9
Other	1,366	2,589	(+)	226	195	199	371	601	641	456	512	980	(+)
Shipments	13,841	17,059	+23.2	2,856	2,973	3,651	3,886	3,331	3,407	4,002	4,774	4,876	+46.4
Bunkers	1,168	1,062	-9.1	370	316	309	292	251	240	279	248	295	+17.5
Stock change <sup>5</sup>													
Solid fuels	+238	-577		+262	+1,252	-385	-194	-435	+459	-483	-369	-184	
Crude Petroleum	+555	-390		-511	+375	-352	+253	-279	+92	-427	+428	-483	
Petroleum products	+424	+169		+390	+564	-225	-309	+394	+185	+215	-480	+249	
Non-energy use	4,373	4,035	-7.7	1,040	1,123	1,110	1,109	1,031	1,016	1,018	1,036	965	-6.4
Statistical difference <sup>6</sup>	-68	-679		+21	-337	+319	-10	-40	+8	-190	-188	-309	
Total primary <sup>1</sup> energy input	83,680	83,789	+0.1	23,065	24,147	19,666	17,168	22,699	24,200	19,677	16,973	22,939	+1.1
Conversion losses etc. <sup>3</sup>	25,148	24,598	-1.2	6,967	7,274	5,854	5,263	6,757	7,060	5,756	5,139	6,643	-1.7
Final energy consumption	58,532	59,191	+1.1	16,098	16,873	13,812	11,905	15,942	17,140	13,921	11,834	16,296	+2.2
FINAL CONSUMPTION BY USER													
Iron and steel industry													
Coal	66	50	-24.2	20	23	15	10	18	16	11	9	14	-22.2
Other solid fuel <sup>9</sup>	2,394	2,196	-8.3	703	663	593	600	538	553	568	480	595	+10.6
Other coal-derived fuels <sup>10</sup>	362	330	-8.8	97	94	89	95	84	81	91	73	85	+1.2
Gas <sup>11</sup>	485	446	-8.0	119	128	125	113	119	118	113	110	105	-11.8
Electricity	389	411	+5.7	109	104	96	92	97	106	106	93	106	+9.3
Petroleum	1,205	1,161	-3.6	346	352	286	256	311	336	285	233	307	-1.3
Total	4,901	4,594	-6.2	1,394	1,364	1,204	1,166	1,167	1,210	1,174	998	1,212	+3.9
Other industries													
Coal	2,295	2,184	-4.8	696	618	530	483	664	623	507	402	652	-1.8
Other solid fuel <sup>9</sup>	156	154	-1.3	37	38	38	35	45	45	27	35	47	+4.4
Other coal-derived fuels <sup>10</sup>	74	58	-21.6	15	19	23	19	13	17	15	15	11	-15.4
Gas <sup>11</sup>	5,458	5,570	+2.1	1,466	1,431	1,373	1,171	1,483	1,536	1,425	1,169	1,440	-2.9
Electricity	2,411	2,457	+1.9	638	645	599	559	608	648	607	568	634	+4.3
Petroleum	7,520	7,412	-1.4	2,090	2,245	1,774	1,428	2,073	2,150	1,702	1,352	2,208	+6.5
Total	17,914	17,835	-0.4	4,942	4,996	4,337	3,695	4,886	5,019	4,283	3,541	4,992	+2.2
Transport sector													
Coal and other solid fuel	20	20	-	8	6	4	3	7	6	4	3	7	-
Electricity	100	102	+2.0	26	26	26	23	25	27	25	24	26	+4.0
Petroleum	12,931	13,603	+5.2	3,177	2,988	3,218	3,420	3,305	3,046	3,456	3,635	3,466	+4.9
Total	13,051	13,725	+5.2	3,211	3,020	3,248	3,446	3,337	3,079	3,485	3,662	3,499	+4.9
Domestic sector													
Coal	3,230	2,968	-8.1	811	850	773	703	904	761	724	647	836	-7.5
Other solid fuel <sup>9</sup>	843	780	-7.5	188	227	204	223	189	192	197	196	195	+3.2
Gas <sup>11</sup>	6,590	7,261	+10.2	2,050	2,413	1,371	771	2,035	2,808	1,393	866	2,194	+7.8
Electricity	2,932	2,928	-0.1	863	972	638	511	811	965	636	517	810	-0.1
Petroleum	1,450	1,423	-1.9	472	518	295	205	432	520	277	201	425	-1.6
Total	15,045	15,360	+2.1	4,384	4,980	3,281	2,413	4,371	5,246	3,227	2,427	4,460	+2.0
Other final users <sup>12</sup>													
Coal	544	515	-5.3	158	166	118	83	177	168	118	85	144	-18.6
Other solid fuel <sup>9</sup>	166	162	-2.4	34	50	36	45	35	42	39	41	40	+14.3
Gas <sup>11</sup>	1,587	1,744	+9.9	464	561	380	180	466	643	404	208	489	+4.9
Electricity	1,689	1,778	+5.3	465	495	386	346	462	519	403	363	493	+6.7
Petroleum	3,635	3,478	-4.3	1,046	1,241	822	531	1,041	1,214	788	509	967	-7.1
Total	7,621	7,677	+0.7	2,167	2,513	1,742	1,185	2,181	2,586	1,752	1,206	2,133	-2.2
Total final users	58,532	59,191	+1.1	16,098	16,873	13,812	11,905	15,942	17,140	13,921	11,834	16,296	+2.2
FINAL CONSUMPTION BY FUEL													
Coal	6,154	5,737	-6.8	1,692	1,663	1,440	1,282	1,769	1,574	1,364	1,146	1,653	-6.6
Other solid fuel <sup>9</sup>	3,560	3,292	-7.5	963	978	871	903	808	822	831	752	877	+8.5
Other coal derived fuels <sup>10</sup>	436	388	-11.0	112	113	112	114	97	98	106	88	96	-1.0
Gas <sup>11</sup>	14,120	15,021	+6.4	4,099	4,533	3,249	2,235	4,103	5,105	3,335	2,353	4,228	+3.0
Electricity	7,521	7,676	+2.1	2,101	2,242	1,745	1,531	2,003	2,265	1,777	1,565	2,069	+3.3
Petroleum	26,741	27,077	+1.3	7,131	7,344	6,395	5,840	7,102	7,266	6,508	5,930	7,373	+3.8
Total all fuels	58,532	59,191	+1.1	16,098	16,873	13,812	11,905	15,942	17,140	13,921	11,834	16,296	+2.2

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 <sup>2</sup>	Exports <sup>2</sup>	Tonnage lost (deep-mined) <sup>3</sup>	
		Total <sup>1</sup>	Deep-mined	Opencast				Recognised holidays and rest days	Disputes
1973	130,973	131,991	120,032	10,124	-1,081	1,675	2,693	10,478	5,658
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	122,648	122,150	107,123	13,551	+498	2,439	1,941	12,457	814
1978 p	123,663	123,577	107,528	14,167	+86	2,352	2,266	12,606	1,497
Per cent change	+0.8	+1.2	+0.4	+4.5	-82.7	-3.6	+16.7	+1.2	+83.9
1978 Jan	10,044	9,888	8,910	928	+156	313	157	441	70
Feb	10,760	10,756	9,562	994	+4	166	162	—	99
Mar*	12,485	12,480	11,000	1,305	+5	210	205	1,032	162
Total	33,289	33,124	29,472	3,227	+165	689	524	1,479	331
1979 Jan	8,836	8,820	8,138	639	+16	159	143	657	96
Feb	..	10,253	9,078	977	..	..	..	—	84
Mar* p	..	13,174	11,752	1,372	..	..	..	—	52
Total	..	32,247	28,968	2,988	..	..	..	657	232
Per Cent change	..	-2.6	-1.7	-7.4	..	..	..	-55.6	-29.9

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 <sup>1</sup>			
		Primary	Secondary				Colliery disposals			
		Collieries	Power stations <sup>2</sup>	Coke ovens	Gas works	Other <sup>3</sup> conversion industries	Industry <sup>4</sup>	Domestic <sup>5</sup>		Other <sup>8</sup>
								House coal <sup>6</sup>	Other <sup>7</sup>	
1973	133,291	1,381	76,774	21,890	512	3,586	12,080	12,667	1,819	2,582
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	1,503	2,148
1978 p	120,477	1,010	80,643	14,946	6	3,064	8,550	8,699	1,518	2,041
Per cent change	-2.8	-10.1	+0.9	-14.1	-14.3	-3.2	-5.3	-9.7	+1.0	-5.0
1978 Jan	10,850	93	7,524	1,151	—	245	788	725	125	199
Feb	11,201	103	7,742	1,165	1	241	889	717	112	231
Mar*	12,080	117	8,058	1,442	1	276	871	895	156	264
Total	34,131	313	23,324	3,758	2	762	2,548	2,337	393	694
1979 Jan p	10,942	88	8,164	1,002	1	208	605	610	62	202
Feb p	11,563	93	8,242	1,066	1	230	832	765	97	237
Mar* p	14,071	116	9,725	1,414	1	286	1,086	1,014	172	257
Total	36,576	297	26,131	3,482	3	724	2,523	2,389	331	696
Per cent change	+7.2	-5.1	+12.0	-7.3	+50.0	-5.0	-1.0	+2.2	-15.8	+0.3

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 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 and commerce.

TABLE 5. Stocks of coal<sup>1</sup> 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	Open cast sites and central stocking grounds
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
1978 p	34,527	22,038	20,200	1,658	2	178	12,489	9,888	2,601
1978 Jan	29,223	19,657	17,434	2,055	2	166	9,566	8,055	1,511
Feb	28,732	18,813	16,644	2,005	2	162	9,919	8,411	1,508
Mar	29,256	19,079	17,047	1,859	2	171	10,177	8,628	1,549
1979 Jan p	30,827	16,401	14,779	1,466	1	155	14,426	11,706	2,720
Feb p	29,637	14,916	12,983	1,756	2	175	14,721	11,952	2,769
Mar p	28,810	14,579	12,322	2,075	2	180	14,231	11,535	2,696
Absolute change: in latest month	-827	-337	-661	+319	—	+5	-490	-417	-73
On a year ago	-446	-4,500	-4,725	+216	—	+9	+4,054	+2,907	+1,147

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 <sup>1</sup>		Recruitment	Wastage	Absence percentage <sup>2</sup>			Average output per manshift <sup>3</sup>	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands		Number						
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
1978	232 <sup>4</sup>	184 <sup>4</sup>	20,595	27,653	17.3	4.3	13.0	2.25	8.53
Per cent change	-2.9	-2.6	-29.9	-12.6				+3.2	+9.8
1978 Jan	239	189	1,843	1,867	18.8	4.7	14.1	2.27	8.17
Feb	239	189	2,239	1,892	20.6	5.0	15.6	2.36	8.63
Mar*	239	190	2,276	2,151	18.9	4.7	14.2	2.33	8.77
1979 Jan	232	184	1,687	1,529	18.8	5.2	13.6	2.21	8.31
Feb	232	185	2,041	1,580	19.4	5.4	14.0	2.28	8.59
Mar* p	232	185	2,357	2,044	18.2	5.1	13.1	2.31	8.75

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

4. The average number of wage earners during the period was as follows:-

Total 237 Thousand (1.7% compared with 1977).

Underground 188 Thousand (1.6% compared with 1977).

## 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 <sup>1</sup>		Coal	Oil <sup>3</sup>	Total	Town gas	Natural <sup>4</sup> gas for direct supply
		Indigenous	Imported <sup>2</sup>					
	Million therms				Thousand tonnes		Million therms	
1973	10,916	10,639	277	512	2,320	11,620	2,434	9,186
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
1978 p	15,854	13,997	1,857	6	283	15,853	39	15,814
Per cent change	+3.1	-5.0	(+)	-14.3	+71.1	+3.5	-48.0	+3.7
1978 Jan	1,741	1,590	151	1	32	1,746	4	1,742
Feb	1,785	1,646	139	—	57	1,798	4	1,794
Mar*	1,871	1,733	138	1	21	1,871	4	1,867
Total	5,397	11.7 4,969	428	2	110	5,415	12	5,403
1979 Jan	1,942	1,632	310	1	28	1,956	4	1,952
Feb	1,934	1,637	297	1	26	1,953	4	1,949
Mar* p	2,280	1,910	370	1	20	2,283	4	2,279
Total	6,156	12.2 5,179	977	3	74	6,192	12	6,180
Per cent change	+14.1	+4.2	(+)	+33.0	-32.7	+14.3	+6.8	+14.4

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 <sup>1</sup>	Iron and steel industry	Other industries	Domestic	Other <sup>2</sup>
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
1978	15,308	338	446	5,519	7,261	1,744
Per cent change	+5.0	-34.9	-8.0	+2.2	+10.2	+9.9
1976 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	5,257	165	118	1,523	2,808	643
2nd quarter	3,344	25	113	1,409	1,393	404
3rd quarter	2,416	69	110	1,163	866	208
4th quarter	4,291	79	105	1,424	2,194	489
Per cent change	+0.8	-52.4	-4.5	-3.1	+7.8	+4.9

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 <sup>5</sup> use	Electricity supplied	Total <sup>6</sup> electricity available
	Total <sup>1</sup>	Coal <sup>2</sup>	Oil <sup>2 3</sup>	Natural gas	Nuclear electricity	Hydro electricity	Total <sup>4</sup>	By steam plant				
								Nuclear	Other			
	Million tonnes coal or coal equivalent							TWh				
United Kingdom												
1973	116.52	76.78	28.49	1.15	8.35	1.69	258.80	23.66	229.89	18.43	240.37	244.76
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
1978 p	115.14	80.87	19.49	1.01	11.89	1.76	266.78	33.34	228.26	18.78	248.00	251.87
Per cent change	+1.0	+1.6	+8.4	−42.6	−7.7	+1.7	+1.8	−8.5	+3.7	−4.0	+2.3	+2.4
1977 Dec*	12.56	8.54	2.16	0.25	1.40	0.20	28.84	3.95	24.29	2.08	26.76	27.13
1978 Jan	10.93	7.52	1.83	0.23	1.16	0.18	25.22	3.25	21.46	1.78	23.44	23.78
Feb	11.24	7.74	1.98	0.16	1.21	0.14	26.09	3.39	22.28	1.82	24.27	24.64
Total	34.73	23.80	5.97	0.64	3.77	0.52	80.15	10.59	68.03	5.68	74.47	75.55
1978 Dec*	13.33	9.56	2.22	0.07	1.19	0.27	30.86	3.34	26.81	2.08	28.78	29.16
1979 Jan p	11.86	8.16	2.32	—	1.21	0.75	27.44	3.39	23.59	1.85	25.59	25.91
Feb p	11.89	8.25	2.28	—	1.24	0.11	27.56	3.46	23.73	1.85	25.71	26.07
Total	37.08	25.97	6.82	0.07	3.64	0.53	85.86	10.19	74.13	5.78	80.08	81.14
Per cent change	+6.8	+9.1	+14.2	(−)	−3.4	+1.9	+7.1	−3.8	+9.0	+1.8	+7.5	+7.4
England and Wales												
1973	101.03	68.22	23.94	1.15	7.57	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	97.63	59.57	24.39	3.92	9.58	0.12	218.85	26.93	190.32	15.89	202.96	205.55
1975	94.16	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
1978 p	99.50	72.18	15.94	1.01	10.14	0.11	231.41	28.46	202.08	15.81	215.60	218.54
Per cent change	+1.2	+2.3	+6.8	−42.6	−6.8	−2.6	+1.9	−7.3	+3.6	−2.8	+2.3	+2.5
1977 Dec*	10.73	7.46	1.80	0.25	1.20	0.01	24.74	3.38	21.26	1.73	23.01	23.28
1978 Jan	9.39	6.66	1.49	0.23	0.99	0.01	21.78	2.76	18.94	1.49	20.29	20.61
Feb	9.68	6.84	1.60	0.16	1.07	0.01	22.53	2.99	19.46	1.52	21.01	21.30
Total	29.80	20.96	4.89	0.64	3.26	0.03	69.05	9.13	59.66	4.74	64.31	65.19
1978 Dec*	11.39	8.52	1.67	0.07	1.09	0.02	26.48	3.05	23.33	1.76	24.72	25.11
1979 Jan p	10.27	7.44	1.78	—	1.02	0.01	23.71	2.86	20.76	1.55	22.16	22.39
Feb p	10.26	7.43	1.77	—	1.04	0.01	23.81	2.89	20.84	1.54	22.27	22.49
Total	31.92	23.39	5.22	0.07	3.15	0.04	74.00	8.80	64.93	4.85	69.15	69.99
Per cent change	+7.1	+11.6	+6.7	(−)	−3.4	+33.3	+7.2	−3.6	+8.8	+2.3	+7.5	+7.4

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 <sup>1</sup>
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 <sup>2</sup>	76,561 <sup>2</sup>	85,902	50,882
1978	230,210	13,063 <sup>2</sup>	77,839 <sup>2</sup>	85,802	53,506
Per cent change	+2.0	+6.1	+1.7	-0.1	+5.2
1976 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 <sup>2</sup>	20,458 <sup>2</sup>	18,803	11,685
3rd quarter	46,077	2,911 <sup>2</sup>	17,793 <sup>2</sup>	14,938	10,435
4th quarter	59,862	3,072 <sup>2</sup>	19,317 <sup>2</sup>	23,597	13,876
1978 1st quarter	67,732	3,360 <sup>2</sup>	20,507 <sup>2</sup>	28,266	15,599
2nd quarter	53,374	3,368 <sup>2</sup>	19,227 <sup>2</sup>	18,627	12,152
3rd quarter	47,163	2,975 <sup>2</sup>	18,051 <sup>2</sup>	15,166	10,971
4th quarter	61,941	3,360 <sup>2</sup>	20,054 <sup>2</sup>	23,743	14,784
Per cent change	+3.5	+9.4	+3.8	+0.6	+6.5

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



# Petroleum

TABLE 11. Production, arrivals and shipments<sup>1</sup>

	Crude Petroleum						Petroleum Products				
	Gross <sup>2</sup> Indigenous Production	Supply				Arrivals <sup>4 5</sup>	Shipments <sup>4 5</sup>	Arrivals <sup>4</sup>	Shipments <sup>4</sup>	Net Arrivals	Bunkers <sup>6</sup>
		Total	Indigenous <sup>2</sup>	Net arrivals	Other <sup>3</sup>						
1973	373	114,032	235	+112,237	1,560	115,472	3,235	18,300	17,404	+ 896	5,499
1974	410	113,478	250	+111,418	1,810	112,822	1,404	14,537	14,631	-94	4,759
1975	1,564	92,273	1,156	+89,942	1,275	91,366	1,524	12,786	13,924	-1,138	3,444
1976	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,709	15,988	-5,279	3,569
1977	37,879	92,260	37,540	+54,038	682	70,697	16,659	13,049	14,294	-1,245	2,829
1978 p	53,378	96,758	52,557	+43,285	916	68,144	24,859	11,511	13,536	-2,025	2,617
Per cent change	+40.9	+4.9	+40.0	-19.9	+34.2	-3.6	+49.2	-11.8	-5.3		-7.5
1977 Dec	3,587	8,289	3,381	+4,771	137	6,167	1,396	1,624	910	+714	216
1978 Jan	3,766	8,243	3,676	+4,505	62	6,052	1,547	1,137	851	+286	205
Feb	3,610	8,278	3,703	+4,481	94	6,121	1,640	1,113	696	+417	191
Total	10,963	24,810	10,760	+13,757	293	18,340	4,583	3,874	2,457	+1,417	612
1978 Dec	5,638	8,423	5,462	+2,897	64	5,611	2,714	1,103	1,230	-127	249
1979 Jan	6,104	9,144	6,227	+2,868	49	5,934	3,066	1,168	1,194	-26	207
Feb p	5,670	7,868	5,956	+1,885	27	5,109	3,224	894	1,093	-199	242
Total	17,412	25,435	17,645	+7,650	140	16,654	9,004	3,165	3,517	-352	698
Per cent change	+58.8	+2.5	+64.0	-44.4	(-)	-9.2	+96.5	-18.3	+43.1		+14.0

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 products<sup>1</sup>

Thousand tonnes

	Through- put of crude and process oil	Refinery use		Total output of petrol- eum pro- ducts <sup>2</sup>	Gases		Naphthe (LDF)	Motor spirit	Kerosene		Gas/ diesel oil	Fuel oil	Lubri- cating oil	Bitumen
		Fuel	Losses		Butane and propane	Other petro- elum			Aviation turbine fuel	Burning oil <sup>3</sup>				
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	2,090
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
1978 p	96,390	6,423	811	89,156	1,613	147	4,626	15,958	4,783	2,614	24,024	30,518	1,203	1,866
Per cent change	+3.0	+3.0	-21.9	+3.3	+4.8	+3.6	+3.1	+7.8	+19.5	+6.2	+2.3	+0.1	-12.8	+0.2
1977 Dec	8,617	566	107	7,944	154	15	419	1,332	302	303	2,102	2,922	120	133
1978 Jan	8,391	574	56	7,761	146	11	421	1,287	354	336	2,080	2,816	85	112
Feb	7,527	515	137	6,875	127	12	370	1,149	341	266	1,897	2,432	67	102
Total	24,535	1,655	300	22,580	427	38	1,210	3,768	997	905	6,079	8,170	272	347
1978 Dec	8,800	596	28	8,176	159	15	397	1,505	372	298	2,201	2,817	101	128
1979 Jan	8,636	599	104	7,933	148	14	448	1,377	352	306	2,201	2,763	89	68
Feb p	8,290	542	85	7,663	158	13	413	1,309	365	353	2,059	2,682	77	88
Total	25,726	1,737	217	23,772	465	42	1,258	4,191	1,089	957	6,461	8,262	267	284
Per cent change	+4.9	+5.0	-27.7	+5.3	+8.8	+8.1	+4.0	+11.2	+9.2	+5.7	+6.3	+1.1	-1.8	-18.0

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 consumption<sup>1</sup>

Thousand tonnes

	Total <sup>2 3</sup>	Butane <sup>4</sup> and propane	Naphtha (LDF) <sup>5</sup>	Motor spirit	Kerosene				Gas/diesel oil		Fuel oil	Lubri- cating oils	Bituman
					Aviation turbine fuel	Burning oil			Derv fuel	Other			
						Premier	Standard						
							Domestic	Other <sup>6</sup>					
1973	99,786	1,600	8,373	16,927	4,202	788	1,931	501	5,658	15,100	39,447	1,185	2,458
1974	93,409	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	82,824	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976	81,579	1,330	5,404	16,879	3,989	576	1,686	372	5,594	12,984	27,825	1,011	1,867
1977	82,759	1,320	5,179	17,336	4,165	559	1,677	391	5,711	13,914	27,772	1,029	1,847
1978 p	84,141	1,318	4,916	18,348	4,506	536	1,696	428	5,875	13,600	28,233	1,027	1,887
Per cent change	+1.7	-0.2	-5.1	+5.8	+8.2	-4.1	+1.1	+9.4	+2.9	-2.3	+1.7	-0.7	+2.2
1977 Dec	8,025	124	405	1,532	312	82	203	44	487	1,513	2,949	80	118
1978 Jan	7,745	135	443	1,369	307	92	199	44	466	1,540	2,841	85	102
Feb	7,288	124	465	1,191	243	99	196	49	437	1,493	2,698	77	105
Total	22,988	383	1,313	4,092	862	273	598	137	1,390	4,546	8,488	242	325
1978 Dec	7,838	129	400	1,502	319	87	211	54	499	1,445	2,838	75	108
Jan	7,998	145	385	1,347	303	125	234	53	377	1,660	3,113	61	55
Feb p	7,948	150	355	1,329	313	111	233	53	455	1,667	2,959	87	92
Total	23,784	424	1,140	4,178	935	323	678	160	1,331	4,772	8,910	223	255
Per cent change	+3.5	+10.8	-13.2	+2.1	+8.5	+18.8	+13.4	+16.4	-4.2	+5.0	+5.0	-7.8	-21.3

1. Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial and white spirits, paraffin wax and miscellaneous products. 3. Excluding refinery fuel. 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<sup>1, 2</sup>

Thousand tonnes

	Total	Power stations <sup>3</sup>	Gas works	Iron and steel industry	Other industries	Transport <sup>4</sup>	Domestic	Other <sup>5</sup>
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	27,583	3,270	7,935
1976	71,473	10,441	366	3,128	17,487	28,592	3,269	8,183
1977	73,043	10,873	292	2,938	17,701	29,359	3,263	8,617
1978 p	74,702	11,638	342	2,836	17,544	30,877	3,225	8,240
Per cent change	+2.3	+7.0	+17.1	-3.5	-0.9	+5.2	-1.2	-4.4
1977 Nov	7,088	1,381	33	271	1,738	2,480	334	851
Dec	7,266	1,293	35	241	1,797	2,515	410	975
1978 Jan	6,970	1,095	34	264	1,854	2,319	412	992
Total	21,324	3,769	102	776	5,389	7,314	1,156	2,818
1978 Nov	6,698	1,023	28	260	1,673	2,656	295	763
Dec	7,100	1,259	34	247	1,745	2,510	409	896
1979 Jan p	7,379	1,344	43	272	1,963	2,186	485	1,086
Total	21,177	3,626	105	779	5,381	7,352	1,189	2,745
Per cent change	-0.7	-3.8	+2.4	+0.5	-0.2	+0.5	+2.9	-2.6

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, commercial and agriculture

TABLE 15. Stocks of petroleum at end of month

	Held by oil companies <sup>1</sup>		Power stations <sup>2</sup>
	Million tonnes	Estimated days supply <sup>3</sup>	Million tonnes
1978 Jan	19.1	72	1.04
Feb	19.7	78	1.08
Mar	18.4	78	1.03
1979 Jan	18.9	69	1.03
Feb	17.7	68	0.81
Mar p	16.9	70	0.76

1. Stocks of petroleum products plus the product equivalent of crude and process oils held at refineries, and products in the wholesale distribution system. 2. Fuel oil held at main oil burning stations in Great Britain. 3. Latest three months calculated on forecast deliveries for the ensuing months. Figures for earlier period calculated on actual deliveries.

## APPROXIMATE CONVERSION FACTORS

(last digit rounded to nought or five)

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

To \ From	Million 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 <sup>1</sup>	0.500 <sup>2</sup>
Million tonnes oil equivalent	0.60	1	0.00235	0.0800 <sup>1</sup>	0.280 <sup>2</sup>
Million therms	250	425	1	34.0	115
TWh electrical energy	7.35	12.5	0.0295	1	..
TWh electricity generated	2.00 <sup>3</sup>	3.60 <sup>3</sup>	0.00880 <sup>3</sup>	..	1

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

Electricity generated outside the public electricity supply system in Great Britain (<sup>1</sup>)

GWh

	Total	Industry										Transport under takings
		Total industry	Iron and steel	Engineering and other metal trades	Food drink and tobacco	Coal mining	Chemical and allied trades		Textiles, leather and clothing	Paper, printing and stationery	Other industries (including gas and water works)	
							Nuclear <sup>2</sup> power stations	Others <sup>3</sup>				
1973	22,995	22,292	2,707	2,716	458	309	4,339	7,859	498	2,763	643	703
1974	22,424	21,775	2,179	3,139	521	251	4,222	7,942	450	2,569	502	649
1975	20,470	19,781	1,660	3,319	435	297	3,820	7,343	406	2,107	394	689
1976	21,714	21,024	1,706	3,362	496	269	3,736	8,434	423	2,218	380	690
1977	20,969	20,268	1,555	3,463	516	278	3,604	7,969	355	2,136	392	701
1978	20,813	20,113	1,338	3,409	520	212	3,885	7,983	335	2,098	333	700
Per cent change	-0.7	-0.8	-14.0	-1.6	+0.8	-23.7	+7.8	+0.2	-5.6	-1.8	-15.1	-0.1
1976 4th quarter	5,742	5,570	450	864	246	74	992	2,144	107	596	97	172
1977 1st quarter	5,706	5,522	503	882	136	69	922	2,171	108	617	114	184
2nd quarter	4,962	4,791	351	885	78	77	802	1,886	93	525	94	171
3rd quarter	4,778	4,611	317	825	71	57	934	1,795	84	446	82	167
4th quarter	5,523	5,344	384	871	231	75	946	2,117	70	548	102	179
1978 1st quarter	5,732	5,545	377	937	130	58	1,087	2,161	90	595	110	187
2nd quarter	4,696	4,523	308	862	77	62	742	1,821	64	511	76	173
3rd quarter	4,850	4,685	284	829	68	51	974	1,876	87	451	65	165
4th quarter	5,535	5,360	369	781	245	41	1,082	2,125	94	541	82	175
Per cent change	+0.2	+0.3	-3.9	-10.3	+6.1	-45.3	+14.4	+0.4	+34.3	-1.3	-19.6	-2.2

1. Excludes electricity generated by commerce, public administration, etc. 2. Generated by UKAEA and British Nuclear Fuels Ltd. for the public electricity supply system. 3. Including production by the oil refining industry.