

## ENERGY TRENDS

## A Statistical Bulletin

MARCH 1978

## Lower consumption in warm early Winter

Nov Jan + 9.32 DEC 9.31  
9.37 9.42

**Total Energy****Coal consumption lower**

Total inland energy consumption measured on a primary fuel input basis during the three month period November to January was 2 per cent lower than in the corresponding period a year ago. This reduction was due to a fall of  $9\frac{1}{2}$  per cent in coal consumption partly offset by a rise of 2.4 per cent in deliveries of petroleum and smaller increases of 1.4 and 2 per cent respectively in the consumption of natural gas and nuclear electricity.

The period as a whole was warmer than a year previously and after correction for temperature effects the seasonally adjusted series indicates that total energy consumption measured at an annual rate was about  $\frac{1}{2}$  per cent higher than a year ago.

**Coal****Improved productivity in February**

Total coal production in the period December to February was 1.5 per cent higher than in the comparable period a year ago, the increase of nearly  $\frac{1}{2}$  million tons in opencast production more than compensating the 200 thousand tons decline in output from deep mines.

Consumption of coal during the same period totalled 34.1 million tons, 2.8 million tons less than a year ago, a decline of 7.6 per cent. Power station consumption fell by 1.7 million tons but the reduction was confined to the first two months of the period, recovering to about last year's level with the onset of colder weather in February. The low level of use at coke ovens continued and consumption in the period was 22 per cent lower than a year earlier. In contrast, consumption at low temperature carbonisation and patent fuel plants for the manufacture of smokeless fuels was nearly 18 per cent higher and disposals of anthracite and dry steam coal for the domestic market rose to a similar extent.

Overall productivity at National Coal Board mines, as measured by output per manshift, which has been at a low level for nearly two years, rose to 46 cwts in February, 1.9 per cent higher than a year ago.

**Gas****Demand high in February**

Total gas sent out during the period December to February was 5.5 per cent higher than in the corresponding period a year earlier. The greater part of the increase occurred in February which was much colder than February 1977. The earlier months of the period were, in contrast, much warmer and for the period as a whole the rate of increase was close to the average growth in demand observed over the past twelve months.

**Electricity****Slackening in demand**

Total electricity supplied in the United Kingdom during the period November to January was 3.8 per cent lower than in the corresponding period a year previously, part of the decline being attributable to the milder weather, particularly in December. In England and Wales

(which is served by the Central Electricity Generating Board) electricity supplied declined by 5.2 per cent while in contrast, in Scotland electricity supplied increased by 6.7 per cent. During the most recent period however, England was a net importer of electricity from Scotland, a reversal of the situation a year earlier. As a result of these exchanges the quantity available for consumption in England and Wales was only 4.1 per cent lower and in Scotland 1.7 per cent lower than in the comparable period a year ago.

The simultaneous maximum load met at any one time in the United Kingdom (not shown in Energy Trends tables) reached 49,800 Megawatts during January, the highest demand yet placed on the public supply system.

**Petroleum****Rise in transport fuels**

Total indigenous supply of crude oil, including condensates, during the period November to January was 10.4 million tonnes, nearly double that in the corresponding months a year ago. During the period net arrivals of crude oil from overseas were 12.2 million tonnes, a reduction of 40 per cent. Refinery output of products fell by 4.8 per cent and with the exception of aviation turbine fuel, output of which rose by 13.7 per cent and motor spirit, which rose very slightly all major products shared in the decline with fuel oil falling by 11.4 per cent.

Total inland deliveries of products during the period were 2.5 per cent higher than a year ago, transport fuels, aviation turbine fuel, motor spirit and derv fuel with increases of 9.3, 8.8 and 7.1 per cent respectively accounting for the bulk of the increase. Deliveries of standard grade burning oil for domestic heating were lower by 5.2 per cent but recovered to last year's level in the final month of the period.

**Supplementary Data****Industrial fuel prices**

Provisional results for the fourth quarter are shown in the final table of this month's bulletin.

Average prices paid by large industrial consumers for coal, heavy fuel oil and gas oil changed only marginally between the third and fourth quarters but both gas and electricity prices rose by nearly 9 per cent.

Prices realised for heavy fuel oil and gas oil in new and renewed medium sized contracts fell slightly to levels a little above those obtaining in the early part of the year.

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Figures for the latest periods and the corresponding averages or totals are provisional and are liable to subsequent revision.

The figures have not been adjusted for temperature or seasonal factors except where noted in Table 1. Monthly figures relate to four week periods except where otherwise indicated.

Percentage changes relate to the corresponding period a year ago. These comparisons can be affected by calendar differences, especially during periods of rapid change. They are calculated from unrounded figures but are shown only as (+) or (–) when the percentage change is very large. All figures relate to the United Kingdom unless otherwise indicated.

Explanatory notes on the definitions and concepts used in the tables and on the relationship between some of the main series are given in the Supplement to the March 1976 issue of *Energy Trends* and on the first page of the August 1976 issue. Extra copies of that Supplement may be obtained from the Department of Energy.

**Symbols used in the tables**

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

**Total energy**

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural <sup>3</sup> gas	Nuclear electricity	Hydro-electricity	Total	Coal <sup>1</sup>	Petroleum <sup>2</sup>	Natural <sup>3</sup> gas	Nuclear electricity	Hydro-electricity
	Million tons of coal or coal equivalent						Million metric tonnes of oil or oil equivalent					
1972	332.7	120.5	159.6	40.3	10.5	1.8	198.8	72.0	95.4	24.0	6.3	1.1
1973	347.9	130.8	161.6	43.6	9.9	2.0	207.9	78.2	96.6	26.0	5.9	1.2
1974	332.2	116.0	150.1	52.1	11.9	2.1	198.6	69.3	89.7	31.2	7.1	1.3
1975	319.7	118.1	134.4	54.5	10.8	1.9	191.1	70.6	80.3	32.6	6.4	1.2
1976	324.7	120.1	132.1	57.9	12.7	1.9	194.0	71.8	78.9	34.6	7.6	1.1
1977 p	332.3	121.0	133.9	61.3	14.1	2.0	198.6	72.3	80.0	36.7	8.4	1.2
Per cent change	+2.4	+0.7	+1.4	+6.0	+11.0	+6.3	+2.4	+0.7	+1.4	+6.0	+11.0	+6.3
1976 Nov	28.7	10.4	11.0	6.0	1.1	0.2	17.2	6.2	6.6	3.6	0.7	0.1
Dec*	38.3	14.3	15.3	7.2	1.3	0.2	22.9	8.6	9.1	4.3	0.8	0.1
1977 Jan	30.9	11.0	11.5	7.2	1.1	0.1	18.4	6.5	6.8	4.3	0.7	0.1
Total	97.9	35.7	37.8	20.4	3.5	0.5	58.5	21.3	22.5	12.2	2.2	0.3
1977 Nov	28.6	9.3	11.8	6.3	0.9	0.3	17.1	5.6	7.0	3.8	0.5	0.2
Dec*	37.3	13.3	15.5	6.8	1.5	0.2	22.3	7.9	9.3	4.1	0.9	0.1
1978 Jan p	30.2	9.7	11.4	7.6	1.3	0.2	18.1	5.8	6.8	4.6	0.8	0.1
Total	96.1	32.3	38.7	20.7	3.7	0.7	57.5	19.3	23.1	12.5	2.2	0.4
Per cent change	–2.0	–9.6	+2.4	+1.4	+2.0	+45.8	–2.0	–9.6	+2.4	+1.4	+2.0	+45.8

Seasonally adjusted and temperature corrected<sup>4</sup> (annual rates).

1976 Nov	324.4	121.8	126.1	61.3	13.4	1.8	193.8	72.8	75.3	36.6	8.0	1.1
Dec*	338.3	130.4	126.1	67.8	12.7	1.3	202.2	77.9	75.4	40.5	7.6	0.8
1977 Jan	332.6	124.3	130.1	64.2	12.9	1.1	198.8	74.3	77.8	38.4	7.7	0.6
Average	332.3	125.9	127.3	64.7	13.0	1.4	198.6	75.2	76.1	38.7	7.8	0.8
1977 Nov	331.0	116.9	139.2	61.4	10.3	3.2	197.8	69.9	83.2	36.7	6.1	1.9
Dec*	339.3	122.3	139.6	60.9	14.6	1.9	202.8	73.1	83.5	36.4	8.7	1.1
1978 Jan p	329.2	113.4	131.3	68.2	14.9	1.4	196.8	67.8	78.5	40.8	8.9	0.8
Average	333.6	117.9	136.9	63.3	13.3	2.2	199.4	70.5	81.8	37.8	8.0	1.3
Per cent change	+0.4	–6.3	+7.5	–2.2	+2.8	+57.1	+0.4	–6.3	+7.5	–2.2	+2.8	+57.1

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

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

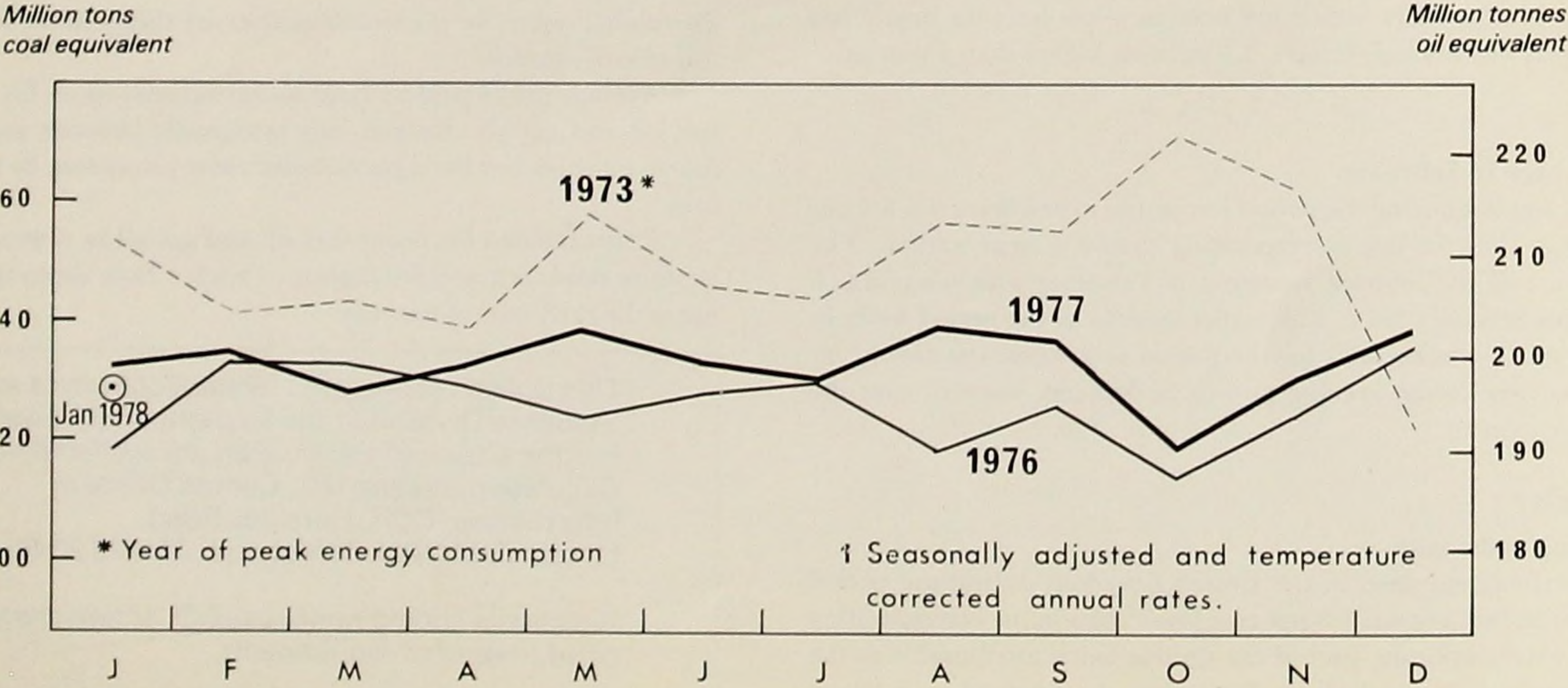




TABLE 2. Supply and use of fuels

Million therms

			Per cent change	1975		1976				1977 p			Per <sup>l</sup> cent change
	1975	1976		3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	31,430	30,166	— 4.0	6,602	8,442	8,006	7,635	6,378	8,147	7,568	7,538	6,463	+ 1.3
Petroleum <sup>2</sup>	665	5,206	( + )	137	415	574	1,020	1,335	2,277	3,295	4,209	4,341	( + )
Natural gas <sup>3</sup>	13,578	14,379	+ 5.9	2,191	4,214	4,727	2,962	2,173	4,517	4,910	3,448	2,483	+ 14.3
Primary electricity	2,982	3,411	+ 14.4	580	841	926	786	770	929	1,070	877	852	+ 10.6
Total	48,655	53,162	+ 9.3	9,510	13,912	14,233	12,403	10,656	15,870	16,843	16,072	14,139	+ 32.7
Arrivals. Petroleum <sup>4</sup>	44,216	43,174	— 2.4	10,521	11,117	10,992	10,949	10,160	11,073	9,613	9,114	8,251	— 18.8
Other	1,616	1,183	— 26.8	380	430	351	336	270	226	193	197	366	+ 35.6
Shipments	7,243	9,176	+ 26.7	1,993	1,882	1,745	2,068	2,507	2,856	2,973	3,649	3,885	+ 55.0
Bunkers	1,418	1,468	+ 3.5	354	344	371	346	381	370	316	303	293	— 23.1
Stock change <sup>5</sup>													
Solid fuels	— 2,576	— 634	..	— 891	— 703	+ 312	— 820	— 388	+ 262	+ 1,195	— 336	— 191	..
Crude petroleum	+ 475	— 378	..	+ 220	+ 78	+ 354	— 196	— 25	— 511	+ 159	— 231	+ 252	..
Petroleum products	+ 978	+ 240	..	— 503	+ 707	+ 648	— 431	— 367	+ 390	+ 560	— 222	— 314	..
Non-energy use	4,106	4,448	+ 8.3	960	1,135	1,138	1,111	1,159	1,040	929	1,116	+ 1,119	— 3.5
Statistical difference <sup>6</sup>	— 176	+ 54	..	— 13	— 12	+ 58	— 23	— 2	+ 21	— 210	+ 126	— 60	..
Total primary <sup>7</sup> energy input	80,421	81,709	+ 1.6	15,917	22,168	23,694	18,693	16,257	23,065	24,135	19,652	17,146	+ 5.5
Conversion losses etc. <sup>8</sup>	24,545	24,380	— 0.7	4,954	6,905	6,913	5,596	4,905	6,966	7,260	5,847	5,248	+ 7.0
FINAL CONSUMPTION BY USER:													
Iron and steel industry													
Coal	72	66	— 8.3	10	19	23	14	9	20	23	15	9	—
Other solid fuel <sup>9</sup>	2,374	2,723	+ 14.7	482	571	631	719	670	703	655	584	593	— 11.5
Other coal-derived fuels <sup>10</sup>	372	401	+ 7.8	76	92	98	109	97	97	95	90	97	—
Gas <sup>11</sup>	371	438	+ 18.1	79	100	108	112	99	119	128	125	113	+ 14.1
Electricity	344	395	+ 14.8	75	91	100	96	90	109	102	94	81	— 10.0
Petroleum	1,357	1,279	— 5.7	244	330	354	306	273	346	351	285	256	— 6.2
Total	4,890	5,302	+ 8.4	966	1,203	1,314	1,356	1,238	1,394	1,354	1,193	1,149	— 7.2
Other industries													
Coal	2,458	2,277	— 7.4	528	657	547	564	470	696	617	530	483	+ 2.8
Other solid fuel <sup>9</sup>	164	126	— 23.2	40	30	38	24	27	37	39	39	30	+ 11.1
Other coal-derived fuels <sup>10</sup>	78	76	— 2.6	22	16	13	23	25	15	17	17	14	— 44.0
Gas <sup>11</sup>	4,701	5,241	+ 11.5	1,007	1,308	1,456	1,236	1,083	1,466	1,431	1,373	1,172	+ 8.2
Electricity	2,228	2,364	+ 6.1	508	592	617	563	546	638	646	603	572	+ 4.8
Petroleum	7,434	7,441	+ 0.1	1,300	2,224	2,255	1,696	1,400	2,090	2,254	1,783	1,437	+ 2.6
Total	17,063	17,525	+ 2.7	3,405	4,827	4,926	4,106	3,551	4,942	5,004	4,345	3,708	+ 4.4
Transport sector													
Coal and other solid fuel	19	21	+ 10.5	3	7	7	4	2	8	6	4	2	—
Electricity	99	98	+ 1.0	23	25	26	24	22	26	27	26	24	+ 9.1
Petroleum	12,143	12,597	+ 3.7	3,225	3,043	2,889	3,198	3,333	3,177	2,988	3,218	3,421	+ 2.6
Total	12,261	12,716	+ 3.7	3,251	3,075	2,922	3,226	3,357	3,211	3,021	3,248	3,447	+ 2.7
Domestic sector													
Coal	3,381	3,143	— 7.0	699	766	932	765	634	812	851	774	704	+ 11.0
Other solid fuel <sup>9</sup>	962	869	— 9.7	260	201	277	196	208	188	231	208	228	+ 9.6
Gas <sup>11</sup>	5,891	6,194	+ 5.1	615	1,828	2,403	1,055	686	2,050	2,412	1,370	770	+ 12.2
Electricity	3,045	2,905	— 4.6	485	838	993	585	464	863	972	638	511	+ 10.1
Petroleum	1,434	1,435	— 0.1	194	461	519	268	176	472	514	291	201	+ 14.2
Total	14,713	14,546	— 1.1	2,253	4,094	5,124	2,869	2,168	4,385	4,980	3,281	2,414	+ 11.3
Other final users <sup>12</sup>													
Coal	490	516	+ 5.3	78	160	172	113	73	158	166	118	82	+ 12.3
Other solid fuel <sup>9</sup>	219	166	— 24.2	63	43	51	44	37	34	52	39	48	+ 29.7
Gas <sup>11</sup>	1,347	1,521	+ 12.9	171	394	571	317	169	464	561	380	180	+ 6.5
Electricity	1,546	1,596	+ 3.2	300	437	478	345	308	405	497	381	339	+ 10.1
Petroleum	3,347	3,441	+ 2.8	474	1,028	1,223	721	451	1,046	1,240	820	531	+ 17.7
Total	6,949	7,240	+ 4.2	1,086	2,062	2,495	1,540	1,038	2,167	2,516	1,738	1,180	+ 13.7
Total final users	55,876	57,329	+ 2.6	10,961	15,261	16,781	13,097	11,352	16,099	16,875	13,805	11,898	+ 4.8
FINAL CONSUMPTION BY FUEL:													
Coal	6,420	6,022	— 6.2	1,318	1,609	1,681	1,460	1,188	1,693	1,663	1,441	1,280	+ 7.7
Other solid fuel <sup>9</sup>	3,719	3,885	+ 4.5	845	845	997	983	942	963	977	870	899	— 4.6
Other coal-derived fuels <sup>10</sup>	450	477	+ 6.0	98	108	111	132	122	112	112	107	111	— 9.0
Gas <sup>11</sup>	12,310	13,394	+ 8.8	1,872	3,630	4,538	2,720	2,037	4,099	4,532	3,248	2,235	+ 9.7
Electricity	7,262	7,358	+ 1.3	1,391	1,983	2,214	1,613	1,430	2,101	2,244	1,742	1,527	+ 6.8
Petroleum	25,715	26,193	+ 1.9	5,437	7,086	7,240	6,189	5,633	7,131	7,347	6,397	5,846	+ 3.8
Total all fuels	55,876	57,329	+ 2.6	10,961	15,261	16,781	13,097	11,352	16,099	16,875	13,805	11,898	+ 4.8

1. Per cent change on the corresponding period of the previous year. 2. Crude petroleum and natural gas liquids. 3. Excluding gas flared or reinjected. 4. Crude petroleum, process oils and petroleum products. 5. Stock fall (+) stock rise (-). 6. Supply greater than recorded demand (-). 7. Thermal equivalent of total inland energy consumption in Table 1. A more detailed analysis of the annual figures is shown in the Digest of United Kingdom Energy Statistics 1977 Tables 8 and 10. 8. Losses in conversion and distribution and used by fuel industries. 9. Coke and other manufactured solid fuels. 10. Coke oven gas, creosote/pitch mixtures and other liquid fuels derived from coal. 11. Natural gas supplied direct, and town gas. 12. Mainly public administration, commerce and agriculture.



# Coal

TABLE 3. Supply

Thousand tons

	Net inland supply	Production			Net Imports	Imports <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
1972	123,125	119,927	107,390	10,261	+ 3,198	4,919	1,721	10,244	22,400
1973	128,904	129,906	118,140	9,964	— 1,002	1,649	2,651	10,313	5,569
1974	110,362	108,707	98,413	9,085	+ 1,655	3,491	1,836	10,352	15,996
1975	129,505	126,650	115,557	10,249	+ 2,855	5,003	2,148	12,105	347
1976	123,224	121,845	108,523	11,755	+ 1,379	2,792	1,413	12,150	1,140
1977 p	120,687	120,221	105,432	13,336	+ 466	2,376	1,910	12,260	801
Per cent change	— 2.1	— 1.3	— 2.8	+ 13.4	— 66.2	— 14.9	+ 35.2	+ 0.9	— 29.7
1976 Dec*	12,476	12,510	11,264	1,106	— 34	115	149	573	38
1977 Jan	7,472	7,285	6,638	608	+ 187	277	90	2,619	79
Feb	10,314	10,407	9,453	856	— 93	106	199	—	51
Total	30,262	30,202	27,355	2,570	+ 60	498	438	3,192	168
1977 Dec*	12,866	12,780	11,179	1,378	+ 86	264	178	89	68
1978 Jan	7,439	7,286	6,550	687	+ 153	308	155	2,573	53
Feb p	10,604	10,599	9,424	978	+ 5	164	159	—	84
Total	3,909	30,665	27,153	3,043	+ 244	736	492	2,662	205
Per cent change	+ 2.1	+ 1.5	— 0.7	+ 18.4	(+)	+ 47.8	+ 12.3	— 16.6	+ 22.0

1. Includes an estimate for slurry, etc., recovered and disposed of otherwise than by the National Coal Board. 2. As recorded in the "Overseas Trade Statistics of the United Kingdom". 3. NCB mines only.

TABLE 4. Inland consumption of coal

Thousand tons

	Total inland consumption	Fuel producers					Final users <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>	
1972	120,945	1,383	65,611	20,152	566	4,475	11,478	12,569	1,756	2,955
1973	131,270	1,359	75,628	21,543	504	3,550	11,890	12,466	1,790	2,540
1974	116,025	1,236	65,967	18,169	105	3,728	10,902	11,793	1,660	2,465
1975	120,286	1,218	73,391	18,783	9	3,999	9,532	9,759	1,677	1,918
1976	121,651	1,114	76,589	19,095	8	3,351	8,828	9,301	1,352	2,013
1977 p	122,192	1,106	78,694	17,303	7	3,116	8,890	9,483	1,479	2,114
Per cent change	+ 0.4	— 0.7	+ 2.7	— 9.4	— 12.5	— 7.0	+ 0.7	+ 2.0	+ 9.4	+ 5.0
1976 Dec*	14,318	128	9,633	1,808	1	272	1,076	991	129	280
1977 Jan	10,943	74	7,711	1,454	1	213	602	641	75	172
Feb	11,589	98	7,724	1,456	1	227	826	905	119	233
Total	36,850	300	25,068	4,718	3	712	2,504	2,537	323	685
1977 Dec*	13,258	130	8,822	1,412	1	342	1,032	1,020	171	328
1978 Jan	9,669	71	6,869	1,121	1	239	579	552	94	143
Feb p	11,135	100	7,710	1,148	1	257	868	706	114	231
Total	34,062	301	23,401	3,681	3	838	2,479	2,278	379	702
Per cent change	— 7.6	— 0.3	— 6.6	— 22.0	—	+ 17.7	— 1.0	— 10.2	+ 17.3	+ 2.5

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 tons

	Total	Distributed					Undistributed		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1972	29,979	19,045	16,791	1,890	50	314	10,934	7,558	3,376
1973	27,445	16,766	14,537	1,937	27	265	10,679	7,529	3,150
1974	21,462	15,577	13,414	1,822	3	338	5,885	3,946	1,939
1975	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976	32,592	22,102	19,288	2,642	2	170	10,490	9,148	1,342
1977 p	31,037	21,362	18,826	2,331	2	203	9,675	8,159	1,516
1976 Dec	32,592	22,102	19,288	2,642	2	170	10,490	9,148	1,342
1977 Jan	29,147	18,984	16,463	2,355	3	163	10,163	8,919	1,244
Feb	27,821	18,180	15,644	2,365	2	169	9,641	8,568	1,073
1977 Dec	31,037	21,362	18,826	2,331	2	203	9,675	8,159	1,516
1978 Jan	28,910	19,455	17,162	2,108	2	183	9,455	7,944	1,511
Feb p	28,430	18,704	16,461	2,041	2	200	9,726	8,200	1,526
Absolute change:									
In latest month	— 480	— 751	— 701	— 67	—	+ 17	+ 271	+ 256	+ 15
On a year ago	+ 609	+ 524	+ 817	— 324	—	+ 31	+ 85	— 368	+ 453

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>1</sup>	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands	Number	Per cent	Cwt.					
1972	266	210	13,255	26,114	16.6	3.9	12.7	43.60	144.35
1973	245	193	17,402	37,961	18.0	4.1	13.9	45.00	150.00
1974	246	194	26,436	25,133	16.3	4.1	12.2	42.83	
1975	245	194	21,347	22,451	16.2	4.0	12.2	44.92	155.85
1976	241	192	17,061	21,239	17.4	3.7	13.7	43.81	152.59
1977 p	239	189	29,361	31,647	17.6	3.9	13.7	42.91	152.91
1976 Dec*	241	192	1,408	1,877	18.0	4.1	13.9	44.55	155.38
1977 Jan	241	191	1,412	1,607	18.0	3.6	14.4	43.09	153.85
Feb	241	192	2,066	1,841	19.4	4.1	15.3	45.16	155.77
1977 Dec*	239	189	1,816	2,044	18.5	4.8	13.7	43.12	153.76
1978 Jan	238	189	1,367	1,610	17.5	3.8	13.7	43.00	158.32
Feb p	239	189	2,180	1,876	20.0	4.8	15.2	46.02	167.23

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

## Gas

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

	Natural gas supply			Other fuel used		Gas sent out		
	Total into system	Source <sup>1</sup>		Coal	Oil <sup>2</sup>	Total	Town gas	Natural <sup>3</sup> gas for direct supply
		Indigenous	Imported					
	<i>Million therms</i>				<i>Thousand tons</i>		<i>Million therms</i>	
1972	10,071	9,775	296	559	2,170	10,614	3,415	7,199
1973	10,916	10,639	277	503	2,286	11,620	2,434	9,186
1974	13,102	12,861	241	105	1,256	13,451	1,598	11,853
1975	13,692	13,367	325	9	579	13,822	752	13,070
1976	14,420	14,030	390	8	241	14,445	226	14,219
1977 p	15,373	14,734	639	7	163	15,323	75	15,248
Per cent change	+6.6	+5.0	+63.8	−5.3	−32.4	+6.1	−66.8	+7.2
1976 Dec*	2,006	1,975	31	1	24	2,001	14	1,987
1977 Jan	1,647	1,623	24	1	28	1,644	12	1,632
Feb	1,550	1,526	24	1	18	1,553	11	1,542
Total	5,203	5,124	79	3	70	5,198	37	5,161
1977 Dec*	1,948	1,770	178	1	21	1,940	4	1,936
1978 Jan	1,740	1,589	151	—	31	1,746	4	1,742
Feb p	1,785	1,646	139	1	63	1,798	4	1,794
Total	5,473	5,005	468	2	115	5,484	12	5,472
Per cent change	+5.2	−2.3	(+)	−25.9	+64.3	+5.5	−67.6	+6.0

1. Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system. 2. Mainly naphtha (LDF), liquefied petroleum gases (LPG) and refinery gases. 3. 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>
1971	7,520	263	343	2,118	3,930	866
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
1976	13,997	662	438	5,182	6,194	1,521
Per cent change	+6.8	-22.8	+18.1	+11.6	+5.1	+12.9
1975 3rd quarter	2,067	208	79	994	615	171
4th quarter	3,857	243	100	1,292	1,828	394
1976 1st quarter	4,765	240	108	1,443	2,403	571
2nd quarter	2,865	160	112	1,221	1,055	317
3rd quarter	2,149	129	99	1,066	686	169
4th quarter	4,218	133	119	1,452	2,050	464
1977 1st quarter p	4,633	118	128	1,414	2,412	561
2nd quarter p	3,316	82	125	1,359	1,370	380
3rd quarter p	2,372	153	113	1,156	770	180
Per cent change	+10.4	+18.6	+14.1	+8.4	+12.2	+6.5

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 tons of coal or coal equivalent						TWh					
United Kingdom												
1972	109.37	65.25	31.25	2.48	8.89	1.47	242.75	25.30	212.20	18.05	224.70	229.23
1973	114.68	75.57	28.04	1.13	8.22	1.66	258.80	23.66	229.89	18.43	240.37	244.76
1974	110.49	65.97	28.51	3.86	10.28	1.81	250.47	29.40	215.70	18.07	232.40	236.68
1975	108.97	73.39	21.14	3.37	9.29	1.64	251.26	26.52	219.69	18.02	233.24	237.30
1976	108.76	76.59	16.78	2.51	11.22	1.61	254.92	32.42	217.50	19.16	235.76	239.47
1977 p	112.18	78.30	17.70	1.73	12.68	1.70	262.04	36.42	220.06	19.56	242.48	246.02
Per cent change	+3.1	+2.2	+5.5	−31.1	+13.0	+5.6	+2.8	+12.3	+1.2	+2.1	+2.9	+2.7
1976 Nov	9.46	6.76	1.41	0.15	1.00	0.13	22.20	2.86	18.93	1.63	20.57	20.85
Dec*	13.40	9.63	2.23	0.16	1.22	0.15	31.33	3.51	27.27	2.28	29.05	29.44
1977 Jan	11.09	7.94	1.88	0.13	1.00	0.13	25.78	2.90	22.40	1.84	23.94	24.24
Total	33.95	24.33	5.52	0.44	3.22	0.41	79.31	9.27	68.60	5.75	73.56	74.53
1977 Nov	9.69	6.12	2.35	0.18	0.75	0.28	22.09	2.20	18.94	1.54	20.55	20.85
Dec*	12.37	8.41	2.13	0.24	1.38	0.20	28.84	3.95	24.29	2.08	26.76	27.13
1978 Jan p	10.76	7.40	1.81	0.23	1.14	0.17	25.23	3.25	21.47	1.78	23.45	23.78
Total	32.82	21.93	6.29	0.65	3.27	0.65	76.16	9.40	64.70	5.40	70.76	71.76
Per cent change	−3.3	−9.9	+13.9	+47.7	+1.6	+58.5	−4.0	+1.4	−5.7	−6.1	−3.8	−3.7
England and Wales												
1972	95.63	58.21	26.74	2.48	8.08	0.09	212.91	23.01	187.95	15.71	197.20	200.24
1973	99.43	67.14	23.56	1.13	7.45	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	96.09	58.63	24.00	3.86	9.43	0.12	218.85	26.93	190.43	15.89	202.96	205.55
1975	94.62	64.67	17.95	3.37	8.40	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.94	206.18	207.62
1977 p	96.79	69.48	14.69	1.73	10.71	0.11	226.99	30.71	195.10	16.26	210.73	213.19
Per cent change	+2.7	+2.2	+6.1	−31.1	+8.8	+37.5	+2.2	+8.5	+1.0	+2.0	+2.2	+2.7
1976 Nov	8.20	6.03	1.15	0.15	0.85	0.01	19.41	2.44	16.91	1.37	18.04	18.15
Dec*	11.58	8.49	1.82	0.16	1.09	0.01	27.22	3.14	23.97	1.88	25.34	25.36
1977 Jan	9.56	6.94	1.58	0.13	0.89	0.01	22.31	2.57	19.62	1.53	20.78	20.98
Total	29.34	21.46	4.55	0.44	2.83	0.03	68.94	8.15	60.50	4.78	64.16	64.49
1977 Nov	8.22	5.35	2.01	0.18	0.65	0.02	18.83	1.88	16.63	1.29	17.54	17.98
Dec*	10.56	7.34	1.77	0.24	1.19	0.01	24.75	3.38	21.26	1.73	23.02	23.28
1978 Jan p	9.24	6.55	1.47	0.23	0.97	0.01	21.78	2.76	18.94	1.49	20.29	20.61
Total	28.02	19.24	5.25	0.65	2.81	0.04	65.36	8.02	56.83	4.51	60.85	61.87
Per cent change	−4.5	−10.3	+15.4	+47.7	−0.7	+33.3	−5.2	−1.6	−6.1	−5.6	−5.2	−4.1

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

TABLE 10. Sales of electricity by the public supply system

GWh

	Total	Iron and steel industry	Other industries	Domestic	Other <sup>1</sup>
1971	203,433	10,837	69,337	80,674	42,585
1972	210,417	10,774	68,967	86,889	43,787
1973	225,267	11,646	75,327	91,299	46,995
1974	218,552	11,292	70,967	92,626	43,667
1975	217,924	11,164	70,854	89,214	46,692
1976	220,841	12,607	74,986	85,117	48,131
Per cent change	+1.3	+12.9	+5.8	-4.6	+3.1
1975 3rd quarter	42,042	2,407	16,219	14,218	9,198
4th quarter	59,498	2,922	18,838	24,545	13,193
1976 1st quarter	66,235	3,208	19,559	29,089	14,379
2nd quarter	48,537	3,071	17,910	17,148	10,408
3rd quarter	43,112	2,875	17,314	13,584	9,339
4th quarter	62,957	3,453	20,203	25,296	14,005
1977 1st quarter p	67,165	3,268	20,445	28,488	14,964
2nd quarter p	52,346	3,050 <sup>2</sup>	19,064 <sup>2</sup>	18,686	11,546
3rd quarter p	46,030	2,645 <sup>2</sup>	18,153 <sup>2</sup>	14,966	10,266
Per cent change	+6.8	-8.0	+4.8	+10.2	+9.9

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



# Petroleum

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

Thousand tonnes

	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>						
1972	333	105,641	226	+ 104,148	1,267	107,706	3,558	20,440	15,775	+ 4,665	5,225
1973	373	114,032	235	+ 112,237	1,560	115,472	3,235	17,808	16,681	+ 1,127	5,499
1974	410	113,478	250	+ 111,418	1,810	112,822	1,404	14,256	14,396	- 140	4,759
1975	1,564	92,273	1,156	+ 89,842	1,275	91,366	1,524	12,461	13,664	- 1,203	3,444
1976	12,036	98,384	11,511	+ 86,181	692	90,466	4,285	10,422	15,726	- 5,304	3,569
1977 p	37,879	92,260	37,540	+ 54,038	682	70,697	16,659	12,716	13,928	- 1,212	2,855
Per cent change	(+)	- 6.2	(+)	- 37.3	- 1.4	- 21.9	(+)	+ 22.0	- 11.4	(-)	- 20.0
1976 Nov	1,640	9,193	1,632	+ 7,564	- 3	8,128	564	592	1,441	- 849	322
Dec	1,989	8,995	1,821	+ 7,156	18	7,855	699	1,028	1,544	- 516	328
1977 Jan	2,236	7,695	2,084	+ 5,640	- 29	6,463	823	1,233	1,253	- 20	248
Total	5,865	25,883	5,537	+ 20,360	- 14	22,446	2,086	2,853	4,238	- 1,385	898
1977 Nov	3,279	6,357	3,343	+ 2,911	103	4,461	1,550	1,303	863	+ 440	193
Dec	3,587	8,289	3,381	+ 4,771	137	6,167	1,396	1,597	880	+ 717	225
1978 Jan p	3,723	8,243	3,628	+ 4,553	62	6,052	1,499	1,115	849	+ 266	216
Total	10,589	22,889	10,352	+ 12,235	302	16,680	4,445	4,015	2,592	+ 1,423	634
Per cent change	+ 80.5	- 11.6	+ 87.0	- 39.9	(+)	- 25.7	(+)	+ 40.7	- 38.9	(+)	- 29.4

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 oils	Refinery use		Total output of petrol- eum pro- ducts <sup>2</sup>	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 <sup>3</sup>				
1972	106,980	6,420	1,192	99,368	1,463	369	5,728	13,632	4,180	2,649	25,536	41,002	1,333	2,004
1973	114,338	7,053	1,331	105,954	1,655	394	6,607	14,842	4,550	2,717	27,853	42,026	1,477	2,225
1974	111,217	6,946	1,211	103,060	1,602	272	6,448	14,520	4,475	2,564	27,641	40,022	1,455	2,129
1975	93,579	6,031	901	86,647	1,447	151	3,968	13,940	3,959	2,299	23,324	32,711	1,141	2,099
1976	97,784	6,342	1,158	90,284	1,575	158	4,583	15,232	4,163	2,458	24,198	32,696	1,310	1,897
1977 p	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
1976 Nov	8,583	519	84	7,980	143	11	419	1,299	300	287	1,970	3,151	107	167
Dec	8,833	561	184	8,088	151	13	485	1,298	292	292	2,105	3,081	120	108
1977 Jan	8,144	535	93	7,516	131	13	403	1,153	233	301	2,001	2,899	116	97
Total	25,560	1,615	361	23,584	425	37	1,307	3,750	825	880	6,076	9,131	343	372
1977 Nov	7,341	527	70	6,744	110	9	361	1,144	281	224	1,875	2,355	121	148
Dec	8,617	566	107	7,944	154	15	419	1,332	302	303	2,102	2,922	120	133
1978 Jan p	8,391	574	56	7,761	146	11	421	1,287	354	336	2,080	2,816	85	112
Total	24,349	1,667	233	22,449	410	35	1,201	3,763	937	863	6,057	8,093	326	393
Per cent change	-4.7	+3.2	-35.6	-4.8	-3.7	-2.0	-8.1	+0.3	+13.7	-1.9	-0.3	-11.4	-5.2	+5.4

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	Bitumen
					Aviation turbine fuel	Burning oil							
						Premier	Standard						
							Domestic	Other <sup>6</sup>					
1972	97,700	1,455	7,391	15,899	3,929	778	1,663	528	5,254	15,113	41,307	1,113	2,203
1973	99,344	1,600	8,373	16,927	4,202	788	1,931	501	5,658	15,100	39,447	1,185	2,458
1974	92,342	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	81,667	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976	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 p	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	− 0.7	− 4.2	+ 2.7	+ 4.4	− 3.0	− 0.5	+ 5.3	+ 2.1	+ 7.2	− 0.2	+ 1.8	− 1.01
1976 Nov	7,192	131	429	1,363	275	72	159	36	488	1,343	2,588	92	159
Dec	7,936	134	413	1,447	284	113	232	42	467	1,530	3,031	84	99
1977 Jan	7,773	131	528	1,203	296	105	205	40	420	1,573	2,996	81	98
Total	22,901	396	1,370	4,013	855	290	596	118	1,375	4,446	8,615	257	356
1977 Nov	7,787	119	392	1,470	316	71	159	41	518	1,445	2,924	85	158
Dec	7,955	124	405	1,532	312	82	203	44	487	1,513	2,949	80	118
1978 Jan p	7,733	149	478	1,367	307	91	204	40	467	1,528	2,814	85	102
Total	23,475	392	1,275	4,369	935	244	566	125	1,472	4,486	8,687	250	378
Per cent change	+ 2.5	− 1.0	− 6.9	+ 8.8	+ 9.3	− 15.9	− 5.2	+ 6.7	+ 7.1	+ 0.9	+ 0.8	− 2.8	+ 6.0

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. 4. Including very small amounts for petro-chemicals. 5. Now mainly for petro-chemical feedstock. 6. Including vaporising oil.



TABLE 14. Inland deliveries of petroleum products used for energy<sup>1, 2</sup>

Thousand tonnes

	Total	Power <sup>3</sup> Stations	Gas Works	Iron and steel industry	Other Industries	Transport <sup>4</sup>	Domestic	Other <sup>5</sup>
1972	87,788	19,039	2,249	5,044	21,899	27,152	3,485	8,920
1973	88,196	16,993	2,355	4,995	22,045	28,971	3,812	9,025
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,345	693	3,309	17,251	27,582	3,270	7,935
1976	71,473	10,441	366	3,128	17,487	28,599	3,269	8,183
1977 p	73,043	10,873	292	2,938	17,700	29,360	3,263	8,617
Per cent change	+2.2	+4.1	-20.2	-6.1	+1.2	+2.7	-0.2	+5.3
1976 Oct	5,820	739	29	263	1,413	2,497	262	617
Nov	6,471	914	25	301	1,722	2,323	330	856
Dec	7,295	1,260	30	284	1,843	2,391	473	1,014
Total	19,586	2,913	84	848	4,978	7,211	1,065	2,487
1977 Oct	5,876	853	31	245	1,363	2,511	234	639
Nov	7,088	1,381	33	271	1,738	2,480	334	851
Dec p	7,266	1,293	36	241	1,797	2,515	410	974
Total	20,230	3,527	100	757	4,898	7,506	978	2,464
Per cent change	+3.3	+21.1	+19.0	-10.7	-1.6	+4.1	-8.2	-0.9

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 <sup>1</sup>		Power stations <sup>2</sup>
	Million tonnes	Estimated days' supply <sup>3</sup>	Million tonnes
1976 Dec	21.6	83	0.84
1977 Jan	20.6	81	0.90
Feb p	20.1	83	0.97
1977 Dec	19.1	74	1.02
1978 Jan	19.7	76	1.05
Feb p	20.0	82	1.03

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

## APPROXIMATE CONVERSION FACTORS

(last digit rounded to nought or five)

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

From \ To	Million tons coal equiv.	Million tonnes oil equiv.	Million therms	TWh Electrical energy	TWh Electricity generated
Million tons coal equivalent	1	1.65	0.00390	0.135 <sup>1</sup>	0.500 <sup>2</sup>
Million tonnes oil equivalent	0.600	1	0.00235	0.0800 <sup>1</sup>	0.280 <sup>2</sup>
Million therms	255	425	1	34.0	115
TWh Electrical energy	7.45	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 1 TWh of energy.  
 2. The amount of primary fuel (power station grade) to generate 1 TWh.  
 3. The amount of electricity generated by one million units of the fuel shown.  
 The *Digest of UK Energy Statistics 1976* gives more detailed factors.

## SUPPLEMENTARY DATA

Prices of fuels used by Industry in Great Britain<sup>1</sup>

	Delivered to large industrial consumers <sup>2</sup>					Realised in new and renewed medium size contracts <sup>3</sup>	
	Coal	Heavy Fuel Oil	Gas Oil	Gas	Electricity	Heavy Fuel Oil	Gas Oil
	£ per ton			Pence per therm	Pence per KWh	£ per ton	
1975 1st quarter	13.3	38.8	55.0	3.65	1.179	41.1	59.4
2nd quarter	15.1	38.2	54.2	4.15	1.178	40.6	55.5
3rd quarter	14.9	37.5	50.7	4.43	1.249	39.4	54.0
4th quarter	15.6	38.7	53.9	4.84	1.354	46.4	70.3
1976 1st quarter	17.4	42.1	64.0	5.73	1.453	45.3	70.8
2nd quarter	17.8	41.5	62.0	5.72	1.447	44.2	69.5
3rd quarter	18.0	43.1	61.7	6.74	1.461	45.1	70.6
4th quarter	19.4	47.9	68.2	7.58	1.592	55.2	82.1
1977 1st quarter	20.3	54.2	77.3	8.58	1.714	56.1	83.2
2nd quarter	21.5	57.0	81.0	9.12	1.656	60.0	88.6
3rd quarter	22.5	55.7	80.8	9.30	1.676	57.9	86.1
4th quarter p	22.7	55.6	81.3	10.10	1.826	56.4	85.5

1. Prices for oil products include hydrocarbon oil duty.

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

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