DEPARTMENT OF ENERGY

A Statistical Bulletin

AUGUST 1978

Consumption slightly lower in 1st half 1978

Total energy

Petroleum use higher

Total inland energy consumption on a primary fuel input basis during the first half of 1978 was just under 178 million tonnes coal equivalent, marginally less than in the comparable period of last year. Of the individual primary fuels, coal consumption declined by 5.7 per cent but was compensated by increases in petroleum and natural gas of 2.7 and 4.8 per cent respectively.

The seasonally adjusted and temperature corrected series indicates however, that total energy consumption in the first half of the year was 0.6 per cent below last year's level with the petroleum and natural gas increases rather smaller than in the unadjusted statistics.

Coal

Recent increase in power station use

Deep-mined coal output during the three months May to July was 1.9 per cent lower than in the corresponding period of last year. Open-cast output rose by 4.1 per cent, the additional contribution from this source resulting in a total production level of within 0.9 per cent of last year.

Total inland coal consumption during the period fell by 2.9 per cent. Power station consumption rose by 1.2 per cent, but consumption at coke ovens continued at a depressed level and was lower by over 15 per cent. Colliery disposals to the two principal final consumer sectors also declined, industrial consumers taking 7.8 per cent less than a year ago while disposals of housecoal for the domestic market fell by eight per cent.

Total coal stocks continue to rise more sharply than last year and at the end of July were three million tonnes higher than a year ago.

Gas

Cutback in indigenous supplies

Natural gas supplied into the public supply system in the three month period May to July was 1.5 per cent less in total than in the corresponding period last year. Supplies from the UK sector of the North Sea, down by 6.9 per cent, were however, augmented by imported gas from the Norwegian sector of the Frigg gasfield.

Gas sent out in the period was 0.9 per cent lower than a year ago but this, to some extent, is a reflection of the high level of demand in the very cold June of last year.

Electricity

Modest increase in electricity supplied

Total electricity supplied in the UK during the first half of 1978 was 1.7 per cent higher than in the comparable period of 1977. More recently, in the April to June quarter, electricity supplied increased by 2.7 per cent over last year and although the greater part of the increase was confined to the first month of the quarter, last year's level was exceeded in each month of the period.

Petroleum

Crude output up nearly 40 per cent

Gross indigenous production of crude oil during the first six months of 1978 was 24.2 million tonnes, an increase of nearly 40 per cent on the first half of last year. Net arrivals of overseas crude oil during the period fell by nearly one quarter.

Total deliveries of petroleum products in the first half of 1978 rose by 1.3 million tonnes, to 43.3 million tonnes, 3.1 per cent higher than in the comparable period of last year. Motor spirit and fuel oil with increases of 6.6 and 2.9 per cent respectively accounted for the bulk of the increase. Deliveries of these products increased more sharply in the second quarter with motor spirit 8.7 per cent and fuel oil six per cent higher than a year ago and these, with an 8.6 per cent rise in aviation turbine fuel were the main constituents of the 5.4 per cent increase in overall deliveries of products.

Supplementary data

Value of fuel imports and exports

The total cif value of imports of crude and process oils during the second quarter of the year was £807 million compared with £1,100 million in the second quarter of 1977, a reduction of nearly 27 per cent. Refined product imports during the same period, valued at £225 million, were lower by nearly £40 million, a drop of over 14 per cent.

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

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

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

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

Symbols used in the tables

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

Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal ¹	Petroleum ²	Natural ³ gas		Hydro- electricity	Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro- electricity
	Million t	onnes of o	coal or coal eq	uivalent			Million	tonnes of	oil or oil equiv	valent		
1974 1975	337.5 324.8	117.9 120.0	152.5 136.5	52.9 55.4	12.1 10.9	2.1	198.6 191.1	69.3 70.6	89.7 80.3	31.2 32.6	7.1 6.4	1.3
1976 1977 p Per cent change	329.8 338.4 +2.6	122.0 122.7 +0.6	134.2 136.6 +1.7	58.8 62.8 + <i>6.8</i>	12.9 14.3 +11.0	1.9 2.0 +7.2	194.0 199.0 +2.6	71.8 72.2 +0.6	78.9 80.3 + 1.7	34.6 36.9 + <i>6.8</i>	7.6 8.4 +11.0	1.1 1.2 +7.2
1977 Jan-Jun 1978 Jan-Jun p Per cent change	178.2 177.8 -0.2	65.9 62.1 -5.7	69.8 71.7 +2.7	34.1 35.7 +4.8	7.4 7.2 —1.8	1.0 1.1 +2.8	104.8 104.6 -0.2	38.7 36.5 — <i>5.7</i>	41.1 42.2 +2.7	20.0 21.0 +4.8	4.4 4.3 —1.8	0.6 0.6 +2.8
1977 Apr May Jun*	27.4 24.9 27.7	10.0 9.5 10.2	10.7 9.9 11.7	5.3 4.3 4.5	1.2 1.0 1.2	0.2 0.2 0.1	16.1 14.6 16.4	5.9 5.6 6.0	6.3 5.8 6.9	3.1 2.5 2.7	0.7 0.6 0.7	0.1 0.1 0.1
Total	80.0	29.7	32.3	14.1	3.4	0.5	47.1	17.5	19.0	8.3	2.0	0.3
1978 Apr May Jun p	27.9 24.5 27.1	9.4 9.1 9.8	11.4 10.3 11.9	5.8 4.2 4.2	1.1 0.8 1.1	0.2 0.1 0.1	16.4 14.5 15.9	5.6 5.3 5.8	6.7 6.1 7.0	3.4 2.5 2.4	0.6 0.5 0.6	0.1 0.1 0.1
Total	79.5	28.3	33.6	14.2	3.0	0.4	46.8	16.7	19.8	8.3	1.7	0.3
Per cent change	-0.4	-4.6	+4.2	+0.5	-9.2	-8.3	-0.4	-4.6	+4.2	+0.5	-9.2	-8.3
	Seasonal	y adjusted	d and tempera	ture correc	cted ⁴ (annu	ial rates)						
1977 Jan-Jun 1978 Jan-Jun p Per cent change	338.8 336.7 —0.6	125.1 117.9 —5.8	135.8 139.0 +2.3	61.7 63.8 +3.5	14.2 14.0 -1.9	2.0 2.0 +0.3	199.3 198.1 -0.6	73.6 69.3 — <i>5.8</i>	79.9 81.8 +2.3	36.3 37.6 +3.5	8.3 8.2 —1.9	1.2 1.2 +0.3
1977 Apr May Jun*	338.2 345.3 336.1	125.7 125.2 118.7	134.6 140.2 138.2	61.9 62.4 62.1	13.7 14.5 15.2	2.3 3.0 1.9	199.0 203.2 197.7	73.9 73.7 69.8	79.2 82.5 81.3	36.4 36.7 36.5	8.1 8.5 9.0	1.4 1.8 1.1
Average	339.5	122.8	137.7	62.1	14.5	2.4	199.8	72.3	81.0	36.5	8.6	1.4
1978 Apr May Jun* p	342.0 345.5 337.6	118.9 119.9 117.9	140.9 149.5 141.2	66.7 61.6 62.2	13.0 12.2 14.4	2.5 2.3 1.9	201.1 203.2 198.6	69.9 70.5 69.3	82.9 88.0 83.1	39.2 36.2 36.6	7.6 7.1 8.5	1.5 1.4 1.1
Average	341.4	118.8	143.7	63.4	13.3	2.2	200.8	69.9	84.5	37.3	7.8	1.3
Per cent change	+0.5	-3.3	+4.4	+2.0	-8.8	-8.0	+0.5	-3.3	+4.4	+2.0	-8.8	-8.0

- 1. Consumption by fuel producers plus colliery disposals to final users, plus (for annual figures only) net foreign trade and stock change in other solid fuels.
- 2. Refinery throughput of crude oil, plus net foreign trade and stock change in petroleum products, less deliveries of non-energy products.

3. Excluding gas flared, or reinjected. 4. Coal, petroleum and natural gas are temperature corrected.

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

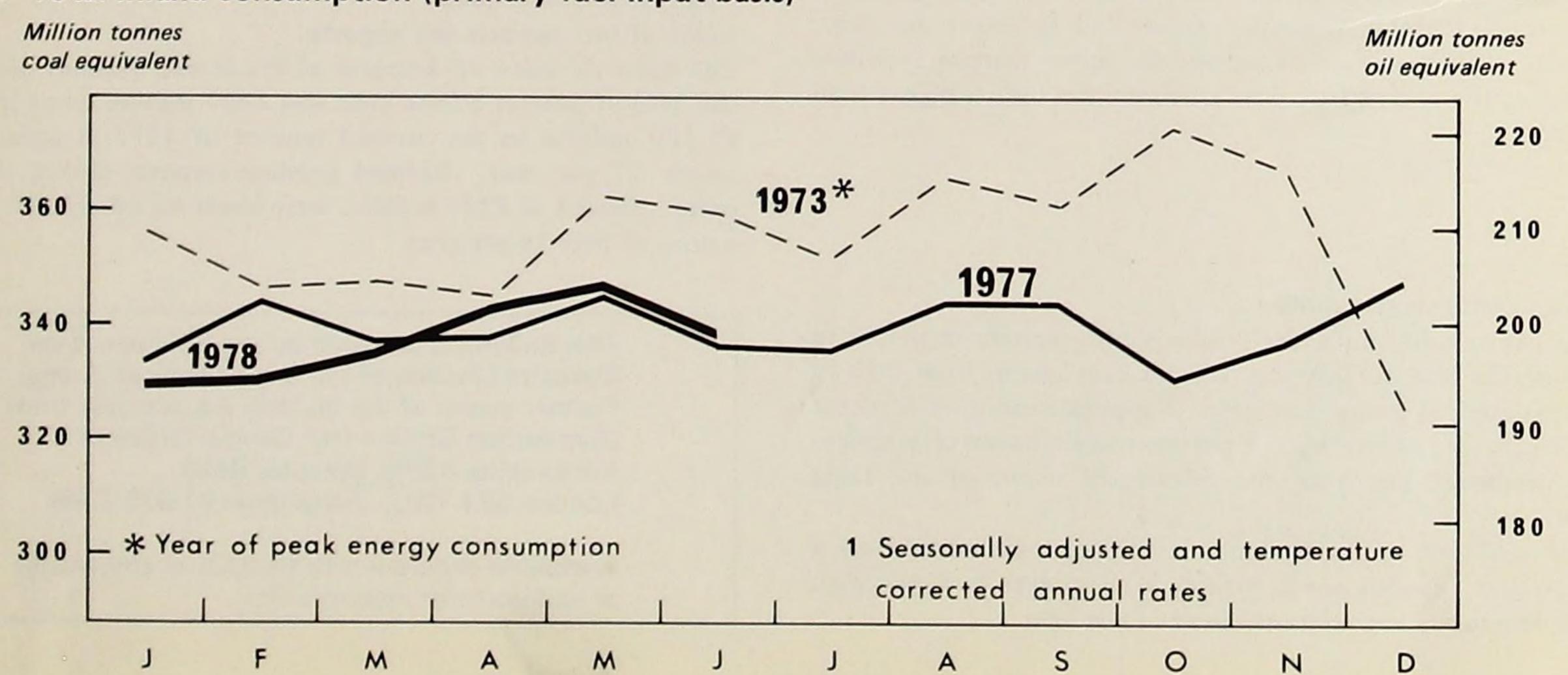


TABLE 2. Supply and	use or	iueis										Million	
			0		1:	976			19	977		1978 p	Per 1
	1976	1977 p	Per cent change	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	cent
PRIMARY FUELS AND EQU	JIVALEN	TS:											
Production of primary fuels	00.400	00.000	1.0	0.000	7.005	0.070	0.447	7.004	7.544	0.405	0.150	7.500	0.0
Coal Petroleum ²	30,166 5,206	29,682 16,350	-1.6 (+)	8,006 574	7,635 1,020	6,378 1,335	8,147 2,277	7,604 3,305	7,514 4,214	6,405 4,337	8,159 4,494	7,536 4,839	-0.9 +46.4
Natural gas ³	14,379	15,024	+4.5	4,727	2,962	2,173	4,517	4,916	3,459	2,497	4,152	4,909	-0.1
Primary electricity	3,411	3,761	+10.3	926	786	770	929	1,070	877	852	962	11,044	+6.9
Total	53,162	64,817	+21.9	14,233	12,403	10,656	15,870	16,895	16,064	14,091	17,767	18,428	+9.1
Arrivals. Petroleum ⁴ Other	43,174 1,183	35,730 1,366	-17.2 +15.5	10,992 351	10,949 336	10,160 270	11,073 226	9,615 195	9,116 199	8,253 371	8,746 601	8,892 641	-7.5 (+)
Shipments Bunkers	9,176 1, 46 8	13,841 1,168	+50.8 -20.4	1,745 371	2,068 346	2,507 381	2,856 370	2,973 316	3,651 309	3,886 292	3,331 251	3,408 246	+14.6
Stock change ⁵													
Solid fuels	-634 -378	+238 +555		+312 +354	-820 -196	-388 -25	+262 -511	+1,252 +375	-385 -352	-194 +253	-435 +279	+477	
Crude Petroleum Petroleum products	+240	+424		+648	-130	-367	+390	+564	-225	-309	+394	+185	
Non-energy use Statistical difference ⁶	4,448 +54	4,373 -68	-1.7	1,138 +58	1,111 -23	1,159 -2	1,040 +21	1,123 -337	1,110 +319	1,109 -10	1,031 -40	1,016 +119	-9.5 ··
Total primary 7 energy input	81,709	83,680	+2.4	23,694	18,693	16,257	23,065	24,147	19,666	17,168	22,699	24,164	+0.1
Conversion losses etc.8	24,382	25,148	+3.2	6,913	5,597	4,905	6,967	7,274	5,854	5,263	6,757	7,014	-3.6
FINAL CONSUMPTION BY													
Iron and steel industry													
Coal	66	66	10.1	23	14	9	20	23	15 593	600	538	16 553	-30.4 -16.6
Other solid fuel ⁹ Other coal-derived fuels ^{1 0}	2,723 401	2,394 362	-12.1 -9.7	631 98	719 109	670 97	703 97	663 94	89	95	84	81	-13.8
Gas ¹ 1	438	485	+10.7	108	112	99	119	128	125	113	119	118	-7.8
Electricity	395	389	-1.5	100	96	90	109	104	96	92 256	311	97 334	-6.7 -5.1
Petroleum	1,279	1,205	-5.8	354	306	1 229	1 204	352 1,364	1,204	1,166	1,167	1,199	-12.1
Total Other industries	5,302	4,901	-7.6	1,314	1,356	1,238	1,394	1,304	1,204	1,100	1,107	1,155	-12.1
Coal	2,277	2,295	+0.8	547	564	470	696	618	530	483	664	623	+0.8
Other solid fuel ⁹	126	156	+23.8	38	24	27	37	38	38	35	45	51	+34.2
Other coal-derived fuels ^{1 0} Gas ^{1 1}	76 5,241	74 5,458	-2.6 +4.1	1,456	1,236	1,083	15 1,466	1,431	1,373	1,171	1,483	1,536	-10.5 +7.3
Electricity	2,364	2,411	+2.0	617	563	546	638	645	599	559	608	658	+2.0
Petroleum	7,441	7,520	+1.1	2,555	1,696	1,400	2,090	2,245	1,774	1,428	2,073	2,148	-4.3
Total	17,525	17,914	+2.2	4,926	4,106	3,551	4,942	4,996	4,337	3,695	4,886	5,033	+0.7
Transport sector	21	20	4.0	7	1	2	8	6	4	2	7	6	
Coal and other solid fuel Electricity	21 98	100	-4.8 +2.0	26	24	22	26	26	26	23	25	27	+3.9
Petroleum	12,597	12,931	+2.7	2,889	3,198	3,333	3,177	2,988	3,218	3,420	3,305	3,048	+2.0
Total	12,716	13,051	+2.6	2,922	3,226	3,357	3,211	3,020	3,248	3,446	3,337	3,081	+2.0
Domestic sector								0.50			001	501	10.5
Coal Other solid fuel ⁹	3,140 869	3,230 843	+2.9 -3.0	931 277	764 196	634 208	188	850 227	773 204	703	904	761 197	-10.5 -13.2
Gas ^{1 1}	6,194	6,590	+6.0	2,403	1,055	686	2,050	2,413	1,371	771	2,035	2,808	+16.4
Electricity	2,905	2,932	+0.9	993	585	464	863	972	638	511	811	967	-0.5
Petroleum	1,435	1,450	+1.1	519	268	176	472	518	295	205	432	520 5,253	+0.4
Total	14,543	15,045	+3.5	5,123	2,868	2,168	4,384	4,980	3,281	2,413	4,371	5,253	+5.5
Other final users ^{1 2} Coal	516	544	+5.4	172	113	73	158	166	118	83	177	167	+0.6
Other solid fuel ⁹	166	166	-	51	44	37	34	50	36	45	35	43	-14.0
Gas ¹ 1	1,521	1,587 1,689	+4.3 +5.8	571 479	317 345	169 308	464 465	561 495	380	180 346	466 462	643 519	+14.6
Electricity Petroleum	1,597 3,441	3,635	+5.6	1,223	721	451	1,046	1,241	822	531	1,041	1,212	
Total	7,247	7,621	+5.2	2,496	1,540	1,038	2,167	2,513	1,742	1,185	2,181	2,584	+2.8
Total final users	57,327	58,532	+2.1	16,781	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,150	+1.6
FINAL CONSUMPTION BY	FUEL												
Coal	6,019	6,154	+2.2	1,680	1,459	1,188	1,692	1,663	1,440	1,282	1,769	1,573	
Other solid fuel ⁹	3,885	3,560	-8.4	997	983	942	963	978 113	112	903	808	844 98	12 10 10 10 10 10 10 10 10 10 10 10 10 10
Other coal-derived fuels ^{1 0} Gas ^{1 1}	13,394	436 14,120	-8.6 +5.4	4,538	2,720	2,037	4,099	4,533	3,249	2,235	4,103	5,105	
Electricity	7,359	7,521	+2.2	2,215	1,613	1,430	2,101	2,242	1,745	1,531	2,003	2,268	+1.2
Petroleum	26,193	26,741	+2.1	7,240	6,189	5,633	7,131	7,344	6,395	5,840	7,102	7,262	
Total all fuels	57,327	58,532	+2.1	16,781	13,096	11,352	16,098	16,873	13,812	11,905	15,942	17,150	+1.6

^{1.} Per cent change on the corresponding period of the previous year. 2. Crude petroleum and natural gas liquids. 3. Excluding gas flared or reinjected.

4. Crude petroleum, process oils and petroleum products. 5. Stock fall (+) stock rise (-). 6. Supply greater than recorded demand (-). 7. Thermal equivalent of total inland energy consumption in Table 1. A more detailed analysis of the annual figures is shown in the Digest of United Kingdom Energy Statistics 1978 Tables 9 and 11. 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.

			Production					Tonnage lost (deep-mined)3
	Net inland supply	Total ¹	Deep-mined	Opencast	Net imports	Imports ²	Exports ²	Recognised holidays and rest days	Disputes
1974 1975 1976 1977 p Per cent change	112,132 131,583 125,201 122,623 -2.1	110,451 128,682 123,800 122,150 -1.3	99,992 117,411 110,264 107,123 -2.8	9,231 10,414 11,944 13,551 +13.5	+1,681 +2,901 +1,401 +473 -66.2	3,546 5,083 2,837 2,414 -14.9	1,865 2,182 1,436 1,941 +35.2	10,518 12,300 12,345 12,457 +0.9	16,253 352 1,157 814 -29.6
1977 Jan-Jul 1978 Jan-Jul p Per cent change	70,976 71,673 +1.0	71,011 71,286 +0.4	62,995 62,299 -1.1	7,316 7,977 + <i>9.0</i>	-35 +387	1,179 1,528 + <i>29.6</i>	1,214 1,141 -6.0	7,484 7,692 +2.8	486 1,021 (+)
1977 May Jun* Jul	10,561 10,576 8,892	10,577 10,591 8,796	9,385 9,052 7,427	1,122 1,409 1,169	-16 -15 +96	159 167 294	175 182 198	74 2,297 1,593	91 92 53
Total	30,029	29,964	25,864	3,700	+65	620	555	3,964	236
1978 May Jun* Jul p	9,912 10,796 9,178	9,848 10,838 8,999	8,639 9,177 7,558	1,109 1,511 1,231	+64 -42 +179	223 116 347	159 158 168	534 2,008 1,498	339 133 120
Total	29,886	29,685	25,374	3,851	+201	686	485	4,040	592
Per cent change	-0.5	-0.9	-1.9	+4.1	(+)	+10.6	-12.6	+1.9	(+)

^{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

				Fuel producer	s			Final u	sers1	
		Primary		Seco	ndary			Colliery di	isposals	
	Total					Other ³		Dome	stic ⁵	
	inland consumption	Collieries	Power stations ²	Coke	Gas works	conversion industries	Industry ⁴	House coal ⁶	Other ¹	Other ⁸
1974 1975 1976 1977 p Per cent change	117,887 122,216 123,603 123,978 +0.3	1,256 1,238 1,132 1,124 0.7	67,025 74,569 77,818 79,956 +2.7	18,461 19,085 19,401 17,406 -10.3	107 10 8 7 -12.5	3,788 4,063 3,405 3,166 -7.0	11,077 9,685 8,970 9,033 +0.7	11,981 9,915 9,450 9,635 +2.0	1,687 1,703 1,374 1,502 +9.3	2,505 1,948 2,045 2,149 +5.1
1977 Jan-Jul 1978 Jan-Jul p Per cent change	73,909 70,147 —5.1	688 652 - <i>5.2</i>	48,094 47,022 -2.2	10,615 8,629 - <i>18.7</i>	5 4 -20.0	1,753 1,762 +0.5	5,152 4,954 -3.8	5,588 5,025 -10.1	812 859 + <i>5.8</i>	1,202 1,240 +3.2
1977 May Jun* Jul	9,536 10,198 8,053	104 108 78	6,056 6,333 4,892	1,357 1,692 1,360	1 -	250 296 233	695 714 614	805 790 667	118 121 129	150 144 80
Total	27,787	290	17,281	4,409	1	779	2,023	2,262	368	374
1978 May Jun* Jul p	9,117 9,829 8,045	85 97 78	6,032 6,283 5,167	1,136 1,446 1,159	1	237 300 235	661 674 530	698 755 629	98 143 139	170 130 108
Total	26,991	260	17,482	3,741	1	772	1,865	2,082	380	408
Per cent change	-2.9	-10.3	+1.2	+15.2	-	-0.9	<i>−7.8</i>	-8.0	+3.3	+9.1

^{1.} Disposals by collieries and opencast sites. 2. Public supply and railway and transport power stations. 3. Low temperature carbonisation and patent fuel plants. 4. Prior to October 1973 the figures related to actual consumption. 5. Prior to April 1973 the figures relate to merchants' disposals to the domestic market. 6. Including miners' coal. 7. Anthracite, dry steam coal and imported naturally smokeless fuels. 8. Mainly public administration and commerce.

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

Thousand tonnes

				Distributed				Undistributed	
	Total	Total distributed stocks	Power	Coke	Gas	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1972	30,459	19,350	17,060	1,920	51	319	11,109	7,679	3,430
1973	27,885	17,035	14,770	1,968	27	270	10,850	7,650	3,200
1974	21,806	15,827	13,629	1,851	3	344	5,979	4,009	1,970
1975	31,157	20,540	17,951	2,333	2	254	10,617	8,908	1,709
1976	33,115	22,457	19,598	2,684	2	173	10,658	9,295	1,363
1977 p	31,534	21,704	19,128	2,368	2	206	9,830	8,290	1,540
1977 May	28,738	19,114	16,534	2,375	2	203	9,624	8,400	1,224
Jun	29,210	19,783	17,340	2,262	2	179	9,427	8,005	1,422
Jul	29,882	20,772	18,334	2,258	1	179	9,110	7,600	1,510
1978 May	30,814	19,828	17,824	1,829	1	174	10,986	9,264	1,722
Jun	31,909	20,890	18,988	1,711	2	189	11,019	9,142	1,877
Jul p	32,908	21,854	19,785	1,888	1	180	11,054	9,084	1,970
Absolute change:									
in latest month	+999	+964	+797	+177	-1	-9	+35	-58	+93
On a year ago	+3,026	+1,082	+1,451	-370	-	+1	+1,944	+1,484	+460

^{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

		earners on ery books ¹	Recruitment	Wastage	4	Absence percenta	ge ²		output per shift ³	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face	
	TH	nousands	Num	ber		Per cent		Tonnes		
1972 1973 1974 1975 1976 1977 p	266 245 246 245 241 239	210 193 194 194 192 189	13,255 17,402 26,436 21,347 17,061 29,361	26,114 37,961 25,133 22,451 21,239 31,647	16.6 18.0 16.3 16.2 17.4 17.6	3.9 4.1 4.1 4.0 3.7 3.9	12.7 13.9 12.2 12.2 13.7	2.21 2.29 2.18 2.28 2.23 2.18	7.33 7.62 7.56 7.92 7.75 7.77	
1977 Jan-Jul 1978 Jan-Jul p Per cent change	242 ⁽⁴⁾ 239 ⁽⁴⁾ -1.2	193 ⁽⁴⁾ 190 ⁽⁴⁾ -1.6	17,616 13,137 -25.4	14,695 13,797 -6.1	17.8 17.5	3.8 4.2	14.0 13.3	2.22 2.26 +1.8	7.88 8.54 +8.4	
1977 May Jun* Jul	244 244 244	193 194 194	2,850 2,821 2,140	2,077 3,002 1,899	16.2 16.0 16.7	3.3 3.1 3.4	12.9 12.9 13.3	2.26 2.12 2.05	8.05 7.80 7.42	
1978 May Jun* Jul p	240 239 238	190 190 189	1,530 1,745 1,274	1,720 2,277 2,268	15.6 16.1 15.9	3.7 3.6 3.7	11.9 12.5 12.2	2.29 2.17 2.12	8.80 8.54 8.20	

^{1.} At end of period.

Gas

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

		Natural gas suppl	y	Other fuel used			Gas sent out	
	Total	Sour	ce ¹				Town	Natural ⁴ gas for direct
	system	Indigenous	Imported ²	Coal	Oil ³	Total	gas	supply
		Million therms		Thousand	tonnes		Million therms	
1974 1975 1976 1977 p Per cent change	13,102 13,692 14,420 15,373 +6.6	12,861 13,367 14,030 14,734 +5.0	241 325 390 639 +63.8	107 9 8 7 -5.3	1,276 588 245 166 -32.2	13,451 13,822 14,445 15,323 +6.1	1,598 752 226 75 -66.8	11,853 13,070 14,219 15,248 +7.2
1977 Jan-Jul 1978 Jan-Jul p Per cent change	9,096 9,629 + <i>5.9</i>	8,934 8,839 -1.1	162 790 (+)	5 4 -21.6	92 182 (+)	9,080 9,645 + <i>6.2</i>	57 24 -57.9	9,023 9,621 +6.6
1977 May Jun* Jul	1,062 1,069 701	1,038 1,036 675	24 33 26	1	8 7 5	1,055 1,064 693	6 7 2	1,049 1,057 691
Total	2,832	2,749	83	1	20	2,812	15	2,797
1978 May Jun* Jul p	1,063 960 767	975 870 713	88 90 54	1 -	21 21 18	1,065 964 758	4 3 2	1,061 961 756
Total	2,790	2,558	232	1	60	2,787	9	2,778
Per cent change	-1.5	-6.9	(+)	-1.5	(+)	-0.9	-40.0	-0.7

^{1.} Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system.

TABLE 8. Sales of gas by the public supply system

million therms

	Total	Power stations ¹	Iron and steel industry	Other industries	Domestic	Other ²
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
1976	13,997	662	438	5,182	6,194	1,521
1977	14,579	519	485	5,398	6,590	1,587
Per cent change	+4.2	-21.6	+10.7	+4.2	+6.4	+4.3
1976 1st quarter	4,765	240	108	1,443	2,403	571
2nd quarter	2,865	160	112	1,221	1,055	317
3rd quarter	2,149	129	99	1,066	686	169
4th quarter	4,218	133	119	1,452	2,050	464
1977 1st quarter	4,634	118	128	1,414	2,413	561
2nd quarter	3,317	82	125	1,359	1,371	380
3rd quarter	2,372	153	113	1,155	771	180
4th quarter	4,256	166	119	1,470	2,035	466
1978 1st quarter p	5,257	165	118	1,523	2,808	643
Per cent change	+13.4	+39.8	-7.8	+7.7	+16.4	+14.6

^{1.} Public supply and transport power stations. 2. Public administration and commerce.

^{2.} The definition was changed from 1973.

Excluding capital working and tip coal.

^{4.} Average number during the period.

^{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).

Electricity

TABLE 9. Fuel used and electricity generated by the public supply system

	Fuel use	d					Electrici	ty generate	d			Total ⁶
	Total ¹	Coal ²	Oil ^{2,3}	Natural gas	Nuclear	Hydro	Total ⁴	By steam	m plant Other	Own⁵ use	Electricity supplied	electricity available
	Million	tonnes of a	coal or coa		it		TWh					
United Kingdom												
1974	112.26	67.03	28.97	3.92	10.44	1.84	250.47	29.40	215.70	18.07	232.40	236.68
1975	110.72	74.57	21.48	3.42	9.44	1.67	251.26	26.52	219.69	18.02	233.24	237.30
1976	110.51	77.82	17.05	2.55	11.40	1.64	254.92	32.42	217.50	19.16	235.76	239.47
1977 p	113.98	79.56	17.98	1.76	12.88	1.73	262.04	36.42	220.06	19.56	242.48	246.02
Per cent change	+3.1	+2.2	+5.5	-31.0	+13.0	+5.5	+2.8	+12.3	+1.2	+2.1	+2.9	+2.7
1977 Jan - Jun	59.99	42.70	9.01	0.64	6.73	0.89	138.65	18.96	116.91	10.24	128.41	130.10
1978 Jan - Jun p	60.59	41.83	10.69	0.58	6.56	0.88	140.60	18.38	119.57	9.96	130.64	132.61
Per cent change	+1.0	-2.0	+18.6	-9.4	-2.5	-1.1	+1.4	-3.1	+2.3	-2.7	+1.7	+1.9
1977 Apr	8.92	6.43	1.30	_	1.04	0.15	20.59	2.92	17.24	1.49	19.10	19.38
May	8.07	5.79	1.12	0.09	0.93	0.14	18.69	2.59	15.71	1.38	17.31	17.53
Jun*	8.93	6.26	1.35	0.16	1.07	0.09	20.64	3.01	17.29	1.63	19.01	19.31
Total	25.92	18.48	3.77	0.25	3.04	0.38	59.92	8.52	50.24	4.50	55.42	56.22
1978 Apr	9.41	6.43	1.84	-	0.98	0.15	21.77	2.74	18.55	1.53	20.24	20.55
May	8.11	5.78	1.48	-	0.75	0.09	18.76	2.11	16.34	1.33	17.43	17.68
Jun* p	8.91	6.29	1.50	0.02	1.02	0.07	20.75	2.88	17.59	1.53	19.22	19.50
Total	26.43	18.50	4.82	0.02	2.75	0.31	61.28	7.73	52.48	4.39	56.89	57.73
Per cent change	+2.0	+0.1	+27.9	(-)	-9.5	-18.4	+2.3	-9.3	+4.5	-2.4	+2.7	+2.7
England and Wales												
1974	97.63	59.57	24.39	3.92	9.58	0.12	218.85	26.93	190.43	15.89	202.96	205.55
1975	96.14	65.71	18.24	3.42	8.53	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976	95.80	69.06	14.06	2.55	10.00	0.08	222.12	28.30	193.11	15.94	206.18	207.62
1977 p	98.34	70.59	14.93	1.76	10.88	0.11	226.99	30.71	195.10	16.26	210.73	213.19
Per cent change	+2.7	+2.2	+6.2	-31.0	+8.8	+37.5	+2.2	+8.5	+1.0	+2.0	+2.2	+2.7
1977 Jan - Jun	51.82	38.05	7.44	0.64	5.61	0.06	120.19	15.77	103.88	8.51	111.68	112.61
1978 Jan - Jun p	52.27	37.03	8.88	0.58	5.67	0.06	121.81	15.87	105.47	8.38	113.43	114.95
Per cent change	+0.9	-2.7	+19.4	-9.4	+1.1	-5.2	+1.3	+0.6	+1.5	-1.5	+1.6	+2.1
1977 Apr	7.67	5.70	1.05	_	0.91	0.01	17.82	2.55	15.19	1.28	16.54	16.78
May	7.01	5.26	0.93	0.09	0.72	0.01	16.30	2.01	14.22	1.15	15.15	15.25
Jun*	7.78	5.66	1.15	0.16	0.81	_	17.99	2.28	15.65	1.31	16.68	16.85
Total	22.46	16.62	3.13	0.25	2.44	0.02	52.11	6.84	45.06	3.74	48.37	48.88
1978 Apr	8.12	5.62	1.60	_	0.88	0.01	18.89	2.45	16.34	1.29	17.60	17.84
May	7.01	5.14	1.19	_	0.66	0.01	16.29	1.85	14.36	1.13	15.16	15.33
Jun* p	7.76	5.64	1.28	0.02	0.81	_	18.06	2.29	15.72	1.27	16.79	16.99
Total	22.89	16.40	4.07	0.02	2.35	0.02	53.24	6.59	46.42	3.69	49.55	50.16
Per cent change	+1.9	-1.3	+30.0	(-)	-3.7	_	+2.2	-3.7	+3.0	-1.3	+2.4	+2.6

Including coke.
 Including quantities used in the production of steam for sale.
 Including oil used in gas turbine and diesel plant and for lighting up coal fired boilers.
 Includer net imports and purchases from outside sources mainly UKAEA and British Nuclear Fuels Ltd. The England and Wales figures include net exchanges with Scotland.

TABLE 10. Sales of electricity by the public supply system

GWh

	Total	Iron and steel industry	Other industries	Domestic	Other ¹
1972	210,417	10,774	68,967	86,889	43,787
1973	225,267	11,646	75,327	91,299	46,995
1974	218,552	11,292	70,967	92,626	43,667
1975	217,924	11,164	70,854	89,214	46,692
1976	220,841	12,607	74,986	85,117	48,131
1977	225,655	12,310 ²	76,561 ²	85,902	50,882
Per cent change	+2.2	-2.4	+2.1	+0.9	+5.7
1976 1st quarter	66,235	3,208	19,559	29,089	14,379
2nd quarter	48,537	3,071	17,910	17,148	10,408
3rd quarter	43,112	2,875	17,314	13,584	9,339
4th quarter	62,957	3,453	20,203	25,296	14,005
977 1st quarter	67,181	3,273	20,458	28,564	14,886
2nd quarter	52,535	3,054 ²	18,993 ²	18,803	11,685
3rd quarter	46,077	2,911 ²	17,793 ²	14,938	10,435
4th quarter	59,862	3,072²	19,317²	23,597	13,876
1978 1st quarter p	67,830	3,369²	20,529²	28,336	15,596
Per cent change	+1.0	+2.9	+0.3	-0.8	+4.8

^{1.} Mainly commerce, public adminstration and agriculture. 2. Contains a small degree of estimation.

	Crude Petrole	eum						Petroleui	m Products		
	Gross ²	Supply									
	Indigenous Production	Total	Indigenous ²	Net arrivals	Other ³	Arrivals4,5	Shipments4,5	Arrivals ⁴	Shipments ⁴	Net Arrivals	Bunkers ⁶
1974	410	113,478	250	+111,418	1,810	112,822	1,404	14,256	14,396	-140	4,759
1975	1,564	92,273	1,156	+89,842	1,275	91,366	1,524	12,461	13,664	-1,203	3,444
1976	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,422	15,726	-5,304	3,569
1977	37,879	92,260	37,540	+54,038	682	70,697	16,659	12,716	13,928	-1,212	2,829
Per cent change	(+)	-6.2	(+)	-37.3	-1.4	-21.9	(+)	+22.0	-11.4	(-)	-20.7
1977 Jan-Jun	17,417	47,697	17,244	+30,245	208	37,705	7,460	6,082	7,119	-1,037	1,514
1978 Jan-Jun p	24,163	47,440	24,009	+22,985	446	33,943	10,958	6,202	5,627	+575	1,250
Per cent change	+38.7	-10.0	+39.2	-24.0	(+)	-10.0	+46.9	+2.0	-21.0		-17.4
1977 Apr	2,921	7,612	2,947	+4,634	31	5,706	1,072	803	1,080	-277	246
May	3,495	8,786	3,751	+4,973	62	6,725	1,752	1,153	1,254	-101	272
Jun	3,337	7,700	3,445	+4,186	69	5,974	1,788	907	1,136	-229	232
Total	9,753	24,098	10,143	+13,793	162	18,405	4,612	2,863	3,470	-607	750
1978 Apr	3,985	8,416	3,940	+4,392	84	5,976	1,584	1,049	1,037	+12	202
May	4,626	7,759	4,568	+3,112	79	5,546	2,434	1,067	1,055	+12	232
Jun p	4,494	7,401	4,298	+3,038	65	4,901	1,863	763	937	-174	235
Total	13,105	23,576	12,806	+10,542	228	16,423	5,881	2,879	3,029	-150	669
Per cent change	+34.4	-2.2	+26.3	-23.6	+40.0	-10.8	+27.5	+0.5	-12.7		-10.6

^{1.} Calendar months. 2. Including natural gas liquids (condensates). 3. Mainly recycled products. 4. Foreign trade as recorded by the Petroleum Industry and may differ from figures published in Overseas Trade Statistics. 5. Including process (partly refined) oils. 6. International bunkers.

TABLE 12. Refinery throughput and output of petroleum products¹

Thousand tonnes

	Through- put of crude	Refi	nery se	Total output	Gases				Kerosene					
	and process oils	Fuel	Losses	of petrol- eum pro- ducts ²	Butane and propane	Other petro- leum	Naphtha (LDF)	Motor	Aviation turbine fuel	Burning oil ³	Gas/ diesel oil	Fuel	Lubri- cating oils	Bitumen
1974 1975 1976	111,217 93,579 97,784	Control of the Contro	901	103,060 86,647 90,284	1,602 1,447 1,575	272 151 158	6,448 3,968 4,583	14,520 13,940 15,232	4,475 3,959 4,163	2,564 2,299 2,458	27,641 23,324 24,198	40,022 32,711 32,695	1,455 1,141 1,310	2,129 2,099 1,897
Per cent change	93,615 -4.3	-1.6	-10.3	-4.4	1,539 -2.3	142 10.1	4,488 -2.1	14,805 - 2.8	4,004 -3.8	2,462 +0.2	23,476 -3.0	30,481 -6.8	1,380 +5.3	1,882 -0.8
1977 Jan-Jun 1978 Jan-Jun p Per cent change	47,868 47,126 — <i>1.6</i>	March Control of the	470	43,486	744 804 +8.1	68 73 + <i>8.3</i>	2,284 2,270 —0.6	7,224 7,493 +3.7	1,939 2,252 + <i>16.2</i>	1,261 1,418 + <i>12.5</i>	12,141 11,796 —2.8	16,128 15,078 —6.5	672 566 —15.8	908 935 + <i>3.0</i>
1977 Apr May Jun	8,066 7,766 7,501	497 518 500	115 98	7,454 7,150	130 110 103	16 10 7	352 366 403	1,266 1,231 1,186	346 380 417	201 164 122	2,044 2,003 1,922	2,676 2,478 2,294	99 106 129	156 169 183
Total	23,333	1,515	326		343	33	1,121	3,683	1,143	487	5,969	7,448	334	508
1978 Apr May Jun p	7,955 7,646 7,049	510 528 477	45	7,073	131 150 105	14 14 11	393 356 268	1,236 1,314 1,240	356 392 439	219 177 127	1,998 1,917 1,672	2,598 2,305 2,182	91 99 117	144 195 199
Total Per cent change	22,650 -2.9	1,515 +0.0	220 -32.5		386 +12.7	39 +13.9	1,017 -9.2	3,790 +2.9	1,187 +4.0	523 +7.4	5,587 6.4	7,085 -4.9	307 -7.8	538 +6.1

^{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

					Kerosene								
						Burning	oil	I		Gas/diesel oil			
		Butane ⁴			Aviation		Standard					Lubri-	
		and	Naphtha	Motor	turbine				Derv		Fuel	cating	
	Total ^{2,3}	propane	(LDF) ⁵	spirit	fuel	Premier	Domestic	Other ⁶	fuel	Other	oil	oils	Bitumen
1974	92,342	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	81,667	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976	80,291	1,330	5,404	16,879	3,989	576	1,686	372	5,594	12,984	27,825	1,011	1,867
1977	81,918	1,320	5,179	17,336	4,165	559	1,677	391	5,711	13,914	27,772	1,029	1,847
Per cent change	+2.0	-0.8	-4.2	+2.7	+4.4	-3.0	-0.5	-5.3	+2.1	+7.2	-0.2	+1.8	-1.1
1977 Jan-Jun	41,972	700	2,708	8,219	1,964	333	943	205	2,822	7,540	14,617	525	898
1978 Jan-Jun p	43,286	704	2,606	8,761	2,046	333	911	234	2,870	7,534	15,035	513	901
Per cent change	+3.1	+0.6	-3.8	+6.6	+4.2	-0.1	-3.3	+14.2	+1.7	-0.1	+2.9	-2.2	+0.3
1977 Apr	6,866	114	429	1,419	274	55	175	35	474	1,287	2,286	81	139
May	6,565	107	467	1,417	399	27	107	29	483	1,025	2,161	95	177
Jun	5,974	94	426	1,458	394	11	72	23	462	749	1,965	89	175
Total	19,405	315	1,322	4,294	1,067	93	354	87	1,419	3,061	6,412	265	491
1978 Apr	7,359	110	436	1,487	333	51	156	39	486	1,305	2,591	80	148
May	6,879	112	376	1,585	395	25	108	33	494	1,032	2,284	95	182
Jun p	6,212	91	397	1,598	431	6	67	23	503	734	1,924	93	195
Total	20,450	313	1,209	4,670	1,159	82	331	95	1,483	3,071	6,799	268	525
Per cent change	+5.4	-0.2	-8.6	+8.7	+8.6	-11.2	-6.5	+8.4	+4.6	+0.3	+6.0	+0.9	+6.8

^{1.} Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial and white spirits, and paraffin wax. 3. Excluding refinery fuel (and miscellaneous products prior to 1978). 4. Including very small amounts for petro-chemicals. 5. Now mainly for petro-chemical feed stock. 6. Including vaporising oil.

		Power ³		Iron and steel	Other			
	Total	stations	Gas works	industry	industries	Transport ⁴	Domestic	Other ⁵
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,345	693	3,309	17,251	27,582	3,270	7,935
1976	71,473	10,441	366	3,128	17,487	28,599	3,269	8,183
1977	73,043	10,875	292	2,938	17,701	29,359	3,263	8,615
Per cent change	+2.2	+4.2	-20.1	-6.1	+1.2	+2.7	-0.2	+5.3
1977 Jan - May	32,202	4,564	135	1,334	8,405	11,610	1,700	4,454
1978 Jan - May p	33,194	5,278	152	1,312	8,354	12,072	1,687	4,339
Per cent change	+3.1	+15.6	+12.6	-1.7	-0.6	+4.0	-0.8	-2.6
1977 Mar	6,889	898	32	285	1,807	2,531	370	966
Apr	6,132	777	19	234	1,575	2,347	329	851
May	5,766	774	18	243	1,393	2,475	201	662
Total	18,787	2,449	69	762	4,775	7,353	900	2,479
1978 Mar	6,946	1,038	28	292	1,744	2,553	357	934
Apr	6,579	1,108	25	243	1,584	2,476	303	840
May p	6,095	921	29	249	1,338	2,674	202	632
Total	19,620	3,067	82	784	4,716	7,703	862	2,406
Per cent change	+4.4	+25.2	+19.9	+2.9	-1.2	+4.7	-4.2	-2.9

^{1.} Calendar months. 2. Excludes non-energy products and non-energy use of naphtha (LDF). 3. Public supply, railway and transport power stations.

TABLE 15. Stocks of petroleum at end of month

		Held by oil	Power stations		
		Million tonnes	Estimated days' supply ³	Million tonnes	
1977	May	19.8	101	0.77	
	Jun	20.3	101	0.83	
	Jul	20.8	98	0.88	
1978	May	17.6	86	1.01	
	Jun	18.5	88	0.95	
	Jul p	18.6	82	1.01	

Stocks of petroleum products plus the product equivalent of crude and process oils held at refineries, and products in the wholesale distribution system.
 Fuel oil held at main oil burning stations in Great Britain.
 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	Million tonnes coal equiv.	Million tonnes oil equiv.	Million	TWh electrical energy	TWh electricity generated	
Million tonnes coal equivalent	1	1.7	0.004	0.135¹	0.500 ²	
Million tonnes oil equivalent	0.60	1	0.00235	0.0800¹	0.280 ²	
Million therms	250	425	1	34.0	115	
TWh electrical energy	7.35	12.5	0.0295	1		
TWh electricity generated	2.00³	3.60 ³	0.00880³		1	

- 1. The amount of fuel (average grade) equivalent to 1 TWh of energy.
- 2. The amount of primary fuel (power station grade) to generate 1 TWh.
- 3. The amount of electricity generated by one million units of fuel shown.

The Digest of UK Energy Statistics 1978 gives more detailed factors.

SUPPLEMENTARY DATA

Values of fuel imports and exports¹

	Imports (c.i.f.)							Exports (f.o.b.)					
	Coal	Coal Other solid	Natural	Petroleum		Electricity	Total	Coal	Other	Petroleum ³	Electricity	Total	
		fuel ²	gas	Crude	Refined ³	A STATE OF THE PARTY OF THE PAR			fuel ²		Lioutinoity		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1972	48.9	11.3	9.4	947.0	223.2	1.7	1,241.5	9.7	9.2	219.7	-	238.6	
1973	21.3	7.9	9.4	1,336.3	348.3	0.4	1,723,6	15.2	13.8	341.0	_	370.0	
1974	62.1	7.2	8.1	3,856.3	701.9	0.4	4,636.0	20.8	46.9	701.0	_	768.7	
1975	105.6	7.8	13.9	3,462.9	718.6	1.1	4,309.0	36.1	54.6	722.9	0.1	813.7	
1976	82.7	9.0	20.3	4,585.8	954.1	_	5,651.9	30.6	47.7	1,175.4	1.1	1,254.8	
1977	78.1	11.5	43.2	4,094.1	1,001.6	-	5,228.5	43.7	45.6	1,977.4	_	2,066.7	
Per cent change	-5.5	+27.9	(+)	-10.7	+5.0	-	-7.5	+42.7	-4.4	+68.2	(-)	+64.7	
1976 2nd quarter	25.6	1.8	4.4	1,107.3	247.8	_	1,386.9	6.0	11.6	247.2	0.3	265.1	
3rd quarter	18.7	2.7	5.2	1,143.5	230.3	-	1,400.4	8.5	11.4	324.6	0.1	344.6	
4th quarter	18.7	2.2	4.5	1,238.3	231.6	-	1,495.3	9.6	12.9	380.7	0.7	403.9	
1977 1st quarter	15.3	2.3	3.4	1,173.1	254.1	_	1,448.2	11.3	13.8	454.9	_	480.0	
2nd quarter	14.4	3.2	3.8	1,099.4	263.9	_	1,384.7	11.3	12.1	498.2	_	521.6	
3rd quarter	27.6	3.1	4.4	923.7	236.1	-	1,194.9	11.6	10.1	586.2	_	607.9	
4th quarter	20.8	2.9	31.6	897.9	247.5	-	1,200.7	9.5	9.6	438.1		457.2	
1978 1st quarter	21.5	2.1	49.9	970.1	268.0	_	1,311.6	11.7	10.3	452.2	_	474.2	
2nd quarter p	16.4	1.2	35.1	806.7	225.3	_	1084.7	11.1	13.1	501.2	_	525.4	
Per cent change	+14.1	-61.1	(+)	-26.6	-14.6	_	-21.7	-1.2	+8.1	+0.6	_	+0.7	

^{1.} The figures correspond to those published in Section 3 of the "Overseas Trade Statistics".

^{4.} Including fishing, coastal and inland shipping. 5. Mainly public administration, commerce and agriculture.

^{2.} Including coke, breeze, briquettes and pitch. 3. Including liquefied gases other than natural gas and petroleum products not used as fuel e.g., lubricants.