

DEPARTMENT OF ENERGY

ENERGY TRENDS

A Statistical Bulletin

NOVEMBER 1986



Total Energy

Total inland energy consumption, on a primary fuel input basis, in the third quarter of 1986 was 3.1 per cent higher than in the corresponding quarter of 1985. Comparisons with the earlier period for coal and oil deliveries into consumption may still be affected by the re-adjustment of supplies following the coal dispute. Consumption of coal in the period July to September 1986 was 4.4 per cent lower than in the corresponding period of 1985, whilst that of petroleum was 12.2 per cent higher. Consumption of natural gas rose by 0.8 per cent, whilst that of nuclear electricity fell by two per cent.

Total consumption on a seasonally adjusted and temperature corrected basis was 0.5 per cent lower than a year earlier, with consumption of coal down by 6.4 per cent, petroleum up by 9.1 per cent and natural gas 6.6 per cent lower.

Fuel Price Indices

Domestic Sector

The current price index for fuel and light rose by one per cent between the third quarters of 1985 and 1986. The index for petrol and oil fell by 18 per cent and that for all fuels by 7 per cent. The indices for gas and electricity both rose by one per cent. The index for coal and coke rose by 4 per cent whilst that for heating oils fell by 21 per cent. The Retail Price Index (excluding fuels) increased by 4 per cent. Thus in deflated terms the index for all fuels fell by 11 per cent. The deflated fuel and light index fell by 3 per cent and that for petrol and oil by 21 per cent. The deflated indices for gas and electricity both fell by 3 per cent over this period. The deflated coal and coke index was unchanged, whilst that for heating oils fell by 24 per cent.

Industrial Sector

The current price index for all fuels fell by 24 per cent between the second quarters of 1985 and 1986. The index for coal fell by 2 per cent and that for gas by 8 per cent. The index for electricity rose by 2 per cent, both before and after seasonal adjustment. The index for heavy fuel oil fell by 58 per cent. The Producer Price index of materials fell by 8 per cent. Hence the deflated price index for all fuels fell by 18 per cent over this period. The deflated heavy fuel oil index fell by 54 per cent. The index for coal rose by 7 per cent whilst that for gas was unchanged. The index for electricity rose by 11 per cent both before and after seasonal adjustment.

Coal

Provisional figures for the third quarter of 1986 show that total coal production was 23.4 million tonnes, 8.2 per cent less than a year earlier, with deep-mined coal accounting for 19.2 million tonnes and opencast 3.7 million tonnes.

Use of home produced and imported coal in this period was 24.2 million tonnes — 4.4 per cent less than in the corresponding period a year ago. Consumption at power stations decreased by 5.6 per cent and consumption by coke ovens and other conversion industries was 9.3 per cent lower. Disposals by collieries and opencast sites to industry, and to all other final consumers were 21.4 per cent higher, and 6.5 per cent lower respectively.

Total stocks of coal at the end of September 1986 amounted to 36.6 million tonnes, 2.3 million tonnes higher than at the end of August, and 1.7 million tonnes higher than at the end of September 1985. Stocks at power stations increased by 1.8 million tonnes during the month of September to 26.9 million tonnes, and stocks at collieries and opencast sites, at 7.8 million tonnes, were 0.1 million tonnes higher than at the end of August.

Gas

Gas sent out so far this year (January to September) shows a 2.2 per cent rise on the same period last year. Within this, send out during the three months July to September was 1.4 per cent lower than in the same months of 1985. The decline in gas sent out earlier in the period, due to the reduction in sales of gas on interruptible contracts, was largely offset by the increase in supplies due to the cold weather in September 1986.

Electricity

During the third quarter of 1986 1.1 per cent more electricity was supplied by the public supply system than in the same quarter of 1985. Generation of electricity from fossil-fuel power stations rose by 2.6 per cent whilst that from nuclear stations fell by 2.1 per cent. Total fuel used, on a coal equivalent basis, was 0.5 per cent lower.

Petroleum

Provisional figures for the three months July to September 1986 show that indigenous crude oil production was 30.9 million tonnes, 5.1 per cent more than a year earlier. Production of natural gas liquids was 1.4 million tonnes.

Total output of petroleum products in the period was 1.2 per cent higher than a year ago, with increased output of petroleum gases, aviation turbine fuel, gas/diesel oil, naphtha and bitumen more than offsetting reduced output of motor spirit, burning oil, fuel oil and lubricating oils.

Deliveries of petroleum products for inland consumption in the third quarter of 1986 were 12.3 per cent higher than a year earlier. Deliveries of fuel oil increased by 45.6 per cent. Deliveries of other petroleum products increased by 7.1 per cent. There were increased deliveries of all these other products except naphtha and middle distillate feedstock, gas/diesel oil other than derv, and lubricating oils, reflecting the increased demand in response to reduced prices. Deliveries of motor spirit and derv fuel increased by 4.2 per cent and 12.3 per cent respectively.

Supplementary Data

Typical Retail Prices of Motor Spirit and Derv

In this month's table typical retail prices of motor spirit and derv for October 1986 are shown. They indicate that motor spirit prices hardened after reaching their recent low point in July, to stand at something more like their April level. Derv prices, however, declined further to reach their lowest level since August 1981. (Monthly data for motor spirit and derv prices may be found in the Digest of United Kingdom Energy Statistics, available from HM Stationery Office).

Subscription Renewal

Subscribers to this bulletin will be aware that their current subscriptions expire with the December issue. Letters will be sent out shortly, giving the rates for 1987, and inviting renewal of subscriptions.

Hall

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.

Due to rounding the sum of the constituent items may not equal the totals.

Percentage changes relate to the corresponding period a year ago. These comparisons can be affected by calendar differences.

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.

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

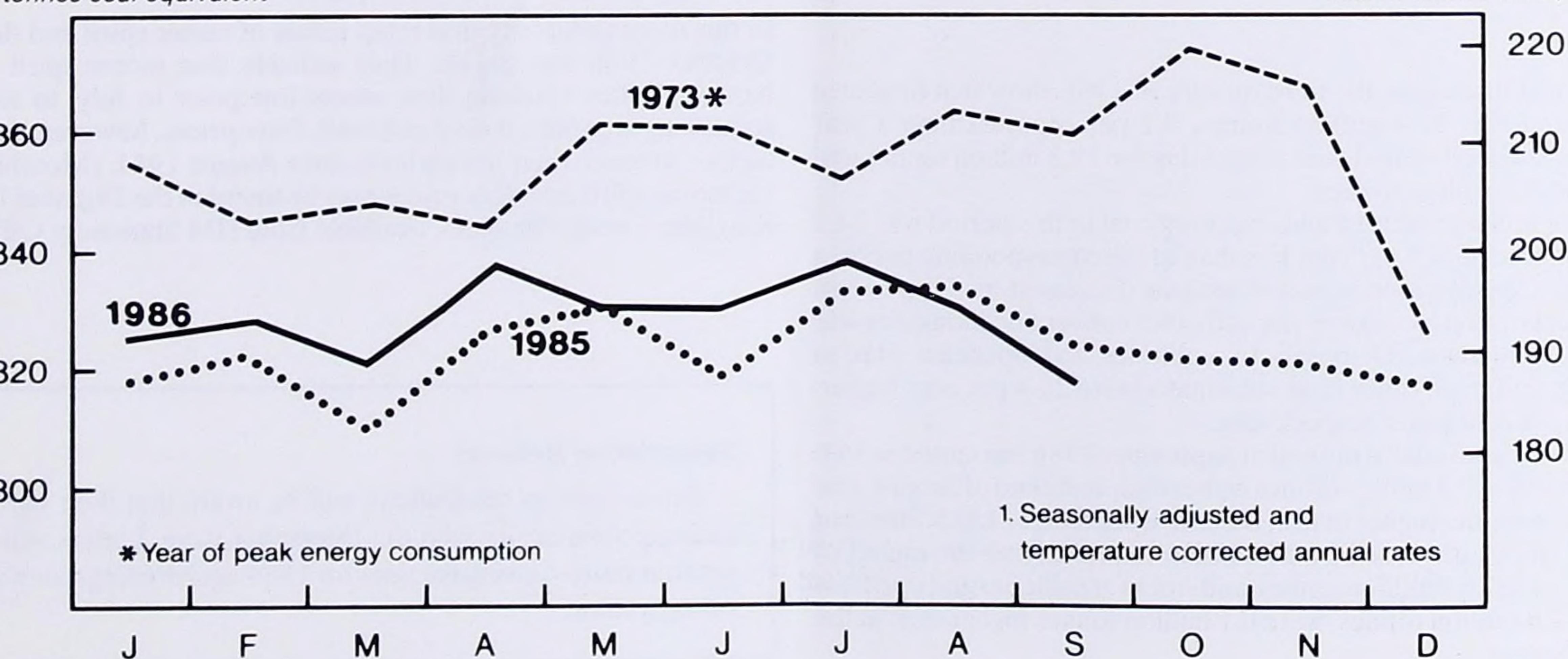
	Total	Coal ¹	Petroleum ²	Natural ³ gas	Primary electricity		
					Nuclear	Hydro	Net Imports
Million tonnes coal or coal equivalent							
1981	317.2	118.2	110.9	72.1	13.70	2.30	-
1982	311.9	110.7	111.1	71.7	16.00	2.40	-
1983	312.9	111.5	106.1	74.8	18.10	2.37	-
1984	312.2	79.0	135.2	76.5	19.48	2.08	-
1985	326.9	105.3	115.0	82.3	22.15	2.12	-
Per cent change	+4.7	+33.4	-14.9	+7.5	+13.7	+2.2	-
1985 Jan-Sep	238.9	73.8	88.5	58.3	16.89	1.41	-
1986 Jan-Sep p	248.0	85.1	84.2	60.4	15.98	1.60	0.75
Per cent change	+3.8	+15.3	-4.9	+3.5	-5.4	+13.4	(+)
1985 July	20.0	7.7	7.3	3.3	1.60	0.09	-
Aug	19.9	7.4	7.5	3.4	1.46	0.16	-
Sep* p	27.0	10.2	9.9	4.8	1.96	0.29	-
Total	67.0	25.3	24.6	11.5	5.02	0.54	-
1986 July	20.6	7.8	7.9	3.1	1.59	0.09	0.10
Aug	20.0	7.1	8.0	3.2	1.57	0.14	0.09
Sep* p	28.5	9.4	11.7	5.4	1.75	0.15	0.12
Total	69.1	24.2	27.6	11.6	4.92	0.38	0.32
Per cent change	+3.1	-4.4	+12.2	+0.8	-2.0	-29.6	(+)
Seasonally adjusted and temperature corrected ⁴ (annual rates) ⁵							
1985 Jan-Sep	324.7	101.1	118.0	80.8	22.63	2.18	-
1986 Jan-Sep p	329.0	112.2	112.7	79.3	21.47	2.37	1.01
Per cent change	+1.3	+11.0	-4.5	-1.9	-5.1	+8.7	(+)
1985 July	332.3	115.4	109.7	82.1	23.16	1.96	-
Aug	333.3	116.3	110.7	81.8	22.52	2.04	-
Sep* p	324.0	115.6	103.1	81.0	22.11	2.18	-
Average	329.8	115.7	107.8	81.6	22.59	2.06	-
1986 July	337.9	115.7	119.0	76.7	22.82	2.33	1.35
Aug	329.9	110.0	117.2	74.5	24.62	2.38	1.22
Sep* p	317.1	99.3	116.8	77.5	19.78	2.37	1.27
Average	328.3	108.3	117.6	76.2	22.41	2.36	1.28
Per cent change	-0.5	-6.4	+9.1	-6.6	-0.8	+14.7	(+)

1. Consumption by fuel producers plus disposals (including imports) to final users, plus (for annual figures only) net foreign trade and stock change in other solid fuels. 2. Inland deliveries for energy use plus refinery fuel and losses minus the differences between deliveries and actual consumption at power stations and gas works. 3. Including non-energy use and excluding gas flared or re-injected. 4. Coal, petroleum and natural gas are temperature corrected. 5. For hydro the estimated annual out-turn.

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

Million tonnes coal equivalent

Million tonnes oil equivalent



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NOTE: This report does not cover micro CHP or CHP/district heating, on both of which separate studies are currently being undertaken.



MONERGY '86

ENERGY EFFICIENCY YEAR 1986

206

6 November, 1986

NEW STUDY ON INDUSTRIAL CHP PUBLISHED

A new report "Combined Heat and Power and Electricity Generation in British Industry 1983-1988"** is published today by the Department of Energy. In a foreword Peter Walker, Secretary of State for Energy writes: "I believe industrial combined heat and power (CHP) has an important role to play in the future energy scene.

"This report marks a major advance in our knowledge of the extent, composition and characteristics of both private electricity generation and of industrial CHP. As a basis for monitoring future progress and for considering policy options in this field to facilitate its optimal development, it will be invaluable."

This report, which covers existing private generators of electricity and industrial CHP operators, is the first of two studies in this area. The second, being prepared by Ove Arup & Partners, is designed to establish the prospects for co-generation of electricity in those sectors of industry with little or no experience to date of CHP.

Detailed tables are given in the report for numbers of generating plants by type, age, capacity, industrial sector and region together with the electricity generated and associated fuel burn for 1983. The report also covers changes in plant capacity and electricity generation over the period 1977-1983 and provides an indication of expected changes between 1983 and 1988.

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TABLE 14. Deliveries of petroleum products for inland consumption: energy uses^{1,2}

Thousand tonnes

	Total	Power ³ stations	Gas works	Iron and steel industry	Other industries	Transport ⁴	Domestic	Other ⁵
1981	58,707	4,863	252	1,381	12,624	30,622	2,301	6,664
1982	59,643	6,873	213	1,224	11,600	31,315	2,146	6,272
1983	56,446	4,647	159	1,046	10,291	32,249	2,044	6,011
1984	73,259	20,913	157	866	9,364	33,823	2,139	5,996
1985	61,611	10,034	148	718	8,406	34,464	2,199	5,643
Per cent change	-15.9	-52.0	-5.7	-17.1	-10.2	+1.9	+2.8	-5.9
1985 Jan-Aug	42,827	8,399	99	502	5,783	22,771	1,405	3,869
1986 Jan-Aug p	39,287	3,215	110	466	6,161	24,152	1,483	3,700
Per cent change	-8.3	-61.7	+11.1	-7.2	+6.5	+6.1	+5.6	-4.4
1985 June	4,028	255	11	51	500	2,844	94	273
July	4,280	209	9	46	500	3,133	101	281
Aug	4,389	283	7	46	534	3,060	140	319
Total	12,697	747	28	144	1,535	9,037	335	872
1986 June	4,607	429	12	48	630	3,082	109	297
July	4,745	388	10	52	616	3,304	109	265
Aug p	4,716	299	14	64	647	3,165	202	326
Total	14,067	1,117	36	165	1,893	9,550	420	888
Per cent change	+10.8	+49.5	+28.6	+14.6	+23.3	+5.7	+25.4	+1.8

1. Calendar Months. 2. Excludes non-energy use. 3. Public supply, railway and transport power stations. 4. Includes coastal shipping and fishing.
 5. Mainly public administration, commerce and agriculture.

TABLE 15. Stocks of petroleum¹ at end of period

Thousand tonnes

	Light ² distillates	Kerosene and gas/diesel ³	Fuel oil	Other products ⁴	Total petroleum products	Crude oil and refinery process oils
1981	2,124	4,012	4,064	1,750	11,950	8,795
1982	1,750	3,515	4,118	1,665	11,048	8,366
1983	2,154	3,155	3,997	1,517	10,823	7,820
1984	2,102	3,066	3,953	1,479	10,600	7,168
1985	2,282	3,392	3,657	1,352	10,684	7,395
Per cent change	+8.6	+10.6	-7.5	-8.6	+0.8	+3.2
1985 July	2,274	3,141	3,574	1,163	10,151	6,840
Aug	2,364	3,086	3,595	1,311	10,355	6,228
Sep	2,380	3,114	3,763	1,176	10,433	6,522
1986 July p	2,462	3,105	3,897	1,348	10,812	7,153
Aug p	2,517	3,074	3,754	1,377	10,722	7,074
Sep P	2,380	2,912	3,893	1,288	10,472	7,187
Per cent change	—	-6.5	+3.5	+9.5	+0.4	+10.2

1. Stocks held at refineries, terminals and power stations. Stocks in the wholesale distribution system and those held abroad for UK use under approved bilateral agreements are also included. 2. Motor spirit, aviation spirit and aviation wide-cut gasoline. 3. Aviation turbine fuel, burning oil, gas oil, Derv fuel and marine diesel oil. 4. Ethane, propane, butane, other petroleum gases, naphtha (ldf), industrial and white spirits, bitumen, petroleum wax, lubricating oils, petroleum coke and miscellaneous products.

SUPPLEMENTARY DATA

Typical Retail Prices of Motor Spirit and Derv¹

Pence per gallon

	Motor spirit		Derv		Motor spirit		Derv
	2 star	4 star			2 star	4 star	
1973 January	34	35	34	1984 January	179	183	167
1974 January ²	40.5	42	41.5	April	179	183	173
1975 January	71	73	56	July	179	184	173
1976 January	75	77	62	October	186	189	183
1977 January	78	80	78	1985 January	185	189	185
1978 January	74	76	84	April	200	203	196
1979 January	78	80	84	July	195	199	191
1980 January	118	120	126	October	189	193	188
1981 January	130	132	140	1986 January	186	189	187
1982 January	156	159	159	April	165	169	170
1983 January	163	167	171	July	158	161	155
				Oct p	165	169	152

1. The approximate estimates are generally representative of prices paid at the pump on or about the 15th of the month. Estimates since 1977 are based on information provided by oil companies. 2. Maximum retail prices imposed by Order during the period 15th December 1973 to 20th December 1974.

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