SEVENTH ANNUAL REPORT

OF THE

ELECTRICITY SUPPLY BOARD

DUBLIN

1933-34

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Year ended 31st March, 1934.

(Presented to the Minister for Industry and Commerce in pursuance of Section 20 (1) and Section 7 (4) of the Electricity (Supply) Act, 1927).

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REPORT

OF THE

Electricity Supply Board.

ELECTRICITY SUPPLY BOARD,
60-62 UPPER MOUNT STREET,
DUBLIN.

MINISTER FOR INDUSTRY AND COMMERCE,

A Chara,

In accordance with Section 32 (1) and Section 7 (4) of the Electricity (Supply) Act. 1927, we beg to present our Report and Accounts for the year ended 31st March, 1934.

The Board has pleasure in reporting that the Accounts for the year closed with a surplus of £10,287 5s. 10d. as against £5,814 18s. 5d. in the preceding year. This improvement in the amount of the surplus, although apparently small, is of importance in that costs of an abnormal nature, wholly due to the drought, and amounting to approximately £75,000 have been included in expenditure. Sales of electricity increased by the substantial figure of £105,206.

The total revenue from sales of energy to consumers amounted to £1,149,681 which compares with a figure of £1,044,475 in the preceding year. The table following sets out the number of units generated and sold, the average price per unit, and the corresponding revenue for the years 1929-30 to 1933-34.

Year ended on 31st March	Units Generated	Units Sold	Revenue from Sale of Energy	Average Earning in Pence per Unit	
				Generated	Sold
			£		
1930 ...	60,947,775	43,177,228	478,006	1·88	2·66
1931 ...	119,842,716	85,500,494	735,302	1·47	2·06
1932 ...	151,843,717	110,677,196	938,933	1·48	2·04
1933 ...	166,076,275	120,098,523	1,044,475	1·51	2·09
1934 ...	185,383,327	138,503,130	1,149,681	1·49	1·99

The gross expenditure charged to Revenue Account amounted to £582,773 4s. 5d. which compares with a figure of £477,087 10s. 5d. for the year ended 31st March, 1933. The greater part of the increase is due to the cost of fuel generation consequent on the drought which prevailed almost throughout the year. The severe nature of the drought is referred to in detail on page 13. The remainder is attributable chiefly to increasing repairs and maintenance of the system. The amount included in expenditure for coal is £90,969.

The total capital charges borne by the Board were £577,513 made up of £492,841 for interest to the account of the Minister for Finance, and £84,672 for interest and repayments of capital in respect of liabilities assumed on the transfer of Local Authority Undertakings. Of this total £554,382 was chargeable against the Profit and Loss Account, and absorbed 48·2 per cent. of the gross revenue from sales of energy. The balance £23,131 has been charged against Merchandise and Installations Trading Accounts, and against New Capital Works. The average rate of interest paid to the Minister for Finance on all capital advances was 5¼ per cent.

As in previous years adequate provision has been made in the Accounts for bad and doubtful debts and for depreciation of stocks, motor vehicles and furniture. No other provisions except of a minor nature have, however, been made.

During the year additional capital to the extent of £493,284 was expended.

Owing to the rate of development the provision of £2,000,000 for capital expenditure made under the Electricity (Supply) Act, 1931, became exhausted during the year under review. The Board had, therefore, in November, 1933, to submit estimates of further capital requirements up to and including the year ending 31st March, 1936. A sum of £1,160,000 was, in consequence, authorised by the Electricity (Supply) (Amendment) Act, 1934.

SALE OF ELECTRICITY AND OTHER TRADING ACTIVITIES.

The sale of energy increased by 18,404,607 units to 138,503,130. An average price of 1·99d. per unit was realised.

Electricity supply was extended to the following additional areas during the year. Supply is now being given to 196 district towns or areas.

Bailieboro'	Killeshandra.	Sallins.
Ballineen-Enniskean.	Kilmallock.	Shercock.
Carrick-on-Shannon.	Knocklong.	Tallaght.
Delgany-Killincarrig.	Leighlinbridge.	Virginia.
Kildare.	Nenagh.	

The following table shows the number of consumers supplied by the Board (including consumers changed over from existing stations to the Shannon system) at the end of each of the five years to 31st March, 1934 :—

Year ended on 31st March	Total Consumers	Consumers taken over from acquired undertakings during year	Increase in New Consumers during year
1930	47,229	—	—
1931	67,668	8,339	12,100
1932	77,134	372	9,094
1933	81,675	40	4,501
1934	89,890	813	7,402

Details of the number of consumers and certain other particulars relating to supply in each area will be found in Appendix I.

INDUSTRIAL MOTIVE POWER.

The increase in the industrial motive power load is indicated in the following comparative table. All motors above ½ H.P. capacity are included.

Year ended on 31st March	Total Connected Industrial Motive Power	Load taken over from acquired undertakings during year	New Load connected during the year
1930 ...	15,246 H.P.	—	—
1931 ...	29,602 H.P.	8,284 H.P.	6,072 H.P.
1932 ...	37,290 H.P.	119 H.P.	7,569 H.P.
1933 ...	46,036 H.P.	191 H.P.	8,555 H.P.
1934 ...	52,352 H.P.	116 H.P.	6,200 H.P.

All the new industries which were started during the year within the Board's area of supply have taken their motive power supply from the Board's mains. Conversion to electric drive progressed satisfactorily among established industries, particular success being noticeable in respect of the flour milling industry and in the adoption of electric pumping for town water supplies.

COOKING AND HEATING.

The following were amongst the larger institutions supplied during the year, and in the case of the first four named large cooking installations were contracted for or connected :—

New Nurses' Home, Jervis Street Hospital, Dublin (109 K.W.).
Our Lady of Lourdes Hospital, Dun Laoghaire (215 K.W.).
Nazareth House, Mallow (65 K.W.).
Bon Secours Hospital, Cork (80 K.W.).
Limerick City Home and Hospital (20 K.W.).
Rochestown Monastery (8 K.W.).
Kanturk District Hospital (15 K.W.).
Bessboro' Convent, Blackrock, Cork (25 K.W.).
Nazareth House, Sligo (10 K.W.).
St. Columcille's Hospital, Loughlinstown (15 K.W.).
Convalescent Home, Stillorgan (6 K.W.).

Considerable progress was made in the provision of electricity supply for all services to the National Maternity Hospital, Holles Street, Dublin. A sub-station of 4,000 K.W. capacity was completed, which will supply all the light, heat, power and electro-medical requirements of the hospital.

A steady expansion in the use of electricity for cooking and water-heating is taking place. A scheme for the hire of water-heaters has now been introduced. The Board's canvassing staff has been increased to enable closer contact to be maintained with existing and potential domestic consumers.

LIGHTING SERVICE BUREAU.

Consumers continue to avail of the advice offered by the lighting service bureau for the planning and remodelling of lighting installations. The lighting effects in the recently opened Municipal Art Gallery, Parnell Square, Dublin, of which a photograph appears at page 43, were designed by the bureau.

PUBLIC LIGHTING.

The progress in the use of electricity for public lighting is shown by the following figures of units consumed :—

Year ended 31st March,				1930	...	...	4,323,467
"	"	"	"	1931	...	...	6,355,267
"	"	"	"	1932	...	...	6,841,319
"	"	"	"	1933	...	...	7,988,665
"	"	"	"	1934	...	...	8,945,315

CONSUMERS' INSTALLATIONS DEPARTMENT.

The credit taken for Contracts completed and invoiced for work carried out by the Board's Installation Department amounted to £56,076 7s. 2d. In the course of the year it became apparent that the margin of profit would not be adequate to cover the general overhead expenses to be debited against the department and a re-organisation was effected in December, 1933. The year shows a deficiency of £2,463 12s. 10d. Since March, 1934, the effects of the re-organisation have been fully operative and the Accounts of the department to date show a net profit.

SALES OF APPLIANCES.

The sale of appliances and apparatus for which credit has been taken amounted to £31,087 2s. 1d. on which the rate of gross profit was 16·9 per cent. Having charged a proper proportion of general overhead expenses, the Merchandise Trading Account shows a net profit of £44 2s. 7d.

PUBLICITY.

Extensive advertising in the public press was maintained to promote the use of electricity. The sale of electrical appliances, improved methods of lighting, hire schemes, hire-purchase systems, and other phases of the Board's activities were covered in these advertisements. Informative literature on the varied uses of electricity was distributed at every available opportunity, and electrical cooking was regularly demonstrated in the Showrooms at Dublin, Cork, Limerick and other centres. Similar demonstrations and short lectures on Irish foods were given in Dublin during Irish Week in March, 1934.

POWER DEVELOPMENT AND NEW WORKS.

Ardnacrusha :

The installation at the Ardnacrusha Power Station of the new 25,000 kVA. generator, which is driven by a 38,000 H.P. Kaplan turbine, was completed in November, 1933. The total capacity of the Station is now 90,000 K.W. (at a head of 28·81 metres) consisting of three Francis turbines and one Kaplan turbine.

More rapid progress than had been contemplated was made during the year on the work of deepening the river channel at Killaloe. Earth and rock to the extent of 70,000 cubic metres had been excavated by the end of March, and the remainder of the work will be completed in advance of the time provided.

Pigeon House Works.

To increase the capacity of the Pigeon House Station contracts were placed for a 23,000 K.W. steam turbo-alternator, and for two steam boilers, each with a capacity of

125,000 lbs. of steam per hour. Rapid progress is being made in the installation of this additional plant and it is anticipated that all work will be completed by the beginning of the year 1935.

With the increase in generating capacity of the Pigeon House Station it became necessary to examine closely the facilities for coaling and for cooling water. It was decided that the following improvements should be effected :—

(i) The deepening of the harbour and the construction of a new wharf which will allow coal boats up to 1,000 tons to be discharged. Present conditions limit the size of boats to 500 tons. The dredging of the harbour has been in progress for some time, and the construction of the first 100 feet of the wharf was commenced in February, 1934.

(ii) The installation of further mechanical coal-handling plant. The first section of this plant, consisting of two transporter cranes on the wharf, was ordered in March, 1934.

(iii) An alteration of the circulating water system which will provide for supply of water from the navigation channel of the River Liffey instead of from the Pigeon House Harbour. The proposed work will involve the construction of a culvert or tunnel and a new pumping station. Plans have been prepared and construction will probably be commenced during the year 1934.

TRANSMISSION AND DISTRIBUTION SYSTEMS.

Constructional work, involving extensions and additions to the transmission and distribution systems, was carried out to the following extent :—

(i)	Low tension overhead mains	67½ miles.
(ii)	Low tension overhead mains (re-constructed or strengthened) ...	31½ „
(iii)	Low tension underground mains	12¼ „
(iv)	5 kV. underground cables	2½ „
(v)	10 kV. underground cables	5½ „
(vi)	10 kV. transmission lines	50 „
(vii)	38 kV. transmission lines (re-constructed or strengthened) ...	2½ „

The transformer capacity of the existing 38 kV. transformer stations was increased by 3,000 kVA. and two new stations with a capacity of 640 kVA. were erected. The total number of 10 kV. and 5 kV. transformer stations was increased to 605, having a capacity of 95,458 kVA.

The Board acquired the existing undertakings at Bailieboro', Kildare, Kilmallock, Killeshandra, Nenagh and Virginia.

In the Dublin and Cork city and suburban areas substantial expenditure was incurred in strengthening and extending the distribution mains to meet increasing demands from domestic and power consumers.

Particulars of the Board's transmission and distribution systems are given in Appendix II.

LIFFEY WATER POWER.

The possibility of the hydro-electric development of the River Liffey, combined with a water supply scheme for the Corporation of Dublin, has now been examined in detail. The results of the investigation will shortly be submitted.

GENERATION.

The statistics of generation in both the main and local stations as well as the load development on the main systems are shown in the following table, together with the corresponding figures for the preceding year :—

Year ended on 31st March	UNITS GENERATED			Load Development (Main Stations)	
	Main Stations	Local Stations	Total all Stations	Maximum Daily Output in Units	Maximum Load (K.W.)
1933	Ardnacrusha ... 143,302,620 Pigeon House ... 22,393,350 Cork ... 113,993				
	Total ... 165,809,963	266,312	166,076,275	693,220	59,500
1934	Ardnacrusha ... 103,223,750 Pigeon House ... 74,045,660 Cork ... 6,761,143				
	Total ... 184,030,553	1,352,774	185,383,327	802,412	65,700
	Increase during year ended 31st March, 1934	—	19,307,052	109,192	6,200

Note.—The total number of units generated at Ardnacrusha was 105,039,850 of which 1,816,100 were consumed by the electric boilers at the Cork and Pigeon House Stations.

The output from the main station at Ardnacrusha was of necessity considerably curtailed owing to the abnormal and prolonged drought. The station was in commission for 6,944 hours, and was closed down for 1,816 hours. To supplement the output from Ardnacrusha the main stations at Pigeon House and Cork were utilised to the extent indicated in the preceding paragraph.

The total number of units generated (185,383,327) represents an increase of 11·6 per cent. on the output of the previous year. As a substantial proportion of the output was obtained from the Pigeon House Station certain transmission losses were eliminated, and for comparative purposes the effective increase may be taken at a percentage somewhat higher than the figure shown.

The average yearly load was 21·2 M.W. which compares with 18·98 M.W. in the preceding year. The yearly load factor, on the basis of units generated, improved from 31·6 per cent. to 32·2 per cent. The curve of duration of load from the main system is shown in Appendix III.

For the purpose of reference the following information is contained in the Appendices :—

(i) Typical daily load curve for each quarter ... ... Appendix IV.
(ii) Distribution at high tension of units generated ... Appendix V.
(iii) Monthly output of all stations ... ... Appendix VI.
(iv) Weekly summary of operation conditions ... ... Appendix VII.
(v) Capacity of the Board's Main Generating Stations ... Appendix IX.

WATER STORAGE AND SHANNON RIVER CONTROL.

Definite proposals to increase the water storage on the Shannon were submitted towards the end of the year. The work contemplated may be summarised briefly as follows :—

(i) Lough Allen.—Increased storage of 150,000,000 cubic metres between the levels of 168·0 ft. O.D. and 154·0 ft. O.D.
(ii) Lough Ree.—Development of 64,000,000 cubic metres of storage between the levels of 123·0 ft. O.D. and 121·0 ft. O.D.
(iii) Lough Derg.—Increased storage of 73,000,000 cubic metres by raising the level from 110·0 ft. O.D. to 112·0 ft. O.D.

The following data in connection with the flow of the River Shannon is contained in Appendix VIII :—

(i) Daily water levels of, and average daily outflow from Lough Allen, Lough Ree and Lough Derg, respectively.
(ii) Average daily outflow from Parteen Weir.
(iii) Average daily consumption at the Power Station.
(iv) Average daily outflow at Killaloe.

The year under review was the lowest flow year on record for the Shannon. Records are in existence from the year 1894 onwards, and within this period the year 1905 was the lowest year previously recorded. The following figures of the total average inflow to the catchment illustrate the severity of the drought :—

(a) Year 1905 ... ... 137 cubic metres per second.
(b) Year 1933 ... ... 96 „ „ „ „
(c) Mean average since year 1894 ... 220 „ „ „ „

The year 1933 was also remarkable in that the drought continued without relief for a period of almost nine months. The average inflow from the 1st April to the 31st December was only 40·9 cbm/sec. compared with the figure of 85 cbm/sec. for the corresponding period of 1905.

Owing to the persistence of the drought the whole of the storage in the Shannon Lakes had been fully utilised by the 23rd December despite every effort to economise water by running the available steam plant at its maximum capacity. Lough Derg had, by that date, reached the record low level of 32·13 metres. The level of Lough Ree had been lowered by approximately 3½ feet below the normal navigation level, as a consequence of which it was necessary to restrict navigation above Athlone.

The rainfall at the end of December and during January improved the flow conditions to such an extent that it was possible to fill the storage by the middle of the latter month. At no time, however, during the winter did the flow reach the average figure for this period of the year.

The following are the important hydrometric figures for the year :—

Average inflow to Shannon Catchment	81·7	cbm/sec.
Total rainfall in Shannon Catchment (loaded average of five stations)	28·65	inches.
Average water used at Ardnacrusha	61·95	cbm/sec.
Average water used per unit generated	18·47	cbm.
Maximum level reached in Lough Derg	33·54	metres.
Minimum level reached in Lough Derg	32·13	„
Average available head at Power Station	28·81	„
Maximum available head at Power Station (21st July, 1933) ...	30·28	„
Minimum available head at Power Station (16th March, 1934)	25·14	„

ADMINISTRATION.

The Board wishes to take this opportunity of recording its appreciation of the competent and willing manner in which all members of the Staff carried out their work during the year.

The strength of the Board's regular staff at 31st March, 1934, was 1,732.

Under the terms of the Cork Tramways (Employees' Compensation) Act, 1933, provision was made for the payment of compensation to certain former employees of the Cork Electric Supply Co., Ltd., who had been disemployed since the date on which the Cork City Tramway service was discontinued. The Act provided for payment in equal moieties by the Cork Corporation and the Board of the total liability involved, and for the establishment of a Committee, which was styled the Cork Tramways (Employees' Compensation) Advisory Committee, to investigate and report on all claims received. The Committee, which consisted of a Chairman appointed by the Minister with a nominee of the Corporation and of the Board, respectively, dealt with all the claims submitted.

At the 31st March, 1934, there were 104 permitted undertakings holding permits from the Board. During the year 13 new permits were granted, 5 permits lapsed as a result of acquisition of the undertakings by the Board and in 9 cases permits were not renewed. Particulars of all the Electricity Undertakings in the Saorstat will be found in Appendix X.

Mr. Laurence J. Kettle was appointed a full-time member of the Board on the 23rd March, 1934, and on the same date Mr. Liam Forde was appointed a part-time member.

During the year 24 Meetings of the Board were held, at all of which there was practically a full attendance of members.

(Signed) R. F. BROWNE, Chairman.
J. M. FAY.
T. A. McLAUGHLIN.
LAURENCE J. KETTLE.
P. J. EGAN.
HENRY KENNEDY.
LIAM FORDE.

PATRICK J. DEMPSEY, Secretary.
22nd October, 1934.

LIST OF APPENDICES.

Appendix.

I.—Number of consumers and other particulars relating to all areas supplied by the Board.

II.—Transmission and distribution systems in commission.

III.—Duration of load, main Shannon system.

IV.—Typical daily load curves.

V.—Distribution at high tension of units generated during the year.

VI.—Monthly output of the Board's generating stations during the year.

VII.—Weekly summary of operating conditions.

VIII.—Water levels, inflow and outflow, Loughs Allen, Ree and Derg, for the year.

IX.—Capacity of the Board's main generating stations.

X.—Particulars of authorised and permitted undertakings providing supply at 31st March, 1934.

XI.—Units generated in Irish Free State (from 1st April, 1928, to 31st March, 1934).

Number of Consumers and other particulars relating to all Areas supplied by the Board.

DUBLIN No. 1 DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Dublin City	27,540	30,335				
Rathmines	5,352	5,709				
Terenure and Kimmage ...	686	900	17,259	18,963		
Crumlin	182	242			70,878,000	30,000
Rathfarnham	225	322				
Pembroke	5,579	5,922	1,825	1,966		
Templeogue and Firhouse	48	113	284	284		
Dublin Tramways ...	—	—	—	—	23,355,130	6,050
TOTALS ...	39,612	43,543	19,368	21,213	94,233,130	—

CORK No. 1 DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Cork City	5,676	6,218	9,733	10,764	14,536,950	6,600
Henry Ford & Son ...	—	—	—	—	452,000	280
TOTALS ...	5,676	6,218	9,733	10,764	14,988,950	—

ATHLONE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Athlone	530	597	281	289	1,617,750	740
Ballinasloe	142	158	96	173		
Banagher	70	80	44	44	95,190	90
Ferbane	46	49	1	1		
Clara	174	175	Nil	131	108,270	66
Granard	70	71	Nil	Nil	103,670	59
Edgeworthstown ...	68	61	1	4		
Kilbeggan	62	61	Nil	Nil	58,040	66
Longford	257	314	35	47	356,410	177
Moate	78	92	2	4	63,200	37
Mullingar	314	345	209	204	438,930	210
Roscommon	151	159	11	12	212,230	122
Tullamore	407	405	361	372	416,060	208
TOTALS ...	2,369	2,567	1,041	1,281	3,469,750	—

CORK No. 2 DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Blarney and Kilnap ...	18	44	42	157	260,000	105
Buttevant	115	109	53	53	86,200	50
Clonakilty	256	264	193	216		
Kinsale	192	188	41	41		
Bandon	3	4	172	178	726,770	330
Ballineen	Nil	41	Nil	1		
Enniskean	Nil	20	Nil	2		
Cobh	331	321	64	64	262,740	135
Crosshaven and Bishopstown	99	97	14	20	155,580	105
Fermoy	218	233	51	61	225,520	151
Mallow	299	300	135	135	417,330	208
Midleton	138	144	191	195		
Ballinacurra	39	42	73	105	193,720	107
Cloyne	60	59	15	15		
Mitchelstown	244	252	48	48	205,270	125
Passage West	42	56	5	5		
Monkstown	37	44	Nil	Nil	86,730	42
Rochestown	Nil	1	Nil	Nil		
Youghal	183	191	88	121	162,140	109
TOTALS ...	2,274	2,410	1,185	1,417	2,782,000	—

DUBLIN No. 2 DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Balbriggan	115	119	60	89	131,180	74
Blackrock and Monkstown	934	1,095	113	173		
Cabinteely	48	50	15	15		
Carrickmines	48	50	1	1		
Dalkey	304	345	27	31		
Dundrum	322	392	41	41	4,646,620	2,030
Dun Laoghaire	1,308	1,433	106	140		
Foxrock	148	168	10	11		
Killiney and Ballybrack ...	113	134	11	11		
Kill o' the Grange ...	21	23	Nil	5		
Stillorgan	44	50	98	98		
Bray	1,007	1,097	985	1,009	979,140	900
Castleknock	58	63	15	17		
Chapelizod	36	46	48	50	135,900	67
Finglas	33	68	Nil	Nil		
Celbridge	69	77	22	36	94,140	43
Leixlip	60	63	38	39		
Maynooth	61	58	17	35	124,320	61
Kilcock	49	49	23	23		
Clondalkin	57	68	858	959	1,873,460	485
Tallaght	Nil	46	Nil	128		
Delgany and Killincarrig ...	Nil	31	Nil	Nil	38,000	22
Greystones	356	395	1	2	364,600	199
Howth and Sutton ...	600	682	62	77		
Baldoyle	49	54	7	8	943,050	399
Raheny	39	40	1	1		
Malahide	69	84	Nil	Nil		
Naas	195	208	120	122	411,880	160
Sallins and Clongowes ...	1	21	Nil	Nil		
Rathdrum	77	78	240	242	246,420	140
Rush	105	105	2	2	84,660	72
Lusk	26	28	Nil	12		
Shankill and Loughlinstown	94	111	Nil	Nil	135,850	52
Swords	67	70	5	5	72,620	37
Wicklow	177	186	48	52	158,570	77
TOTALS ...	6,690	7,587	2,974	3,434	10,440,410	—

DUNDALK DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Ardee	Nil	1	Nil	29	28,370	26
Arvagh	61	64	Nil	11	109,320	50
Killeshandra	3	58	124	76		
Bailieborough	Nil	53	Nil	Nil	10,340	15
Shercock	Nil	23	Nil	Nil		
Ballybay	115	122	Nil	Nil	78,840	52
Cavan	242	268	116	127	501,370	200
Clones	243	248	29	40	168,940	92
Cootehill	108	116	17	15	88,840	53
Drogheda	548	649	206	535	853,290	490
Dundalk	1,256	1,272	2,145	2,324	2,634,300	1,180
Blackrock (Louth) ...	42	45	Nil	16		
An Uaimh (Navan) ...	259	261	111	161	873,200	523
Ceanannus Mór (Kells) ...	222	221	42	137		
Trim	114	116	12	12		
Athboy	83	85	Nil	Nil		
Oldcastle	111	107	9	7	165,820	92
Ballyjamesduff	70	72	1	7		
Virginia	Nil	20	Nil	Nil		
TOTALS ...	3,477	3,801	2,812	3,497	5,512,630	—

GALWAY DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Ballyhaunis	182	197	20	25	115,420	70
Castlebar	278	312	49	49	314,760	142
Claremorris	200	216	138	138	233,260	107
Galway	1,303	1,390	376	592	1,652,860	800
Gort	120	124	53	53	118,350	70
Loughrea	232	234	82	82	155,690	88
Westport	242	258	30	30	227,340	129
TOTALS ...	2,557	2,731	748	969	2,817,680	—

LIMERICK DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Ardnacrusha	46	45	225	225	62,000	30
Askeaton	71	72	1	1	34,250	22
Cahir	124	142	71	83	180,410	88
Cappawhite ...	45	41	3	3		
Cappamore	39	42	2	2	141,030	55
Doon	42	44	Nil	Nil		
Limerick Junction ...	4	5	54	54		
Cashel	193	200	26	30	184,820	112
Ráthluirc (Charleville) ...	212	208	202	203	284,060	168
Ennis	527	562	73	97	483,370	250
Kilfinane	90	89	26	26		
Kilmallock	2	99	87	113		
Hospital	73	72	41	41	378,700	138
Bruff	67	66	2	2		
Knocklong	Nil	12	Nil	101		
Killaloe	114	122	41	43		
Newport	60	57	131	131	616,100	250
Annacotty	4	4	59	59		
Clonlara	Nil	1	Nil	2		
Limerick	4,000	4,315	750	899	4,952,730	2,200
Nenagh	2	341	Nil	53	163,040	127
Rathkeale	164	159	59	96		
Adare	51	59	86	86	371,050	164
Croom	48	49	2	2		
Ardagh	4	4	61	61		
Tipperary	321	320	104	104	300,160	193
TOTALS ...	6,303	7,130	2,106	2,517	8,151,720	—

PORTLAOIGHISE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Abbeyleix	98	105	21	21	115,320	64
Durrow	72	71	3	6		
Athy	181	224	79	69	194,400	103
Muine Bheag (Bagenalstown)	125	123	74	74	235,070	129
Leighlinbridge	1	27	Nil	16		
Baltinglass	91	87	10	10	157,830	92
Castledermot	46	48	36	36		
Callan	106	104	12	21	88,720	75
Carlow	341	371	195	224	394,570	210
Castlecomer	98	102	67	70	148,680	68
Freshford	50	51	Nil	Nil		
Ballyragget	43	48	15	15		
Edenderry	146	143	52	54	220,060	123
Rathangan	28	26	3	3		
Droichead Nua (Newbridge)	120	126	2	40		
Kildare	Nil	122	Nil	45	132,340	79
Kilkenny	638	677	190	213	646,300	350
Mountmellick	142	148	20	26	113,120	63
Portarlington	174	171	498	751	755,810	276
Portlaoighise	396	404	39	41	393,810	185
Rathdowney	84	88	8	8	116,820	61
Borris-in-Ossory ...	20	21	Nil	Nil		
Roscrea	305	306	164	204	318,440	160
Templemore	126	124	2	2	173,910	94
Borrisoleigh	62	59	34	34		
Thurles	384	397	168	182	461,570	223
Tullow	124	128	44	44	131,830	66
Stradbally	81	80	10	10	51,060	29
TOTALS ...	4,082	4,421	1,746	2,219	4,849,660	—

SLIGO DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Ballina	270	315	62	95	415,560	210
Crossmolina	89	79	30	40		
Boyle Waterworks ...	1	1	36	36	48,800	15
Carrick-on-Shannon ...	Nil	167	Nil	31	108,000	65
Foxford	87	87	216	216	108,930	83
Kiltimagh	132	138	14	14	125,170	66
Letterkenny	213	229	31	41	103,500	85
Sligo	600	670	106	136	888,620	475
Strokestown	87	85	Nil	Nil	123,300	63
Elphin	53	54	Nil	Nil		
Swinford	171	174	47	53	123,160	83
TOTALS ...	1,703	1,999	542	662	2,045,040	—

TRALEE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Abbeyfeale	149	154	5	5	73,550	48
Castleisland	161	164	110	120	259,150	74
Listowel	366	366	279	279	405,000	200
Millstreet	160	167	33	33	66,970	46
Newmarket	136	133	3	3	187,510	120
Kanturk	214	220	35	35		
Tralee	957	1,044	350	480	981,400	409
TOTALS ...	2,143	2,248	815	955	1,973,580	—

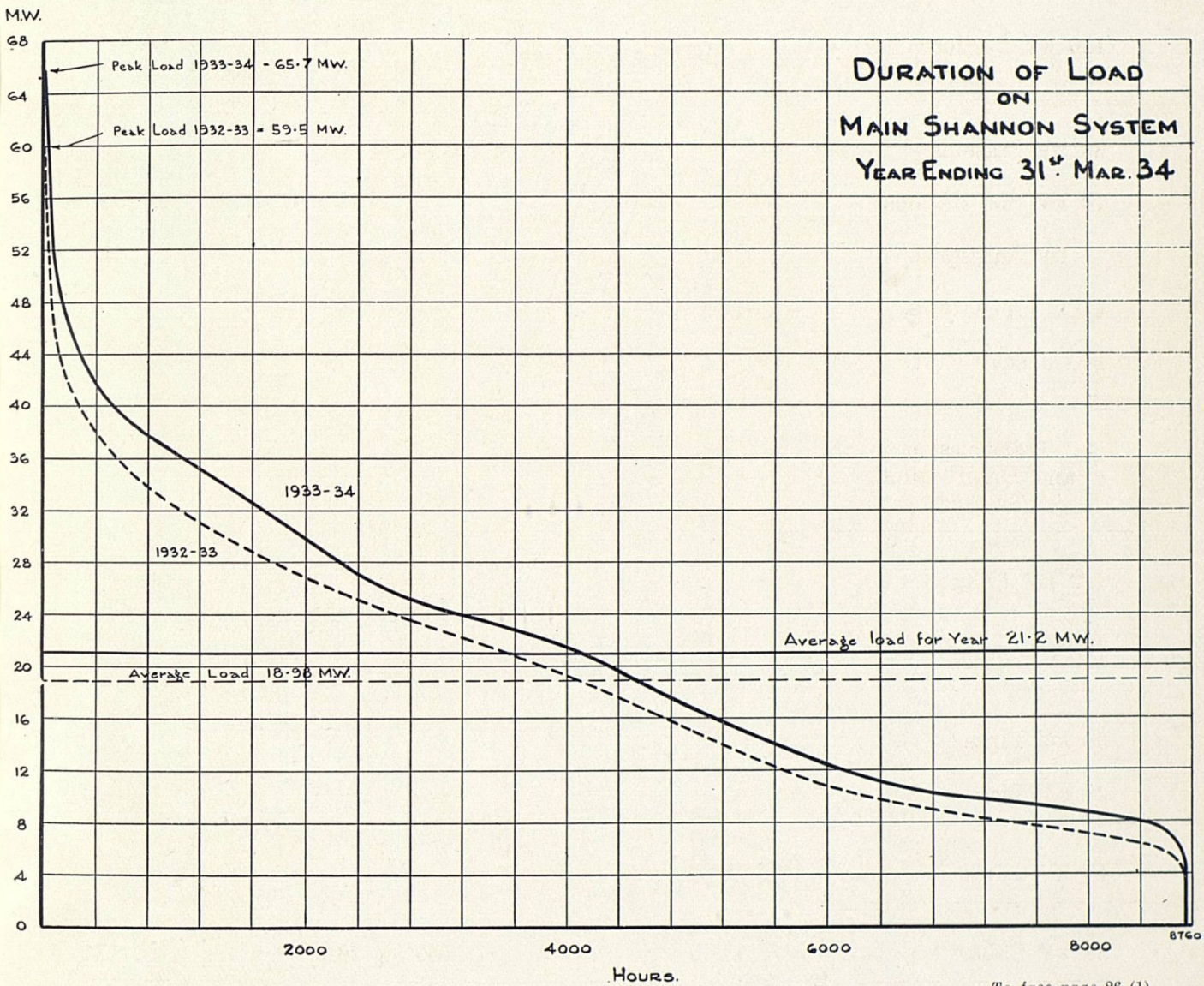
WATERFORD DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/33	31/3/34	31/3/33	31/3/34		
Arklow	331	332	153	156	331,760	199
Cappoquin	106	109	Nil	23		
Lismore	85	87	8	8	187,120	101
Tallow	77	82	4	4		
Carrick-on-Suir	265	278	127	127	388,130	175
Clonmel	304	346	233	247	535,520	305
Dungarvan	375	389	234	315	458,450	201
Enniscorthy	264	278	181	268	416,060	199
Fethard	126	131	15	15	78,720	55
Gorey	182	182	26	36	128,820	74
New Ross	286	292	162	210	271,970	138
Tramore	281	316	29	29		
Dunmore East	39	45	12	12	361,720	156
Passage East	38	35	Nil	Nil		
Waterford	1,653	1,979	926	1,083	2,077,260	840
Wexford	377	393	856	863	598,690	331
TOTALS ...	4,789	5,274	2,966	3,396	5,834,220	—

TRANSMISSION AND DISTRIBUTION SYSTEMS IN COMMISSION AT THE 31st MARCH, 1934.

Transformer Stations and Sub-stations	No. of Stations	Total Capacity
110 kV Stations	2	For 110/38 kV Stations=68,000 kVA For 110/10 kV Stations=15,000 kVA
38 kV Stations	72	109,920 kVA.
10 kV Sub-stations	510	52,650 kVA.
5 kV Sub-stations	95	42,808 kVA.
D.C. Sub-stations	6	14,900 KW.
Frequency-Changing Sub-stations	1	6,320 KW.

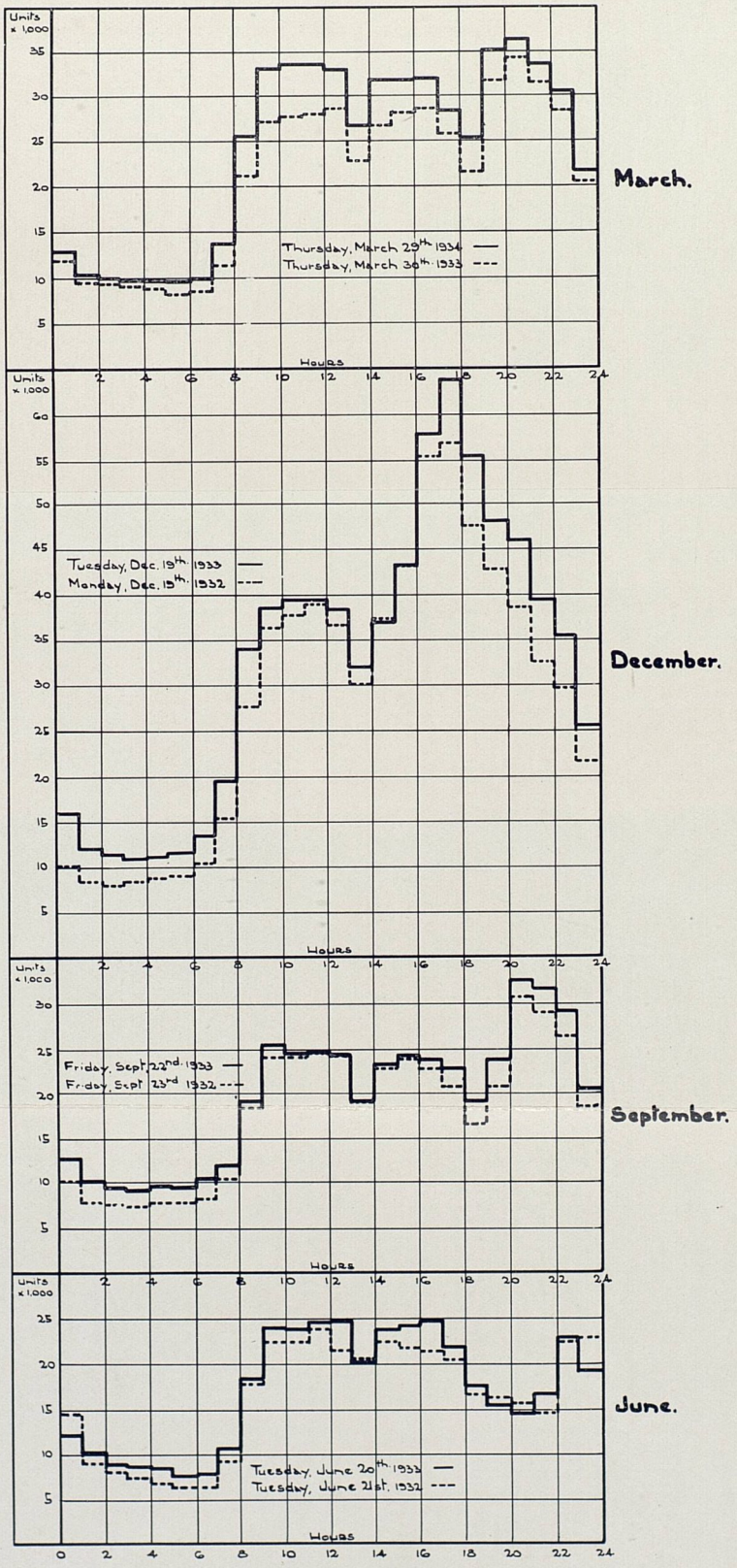
Transmission and Distribution Systems	Length	Description
110 kV Lines ...	184·4 kilometres ...	6×95 sq. mm. Double Circuit.
110 kV Lines ...	95·7 kilometres ...	3×95 sq. mm. Single Circuit.
38 kV Lines ...	1,581 kilometres ...	3×50 sq. mm.
38 kV Lines ...	266 kilometres ...	3×35 sq. mm.
10 kV Lines ...	1,750 kilometres ...	
38 kV Cables ...	28·6 kilometres ...	3×150 sq. mm.
38 kV Cables ...	7·2 kilometres ...	3×95 sq. mm.
10 kV Cables ...	134 kilometres ...	
5 kV Cables ...	226 kilometres ...	



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Typical Daily Load Curves.

Curves for June, September, and March are corresponding week-days in the financial years 1932-33 and 1933-34: while curves for December are for days on which the peak load occurred in these years.



APPENDIX. IV

To face page 98 (2).

DISTRIBUTION AT HIGH TENSION OF UNITS GENERATED YEAR ENDING THE 31st MARCH, 1934.

District		High Tension Units for Year	Percentage of Total
Dublin City, Fleet Street	62,154,300		
,, ,, Milltown	8,723,700		
DUBLIN CITY TOTAL		70,878,000	38·2
Dublin United Tramways Co. (1896), Ltd.		23,355,130	12·6
Cork City, D.C.	12,863,470		
,, ,, A.C.	1,673,480		
CORK CITY TOTAL		14,536,950	7·9
Messrs. H. Ford & Son, Ltd.		452,000	0·2
Athlone District		3,469,750	1·9
Cork No. 2 District		2,782,000	1·5
Dublin No. 2 District		10,440,410	5·6
Dundalk District		5,512,630	3·0
Galway District		2,817,680	1·5
Limerick District		8,151,720	4·4
Portlaoighise District		4,849,660	2·6
Sligo District		2,045,040	1·1
Tralee District		1,973,580	1·1
Waterford District		5,834,220	3·1
Compensatory and other Non-chargeable Units ...		1,719,700	0·9
Board's Own Consumption		5,346,600	2·9
Losses		21,218,257	11·5
NET TOTAL GENERATED ...		185,383,327	100·0
Generated for Electric Boilers		1,816,100	
GROSS TOTAL GENERATED ...		187,199,427	

MONTHLY OUTPUT (KWH) OF THE BOARD'S GENERATING STATIONS YEAR ENDING THE 31st MARCH, 1934.

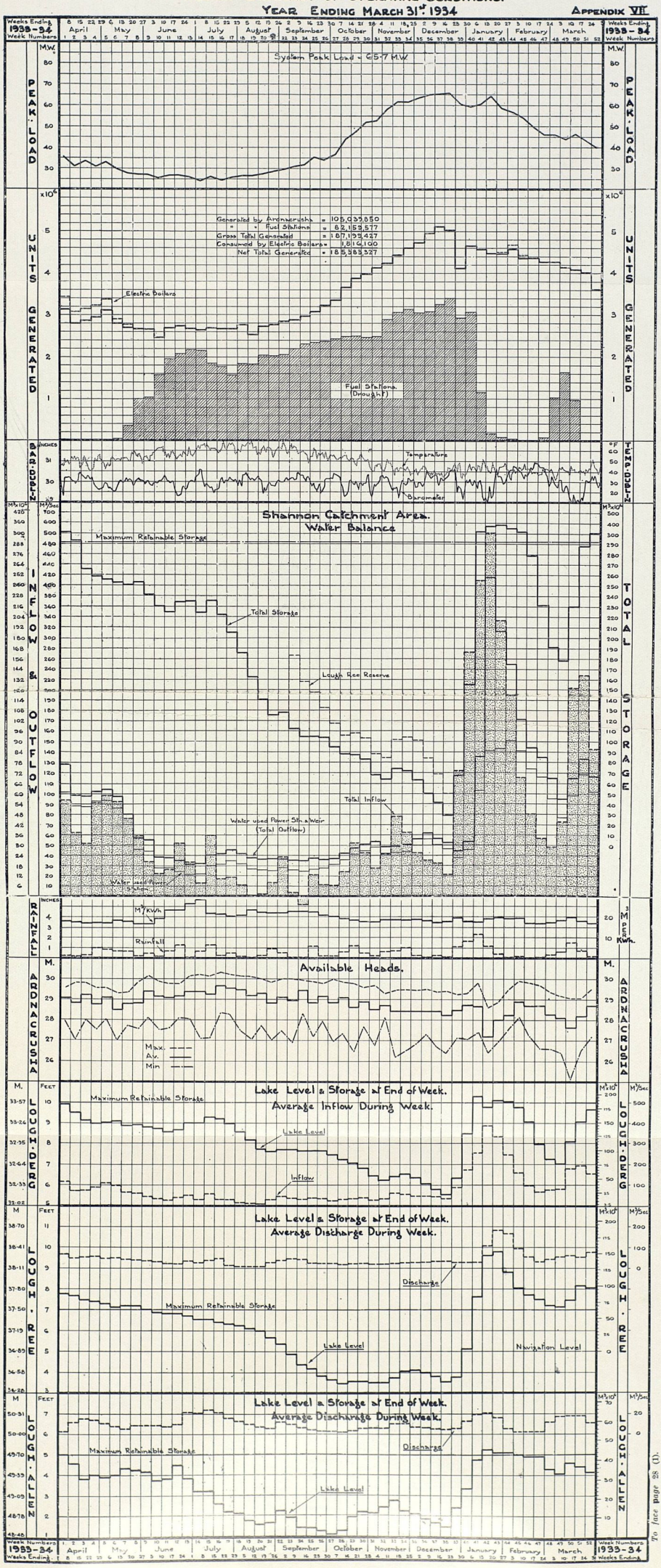
Month (Calendar)	Ardnacrusha *less* Electric Boilers	Pigeon House (Dublin)	Cork	Pembroke (Dublin)	Dundalk	Limerick	Letter-kenny	Kildare	Nenagh	Kil-mallock	Bailieboro' Killeshandra and Virginia	Total of all Stations
April ...	12,459,960	—	—	—	—	—	6,731	7,554	7,338	—	—	12,481,583
May ...	10,465,090	2,024,700	—	—	—	—	5,582	6,255	5,720	—	—	12,507,347
June ...	3,534,010	7,844,400	—	—	—	—	4,257	5,194	4,653	—	—	11,392,514
July ...	3,502,190	8,223,800	—	—	—	—	4,199	5,765	4,189	—	—	11,740,143
August ...	3,438,030	8,310,100	324,180	—	—	—	5,609	6,884	5,002	—	—	12,089,805
September	3,162,030	8,873,800	950,188	5,160	2,147	560	7,011	2,953	4,385	2,683	—	13,010,917
October ...	5,673,230	9,382,400	1,175,887	127,490	129,796	33,660	11,577	—	—	4,005	—	16,538,045
November	6,343,410	10,564,060	1,680,839	202,875	176,359	55,280	15,268	—	—	4,774	—	19,042,865
December	7,071,090	11,745,600	1,943,463	137,975	139,458	43,400	17,971	—	—	5,462	—	21,104,419
January ...	16,105,110	3,462,100	588,539	39,310	38,118	9,130	16,576	—	—	4,994	—	20,263,877
February	17,008,800	333,700	98,047	—	—	—	12,771	—	—	576	1,040	17,454,934
March ...	14,460,800	3,281,000	—	—	—	—	13,098	—	—	—	1,980	17,756,878
TOTALS	103,223,750	74,045,660	6,761,143	512,810	485,878	142,030	120,650	34,605	31,287	22,494	3,020	185,383,327

MAIN SHANNON SYSTEM.

WEEKLY SUMMARY OF OPERATING CONDITIONS.

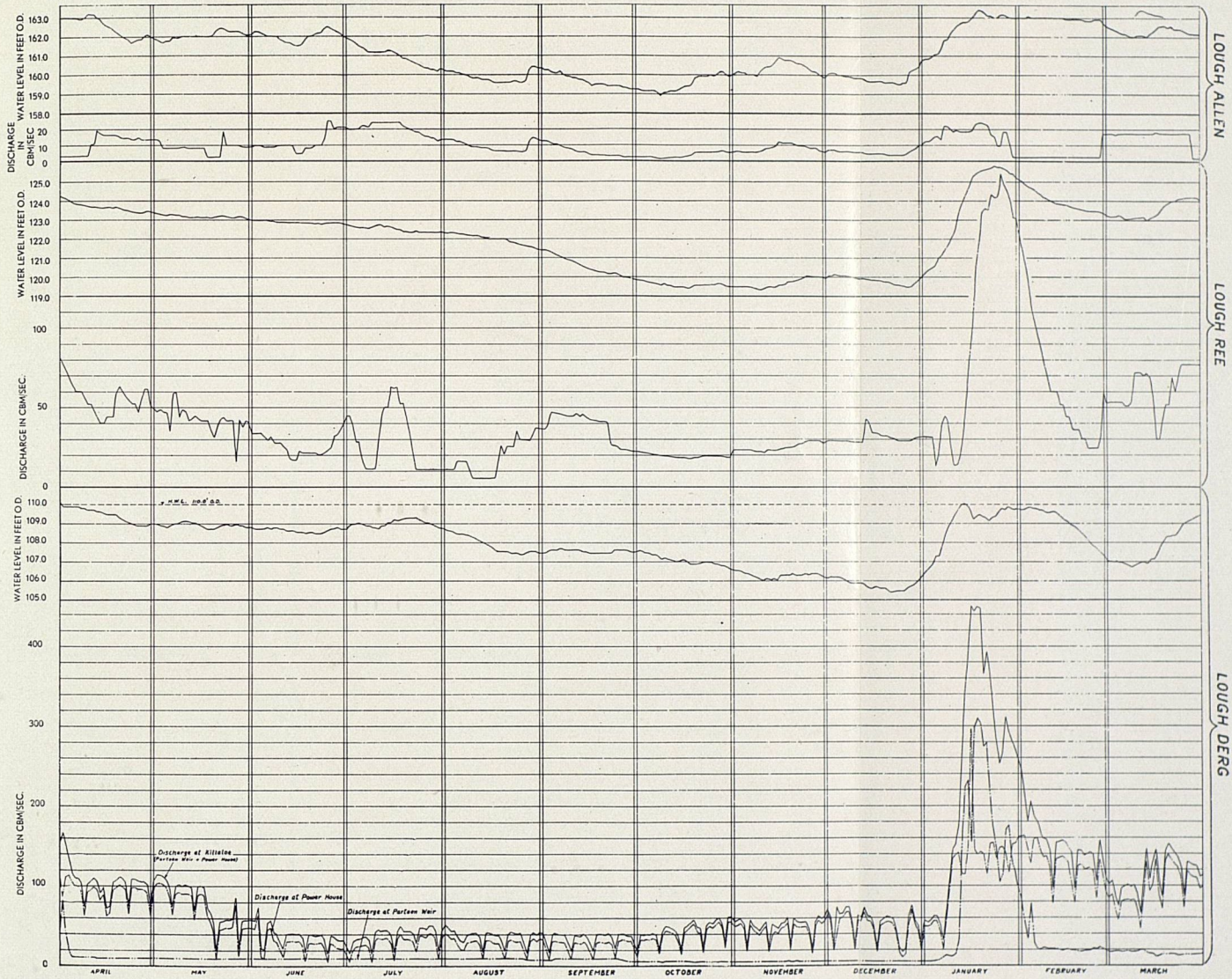
YEAR ENDING MARCH 31st. 1934

APPENDIX VII



To face page 28 (1).

WATER LEVELS AND DISCHARGES OF LOUGHS ALLEN, REE AND DERG, FOR YEAR ENDING 31st MARCH 1934



To face page 28 (2).

CAPACITY OF THE BOARD'S MAIN GENERATING STATIONS AT THE 31st MARCH, 1934.

Generating Stations	Type	Installed Capacity
ARDNACRUSHA ...	Hydro	(*a*) 3 Francis Turbines, each rated at 31,000 H.P. coupled to 30,000 kVA generators, each giving approximately an output of 21,000 K.W. 1 Kaplan Turbine, rated at 38,000 H.P. coupled to 25,000 kVA generator. Total capacity at Generator Terminals :– 93,500 K.W. at 30 m. head, 77,500 K.W. at 25·5 m. head. (*b*) 3 Step-up Transformers (10/110 kV) of a total capacity of 90,000 kVA and 2 Step-up Transformers (10/38 kV) with a total capacity of 16,000 kVA.
PIGEON HOUSE ...	Steam	(*a*) Steam capacity equivalent to 26,000 K.W. approximately. (*b*) Steam accumulator capacity of approximately 5,000 K.W. for 45 minutes. (*c*) Generator capacity equivalent to 31,000 K.W. (*d*) 1 Transformer (38/5 kV) of 15,000 kVA capacity.
CORK	Steam	(*a*) Steam capacity equivalent to 5,000 K.W. approximately. (*b*) Generator capacity equivalent to 6,500 K.W. (D.C.).

PARTICULARS OF ELECTRICITY UNDERTAKINGS WHICH AT 31st MARCH, 1934, HAD NOT BEEN ACQUIRED BY THE ELECTRICITY SUPPLY BOARD.

A.—Authorised Undertakings.
All others are Permitted Undertakings.

NOTE.—In 17 cases where the number of consumers is 3 or under Permits have also been issued. These undertakings are not shown in the following Schedule.

(1) Town	(2) Population	(3) Name of Undertaker	(4) No. of Consumers	(5) Normal Tariffs per Unit for			(6) Units Sold, Year ended 31st March, 1934
				Lighting	Heating and Cooking	Power	
Ardara	411	The Adara Woollen & Industrial Co., Ltd. ...	84	10d.	1d.	—	11,691
Ardee	1,729	The Ardee Electric Co., Ltd.	139	1/–	4d.	1½d. & 4d.	71,083
Ardfinnan	302	Mulcahy, Redmond & Co., Ltd.	7	1/6	—	—	1,410
Athenry	993	Ruane's Electric Light Works	123	1/–	6d. & 3d.	6d., 4d. & 3d.	21,629
Balla	259	John McEllin	28	1/–	6d.	6d.	2,883
Ballaghaderreen (*A.*) ...	1,150	Roscommon Board of Health	204	6d.	3d.	3d.	49,741
Ballinlough	275	Ballinlough Electricity Supply Co. ...	40	1/–	5d.	5d.	1,199
Ballinamore	712	F. J. McAvinia	133	1/1	—	—	16,553
Ballindine	203	E. W. Griffith	27	10d. & 9d.	—	—	1,907
Ballinrobe	1,337	The Ballinrobe Electric & Woollen Co., Ltd.	191	10d.	3d.	3d.	37,214
Ballintra	287	Patrick Cannon		Supply not started.			
Ballybofey and Stranorlar	1,250	Ballybofey & Stranorlar Electric Supply Co.	132	1/–	6d.	6d.	13,470
Ballyconnell	314	William Stewart	67	1/–	—	—	5,500
Ballymote	750	The Ballymote E. L. & Town Improvements Co.	93	1/–	Nil	Nil	12,313
Ballyshannon	2,112	John Myles & Co.	553	8d.	2d.	2d. & 3d.	106,136
Ballysodare	253	W. G. & T. Pollexfen	31	7d.	—	—	3,514
Bandon	2,830	The Bandon Milling & Electric Lighting Co., Ltd.	556	*10d.	4d. to 1d.	4d. to 1d.	148,258
Bantry	2,685	The Bantry Electric Light Co., Ltd. ...	331	*11d.	4d.	4d. to 1d.	109,087
Belmullet	650	N. McEntyre	11	1/–	—	—	2,150
Belturbet	1,307	William Stewart	138	10d. (1d. plus £70 p.a. for U.D.C. power).	—	—	26,415
Birr	3,402	The Birr E. L. & Power Co., Ltd. ...	419	10d.	3d. to 4d.	3d.	86,309
Blacklion	116	Capt. W. J. Nixon	21	1/–	—	—	769
Boyle	2,323	George Stewart	55	7d.	1d. to 3d.	2d.	19,000

* NOTE.—There is a low tariff for Artisans under a special scheme.

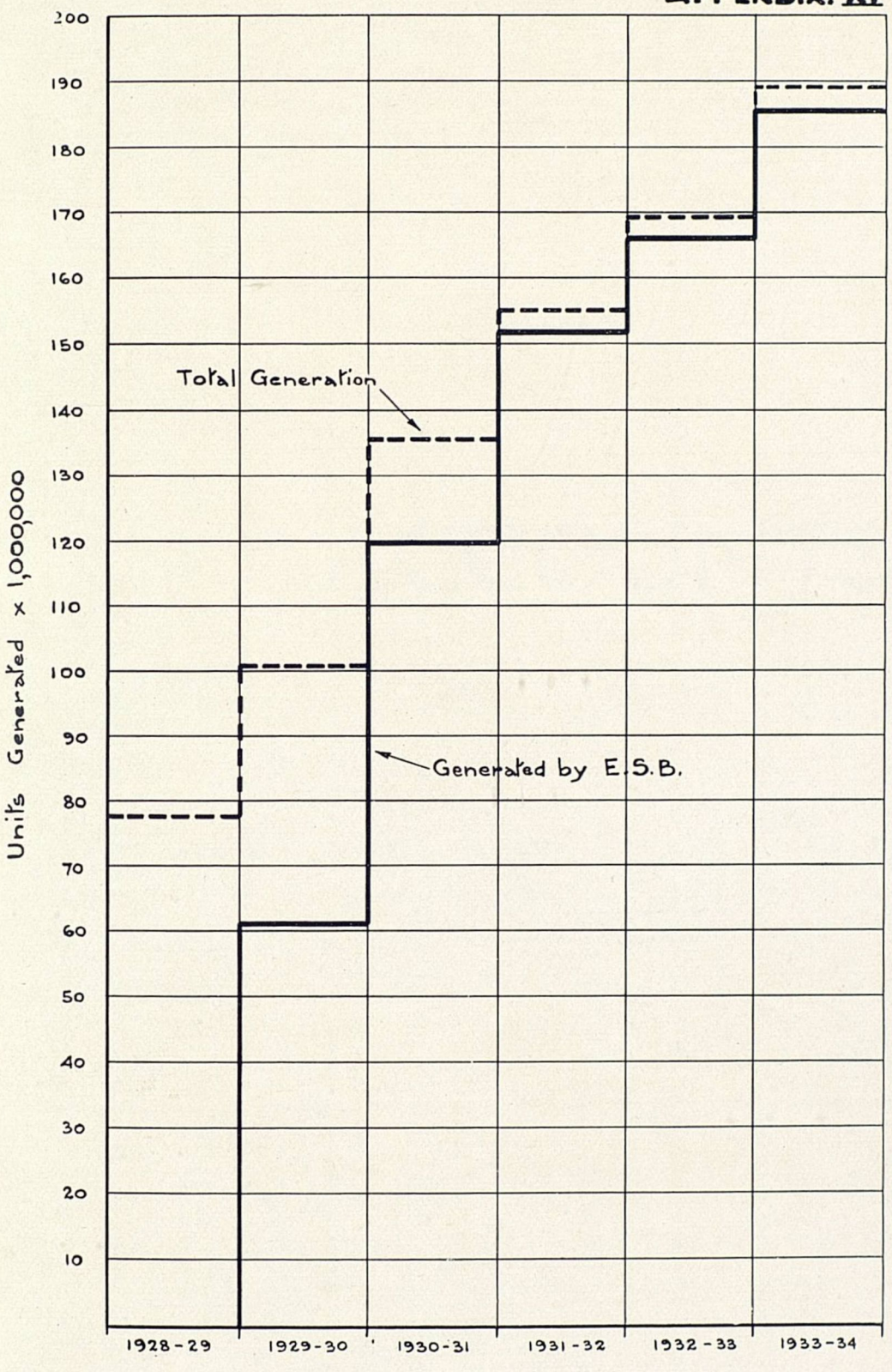
(1) Town	(2) Population	(3) Name of Undertaker	(4) No. of Consumers	(5) Normal Tariffs per Unit for			(6) Units Sold, Year ended 31st March, 1934
				Lighting	Heating and Cooking	Power	
Boyle	—	John Stewart	247	6d. to 7d.	1d.	2d. to 3d.	81,775
Borris	996	Dr. E. Dundon	28	1/–	Supply	starting.	648
Buncrana	2,309	The Buncrana Electric Supply Co. ...	299	4d. to 7d.	2½d.	2½d.	124,572
Bundoran	1,339	John Myles & Co.	310	6d.	2d.	2d. & 3d.	84,154
Cahirciveen	1,773	The Cahirciveen E. L. & Power Co., Ltd.	244	10d.	6½d.	6½d.	29,557
Carrickmacross ...	1,195	The Carrickmacross Lighting Co., Ltd. ...	203	1/–	6d.	4d.	40,657
Carrigart	124	Miss M. Maguire	17	1/–	—	—	317
Castleblayney	1,550	The Castleblayney E. L. & P. Co. ...	164	1/–	6d.	6d.	35,709
Castlepollard	—	SUPPLY NOT STARTED.					
Castlerea	1,207	The Castlerea Lighting & Milling Co. (1923), Ltd.	137	1/–	5d.	6d.	26,803
Charlestown	605	P. P. Condon	98	1/–, 1/1, 1/2	7d.	7d.	7,460
Clifden	964	E. J. King	123	10d.	3d.	—	16,400
Clogheen	641	John Browne	75	11d.	—	—	9,355
Collooney	319	W. A. G. Middleton	52	7½d.	1½d.	1½d.	15,521
Cloughjordan	404	Martin Gleeson	83	1/1	6d.	—	10,000
Dingle	1,998	The Dingle E. L. & Power Co.	167	10d.	5d.	5d. & 4d.	23,485
Donegal	1,214	J. McGowan	142	10d.	3d.	4d.	15,473
Doneraile	809	The Doneraile Saw Mills, Ltd.	66	10d.	6d.	—	6,881
Drumkeeran	250	The Drumkeeran Electricity Supply Co., Ltd.	48	1/–	4d.	—	4,112
Drumshambo	440	C. S. Laird	93	8d. & 7d.	3d.	—	19,980
Dromahair	265	Paul Jeiter	26	9d.	3d. & 1½d.	—	1,882
Dungloe	577	The Templecrone Co-op. Agrl. Society, Ltd.	107	8d.	£5 & £3 per ye	ar for radiators.	13,746
Dunmanway	1,565	The Dunmanway E. L. Co., Ltd. ...	254	9d.	4d.	4d.	31,180
Enniskerry	214	The Enniskerry E. S. Co-op. Society ...	45	1/–	—	4d.	7,031
Foynes	358	Foynes Saw Mills, Ltd.	51	8d.	—	4d.	7,750
Glendalough	—	Messrs. Wynne	10		Included in rent.		4,997
Glenties	366	Glenties Electricity Supply Co., Ltd. ...	65	1/–	—	4d.	9,732
Graiguenamanagh ...	799	John M. Murphy & Son (Graiguenamanagh), Ltd.	47	1/– & 9d.	—	6d.	12,472
Kenmare	883	O'Shea Bros.	155	4d. to 10d.	2d.	2d.	20,500
Kilkee	1,682	Kilkee Electricity Supply Co., Ltd. ...	254	1/–	—	6d.	23,057
Kilkelly	191	Michael Snee	28	1/–	—	—	4,800
Killarney (*A.*) ...	5,328	The Kerry Electric Supply Co.	464	10d. to 6½d.	1½d. to ½d.	2½d. to 1½d.	250,911
Killorglin	1,057	The Killorglin E. L. & Power Co., Ltd. ...	146	10d.	4d.	4d.	21,398
Killybegs	571	Rev. Bro. Superior, St. Columba's E. L. Station	70	1/–	—	—	6,365
Kilmacthomas ...	407	Patrick Kiersey	26	10d. & 8d.	5d.	5d.	4,703
Kilrush	3,345	The Kilrush E. L. & Power Co., Ltd. ...	328	1/–	6d.	6d.	44,522

(1) Town	(2) Population	(3) Name of Undertaker	(4) No. of Consumers	(5) Normal Tariffs per Unit for			(6) Units Sold, Year ended 31st March, 1934
				Lighting	Heating and Cooking	Power	
Kingscourt	616	J. W. Gilmore	38	1/–	—	—	3,680
Kinnegad	—	SUPPLY NOT STARTED.					
Letterfrack	—	The Superior, Industrial School	9	8d.	—	—	1,530
Macroom	2,413	Macroom E. L. Co.	159	11d.	—	—	33,491
Manorhamilton ...	989	Manorhamilton & District E. L. Co., Ltd. ...	116	7½d. & 10½d.	2d.	2d.	28,792
Milford	383	William Russell	23	1/–	—	—	1,800
Mohill	653	Edward Cope	87	1/–	—	—	14,503
Monaghan	4,636	The Monaghan Lighting Co., Ltd. ...	231	9d.	4½d.	4½d.	74,868
Monasterevan	574	Samuel E. Holmes	31	9d. & 11d.	—	—	6,819
Mountbellew	304	Mountbellew Co-op. Agrl. Dairy Society, Ltd.	43	1/–	—	—	7,829
Mountrath	1,165	Mountrath Electric Supply Co., Ltd. ...	97	1/–	—	3d., 6d. & 8d.	19,117
Moville	941	The Moville Electric Supply Co.	161	10d.	—	4d.	11,100
Newcastle West ...	2,797	Newcastle West & District E. L. & Power Co., Ltd.	326	10d. & 7½d.	6d.	4½d. & 3d.	76,944
Newtownbarry ...	709	The Newtownbarry E. L. & Power Co., Ltd.	97	1/–	—	4d.	13,712
Pettigo	382	Shaw Bros.	28	8d.	—	—	2,421
Piltown	273	Piltown Co-op. Agrl. & Dairy Society, Ltd.	32	1/–	—	—	2,167
Portumna	892	The Portumna E. L. & Power Co., Ltd. ...	130	10d. & 1/–	—	4d.	17,124
Ramelton	976	Robert J. Campbell	52	1/–, less 15% to large consumers.	—	—	6,072
Raphoe	748	Raphoe Electric Lighting Co., Ltd. ...	67	1/–	—	6d.	8,747
Rathfarnham	657	The Rathfarnham Mfg. Co., Ltd. ...	20	6d.	4d.	6d. & Contract	15,303
Riverstown	140	Flanagan Bros.	8	1/2	—	—	700
Shillelagh	133	The Earl of Fitzwilliam	6	6d. and 370 Units for £11.	—	—	19,036
Sixmilebridge	303	James O'Flynn & Sons, Ltd.	18	6d.	—	2½d.	47,500
Skerries	1,973	W. Flanagan	313	1/–	6d.	3½d.	82,992
Skibbereen	2,627	The Skibbereen Gas & E. L. Co., Ltd. ...	322	1/–, 11d., 10d.	4d. to 3d.	3d.	52,328
Thomastown	746	Ryan & Son	55	1/–, 1/1, 1/2	—	—	5,250
Tuam	3,293	The Tuam Electricity Co., Ltd.	453	9d.	4d.	4d.	103,423
Tubbercurry	748	The Tubbercurry E. L. and Town Improvements Co., Ltd.	93	1/2	7d.	7d.	16,000
Woodford	247	John Roche	21	10d.	—	—	6,080

UNITS GENERATED IN IRISH FREE STATE

FROM APRIL 1st 1928 TO MARCH 31st 1934.

APPENDIX. XI



To face page 32.

ACCOUNTS

No. 1.

Dr. **INSTALLATIONS TRADING ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1934.** *Cr.*

	£ s. d.		£ s. d.
To Cost value of work for which credit had not been taken at 31st March, 1933 ...	17,206 18 4	By Credit taken for contracts completed and charged	56,076 7 2
,, Cost of installation work carried out during the year	35,866 2 11	,, Cost value of work for which credit has not yet been taken	8,161 4 4
,, Gross profit, carried down	11,164 10 3		
	£64,237 11 6		£64,237 11 6
To Salaries, wages and state insurance £6,117 19 10		By Gross profit, brought down	11,164 10 3
,, Travelling expenses ... 607 15 9		,, BALANCE, carried to PROFIT AND LOSS ACCOUNT	2,463 12 10
,, Rents and rates 232 3 7			
,, Sundry expenses 304 10 6			
,, General overhead expenses and interest, as apportioned ... 6,365 13 5			
	13,628 3 1		
	£13,628 3 1		£13,628 3 1

ACCOUNTS

No. 2.

Dr. **MERCHANDISE TRADING ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1934.** *Cr.*

	£ s. d.		£ s. d.
To Cost value of transactions for which credit had not been taken at 31st March, 1933	7,214 13 9	By Credit taken for sales	31,087 2 1
,, Cost of goods issued as sales	23,630 17 1	,, Cost value of transactions for which credit has not yet been taken	6,664 17 7
,, Sundry costs in connection with sales ...	1,656 9 4		
,, Gross profit, carried down	5,249 19 6		
	£37,751 19 8		£37,751 19 8
To Salaries, wages, commission and state insurance ... £2,080 9 2		By Gross profit, brought down	5,249 19 6
,, Travelling expenses ... 141 4 4		,, Hireage receipts on hire-purchase appliances	474 1 0
,, Rents and rates 183 9 8			
,, Sundry expenses 383 15 1			
,, General overhead expenses and interest, as apportioned ... 2,890 19 8			
	5,679 17 11		
,, BALANCE, carried to PROFIT AND LOSS ACCOUNT	44 2 7		
	£5,724 0 6		£5,724 0 6

No. 3.

Dr. **REVENUE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1934.** *Cr.*

	£ s. d.	£ s. d.
To Generation :—		
Operating expenses	131,457 9 2	
Maintenance and repair	22,864 18 6	
		154,322 7 8
,, Transmission :—		
Operating expenses	4,621 4 6	
Maintenance and repair	17,575 7 3	
		22,196 11 9
,, Distribution :—		
Operating expenses	88,475 18 7	
Maintenance and repair	39,216 13 1	
		127,692 11 8
,, General Management and Overhead Expenses :—		
Salaries, wages, commission and state insurance	193,494 13 5	
Transport and travelling expenses ...	17,391 15 3	
Rents and rates of office and store premises	8,439 7 7	
Insurances	4,959 9 4	
Stationery	9,420 8 3	
Telephones and postage	10,929 13 9	
Up-keep of buildings	2,793 10 1	
Up-keep of furniture and equipment	1,816 13 4	
Publicity	6,025 13 1	
Exhibition and demonstration ...	10,307 10 2	
Legal expenses	657 2 4	
Audit fees	1,000 0 0	
Electricity consumed	3,361 16 4	
Sundry expenses	898 3 2	
	271,495 16 1	
Less : Apportionment charged to other accounts and to capital works ...	20,778 12 10	
		250,717 5 3
,, Pensions and compensation to officers of undertakings acquired		17,752 6 3
,, Provision for bad debts		7,865 10 9
,, Depreciation of stocks of material		2,226 13 1
,, Balance, carried to Profit and Loss Account ...		572,824 2 7
		£1,155,597 7 0

	£ s. d.	£ s. d.
By Charges for electricity, etc. :—		
General consumers	1,060,715 7 2	
Public lighting	64,619 2 3	
Meter and other rents ...	24,346 5 3	
		1,149,680 14 8
,, Miscellaneous revenue		5,916 12 4
		£1,155,597 7 0

Dr. **PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1934.** *Cr.*

	£	s.	d.		£	s.	d.
To Interest payable to the Minister for Finance under the Electricity (Supply) Act, 1927, as follows :—				By Balance transferred from Revenue Account ...	572,824	2	7
Under section 13, in respect of advances under— £ s. d. £ s. d.				,, Loan-stock sinking funds' and other investment income	3,499	18	6
(*a*) section 12 (2) ... 8,191 1 6				,, Discount at which loan-stock was redeemed ...	125	16	8
(*b*) section 12 (3) ... 101,254 4 8				,, Interest receivable	711	10	1
Under section 15 (3) in respect of the liability transferred from the Shannon Power Development Fund under Section 15 (2) 305,372 11 6							
,, Interest payable to the Minister for Finance under the Electricity (Supply) (Amendment) Acts, 1931 and 1932 78,023 3 8							
492,841 1 4							
,, Interest on loans and loan-stocks of acquired undertakings 21,295 19 0							
,, Other interest 25 0 0							
514,162 0 4							
Less : Apportionment charged to other accounts and to capital works ... 23,131 0 0							
	491,031	0	4				
,, Loan-stock management charges	586	0	5				
,, Gross contributions to loan-stock sinking funds of acquired undertakings	26,446	5	0				
,, Reserves, being the amount of capital of acquired undertakings repaid or provided for repayment	38,798	13	2				
,, Premium at which loan-stock was redeemed	1,171	5	11				
,, BALANCE, carried down	19,128	3	0				
	£577,161	7	10		£577,161	7	10
To Installations Trading Loss 2,463 12 10				By BALANCE, brought down	19,128	3	0
Less : Merchandise Trading Profit ... 44 2 7							
	2,419	10	3				
,, Provisions for :—							
Depreciation of furniture and fittings, etc. 3,365 0 0							
Contingencies 1,056 6 11							
Loss on retirement of assets 2,000 0 0							
	6,421	6	11				
,, BALANCE, carried down	10,287	5	10				
	£19,128	3	0		£19,128	3	0
To BALANCE, carried down	17,802	4	3	By BALANCE, brought down	10,287	5	10
				,, Balance, brought forward from last year's account ...	5,814	18	5
				,, Amount over provided for audit and accountancy fees at 31/3/1932	1,500	0	0
				,, Sale or return creditors' reserve released	200	0	0
	£17,802	4	3		£17,802	4	3
				By BALANCE, brought down	£17,802	4	3

No. 5.

Dr. **CAPITAL ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1934.** *Cr.*

	Total Expenditure to 31st March, 1933	Expenditure during year to 31st March, 1934 less— amounts written off	Total Expenditure to 31st March, 1934 less— amounts written off
	£ s. d.	£ s. d.	£ s. d.
To Undertakings Acquired : Fixed and other assets, including discounts on loan-stock issues and goodwill — amount unallocated	1,228,711 14 6	(—) 14,295 10 10	1,214,416 3 8
„ Shannon Works (including transmission system) transferred under section 15 (2) of the Electricity (Supply) Act, 1927, and interest accrued on transfer	5,934,222 11 1	—	5,934,222 11 1
„ Other expenditure (including classified assets of acquired undertakings allocated as follows :—			
Lands and Buildings	223,022 0 10	100,092 0 4	323,114 1 2
Transmission System ...	359,616 6 2	57,204 15 11	416,821 2 1
Distribution System ...	1,276,001 1 6	243,946 14 1	1,519,947 15 7
Plant and Machinery	65,416 15 6	171,567 5 5	236,984 0 11
Motor Transport ...	21,514 6 3	330 6 8	21,844 12 11
Furniture and Office Machinery ...	33,511 13 11	4,265 12 10	37,777 6 9
Sundry Equipment ...	26,867 18 10	1,892 2 8	28,760 1 6
Preliminary and Development Expenses	292,173 6 10	2,346 12 7	294,519 19 5
	£9,461,057 15 5	£567,349 19 8	£10,028,407 15 1
Non-Classified Expenditure :— New works in progress			231,662 14 0
Total ...			£10,260,070 9 1

	Total Receipts to 31st March, 1933	Receipts during year to 31st March, 1934 less— redemptions	Total Receipts to 31st March, 1934 less— redemptions
	£ s. d.	£ s. d.	£ s. d.
By Loans and loan-stocks of local authority undertakings, and amount capitalised under section 39 (7) of the Electricity (Supply) Act, 1927 :—			
Loans and Loan-Stocks ...	513,487 13 5	(—) 50,285 16 4	463,201 17 1
Liability under Section 39 (7)	5,466 4 1	3,062 19 3	8,529 3 4
„ Minister for Finance :— For advances under the Electricity (Supply) Act, 1927—			
Section 12 (2) ...	156,000 0 0	—	156,000 0 0
Section 12 (3) ...	1,903,688 6 1	—	1,903,688 6 1
For advances under the Electricity (Supply) (Amendment) Act, 1931, as extended by the Electricity (Supply) (Amendment) Act, 1932	1,300,607 2 5	507,466 18 11	1,808,074 1 4
For advances to the Shannon Power Development Fund applicable, as determined under section 15 of the Electricity (Supply) Act, 1927, to the Shannon Works handed over ...	5,815,860 19 1	—	5,815,860 19 1
Total ...	£9,695,110 5 1	£460,244 1 10	£10,155,354 6 11
By Balance			104,716 2 2
			£10,260,070 9 1

No. 6.

STATEMENT OF CAPITAL RECEIPTS AND REDEMPTION THEREOF TO THE 31st MARCH, 1934.

	Total Receipts to 31st March, 1934	Redeemed			Balance of Capital Receipts Outstanding at 31st March, 1934
		Total to 31st March, 1933	During year to 31st March, 1934	Total to 31st March, 1934	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Loans and loan-stocks of local authority undertakings, and amount capitalised under section 39 (7) of the Electricity (Supply) Act, 1927 :—					
Loans and Loan-stocks	740,652 4 5	226,714 13 8	50,735 13 8	277,450 7 4	463,201 17 1
Liability under Section 39 (7) ...	13,270 18 1	3,414 13 2	1,327 1 7	4,741 14 9	8,529 3 4
Minister for Finance :—					
For advances under the Electricity (Supply) Act, 1927 :—					
Section 12 (2)	156,000 0 0	—	—	—	156,000 0 0
Section 12 (3)	1,903,688 6 1	—	—	—	1,903,688 6 1
For advances under the Electricity (Supply) (Amendment) Act, 1931, as extended by the Electricity (Supply) (Amendment) Act, 1932	1,808,074 1 4	—	—	—	1,808,074 1 4
For advances to the Shannon Power Development Fund applicable, as determined under section 15 of the Electricity (Supply) Act, 1927, to the Shannon Works handed over ...	5,815,860 19 1	—	—	—	5,815,860 19 1
	£10,437,546 9 0	£230,129 6 10	£52,062 15 3	£282,192 2 1	£10,155,354 6 11

No. 7.

Dr. **BALANCE SHEET AS AT THE 31st MARCH, 1934.** *Cr.*

LIABILITIES.	£ s. d.	ASSETS.	£ s. d.
To Receipts, as per Capital Account ...	10,155,354 6 11	By Expenditure, as per Capital Account ...	10,260,070 9 1
„ Sundry Creditors	226,344 14 5	„ Stocks on Hand or in Transit ...	228,739 8 9
„ Working Capital Loan of an acquired undertaking	24,000 0 0	„ Cost Value of Installations Work and Sales for which Credit has not been taken	16,470 13 4
„ Sinking Funds for loan-stocks of acquired undertakings—		„ Sundry Debtors, after providing for bad and doubtful debts	313,670 2 4
Balance of amount provided by undertakings £4,960 15 4		„ Cash in Hand or with Banks ...	35,081 10 11
Balance of amount provided in accordance with section 39 (6) of the Electricity (Supply) Act, 1927 ... ... 85,383 11 11		„ Sinking Funds (held by local authorities) for loan-stocks—	
	90,344 7 3	Investments (at cost) £85,017 8 9	
„ Amount reserved in respect of capital loans of acquired undertakings repaid, capital receipts non-repayable and sale of assets, less assets retired	323,638 7 9	Cash not invested ... 5,326 18 6	90,344 7 3
„ Reserves: Amount provided by acquired undertakings ...£80,554 4 8			
Other reserves and provisions 26,338 6 5			
	106,892 11 1		
„ Profit and Loss Account—Surplus ...	17,802 4 3		
	£10,944,376 11 8		£10,944,376 11 8

R. F. BROWNE, *Chairman.*
PATK. J. DEMPSEY, *Secretary.*

F. WECKLER, *Chief Accountant.*

AUDITORS' REPORT.

As Auditors appointed by the Minister for Industry and Commerce, with the consent of the Minister for Finance, we have examined the foregoing Accounts and Balance Sheet. We certify, subject to the under-mentioned qualifications, that the Balance Sheet as at the 31st March, 1934, exhibits a true and correct view of the state of the Board's affairs according to the best of our information and the explanations given to us, and as shown by the books of the Board.

(1) The information necessary for the proper classification of the assets of undertakings acquired was not obtainable. For this reason we could not ascertain whether the title deeds of all properties relating to such undertakings were held by the Board.

(2) Provision has not been made for depreciation of capital assets except to the extent of :—

(*a*) the amounts charged in respect of the replacement of loans and loan-stocks of undertakings acquired ; and

(*b*) sums provided for depreciation of motor transport and of office furniture and fittings.

(3) Overhead expenses are charged in the foregoing accounts in accordance with estimated allocations made by the Board's officials and approved by the Board :

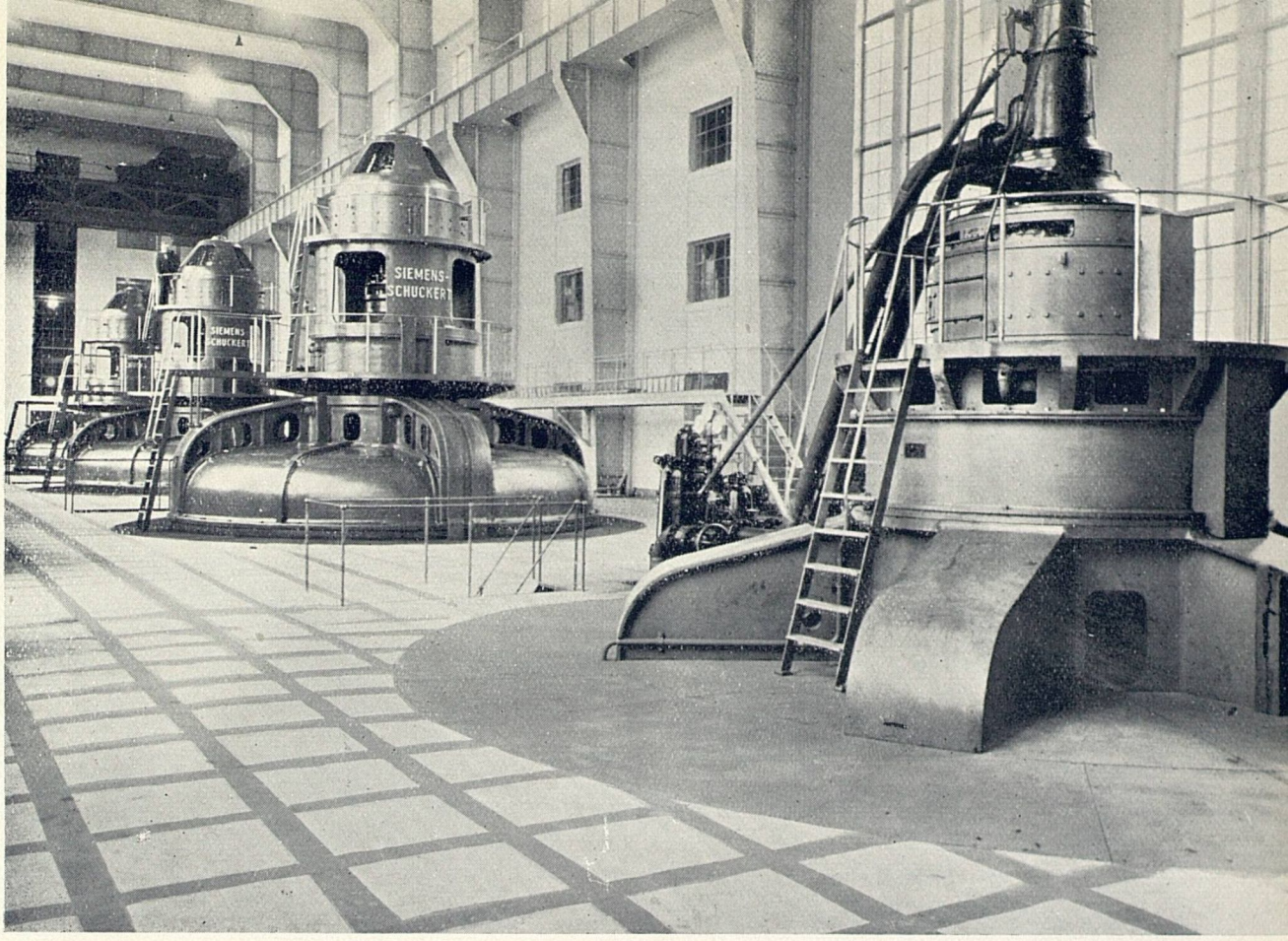
(*a*) the Revenue Account has been relieved of a proportion of overhead expenses which has been charged to the Installations Trading Account, the Merchandise Trading Account, and to capital expenditure on new works ;

(*b*) the Profit and Loss Account has been relieved of a proportion of the interest chargeable which has been transferred to Installations Trading Account, to Merchandise Trading Account, and to capital expenditure on new works under construction ;

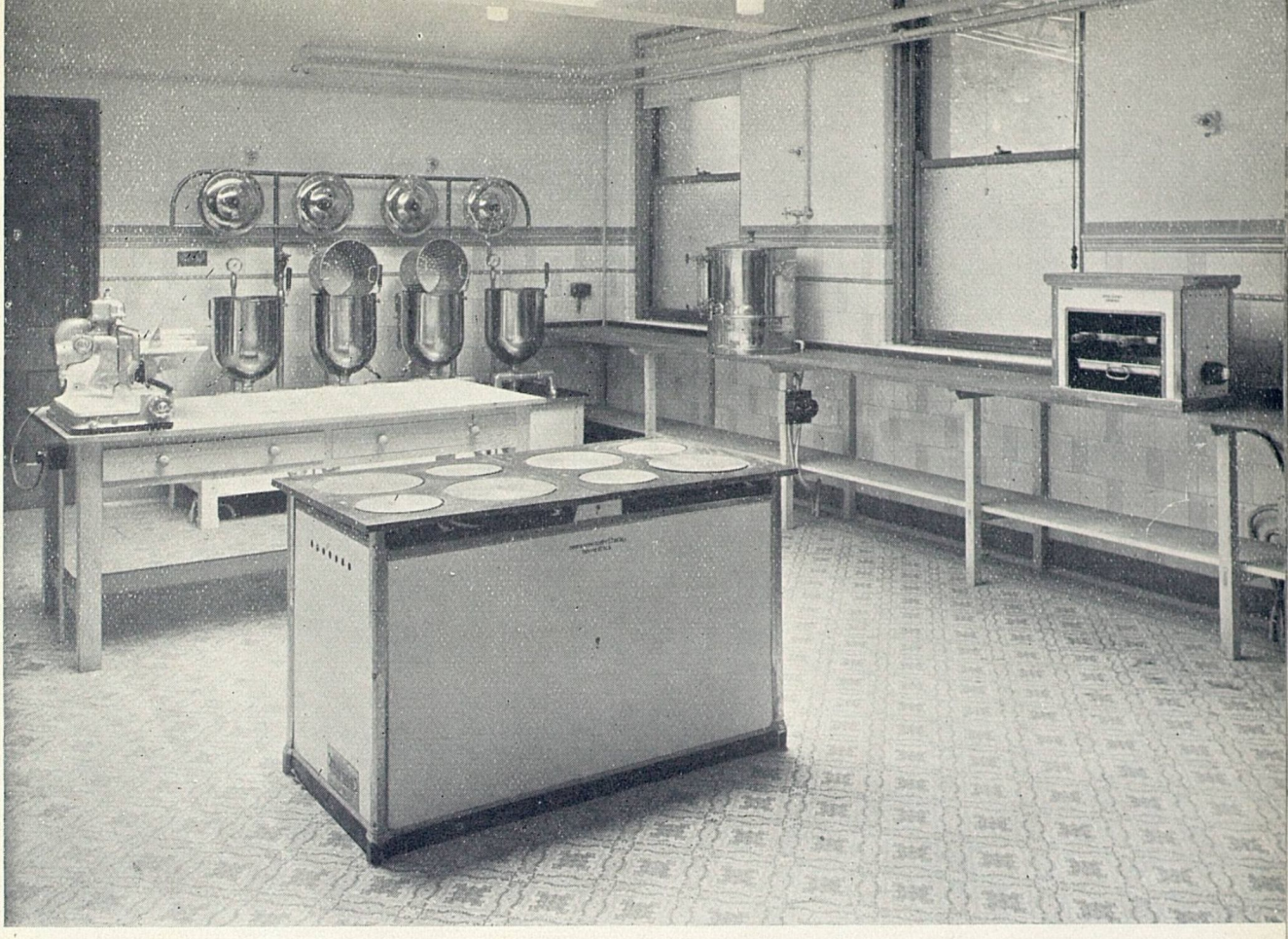
(*c*) credit has been given to the Merchandise Trading Account for a sum representing a proportion of the expenses regarded as relating to the sales of electricity, and this amount has been charged to Revenue Account.

KENNEDY, CROWLEY & CO.,
Auditors.

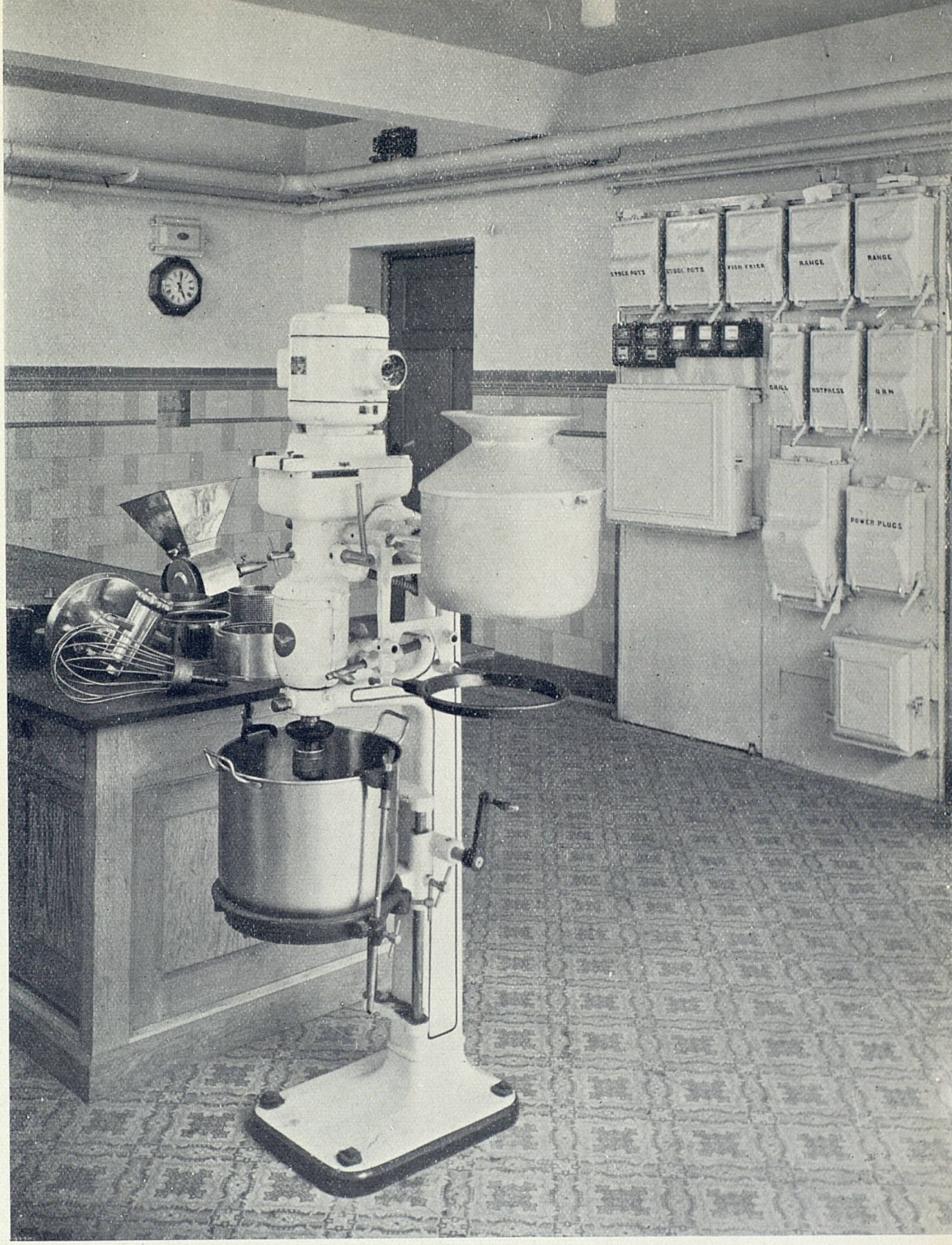
4 AND 5 WESTMORELAND STREET,
DUBLIN, 22*nd October*, 1934.



Generator Hall at Ardnacrusha Power Station showing new unit in foreground.



Electrical Cooking Equipment in Jervis St. Nurses' Home, Dublin.



Electrical Mixing Machine in Kitchen of Jervis St. Nurses' Home, Dublin.



Flood Lighting of Church at Killiney, Dublin.

Your
National Duty
USE A
NATIONAL FUEL

A. Thom & Co., Ltd.