

ENERGY TRENDS

A Statistical Bulletin

January 1978

UK ENERGY PROSPECTS FOR 1978

Although final figures for 1977 are not yet available it is estimated that inland primary energy consumption will have been about 332 million tons of coal equivalent (mtce) or about 198 million tonnes of oil equivalent (mtoe). This is 4 mtce (2½ mtoe) or just over 1 per cent lower than was forecast in *Energy Trends* a year ago, but an increase of some 7 mtce (4 mtoe) on 1976. It represents the same level of consumption as 1974, which had shown a fall of some 4½ per cent from the peak level of 348 mtce (208 mtoe) in 1973. The continued sluggishness in economic growth is the main reason for the lower level of energy consumption than was forecast last January.

1978 is expected to see a further increase in energy consumption with demand rising by nearly 1½ per cent to reach a level of 337 mtce (201 mtoe). This is marginally below the forecast for 1978 of 339 mtce published in Energy Commission Paper Number 3, and reflects the present slightly less buoyant view about prospects in manufacturing industry as compared with other sectors of the economy, but faster growth in the economy could raise the level of energy demand in 1978.

Inland energy consumption of primary fuels¹

	Million tons of coal or coal equivalent					Million tonnes of oil or oil equivalent					Percentage shares of total				
	1973	1975	1976	1977	1978	1973	1975	1976	1977	1978	1973	1975	1976	1977	1978
Coal	131	118	120	122	121	78	71	72	73	72	38	37	37	37	36
Petroleum	162	134	132	132	133	97	80	79	79	79	47	42	40	40	39
Natural gas	44	55	58	62	66	26	33	35	37	40	12	17	18	18	20
Nuclear and hydro electricity	12	13	15	16	17	7	8	9	10	10	3	4	5	5	5
Total	348	320	325	332	337	208	191	194	198	201	100	100	100	100	100

1. Excludes oil for bunkers and non-energy uses.

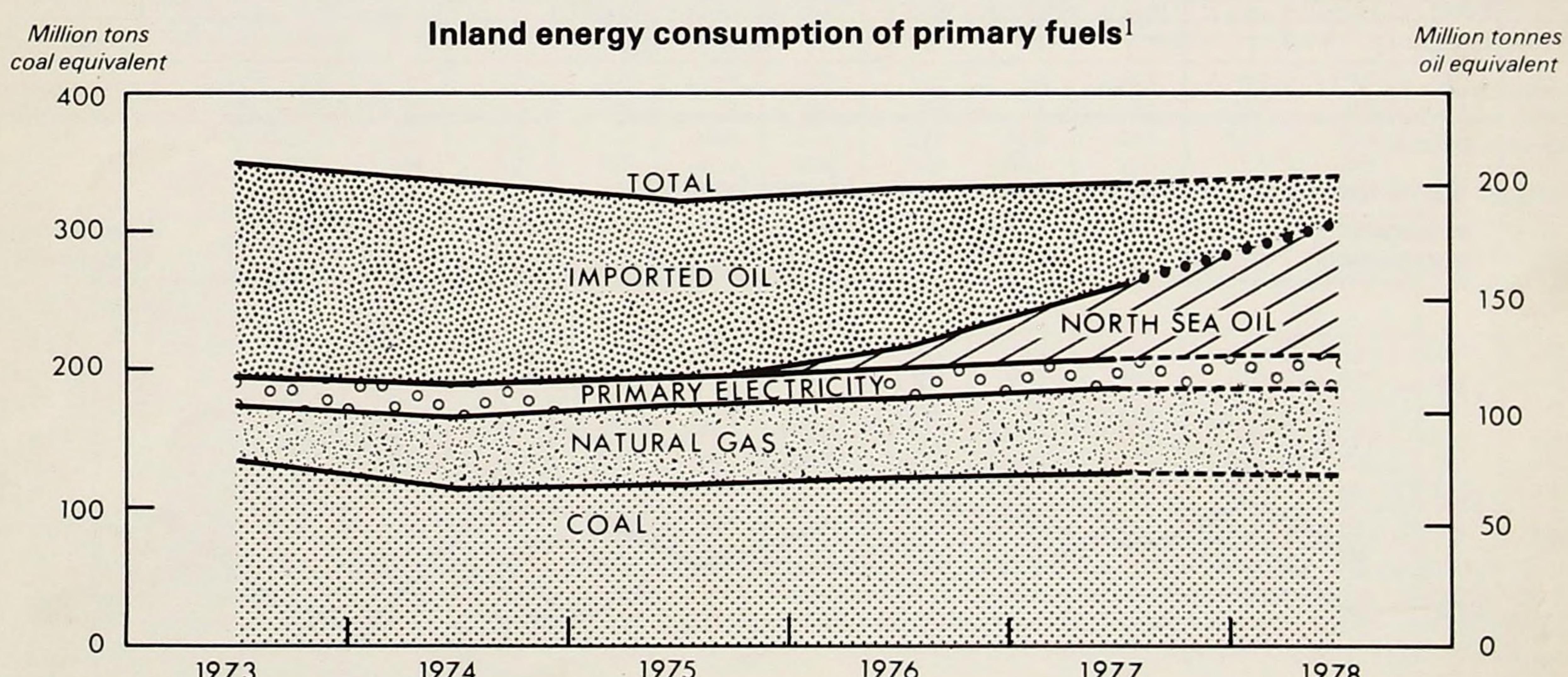
Items may not add to totals due to rounding. p = provisional f = forecast.

Coal demand is expected to remain fairly steady. Deep-mined output, which in 1977 fell to about 104m tons from 108m tons in 1976, is forecast to show a small increase, largely as a result of new investment and a reversal of the recent decline in manpower productivity. Stocks of coal which at the end of December stood at 31m tons, a reduction of some 1½ m tons on a year earlier, are expected to continue to decline during 1978.

Oil demand is expected to show little change in 1978. Crude oil production from the North Sea which was slightly below earlier expectations in 1977, totalling about 37½ m tonnes, will continue to expand rapidly in 1978.

Gas consumption is likely to continue increasing during 1978. For the year as a whole it could provide 20 per cent of total inland primary energy requirements.

Electricity demand was higher than anticipated in 1977, and a further increase of some 3 per cent is expected in 1978. About 14 per cent of supplies (the same proportion as 1977) are likely to be generated from nuclear stations.



1. Excludes oil for bunkers and non-energy uses.

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

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

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

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

Symbols used in the tables

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

Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal ¹	Petroleum ²	Natural gas ³	Nuclear electricity	Hydro-electricity	Total	Coal ¹	Petroleum ²	Natural gas ³	Nuclear electricity	Hydro-electricity
	Million tons of coal or coal equivalent						Million metric tonnes of oil or oil equivalent					
1973	347.9	130.8	161.6	43.6	9.9	2.0	207.9	78.2	96.6	26.0	5.9	1.2
1974	332.2	116.0	150.1	52.1	11.9	2.1	198.6	69.3	89.7	31.2	7.1	1.3
1975	319.7	118.1	134.4	54.5	10.8	1.9	191.1	70.6	80.3	32.6	6.4	1.2
1976	324.7	120.1	132.1	57.9	12.7	1.9	194.0	71.8	78.9	34.6	7.6	1.1
Per cent change	+1.5	+1.7	-1.7	+6.1	+17.8	-4.4	+1.5	+1.7	-1.7	+6.1	+17.8	-4.4
1976 Jan-Nov	287.9	107.4	116.8	50.7	11.3	1.7	172.1	64.2	69.8	30.3	6.8	1.0
1977 Jan-Nov p	296.0	108.8	118.6	54.3	12.5	1.8	176.9	65.0	70.9	32.4	7.5	1.1
Per cent change	+2.8	+1.4	+1.5	+7.1	+10.8	+4.3	+2.8	+1.4	+1.5	+7.1	+10.8	+4.3
1976 Sept*	26.8	10.3	11.5	3.6	1.3	0.1	16.0	6.1	6.9	2.2	0.8	-
Oct	25.1	9.4	9.8	4.8	1.0	0.1	14.9	5.6	5.8	2.8	0.6	0.1
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
Total	80.6	30.1	32.3	14.4	3.4	0.4	48.1	17.9	19.3	8.6	2.1	0.2
1977 Sept*	28.0	10.5	12.1	3.9	1.4	0.1	16.7	6.2	7.2	2.3	0.9	0.1
Oct	24.8	9.2	9.7	4.7	1.0	0.2	14.8	5.5	5.8	2.8	0.6	0.1
Nov p	28.4	9.2	11.9	6.1	0.9	0.3	17.0	5.5	7.1	3.7	0.5	0.2
Total	81.2	28.9	33.7	14.7	3.3	0.6	48.5	17.2	20.1	8.8	2.0	0.4
Per cent change	+0.7	-3.9	+4.3	+1.6	-3.2	+66.1	+0.7	-3.9	+4.3	+1.6	-3.2	+66.1

Seasonally adjusted and temperature corrected⁴ (annual rates).

1976 Jan-Nov	325.9	121.8	132.7	56.8	12.7	1.9	194.8	72.8	79.3	34.0	7.6	1.1
1977 Jan-Nov p	332.6	120.9	134.3	61.1	14.2	2.1	198.8	72.3	80.2	36.5	8.5	1.3
Per cent change	+2.0	-0.7	+1.2	+7.5	+12.0	+11.1	+2.0	-0.7	+1.2	+7.5	+12.0	+11.1
1976 Sept*	326.7	118.3	133.7	58.3	15.3	1.1	195.2	70.7	79.9	34.9	9.1	0.6
Oct	314.8	120.0	122.1	57.4	13.6	1.7	188.1	71.7	73.0	34.3	8.1	1.0
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
Average	322.3	119.9	127.8	58.9	14.2	1.5	192.6	71.6	76.4	35.2	8.5	0.9
1977 Sept*	337.7	117.1	140.0	61.2	17.5	1.9	201.8	70.0	83.7	36.6	10.4	1.1
Oct	315.0	119.8	123.6	55.9	13.4	2.3	188.2	71.6	73.8	33.4	8.0	1.4
Nov p	324.1	112.6	137.0	60.5	10.5	3.5	193.7	67.3	81.9	36.2	6.2	2.1
Average	326.5	116.6	134.0	59.3	14.1	2.5	195.1	69.7	80.1	35.4	8.4	1.5
Per cent change	+1.3	-2.8	+4.9	+0.6	-0.9	+68.4	+1.3	-2.8	+4.9	+0.6	-0.9	+68.4

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

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

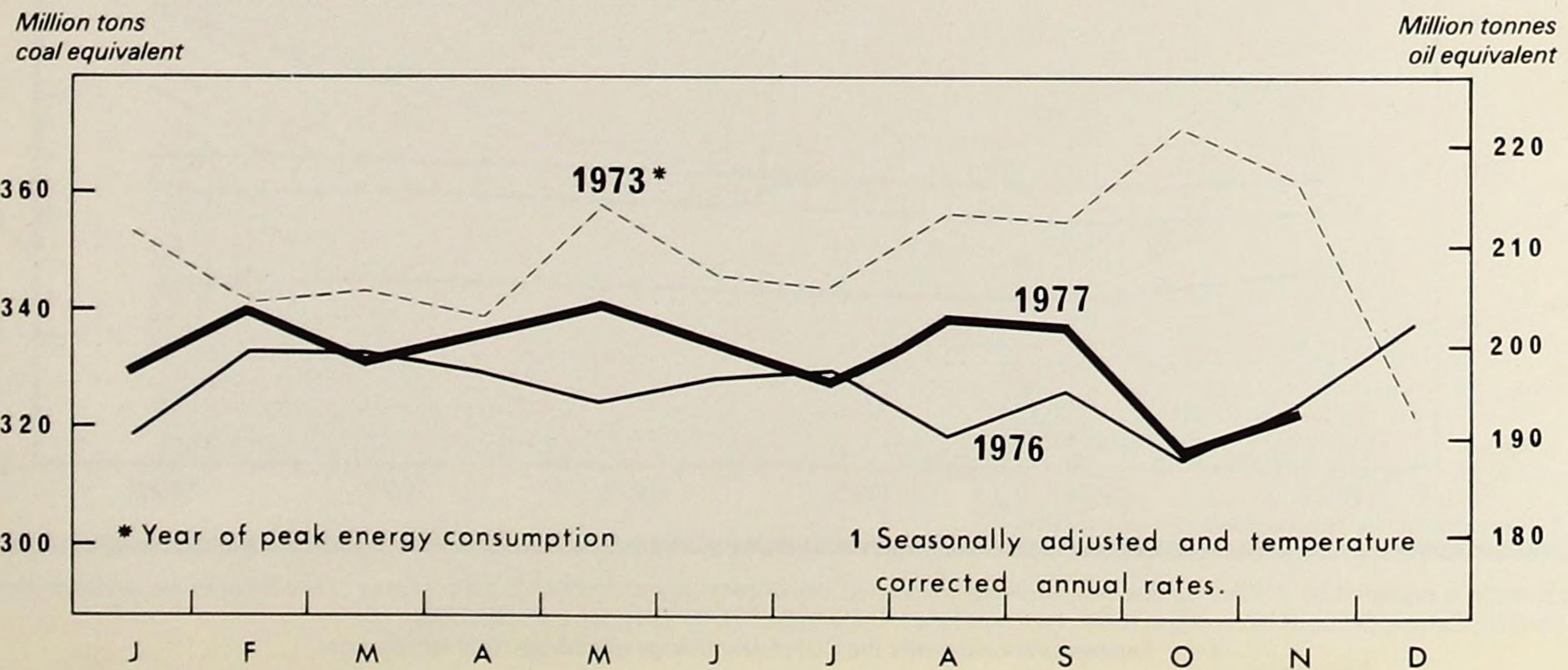


TABLE 2. Supply and use of fuels

Million therms

	1975	1976	Per cent change	1975		1976				1977 p			Per cent change
				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 ²	665	5,206	(+)	137	415	574	1,020	1,335	2,277	3,295	4,209	4,341	(+)
Natural gas ³	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 ⁴	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 ⁵													
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 ⁶	-176	+54	..	-13	-12	+58	-23	-2	+21	-210	+126	-60	..
Total primary ⁷ 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. ⁸	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 ⁹	2,374	2,723	+14.7	482	571	631	719	670	703	655	584	593	-11.5
Other coal-derived fuels ¹⁰	372	401	+7.8	76	92	98	109	97	97	95	90	97	-
Gas ¹¹	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 ⁹	164	126	-23.2	40	30	38	24	27	37	39	39	30	+11.1
Other coal-derived fuels ¹⁰	78	76	-2.6	22	16	13	23	25	15	17	17	14	-44.0
Gas ¹¹	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 ⁹	962	869	-9.7	260	201	277	196	208	188	231	208	228	+9.6
Gas ¹¹	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 ¹²													
Coal	490	516	+5.3	78	160	172	113	73	158	166	118	82	+12.3
Other solid fuel ⁹	219	166	-24.2	63	43	51	44	37	34	52	39	48	+29.7
Gas ¹¹	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</td		

Coal

TABLE 3. Supply

Thousand tons

	Net inland supply	Production			Net Imports	Imports ²	Exports ²	Tonnage lost (deep-mined) ³	
		Total ¹	Deep-mined	Opencast				Recognised holidays and rest days	Disputes
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	120,668	120,202	105,432	13,336	+466	2,376	1,910	12,257	801
Per cent change	-2.1	-1.3	-2.8	+13.4	-66.2	-14.9	+35.2	+0.9	-29.7
1976 Oct	9,918	9,851	8,954	848	+67	197	130	34	132
Nov	10,629	10,546	9,438	961	+83	216	133	3	89
Dec	12,476	12,510	11,264	1,106	-34	115	149	573	38
Total	33,023	32,907	29,656	2,915	+116	528	412	610	259
1977 Oct	10,060	10,065	8,765	1,142	-5	130	135	73	63
Nov	10,366	10,202	8,896	1,149	+164	246	82	—	86
Dec p	12,847	12,761	11,179	1,378	+86	264	178	86	68
Total	33,273	33,028	28,840	3,669	+245	640	395	159	217
Per cent change	+0.8	+0.4	-2.8	+25.9	(+)	+21.2	-4.1	-73.9	-16.2

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

TABLE 4. Inland consumption of coal

Thousand tons

Total inland consumption	Fuel producers					Final users ¹				
	Collieries	Primary				Secondary			Colliery disposals	
		Power stations ²	Coke ovens	Gas works	Other ³ conversion industries	Industry ⁴	Domestic ⁵	House Coal ⁶	Other ⁷	
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	122,085	1,106	78,732	17,164	7	3,106	8,890	9,483	1,482	2,115
Per cent change	+0.4	-0.7	+2.8	-10.1	-12.5	-7.3	+0.7	+2.0	+9.6	+5.1
1976 Oct	9,358	86	5,757	1,502	—	235	785	719	112	162
Nov	10,412	98	6,756	1,514	1	228	837	680	121	177
Dec	14,318	128	9,633	1,808	1	272	1,076	991	129	280
Total	34,088	312	22,146	4,824	2	735	2,698	2,390	362	619
1977 Oct	9,253	84	5,832	1,215	—	255	733	832	129	173
Nov	9,197	89	5,749	1,205	—	243	804	780	136	191
Dec p	13,283	130	8,857	1,412	1	332	1,032	1,020	171	328
Total	31,733	303	20,438	3,832	1	830	2,569	2,632	436	692
Per cent change	-6.9	-2.9	-7.7	-20.6	-50.0	+12.9	-4.8	+10.1	+20.4	+11.8

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. 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 coal¹ at end of period: Great Britain

Thousand tons

	Distributed	Undistributed					Opencast sites and central stocking grounds		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other			
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	31,036	21,361	18,826	2,333	2	200	9,675	8,159	1,516
1976 Oct	34,326	23,717	21,185	2,331	1	200	10,609	9,135	1,474
Nov	34,500	23,644	20,927	2,536	1	180	10,856	9,451	1,405
Dec	32,592	22,102	19,288	2,642	2	170	10,490	9,148	1,342
1977 Oct	30,292	21,295	19,103	1,991	1	200	8,997	7,464	1,533
Nov	31,476	21,390	19,083	2,106	1	200	10,086	8,545	1,541
Dec p	31,036	21,361	18,826	2,333	2	200	9,675	8,159	1,516
Absolute change:									
In latest month	-440	-29	-257	+227	+1	—	-411	-386	-25
On a year ago	-1,556	-741	-462	-309	—	+30	-815	-989	+174

1. Excluding distributed stocks held in merchants' yards, etc., mainly for the domestic market, and stocks held by the industrial sector.

TABLE 6. Colliery manpower and productivity at NCB mines

	Wage earners on colliery books ¹		Recruitment	Wastage	Absence percentage ²			Average output per manshift ³	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands		Number	Per cent		Cwt.			
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 Oct	242	192	1,453	1,886	17.9	3.9	14.0	43.29	149.35
Nov	241	191	1,536	1,804	17.8	4.1	13.7	44.94	155.61
Dec	241	192	1,408	1,877	17.9	4.1	13.8	44.55	155.38
1977 Oct	239	188	2,200	2,450	17.8	4.2	13.6	42.85	150.53
Nov	239	189	2,114	1,885	17.5	4.2	13.3	42.57	150.64
Dec p	239	189	1,816	2,044	18.5	4.8	13.7	43.12	153.76

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

Gas

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

	Natural gas supply			Other fuel used		Gas sent out		
	Total into system	Source ¹		Coal	Oil ²	Total	Town gas	Natural ³ gas for direct supply
		Indigenous	Imported					
	Million therms			Thousand tons		Million therms		
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	36 15,373	14,789 35	584 14	7	162	15,322	74	15,248
Per cent change	+6.6	+5.4	+49.7	-5.3	-32.8	+6.1	-67.3	+7.2
1976 Oct	997	980	17	—	15	1,003	11	992
Nov	1,346	1,324	22	1	24	1,346	11	1,335
Dec *	2,006	1,975	31	1	24	2,001	14	1,987
Total	4,349	4,279	70	2	63	4,350	36	4,314
1977 Oct	1,074	968	106	—	19	1,063	3	1,060
Nov	1,434	1,316	118	1	18	1,432	4	1,428
Dec p *	1,948	1,825	123	1	20	1,940	3	1,937
Total	4,456	4,109	347	2	57	4,435	10	4,425
Per cent change	+2.5	-4.0	(+)	-27.3	-9.5	+2.0	-72.2	+2.6

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

	Total	Power stations ¹	Iron and steel industry	Other industries	Million therms	
					Domestic	Other ²
1971	7,520	263	343	2,118	3,930	866
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
1976	13,997	662	438	5,182	6,194	1,521
Per cent change	+6.8	-22.8	+18.1	+11.6	+5.1	+12.9
1975 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 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				
	Million tons of coal or coal equivalent						TWh					
United Kingdom												
1973	114.68	75.57	28.04	1.13	8.22	1.66	258.80	23.66	229.89	18.43	240.37	244.76
1974	110.49	65.97	28.51	3.86	10.28	1.81	250.47	29.40	215.70	18.07	232.40	236.68
1975	108.97	73.39	21.14	3.37	9.29	1.64	251.26	26.52	219.69	18.02	233.24	237.30
1976	108.76	76.59	16.78	2.51	11.22	1.61	254.92	32.42	217.50	19.16	235.76	239.47
Per cent change	-0.2	+4.4	-20.6	-25.4	+20.8	-2.0	+1.5	+22.2	-1.0	+6.3	+1.1	+0.9
1976 Jan-Nov	95.36	66.95	14.55	2.35	10.01	1.46	223.58	28.91	190.25	16.88	206.70	209.95
1977 Jan-Nov p	99.80	69.90	15.55	1.49	11.29	1.51	233.19	32.47	195.75	17.48	215.71	218.78
Per cent change	+4.7	+4.4	+6.9	-36.6	+12.8	+3.4	+4.3	+12.3	+2.9	+3.6	+4.4	+4.2
1976 Sept*	8.77	6.12	1.26	0.19	1.15	0.05	20.58	3.31	17.02	1.66	18.92	19.24
Oct	8.10	5.76	1.17	0.16	0.91	0.10	19.00	2.63	16.03	1.45	17.55	17.82
Nov	9.46	6.76	1.41	0.15	1.00	0.13	22.20	2.86	18.93	1.63	20.57	20.84
Total	26.33	18.64	3.84	0.50	3.06	0.28	61.78	8.80	51.98	4.74	57.04	57.90
1977 Sept*	9.53	6.63	1.33	0.16	1.29	0.11	22.02	3.72	17.92	1.72	20.30	20.65
Oct	8.35	5.81	1.33	0.15	0.90	0.15	19.33	2.62	16.25	1.47	17.86	18.11
Nov p	9.68	6.12	2.33	0.18	0.76	0.28	22.08	2.20	18.93	1.54	20.54	20.83
Total	27.56	18.56	4.99	0.49	2.95	0.54	63.43	8.54	53.10	4.73	58.70	59.59
Percent change	+4.7	-0.4	+29.9	-2.0	-3.6	+92.9	+2.7	-3.0	+2.2	-0.2	+2.9	+2.9
England and Wales												
1973	99.43	67.14	23.56	1.13	7.45	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	96.09	58.63	24.00	3.86	9.43	0.12	218.85	26.93	190.43	15.89	202.96	205.55
1975	94.62	64.67	17.95	3.37	8.40	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.94	206.18	207.62
Per cent change	-0.4	+5.1	-22.9	-25.4	+17.2	-11.4	+1.3	+18.2	-0.6	+4.0	+1.1	+0.6
1976 Jan-Nov	82.70	59.49	12.01	2.35	8.74	0.07	194.90	25.16	169.14	14.06	180.84	182.26
1977 Jan-Nov p	86.23	62.14	12.92	1.49	9.52	0.10	202.24	27.32	173.83	14.52	187.72	189.91
Per cent change	+4.3	+4.5	+7.6	-36.6	+8.9	+42.9	+3.8	+8.6	+2.8	+3.3	+3.8	+4.2
1976 Sept *	7.61	5.42	1.02	0.19	0.97	0.01	17.90	2.78	15.08	1.35	16.55	16.77
Oct	7.06	5.20	0.96	0.16	0.73	0.01	16.62	2.12	14.46	1.20	15.42	15.55
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
Total	22.87	16.65	3.13	0.50	2.55	0.03	53.93	7.34	46.45	3.92	50.01	50.47
1977 Sept*	8.20	5.81	1.09	0.16	1.12	0.01	19.06	3.22	15.77	1.43	17.63	17.94
Oct	7.20	5.12	1.08	0.15	0.83	0.01	16.79	2.40	14.27	1.25	15.54	15.75
Nov p	8.22	5.35	2.01	0.18	0.65	0.02	18.83	1.88	16.63	1.29	17.54	17.98
Total	23.62	16.28	4.18	0.49	2.60	0.04	54.68	7.50	46.67	3.97	50.71	51.67
Percent change	+3.3	-2.2	+33.5	-2.0	+2.0	+33.3	+1.4	+2.2	+0.5	+1.3	+1.4	+2.4

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 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

	Total	Iron and steel industry	Other industries	Domestic	Other ¹	GWh
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 ²	19,064 ²	18,686	11,546	
3rd quarter p	46,030	2,645 ²	18,153	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 shipments¹

Thousand tonnes

Crude Petroleum	Petroleum products										
	Gross ²	Supply			Arrivals ^{4,5}	Shipments ^{4,5}	Petroleum products				
		Indigenous Production	Total	Indigenous ²	Net arrivals	Other ³	Arrivals ⁴	Shipments ⁴			
1973	373	114,032	235	+ 112,237	1,560	115,472	3,235	17,808	16,681	+ 1,127	5,499
1974	410	113,478	250	+ 111,418	1,810	112,822	1,404	14,256	14,396	- 140	4,759
1975	1,564	92,273	1,156	+ 89,842	1,275	91,366	1,524	12,461	13,664	- 1,203	3,444
1976	12,036	98,384	11,511	+ 86,181	692	90,466	4,285	10,422	15,726	- 5,304	3,569
Per cent change	(+)	+ 6.6	(+)	- 4.1	- 45.7	- 1.0	(+)	- 16.4	+ 15.1	(+)	+ 3.2
1976 Jan-Nov	10,047	89,388	9,690	+ 79,024	674	82,610	3,586	9,394	14,182	- 4,788	3,241
1977 Jan-Nov p	34,293	83,272	34,098	+ 49,329	545	64,530	15,201	11,119	13,072	- 1,953	2,632
Per cent change	(+)	- 6.8	(+)	- 37.6	- 19.1	- 21.9	(+)	+ 18.4	- 7.8	(-)	- 18.8
1976 Sept	1,249	7,556	1,195	+ 6,383	- 22	6,964	581	559	1,624	- 1,065	274
Oct	1,637	8,796	1,630	+ 7,150	16	7,682	532	595	1,507	- 912	251
Nov	1,640	9,193	1,632	+ 7,564	- 3	8,128	564	592	1,441	- 849	322
Total	4,526	25,545	4,457	+ 21,097	- 9	22,774	1,677	1,746	4,572	- 2,826	847
1977 Sept	3,443	7,280	3,418	+ 3,820	42	5,316	1,496	987	1,111	- 124	240
Oct	3,517	8,164	3,587	+ 4,513	64	5,993	1,480	920	1,214	- 294	216
Nov p	3,279	6,357	3,281	+ 2,973	103	4,461	1,488	1,303	887	+ 416	195
Total	10,239	21,801	10,286	+ 11,306	209	15,770	4,464	3,210	3,212	- 2	651
Per cent change	(+)	- 14.7	(+)	- 46.4	(+)	- 30.8	(+)	+ 83.8	- 29.8	(-)	- 23.2

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

Throughput of crude and process oils	Refinery use		Total output of petroleum products ²	Gases		Naphtha (LDF)	Motor spirit	Kerosene		Gas/diesel oil	Fuel oil	Lubricating oils	Bitumen	
	Fuel	Losses		Butane and propane	Other petroleum			Aviation turbine fuel	Burning oil ³					
1973	114,338	7,053	1,331	105,954	1,655	394	6,607	14,842	4,550	2,717	27,853	42,026	1,477	2,225
1974	111,217	6,946	1,211	103,060	1,602	272	6,448	14,520	4,475	2,564	27,641	40,022	1,455	2,129
1975	93,579	6,031	901	86,647	1,447	151	3,968	13,940	3,959	2,299	23,324	32,711	1,141	2,099
1976	97,784	6,342	1,158	90,284	1,575	158	4,583	15,232	4,163	2,458	24,198	32,696	1,310	1,897
Per cent change	+ 4.5	+ 5.2	+ 28.5	+ 4.2	+ 8.8	+ 4.4	+ 15.5	+ 9.3	+ 5.2	+ 6.9	+ 3.7	- 0.0	+ 14.8	- 9.6
1976 Jan-Nov	88,951	5,781	974	82,196	1,424	145	4,098	13,934	3,871	2,166	22,093	29,614	1,190	1,788
1977 Jan-Nov p	84,998	5,671	929	78,398	1,385	126	4,069	13,473	3,706	2,159	21,373	27,559	1,259	1,749
Per cent change	- 4.4	- 1.9	- 4.6	- 4.6	- 2.7	- 12.9	- 0.7	- 3.3	- 4.3	- 0.3	- 3.3	- 6.9	+ 5.8	- 2.2
1976 Sept	8,183	527	27	7,629	124	14	399	1,296	411	150	1,963	2,838	124	155
Oct	8,658	524	112	8,022	134	11	413	1,352	410	192	2,067	3,020	129	141
Nov	8,583	519	84	7,980	143	11	419	1,299	300	287	1,970	3,151	107	167
Total	25,424	1,570	223	23,631	401	36	1,231	3,947	1,121	629	6,000	9,009	360	463
1977 Sept	7,450	528	82	6,840	134	14	327	1,265	343	209	1,797	2,309	111	164
Oct	7,510	527	34	6,949	142	11	349	1,237	277	251	1,901	2,354	118	179
Nov p	7,341	527	70	6,744	110	9	361	1,144	281	224	1,875	2,354	121	148
Total	22,301	1,582	186	20,533	386	34	1,037	3,646	901	684	5,573	7,017	350	491
Per cent change	- 12.3	+ 0.8	- 16.0	- 13.1	- 3.9	- 4.8	- 15.8	- 7.6	- 19.6	+ 8.9	- 7.1	- 22.1	- 2.9	+ 5.9

1. Calendar months. 2. Including output of products not shown separately, namely, aviation spirit, wide-cut gasoline, industrial and white spirits, paraffin wax and miscellaneous products. 3. Including vaporising oil.

TABLE 13. Deliveries of petroleum products for inland consumption¹

Thousand tonnes

	Butane ⁴ and propane	Naphtha (LDF) ⁵	Motor spirit	Kerosene			Premier	Domestic	Other ⁶	Gas/diesel oil		Fuel oil	Lubricating oils	Bitumen			
				Aviation turbine fuel		Burning oil				Standard							
				Derv fuel	Other												
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</td										

TABLE 14. Inland deliveries of petroleum products used for energy^{1, 2}

Thousand tonnes

	Total	Power ³ Stations	Gas Works	Iron and steel industry	Other Industries	Transport ⁴	Domestic	Other ⁵
1973	88,196	16,993	2,355	4,995	22,045	28,971	3,812	9,025
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,345	693	3,309	17,251	27,582	3,270	7,935
1976	71,473	10,441	366	3,128	17,487	28,599	3,269	8,183
Per cent change	-2.6	-21.8	-47.3	-5.5	+1.4	+3.7	-0.0	+3.1
1976 Jan-Oct	57,707	8,267	311	2,543	13,922	23,885	2,466	6,313
1977 Jan-Oct p	58,690	8,206	223	2,421	14,172	24,363	2,519	6,786
Per cent change	+1.7	-0.7	-28.1	-4.8	+1.8	+2.0	+2.2	+7.5
1976 Aug	4,627	612	16	206	929	2,482	88	294
Sept	5,286	690	19	250	1,191	2,511	179	446
Oct	5,820	739	29	263	1,413	2,497	262	617
Total	15,733	2,041	64	719	3,533	7,490	529	1,357
1977 Aug	4,967	566	13	193	1,045	2,659	126	365
Sept	5,609	757	16	244	1,248	2,576	221	547
Oct p	5,876	853	31	244	1,365	2,511	234	638
Total	16,452	2,176	60	681	3,658	7,746	581	1,550
Per cent change	+4.6	+6.6	-5.1	-5.4	+3.5	+3.4	+9.7	+14.3

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
	Million tonnes	Estimated days' supply ³	
1976 Oct	22.0	85	0.98
Nov	22.1	86	0.91
Dec	21.6	83	0.84
1977 Oct	21.1	84	0.98
Nov	19.3	75	0.82
Dec p	19.6	76	1.02

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 tons coal equiv.	Million tonnes oil equiv.	Million therms	TWh Electrical energy	TWh Electricity generated
Million tons coal equivalent	1	1.65	0.00390	0.135 ¹	0.500 ²
Million tonnes oil equivalent	0.600	1	0.00235	0.0800 ¹	0.280 ²
Million therms	255	425	1	34.0	115
TWh Electrical energy	7.45	12.5	0.0295	1	..
TWh Electricity generated	2.00 ³	3.60 ³	0.00880 ³	..	1

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

2. The amount of primary fuel (power station grade) to generate 1 TWh.

3. The amount of electricity generated by one million units of the fuel shown.

The Digest of UK Energy Statistics 1976 gives more detailed factors.

SUPPLEMENTARY DATA

Electricity generated outside the public electricity supply system in Great Britain⁽¹⁾

GWh

	Total	Industry									Transport undertakings	
		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 ² power stations	Others ³				
1971	20,597	19,920	2,728	1,344	410	293	4,339	6,987	535	2,671	613	677
1972	20,727	20,034	2,587	1,320	409	323	4,098	7,408	458	2,786	645	693
1973	22,995	22,292	2,707	2,716	458	309	4,339	7,859	498	2,763	643	703
1974	22,588	21,939	2,180	3,139	521	251	4,222	7,904	450	2,598	674	649
1975	20,741	20,052	1,660	3,319	435	297	3,820	7,305	406	2,137	673	689
1976	21,978	21,288	1,706	3,362	496	269	3,736	8,398	423	2,249	649	690
Per cent change	+6.0	+6.2	+2.8	+1.3	+14.0	-9.4	-2.2	+15.0	+4.2	+5.2	-3.6	+0.1
1975 3rd quarter	4,586	4,423	294	802	67	64	829	1,670	98	453	146	163
4th quarter	5,526	5,347	411	819	197	79	1,075	1,899	98	589	180	179
1976 1st quarter	5,958	5,770	480	852	100	74	1,098	2,263	115	599	189	188
2nd quarter	5,252	5,083	409	856	78	63	834	2,019	105	567	152	169
3rd quarter	4,954	4,793	367	790	72	58	812	1,982	96	479	137	161
4th quarter	5,814	5,642	450	864	246	74	992	2,134	107	604	171	172
1977 1st quarter p	5,760	5,577	503	882	136	69	922	2,162	108	625	170	183
2nd quarter p	5,007	4,836	352	885	78	77	802	1,876	93	533	140	171
3rd quarter p	4,817	4,650	317	825	71	57	934	1,786	84	454	122	167
Per cent change	-2.8	-3.0	-13.6	+4.4	-1.4	-1.7	+15.0	-9.9	-12.5	-5.2	-10.9	+3.7

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.