

153 Electricity

This Report on the Electricity Industry relates to undertakings engaged wholly or mainly in the production and distribution of electricity for public supply. Construction work carried out by employees of electricity undertakings is included. Establishments producing electricity for railway, tramway and trolleybus operation are also included as are 'district heating' and electricity show-rooms. Establishments (other than those of railway and tramway undertakings) producing electricity primarily for their own use are excluded, being included in the industries covering the major output of the parent works.

This industry corresponds to minimum list heading 602 in the Standard Industrial Classification (Revised 1968) which has been used for the first time as a basis of classification in the 1968 census. The definition of this industry however is unchanged from the last detailed Census of Production for 1963 in which it was reported (Part 128).

In this Report separate particulars are given for the Electricity Boards and other undertakings which consisted of the generating stations of transport undertakings in Great Britain and electricity undertakings in Northern Ireland.

All returns for 1963 related to the calendar year; for 1968 returns from the Electricity Boards and Northern Ireland undertakings covered the year ended 31 March 1969, but the return from the transport undertakings in Great Britain related to the calendar year.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which appear on pages (i) to (iv).

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TABLE 1 Industry summary, 1963 and 1968

United Kingdom

	Unit	Electricity Boards		Other undertakings(a)		Total	
		1963	1968	1963	1968	1963	1968
Number of generating stations	No.	333	298	9	7	342	305
Gross output	£'000	1,101,437	1,657,067	25,666	39,244	1,127,103	1,696,311
Net output	"	656,793	1,084,069	13,135	21,682	669,928	1,105,751
Net output per head	£	2,888	4,653	2,021	3,044	2,864	4,605
Sales and work done	£'000	1,037,754	1,570,299	25,624	38,160	1,063,378	1,608,459
electricity, etc sold and work done (b)							
merchanted goods and canteen takings	"	62,623	84,397	10	910	62,632	85,308
Cost of materials and fuel used	"	397,428	511,995	12,233	16,843	409,662	528,838
Cost of merchanted goods and canteen purchases	"	45,494	58,199	294	704	45,788	58,904
Payments to other organisations	"	426	1,991	-	-	426	1,991
for renovation of appliances by other firms							
for transport (c)	"	1,296	813	4	14	1,301	827
Stocks and work in progress	"	+ 7,789	- 13,412	+ 163	- 18	+ 7,952	- 13,430
Total stocks and work in progress	"	96,551	116,674	2,569	3,323	99,120	119,997
change during year							
at end of year	"	11,168	12,524	76	192	11,245	12,717
Goods on hand for sale	"	603	1,779	6	72	597	1,851
change during year							
at end of year	"	457	591	38	102	495	693
Work in progress	"	4,119	6,164	158	344	4,277	6,507
change during year							
at end of year	"	6,729	15,783	131	192	6,860	15,974
Materials, stores and fuel	"	81,265	97,986	2,334	2,787	83,599	100,773
change during year							
at end of year	"	227,431	232,999	6,499	7,122	233,930	240,121
Number employed on average during the year	No.	150,817	149,118	5,110	5,188	155,927	154,306
operatives	"	76,614	83,881	1,389	1,934	78,003	85,815
other employees (d)	"	118,801	154,632	4,164	5,678	122,965	160,310
Wages and salaries	£'000	77,270	113,973	1,216	2,302	78,486	116,275
of operatives	"	788	1,037	815	1,095	789	1,039
of other employees (d)	"	1,009	1,359	876	1,190	1,006	1,355
Wages and salaries per head	"						

Continued on next page

TABLE 1 (continued)

	Unit	Electricity Boards		Other undertakings(a)		Total	
		1963	1968	1963	1968	1963	1968
Capital expenditure							
Total (e)	£'000	510,012	538,276	9,092	16,488	519,104	554,765
New building work (f)	"	87,303	78,130	853	1,952	88,155	80,081
Land and existing buildings	acquisitions (f)	2,844	2,380	20	38	2,864	2,417
	disposals	572	1,494	53	84	625	1,578
Plant and machinery	acquisitions (f) (g)	390,543	452,120	8,254	14,559	398,797	466,678
	disposals	2,700	4,087	106	288	2,806	4,374
Appliances for hire	acquisitions (h)	499	462	95	203	594	665
	disposals (i)	83	75	1	1	84	76
Vehicles	acquisitions	2,919	3,990	42	127	2,962	4,117
	disposals	342	477	12	17	354	494
Vessels	acquisitions	-	80	-	-	-	80
	disposals	-	12	-	-	-	12
Nuclear fuel	acquisitions	29,601	8,543	-	-	29,601	8,543
	disposals	-	1,282	-	-	-	1,282

(a) Including generating stations of transport undertakings in Great Britain and electricity undertakings in Northern Ireland.

(b) Including sales of electricity, by-products and waste products, charges for work done, rents received and work of new construction (for details see Tables 5(B) and 5(C)), and for services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered) (see Table 7).

(c) Payments for transport inwards are included in the cost of purchased materials and fuel used and excluded from payments for transport to other organisations. The amounts were as follows:-

	1963	1968
	£'000	£'000
Electricity Boards	26,933	35,359
Other undertakings	276	20

(d) Administrative, technical and clerical employees.

(e) Acquisitions less disposals.

(f) Including expenditure for undertakings in Great Britain not yet in production.

(g) Including meters, mains and services, and railway sidings owned by electricity undertakings.

(h) Issued during year.

(i) Proceeds from disposals of appliances formerly on hire which were sold or scrapped during the year.

TABLE 2 Analysis by size of undertaking within the industry, 1968

This table is not applicable to this industry.

TABLE 3 Percentage analysis of employees, by age and sex, 1969 (a)

All undertakings: United Kingdom

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	1	1	2
18 and over	84	14	98
All ages	85	15	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification (Revised 1968).

TABLE 4 Analysis of larger undertakings, 1963 and 1968

This table is not applicable to this industry.

TABLE 5(A) Summary of electricity generated, purchased, used and sold, 1963 and 1968

All undertakings in the industry: United Kingdom

	Electricity Boards		Other undertakings		Total (a)	
	1963	1968	1963	1968	1963	1968
	Mn.kWh	Mn.kWh	Mn.kWh	Mn.kWh	Mn.kWh	Mn.kWh
Electricity						
Generated	153,771	206,226	3,096	4,311	156,867	210,537
Purchased from outside sources						
By generating regions	1,821	2,935	161	242	3,642	4,612
By distribution system	1,660	1,435				
Total	157,252	210,596	3,257	4,553	160,509	215,149
Used on works, etc at generating stations	10,020	15,393	180	228	10,200	15,621
Used in offices and showrooms	471	566	3	8	474	574
Conversion, transmission and distribution losses and electricity unaccounted for						
By generating regions	3,944	5,877	342	424	13,123	16,182
By distribution system	8,837	9,881				
Sold						
Direct from generating regions to consumers	2,059	3,007	-	-	2,059	3,007
Through distribution system	131,921	175,872	2,732	3,893	134,653	179,765
Total	157,252	210,596	3,257	4,553	160,509	215,149

(a) Total figures are overstated by the amount of sales between the public supply system of Great Britain and other undertakings and included in the figures of both.

TABLE 5(B) Sales of electricity and other products, charges for work done and rents received, 1963 and 1968

All undertakings in the industry: United Kingdom

	Electricity Boards		Other undertakings		Total	
	1963	1968	1963	1968	1963	1968
	£'000	£'000	£'000	£'000	£'000	£'000
Electricity sold	896,281(a)	1,412,535(a)	21,560	31,769	917,840(b)	1,444,304(b)
By-products and waste products sold						
Scrap metal	1,695	2,981	41	122	1,736	3,103
Steam and hot water	1,855	1,618	262	293	2,118	1,911
Ashes	783	1,332	58	54	841	1,386
Other	6	13	-	46	6	59
Total by-products and waste products sold	4,339	5,944	361	516	4,700	6,459
Work charged for						
Fitting and repairing of wiring and appliances (c)	20,079	29,690	-	65	20,079	29,755
Installation, repair and maintenance of public lamps	4,897	5,917	121	174	5,017	6,091
Other	8,629	15,192	412	1,377	9,041	16,569
Total work charged for	33,605	50,799	533	1,616	34,138	52,414
Rents received						
Meter rents	718	1,847	3	14	721	1,861
Hire of appliances	1,724	1,266	137	204	1,861	1,470
Total rents received	2,442	3,113	141	217	2,583	3,331
Total	936,667	1,472,391	22,594	34,119	959,261	1,506,509

(a) Excluding sales between Electricity Boards in Great Britain.

(b) Including transactions between Electricity Boards and other undertakings in Great Britain.

(c) For 1963 described as 'Fitting and repairing of appliances'.

TABLE 5(C) Work of new construction and repair and maintenance carried out by employees of electricity undertakings, 1963 and 1968 (a)

All undertakings in the industry: United Kingdom

	Electricity Boards		Other undertakings		Total	
	1963	1968	1963	1968	1963	1968
	£'000	£'000	£'000	£'000	£'000	£'000
New construction						
On depots, workshops, offices and other buildings	4,471	4,492	3,030	4,041	104,117	101,735
On plant and machinery	31,682	26,786				
On mains and services	63,264	65,542				
Work charged to other divisions and Area Boards	1,671	874				
Repair and maintenance						
On depots, workshops, offices and other buildings	7,343	10,101	1,295	2,740	66,237	89,003
On plant and machinery	42,543	58,332				
On mains and services	14,616	17,562				
Work charged to other divisions and Area Boards	439	268				
Total work of new construction and repair and maintenance	166,028	183,956	4,325	6,781	170,354	190,738
Less work of repair and maintenance	64,941	86,263	1,295	2,740	66,237	89,003
Total new construction	101,087	97,694	3,030	4,041	104,117	101,735

(a) The amount shown for work of new construction represents the sum chargeable to capital account. Repairs and maintenance are valued at the cost of labour and materials. Work done for other Divisions and Area Boards is valued at the amount charged.

TABLE 6 Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968

This table is not applicable to this industry.

TABLE 7 Sales of other than principal products, 1963 and 1968

All undertakings in the industry: United Kingdom

	Electricity Boards		Other undertakings		Total	
	1963	1968	1963	1968	1963	1968
	£'000	£'000	£'000	£'000	£'000	£'000
Services rendered to other organisations (a)	..	215	..	-	..	215
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) including sales of electrical appliances (b)	60,794	82,229	-	877	60,794	83,106
Canteen takings	1,828	2,168	10	33	1,838	2,201
Total	62,623	84,612	10	910	62,633	85,523

(a) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered to other organisations.

(b) Including hire purchase interest.

TABLE 8 Production of certain principal products of the industry by larger undertakings, 1963 and 1968.

This table is not applicable to this industry.

TABLE 9 Purchases by larger undertakings of selected principal products of the industry, 1968

This table is not applicable to this industry.

TABLE 10 Materials and fuel purchased and used, 1963 and 1968
All undertakings in the industry: United Kingdom

	Electricity Boards					
	1963		1968			
	Quantity	Cost	Quantity	Cost		
Materials for use in production	Th. tons	£'000	Th. tons	£'000		
Iron castings	3.4	349	1.8	226		
Wrought tubes	2.3	208	2.7	229		
Fittings for wrought tubes (including flanges)	0.6	99	0.5	100		
Iron and steel not elsewhere specified except finished parts, wire and scrap	17.7	483	8.2	378		
Insulated wires, cables, strips and strand	..	27,762	..	28,793		
Soft wood, round or unsawn	Th. stds.	6.1	630	Th. stds.	3.9	387
Soft wood, sawn or planed but not further prepared or manufactured	1.7	196	1.4	227		
Lubricating oils and greases	Th. gal.	1,535	339	Th. gal.	2,061	593
	Th. cwt.	5.1	25	Th. cwt.	8.8	62
Replacement parts for undertakings' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement						
Tyres and other spare parts for undertakings' own road goods vehicles	..	7,787	..	1,046		
Other	..	..	..	14,400
All other materials purchased and used	..	43,622	..	47,284		
Packaging materials	..	74	..	21		
Fuel and electricity	Th. tons		Th. tons			
Coal	66,318	268,547	74,709	352,988		
Coke (including screenings) and manufactured fuel (a)	699	2,472	313	1,070		
Liquid fuels (including creosote/pitch mixtures)						
For use in internal combustion engines	Th. gal.		Th. gal.			
Motor Spirit (petrol) for use in road vehicles and derv fuel	10,952	2,061	13,194	3,409		
Other internal combustion engines (b)	12,037	623	15,669	727		
For burning in furnaces, boilers, etc (b)	1,127,028	38,139	1,374,404	55,392		
Gas purchased	Th. therms		Th. therms			
From Area Gas Boards	22.2	3	8,811	144		
From other sources	30.9	4	356	44		
Electricity purchased (c)	Mn. kWh	3,481	9,762	Mn. kWh	4,370	11,636
All other fuels	..	92	..	90		
Total cost of materials and fuel used		403,277		519,248		
Less cost of materials supplied to contractors for capital work		5,849		7,253		
Net total cost of materials and fuel used		397,428		511,995		
Goods for merchanting or factoring, including purchases of electrical appliances		44,126		56,598		
Canteen purchases		1,367		1,601		
Total cost of purchases (d)		442,922		570,194		

(a) For 1963 described as 'Coke and Coke Breeze'.

(b) Liquid fuels returned in tons have been converted on the following equivalents:-
For use in internal combustion engines other than road vehicles 1 ton = 267 gal.
For burning in furnaces, boilers, etc 1 ton = 233 gal.

	Other undertakings				Total				
	1963		1968		1963		1968		
	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000	
	0.3	21	0.1	10	3.7	370	2.0	236	
	-	2	-	2	2.4	210	2.7	231	
	-	1	-	2	0.6	100	0.5	102	
	0.2	9	-	9	18	492	8.3	386	
	..	345	..	982	..	28,107	..	29,775	
	Th. stds.	-	Th. stds.	-	Th. stds.	6.1	630	3.9	387
	-	2	-	3	1.7	198	1.4	230	
	Th. gal.	24	Th. gal.	8	Th. gal.	1,559	346	2,069	602
	Th. cwt.	0.1	Th. cwt.	-	Th. cwt.	5.2	26	8.9	63
	..	73	..	34	..	7,860	..	1,080	
	..	..	..	152	..	..	..	14,553
	..	1,760	..	1,974	..	45,381	..	49,259	
	-	-	-	-	..	74	..	21	
	Th. tons		Th. tons		Th. tons		Th. tons		
	1,228	6,763	831	5,356	67,547	275,310	75,540	358,344	
	0.8	8	0.9	12	700	2,480	314	1,082	
	Th. gal.		Th. gal.		Th. gal.		Th. gal.		
	42.7	9	373	102	10,995	2,069	13,567	3,512	
	7.7	-	2,224	1	12,045	624	17,892	728	
	78,266	2,399	182,278	6,731	1,205,294	40,538	1,556,683	62,122	
	Th. therms		Th. therms		Th. therms		Th. therms		
	13.7	1	7.7	1	35.9	4	8,818	145	
	-	-	-	-	30.9	4	356	44	
	Mn. kWh	161	Mn. kWh	242	Mn. kWh	3,642	Mn. kWh	4,612	
	..	832	..	1,464	..	10,595	..	13,100	
	-	-	-	-	..	92	..	90	
		12,233		16,843		415,511		536,091	
		-		-		5,849		7,253	
		12,233		16,843		409,662		528,838	
		286		677		44,412		57,275	
		8		27		1,375		1,628	
		12,527		17,547		455,449		587,741	

(c) For Electricity Boards from sources other than the public supply.

(d) Including amounts paid for delivery services.

TABLE 11 Transport costs and employment, 1963 and 1968

All undertakings in the industry: United Kingdom

	Unit	Electricity Boards		Other undertakings		Total	
		1963	1968	1963	1968	1963	1968
Average number mainly employed on transport	No.	6,670	6,393	74	190	6,744	6,583
Transport costs							
Wages and salaries	£'000	5,421	6,377	59	211	5,480	6,589
Derv fuel and motor spirit	"	2,061	3,409	9	102	2,069	3,512
Tyres and other spare parts for road goods vehicles	"	..	1,046	..	34	..	1,080
Payments to other organisations for transport	"	1,296	813	4	14	1,301	827
Costs of operating road goods vehicles							
Insurance	"	225	421	7	12	232	433
Vehicle licences	"	496	1,298	14	29	510	1,327
Depreciation	"	1,957	2,839	35	101	1,992	2,939
Payments to other organisations for repairs and maintenance	"	359	515	122	59	481	574
Total	"	11,815(a)	16,718	250(a)	562	12,065(a)	17,281

(a) Excluding purchases of tyres and other spare parts for road good vehicles, not collected separately for 1963.

TABLE 12 Payments for certain services, etc, 1963 and 1968 (a)

All undertakings in the industry: United Kingdom

	Amounts payable					
	Electricity Boards		Other undertakings		Total	
	1963	1968	1963	1968	1963	1968
Repairs and maintenance to	£'000	£'000	£'000	£'000	£'000	£'000
Buildings	1,863	2,731	81	116	1,945	2,847
Road goods vehicles	359	515	122	59	481	574
Plant, machinery and other capital equipment	9,899	17,150	73	230	9,972	17,381
Insurance, licensing and depreciation of road goods vehicles (b)	2,678	4,557	55	142	2,734	4,699
Rates, excluding water rates	28,296	42,196	396	498	28,692	42,694
Hire of plant and machinery	1,532	1,791	1	3	1,533	1,794
Postage, telephone, telegrams, cables and telex (c)	1,399	5,112	14	88	1,413	5,200
Total	46,026	74,052	743	1,136	46,769	75,189

(a) No deduction is made for these payments to arrive at the figures of net output given in this report.

(b) For details see Table 11.

(c) Excluding elcx for 1963.

TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger undertakings, 1968

This table is not applicable to this industry.