EIGHTH ANNUAL REPORT

OF THE

ELECTRICITY SUPPLY BOARD

DUBLIN

1934-35

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OF THE

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Year ended 31st March, 1935.

(Presented to the Minister for Industry and Commerce in pursuance of Section 32 (1) and Section 7 (2) of the Electricity (Supply) Act, 1927).

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ELECTRICITY SUPPLY BOARD.

Report and Accounts

YEAR ENDED 31st MARCH, 1935.

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Report and Accounts

YEAR ENDED 31st MARCH, 1932.

ELECTRICITY SUPPLY BOARD.

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, the Board presents the Annual Report and Accounts for the year ended 31st March, 1935.

The Board has pleasure in referring to the marked advance which has been made in the year in the development of its business. The results of the year, as reflected in the Profit and Loss Account, disclose a surplus of revenue over expenditure of £155,300. This compares with a figure of £10,287 for the previous year.

The income from the sale of electricity reached a total of £1,258,388, representing a growth of £108,707.

Working expenditure has fallen by £37,169 owing chiefly to the circumstance that costs of an abnormal nature, such as had been incurred in the preceding year by reason of the drought, did not arise to the same extent in the year under review. Small savings have also been effected in administrative expenditure. Against these reductions there are increased expenditures on repairs and maintenance, and on general development work.

The capital charges borne by the Board were £568,703 comprising £489,683 for interest to the account of the Minister for Finance, and £79,020 for interest and repayments of capital in respect of liabilities assumed on the transfer of Local Authority Undertakings. Of this total, £553,481 was chargeable against the Profit and Loss Account, and absorbed 44 per cent. of the gross revenue from sales of energy. The rate of interest paid to the Minister for Finance on all capital advances was 5 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.

It has been decided to place to general reserve the amount of surplus of income over expenditure accrued to 31st March, 1935. During the coming year it is expected that under the Electricity (Supply) Act, 1927, the Minister for Finance will determine the basis, and fix the date for commencement of repayment of advances made for the Shannon Works and for the Board's subsequent development.

Additional capital expenditure of £517,769 was incurred in the course of the year for the purpose of development, and to meet the demands of increased consumption. The total advances of capital in respect of the Shannon Works, and of the Board's distribution networks and development amounted to £10,003,371 at 31st March, 1935.

SALE OF ELECTRICITY AND NUMBER OF CONSUMERS.

The following table sets out the number of units generated and sold, the average price per unit, and the corresponding revenue for the years 1929-30 to 1934-35.

Year ended on 31st March	Units Generated	Units Sold	Revenue from Sales 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
1935 ...	206,105,570	156,964,146	1,258,388	1·47	1·92

Supply from the Board is now available in 210 distinct towns or areas. Additional areas connected during the year were :—

Ballaghaderreen.
Blanchardstown.
Castleconnell.
Coolock.
Ennistymon.
Ferns
Lahinch.
Lisdoonvarna.
Macroom.
Miltown-Malbay.
Monasterevan.
Newcastle West.
Newtownmountkennedy.
Talbot's Inch.

The electricity undertakings at Ballaghaderreen, Macroom, Monasterevan and Newcastle West, were acquired.

The following Table shows the number of consumers, including consumers changed over from acquired undertakings to the Shannon System, at the end of each of the six years to 31st March, 1935 :—

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
1935	103,037*	694	11,076

*Includes 1,377 artisan dwelling consumers in Dublin City previously charged in bulk to the Local Authority but now separately charged,

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

The substantial increase in the number of new consumers is partly owing to increased housebuilding activity throughout the country. The growth is not confined to any one portion of the Board's system, but is spread more or less evenly over the whole area of supply.

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 ,,	8,284 H.P.	6,072 H.P.
1932 ...	37,290 ,,	119 ,,	7,569 ,,
1933 ...	46,036 ,,	191 ,,	8,555 ,,
1934 ...	52,352 ,,	116 ,,	6,200 ,,
1935 ...	59,281 ,,	138 ,,	6,791 ,,

With the exception of the Sugar Factories, all 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.

The more important industrial loads connected were :—

National Flour Mills, Ltd., Cork ...	...	360 H.P.
W. P. & R. Odlum, Portlaoighise ...	...	332 ,,
R. & H. Hall, Ltd., Westport Quay	...	150 ,,
Boyne Mills, Navan	...	79 ,,
Barrow Milling Co., Carlow ...	...	135 ,,
J. & L. F. Goodbody, Ltd., Clara ...	...	127 ,,
Irish Oil & Cake Mills, Ltd., Drogheda	...	652 ,,
Irish Ropes, Ltd., Droichead Nua ...	...	115 ,,
Castlebar Bacon Co., Ltd.	...	198 ,,
Irish Aluminium Co., Ltd., Nenagh	...	187 ,,
Killeshandra Co-operative Creamery ...	...	82 ,,

HEATING AND COOKING.

Institutions.

Amongst the more important institutions connected during the year, the following may be mentioned :—

Beaumont Convalescent Homes, Dublin.
Holy Faith Convent Schools, Dominick Street, Dublin.
St. Flannan's College, Ennis.
Aut-Even Hospital, Kilkenny.
Presentation Convent, Kildare.
Convent of Mercy, Ballymahon.
Convent of Mercy, Buttevant.
County Hospital, Mullingar.
Newcastle Sanatorium, Newcastle, Co. Wicklow.
County Sanatorium, Rathdrum.
St. Conleth's Sanatorium, Firmount, Co. Kildare.

In these institutions electric cookers and/or water heaters, and/or space heating have been installed. In other institutions which had already been connected, a marked expansion is taking place in the use of electricity, especially for cooking purposes.

Holles Street Hospital.

During the year the new buildings of the National Maternity Hospital, Holles Street, Dublin, were opened. This is the first hospital in the country which is utilising electricity as the source of energy for all services.

Supply is made available through a sub-station of 4,000 K.W. capacity fed by duplicate cables from the Fleet Street Transformer Station. In the basement are situated two electrode boilers and storage tanks which supply hot water for heating the building, principally

through concealed ceiling panels. The temperature conditions in any section are under complete control at a centralised supervising panel in the boiler room. Hot water supply for general purposes is provided by three large electric hot water accumulators. In addition, small local direct heated units, automatically controlled, supply isolated basins.

The main kitchen contains all the most modern electric cooking appliances with electrically operated equipment for refrigeration, food preparation, carving, dishing, transport and dishwashing. The ward and milk kitchens are provided with light-duty electric cooking and refrigerating equipment. The sterilising units are operated by direct electric heating, except in the case of the large dressing sterilisers and disinfector, which are supplied by electrically raised steam from an electrode steam boiler. Other electrical services include a specially designed lighting system, lifts, radiography, signalling, ventilation and pumping.

Rathmines Post Office.

In the new District Post Office buildings at Rathmines, electricity has also been adopted for all services. The type of heating equipment installed has been adapted to meet the special requirements of each section of the building.

Domestic Supply.

The utilisation of electric cooking and water-heating by domestic consumers shows a steady expansion, accelerated by the introduction of attractive hireage schemes.

LIGHTING SERVICE BUREAU.

The facilities offered by the Bureau for solving consumers' illumination problems have been freely availed of, not only in regard to shop and display lighting, but also in respect of factory illumination design.

PUBLIC LIGHTING.

The continued increase in the use of electricity for public lighting is shown in the following table :—

Year ended on 31st March	Number of Public Lamps	Load in K.W.	Units Consumed.
1930 ...	—	—	4,323,467
1931 ...	12,811	2,304	6,355,267
1932 ...	13,677	2,582	6,841,319
1933 ...	15,327	3,110	7,988,665
1934 ...	16,633	3,440	8,945,315
1935 ...	17,980	3,854	9,595,561

New contracts for public lighting were secured in 16 areas.

In Cork City a contract was entered into for the re-design of the existing electric lighting, and the extension of the use of electricity to the lighting of the entire city.

CONSUMERS' INSTALLATIONS DEPARTMENT.

The credit taken for contracts completed and invoiced for work carried out by the Department amounted to £43,520 8s. 6d., on which the rate of gross profit was 25·18 per cent. Having debited to the Installations Trading Account a proper proportion of overhead expenses, there is a net profit of £898 12s. 7d.

TARIFFS.

A three-part tariff has been introduced for domestic consumers in Dublin City and the surrounding districts. In this the price per unit was reduced to ¾d. for the first 360 units per bi-mensal period, and to ½d. per unit for all further consumption in the period.

To meet the requirements of dwellers in slum-clearance housing schemes, unmetered supply, controlled by current limiters, has been made available. A tariff suited to this system of supply was introduced.

The price for electricity for domestic hot-water supply was reduced in all areas to ½d. per unit for the first 360 units per bi-mensal period, and to ⅓d. per unit for all units in the period in excess of this figure.

SALES OF APPLIANCES.

The sale of appliances and apparatus for which credit has been taken amounted to £34,833 12s. 3d., which compares with a figure of £31,087 2s. 1d. for the previous year. The rate of gross profit on sales was 19·08 per cent. Having charged a proper proportion of general overhead expenses, the Merchandise Trading Account shows a net profit of £854 19s. 8d. The Board's showrooms continue to be utilised for general educational and propaganda work, particularly in relation to domestic electrical development.

PUBLICITY.

The present activity in house building has stimulated a definite interest in the domestic applications of electricity. To meet the demand for information on recent developments the Board utilised its stand at the Royal Dublin Society's Spring Show to exhibit two carefully designed model kitchens in which full advantage was taken of the adaptability and cleanliness of electricity. The very favourable reception of this display by consumers, and

by the public generally, indicated that further exhibitions of the same type were desirable. Arrangements were, consequently, made for the co-operation of the Board's staff with building contractors in various parts of Dublin in the design and adaptation of new dwelling-houses to the " all-electric " ideal.

The first all-electric demonstration house was formally opened at the Mount Merrion Estate, Dublin, on 11th December, 1934. Over 20,000 persons visited this house in the period to the 31st March, 1935. Other new houses have been taken temporarily in view of the success of this form of demonstration. All houses are available for inspection by the public, and are fully equipped with electrical appliances. A special staff has been detailed to attend to enquiries from visitors. The response by way of increased interest in, and utilisation of domestic electrical equipment, has been remarkably good.

Extensive advertising in the public press was maintained as heretofore to promote the use of electricity.

POWER DEVELOPMENT AND NEW WORKS.

Shannon Works.

Provision was made under the Electricity (Supply) (Amendment) (No. 2) Act, 1934, for expenditure on the development of additional water storage on the River Shannon. A contract has been placed for the work on Lough Allen, through which added storage of 150,000,000 cubic metres will be secured. This will be completed in about eighteen months. Certain minor works essential for the lowering of Lough Ree, to obtain an additional storage of 64,000,000 cubic metres, have also been commenced.

The work of deepening the river channel at Killaloe for the purpose of improving flow conditions was completed in November, 1934. Over 100,000 cubic metres of earth and 10,000 cubic metres of rock were removed from the bed of the river.

Pigeon House Works.

At the end of the year the following progress had been made in the various works involved in the improvement of the Pigeon House Station :—

(a) The new 23,000 K.W. steam turbo-generating set had been installed and was awaiting test.

(b) The installation of the two additional steam boilers had been completed.

(c) The new mechanical coal-handling plant and cranes had been erected.

(d) The harbour had been partially dredged, and the wharf reconstructed for a distance of 220 feet. Arrangements had been made for additional deepening of the harbour and river approach, and a further extension of the wharf during the summer of 1935.

(e) A contract was placed in November, 1934, for the construction of the new cooling-water system. The contract provides for the completion of the work by May, 1936.

TRANSMISSION AND DISTRIBUTION SYSTEMS.

The following constructional work, involving extensions and additions to the transmission and distribution lines, was carried out :—

(1) Low tension overhead mains	$61\frac{3}{4}$	miles.
(2) Low tension overhead mains (reconstructed or strengthened) ...	$26\frac{3}{4}$	,,
(3) Low tension underground mains	$12\frac{3}{4}$	,,
(4) 5 kV. underground cables	$\frac{3}{4}$	,,
(5) 10 kV. underground cables	5	,,
(6) 10 kV. transmission lines	$72\frac{1}{2}$	,,
(7) 38 kV. transmission lines (operated at 10 kV.)	$13\frac{1}{2}$	,,
(8) 38 kV. transmission lines	$\frac{1}{2}$	,,

To provide, with growth of load, satisfactory voltage regulation at all points on the Board's transmission system, a number of automatic on-load regulating transformers were installed. Of these, four were installed at the Ardnacrusha Power Station, two at Kilbarry Transformer Station, Cork, and two each at the Swords, Drogheda and Dundalk 38 kV. Transformer Stations.

New 38 kV., 10 kV., and 5 kV. Stations were erected and placed in commission, and the capacity of existing stations increased to the extent shown in Appendix II.

In Dublin, five new Substations were erected and equipped with modern switchgear to replace obsolete material, and to accommodate larger transformers.

Work was commenced in Cork on a rectifier substation which will operate from 10 kV. A.C. to 460 v. D.C. with a total capacity of 1,500 K.W.

LIFFEY WATER POWER.

Before reaching any decision, or making any recommendations in regard to the hydro-electric development of the River Liffey, the Board deemed it desirable to obtain expert advice, and Professor E. Meyer-Peter and Dr. J. Buchi, of Zurich, have accordingly been consulted. To supplement the data already available, it was found necessary to make further observations and measurements, particularly of water flow conditions. The report of the experts is expected at an early date.

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 :—

UNITS GENERATED.					Load Development (Main Stations)	
Year ended on 31st March	Main Stations		Local Stations	Total all Stations	Maximum Daily Output in Units	Maximum Load (K.W.)
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
1935	Ardnacrusha ...	167,206,100				
	Pigeon House ...	37,627,500				
	Cork ...	910,582				
	Total...	205,744,182	361,388	206,105,570	887,400	75,300
	Increase during year ended 31st March, 1935 ...		—	20,722,243	84,988	9,600

NOTE.—The total number of units generated at Ardnacrusha was 171,291,900 of which 4,085,800 were consumed by the electric boilers at the Cork and Pigeon House Stations.

The generation by fuel stations was necessitated by the relatively dry period from April to July, 1934. For the first portion of this period, storage was drawn upon to augment the inflow, but during June, July and August, the Pigeon House Station was brought into commission. The Ardnacrusha Station was in commission for a total of 7,810 hours, and was closed down for 950 hours.

The total number of units generated (206,105,570), represents an increase of 11·2 per cent. on the output of the previous year.

The average yearly load was 23·5 M.W. The yearly load factor, on the basis of units generated, was 31·2 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.

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

For the third year in succession the inflow to the catchment was below the average. The following figures indicate the total average inflow to the catchment at Killaloe (for the calendar year) :—

(a) Mean average for period for 1893-1934	194·4 cbm./sec.		
(b) Year 1932	141	,,	or 72·5 per cent. of mean.
(c) Year 1933	112	,,	or 57·6 per cent. of mean.
(d) Year 1934	148	,,	or 76·2 per cent of mean.

Except for the period from April to August, the distribution of the flow throughout the year was fairly normal.

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

Average inflow to Shannon Catchment	157·1 cbm/sec.
Total average rainfall in Shannon Catchment ...	36·1 inches.
Average water used in Ardnacrusha	89·5 cbm/sec.
Average water used per unit generated	16·5 cbm.
Maximum level reached in Lough Derg	33·59 metres.
Minimum level reached in Lough Derg	32·71 ,,
Average available head at Power Station	28·87 ,,
Maximum available head at Power Station	30·46 ,,
Minimum available head at Power Station	26·32 ,,

SHANNON FISHERIES.

Under the Shannon Fisheries Act, which was passed in February, 1935, certain duties have devolved upon the Board in relation to the Shannon Fisheries. Subject to the primary function of maintaining, working and developing the Shannon hydro-electric works, the Board shall have and perform the duty of managing, conducting and preserving the Shannon Fisheries in accordance with the provisions of the Act.

ADMINISTRATION.

The strength of the Board's regular staff at the 31st of March, 1935, was 1,740.

The Board desires to place on record its continued appreciation of the capable and willing manner in which the members of the staff perform their work.

The Electricity (Supply) (Amendment) (No. 2) Act, 1934, was passed prohibiting, in the interests of public safety, the erection of any building under or within a distance of 25 yards of the Board's transmission or distribution systems.

At the 31st March, 1935, there were 105 Permitted Undertakings holding permits from the Board. This compares with a figure of 104 at the end of the previous year. During the year 6 new permits were granted, 3 permits lapsed as a result of the acquisition of the undertakings, and in 3 cases the renewal of the permit was not sought. Particulars of all the electricity undertakings in the Saorstat will be found in Appendix X.

During the year, 21 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.
HENRY KENNEDY.
LIAM FORDE.

PATRICK J. DEMPSEY, Secretary.

27th June, 1935.

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 and discharges of 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, 1935.

XI.—Units generated in Irish Free State (from 1st April, 1928, to 31st March, 1935).

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
	31/3/34	31/3/35	31/3/34	31/3/35		
Dublin City	30,335	35,221*				
Rathmines	5,709	6,144				
Terenure and Kimmage ...	900	1,184	18,963	20,429		
Crumlin	242	670			77,735,220	33,200
Rathfarnham	322	385				
Pembroke	5,922	6,892*	1,966	2,245		
Templeogue, Firhouse and Woodtown	113	120	284	284		
Dublin Tramways ...	—	—	—	—	21,968,810	5,880
TOTALS ...	43,543	50,616	21,213	22,958	99,704,030	—

* See Page 7 of Report.

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
	31/3/34	31/3/35	31/3/34	31/3/35		
Cork City	6,218	6,936	10,764	11,483	16,322,370	6,500
Henry Ford & Son ...	—	—	—	—	534,600	294
TOTALS ...	6,218	6,936	10,764	11,483	16,856,970	—

ATHLONE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Athlone	597	693	289	304	1,717,440	760
Ballinasloe	158	178	173	196		
Banagher	80	77	44	44	103,580	81
Ferbane	49	55	1	1		
Clara	175	182	131	258	342,720	180
Granard	71	79	Nil	Nil	112,300	63
Edgeworthstown ...	61	60	4	4		
Kilbeggan	61	59	Nil	Nil	51,630	70
Longford	314	344	47	52	435,200	201
Moate	92	90	4	4	63,080	33
Mullingar	345	413	204	219	541,200	252
Roscommon	159	172	12	30	214,230	110
Tullamore	405	425	372	375	451,940	220
TOTALS ...	2,567	2,827	1,281	1,487	4,033,320	—

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
	31/3/34	31/3/35	31/3/34	31/3/35		
Blarney and Kilnap ...	44	63	157	161	253,940	122
Buttevant	109	108	53	53	89,140	50
Clonakilty	264	270	216	224	700,770	380
Kinsale	188	195	41	68		
Bandon	4	4	178	178		
Macroom	Nil	204	Nil	Nil		
Ballineen	41	42	1	10		
Enniskean	20	22	2	2		
Cobh	321	353	64	64	267,080	130
Crosshaven and Bishopstown	97	101	20	35	153,550	114
Fermoy	233	257	61	89	227,470	151
Mallow	300	348	135	132	564,820	240
Midleton	144	153	195	209	259,360	142
Ballinacurra	42	44	105	172		
Cloyne	59	62	15	15		
Mitchelstown	252	262	48	58	229,560	114
Passage West	56	76	5	6	115,330	46
Monkstown	44	49	Nil	Nil		
Rochestown	1	1	Nil	Nil		
Youghal	191	213	121	130	177,620	122
TOTALS ...	2,410	2,827	1,417	1,606	3,038,640	—

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
	31/3/34	31/3/35	31/3/34	31/3/35		
Balbriggan	119	134	89	89	185,280	109
Blackrock and Monkstown	1,095	1,355	173	205		
Cabinteely	50	50	15	15		
Carrickmines	50	60	1	1		
Dalkey	345	390	31	56		
Dundrum	392	636	41	43		
Dun Laoghaire	1,433	1,702	140	156	5,855,460	2,490
Foxrock	168	201	11	19		
Killiney and Ballybrack ...	134	167	11	14		
Kill o' the Grange ...	23	28	5	12		
Stillorgan	50	64	98	113		
Bray	1,097	1,254	1,009	1,009	1,176,880	1,000
Blanchardstown	Nil	31	Nil	Nil		
Castleknock	63	67	17	17	206,790	90
Chapelizod	46	83	50	50		
Finglas	68	98	Nil	4		
Celbridge	77	72	36	46	112,270	64
Leixlip	63	69	39	54		
Clondalkin and Saggart ...	68	81	959	971	1,980,960	464
Tallaght	46	56	128	128		
Delgany and Killincarrig ...	31	35	Nil	Nil	63,430	44
Newtownmountkennedy ...	Nil	15	Nil	30		
Greystones	395	413	2	6	469,440	203
Howth and Sutton ...	682	757	77	77		
Coolock	Nil	13	Nil	Nil		
Baldoyle	54	65	8	8	1,311,640	532
Raheny	40	42	1	2		
Malahide	84	108	Nil	6		
Maynooth	58	65	35	35	138,140	87
Kilcock	49	47	23	23		
Naas	208	230	122	123	441,000	175
Sallins and Clongowes ...	21	24	Nil	Nil		
Rathdrum	78	84	242	242	263,690	151
Rush	105	107	2	2	116,650	77
Lusk	28	29	12	12		
Skerries Pumping Station	Nil	1	Nil	39	5,960	17
Shankill and Loughlinstown	111	135	Nil	Nil	161,720	66
Swords	70	77	5	37	82,990	41
Wicklow	186	198	52	52	169,460	83
TOTALS ...	7,587	9,043	3,434	3,696	12,741,760	—

DUNDALK DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Ardee	1	1	29	29	75,730	28
Arvagh	64	63	11	11	160,650	85
Killeshandra	58	61	76	159		
Bailieborough	53	95	Nil	Nil	64,040	41
Shercock	23	24	Nil	2		
Ballybay	122	135	Nil	Nil	94,410	52
Blackrock (Louth) ...	45	51	16	16	48,750	22
Cavan	268	291	127	129	430,250	200
Clones	248	259	40	40	180,820	101
Cootehill	116	124	15	30	99,620	61
Drogheda	649	731	535	1,269	1,059,010	500
Dundalk	1,272	1,403	2,324	2,439	2,935,130	1,400
An Uaimh (Navan) ...	261	297	161	282	1,192,040	810
Ceanannus Mór (Kells) ...	221	212	137	137		
Trim	116	118	12	12		
Athboy	85	87	Nil	Nil		
Oldcastle	107	109	7	7	204,910	107
Ballyjamesduff	72	72	7	7		
Virginia	20	38	Nil	Nil		
TOTALS ...	3,801	4,171	3,497	4,569	6,545,360	—

GALWAY DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Ballyhaunis	197	199	25	25	128,780	75
Castlebar	312	374	49	249	499,180	184
Claremorris	216	219	138	138	255,030	120
Galway	1,390	1,683	592	721	2,039,380	850
Gort	124	136	53	55	111,090	52
Loughrea	234	242	82	105	231,040	114
Westport	258	318	30	190	359,620	221
TOTALS ...	2,731	3,171	969	1,483	3,624,120	—

LIMERICK DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Ardnacrusha	45	48	225	225	70,650	30
Askeaton	72	74	1	1	40,820	20
Cahir	142	159	83	146	240,180	110
Cappawhite	41	43	3	3		
Cappamore	42	44	2	2		
Doon	44	47	Nil	Nil	149,800	61
Limerick Junction ...	5	8	54	54		
Cashel	200	198	30	33	198,520	105
Ráthluirc (Charleville) ...	208	220	203	204	303,550	177
Ennis	562	598	97	137	536,980	270
Ennistymon	Nil	107	Nil	Nil		
Lahinch	Nil	27	Nil	Nil		
Lisdoonvarna	Nil	28	Nil	Nil	69,030	55
Miltown Malbay ...	Nil	75	Nil	Nil		
Kilmallock	99	113	113	117		
Kilfinane	89	87	26	26		
Hospital	72	70	41	41	442,350	166
Bruff	66	67	2	2		
Knocklong	12	12	101	116		
Killaloe	123	129	192	312		
Newport	57	56	131	131		
Annacotty	4	3	59	89	746,360	250
Castleconnell	Nil	28	Nil	Nil		
Clonlara	1	1	2	2		
Limerick	4,315	4,774	899	1,062	5,004,440	2,000
Nenagh	340	377	53	287	256,260	171
Newcastle West ...	Nil	267	Nil	118		
Rathkeale	159	160	96	96		
Adare	59	61	86	89	451,950	180
Croom	49	53	2	10		
Ardagh	4	4	61	61		
Tipperary	320	348	104	105	328,280	184
TOTALS ...	7,130	8,286	2,666	3,469	8,749,170	—

PORTLAOIGHISE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Abbeyleix	105	108	21	21	119,730	59
Durrow and Ballyroan ...	71	72	6	6		
Athy	224	239	69	94	216,850	110
Muine Bheag (Bagenalstown)	123	128	74	74	285,210	140
Leighlinbridge	27	28	16	60		
Carlow	371	413	224	377	643,650	295
Baltinglass	87	84	10	10		
Castledermot	48	50	36	36		
Callan	104	106	21	34	95,320	72
Castlecomer	102	109	70	70	179,800	79
Freshford	51	55	Nil	3		
Ballyragget	48	46	15	15		
Talbot's Inch	Nil	17	Nil	13		
Edenderry	143	152	54	79	405,960	190
Rathangan	26	31	3	18		
Droichead Nua (Newbridge)	126	131	40	163		
Kildare	122	122	45	38	182,440	92
Kilkenny	677	736	213	293	776,260	415
Mountmellick ...	148	151	26	28	115,500	66
Portarlington	171	186	751	792	1,330,850	300
Monasterevan	Nil	55	Nil	65		
Portlaoighise and Mountrath	404	427	41	419	1,082,110	300
Rathdowney	88	92	8	8	135,090	83
Ballybrophy	Nil	1	Nil	7		
Borris-in-Ossory ...	21	22	Nil	Nil		
Roscrea	306	318	204	206	333,550	150
Stradbally	80	82	10	20	53,320	35
Templemore	124	126	2	2	184,970	81
Borrisoleigh	59	59	34	34		
Thurles	397	457	182	188	502,520	234
Tullow	128	130	44	63	251,560	149
TOTALS ...	4,381	4,733	2,219	3,236	6,894,690	—

SLIGO DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Ballina	315	366	95	100	453,680	214
Crossmolina	79	73	40	40		
Boyle Waterworks ...	1	1	36	36	37,380	15
Ballaghaderreen	Nil	182	Nil	13	98,550	77
Carrick-on-Shannon ...	167	179	31	36	180,500	88
Foxford	87	92	216	218	101,660	101
Letterkenny	229	249	41	50	183,250	105
Sligo	670	740	136	236	1,005,410	520
Strokestown	85	92	Nil	1	130,160	68
Elphin	54	56	Nil	Nil		
Swinford	174	177	53	58	280,650	150
Kiltimagh	138	139	14	15		
TOTALS ...	1,999	2,346	662	803	2,471,240	—

TRALEE DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Abbeyfeale	154	152	5	5	68,560	48
Castleisland	164	167	120	120	255,830	74
Listowel	366	362	279	292	348,290	133
Millstreet	167	167	33	40	70,540	48
Newmarket	133	130	3	3	222,760	127
Kanturk	220	216	35	38		
Tralee	1,044	1,072	480	526	1,029,740	350
TOTALS ...	2,248	2,266	955	1,024	1,995,720	—

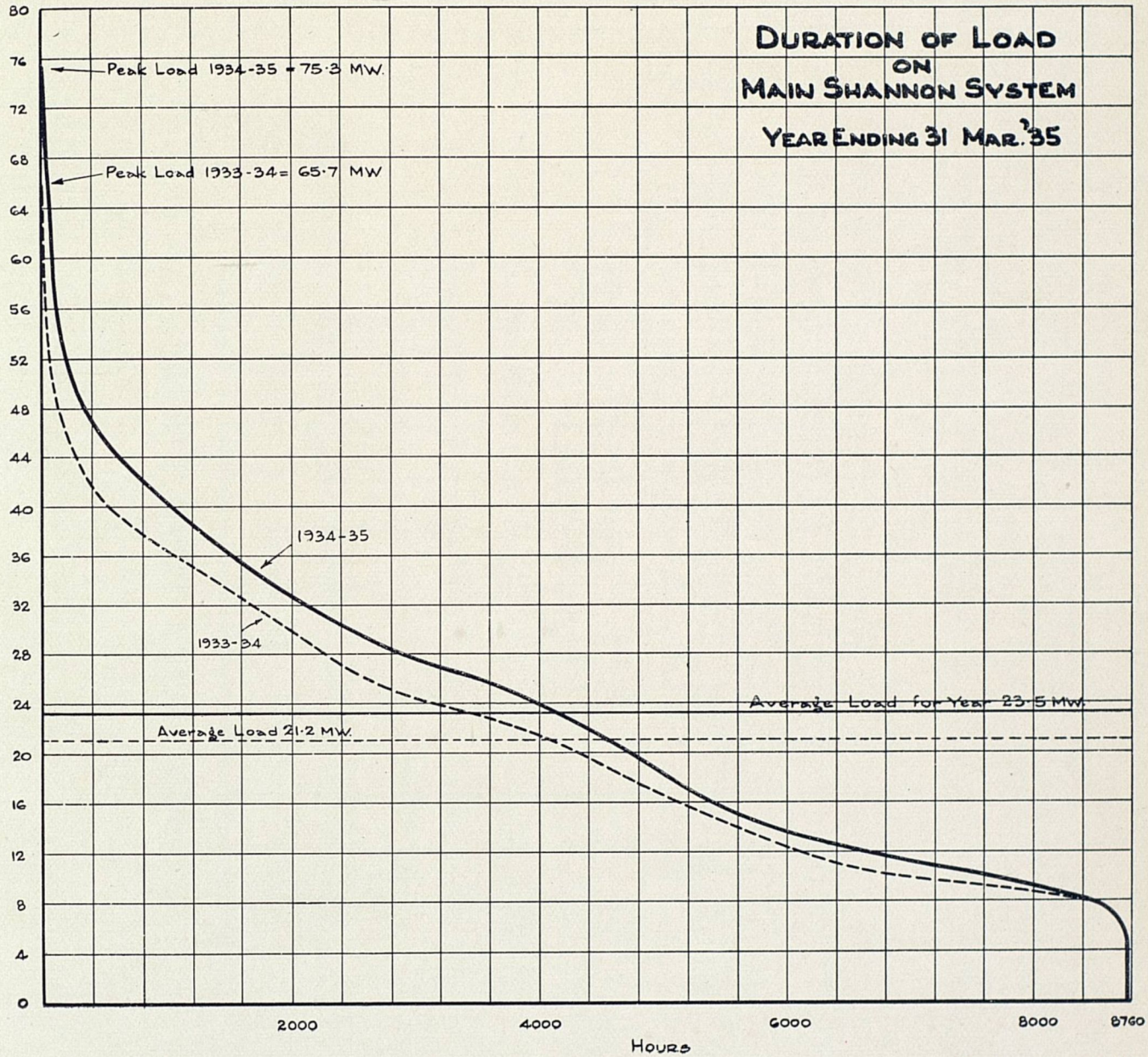
WATERFORD DISTRICT.

Towns Supplied	No. of Consumers at		Industrial Motive H.P. at		Units Supplied at H.T. during Year	Peak Load KW
	31/3/34	31/3/35	31/3/34	31/3/35		
Arklow	332	356	156	167	393,130	120
Cappoquin	109	118	23	26		
Lismore	87	89	8	13	206,670	109
Tallow	82	103	4	7		
Carrick-on-Suir	278	285	127	132	333,100	170
Clonmel	346	369	247	308	582,610	260
Dungarvan	389	445	315	315	476,910	199
Enniscorthy	278	297	268	311	546,660	230
Ferns	Nil	30	Nil	Nil	6,500	12
Fethard	131	136	15	15	76,820	46
Gorey	182	185	36	36	132,420	87
New Ross	292	334	210	233	324,570	160
Tramore	316	335	29	54		
Dunmore East	45	44	12	12	382,050	160
Passage East	35	34	Nil	Nil		
Waterford	1,979	2,219	1,083	1,178	2,112,780	970
Wexford	393	436	863	874	700,850	387
TOTALS ...	5,274	5,815	3,396	3,681	6,275,070	—

Transmission and Distribution Systems in Commission at the 31st March, 1935.

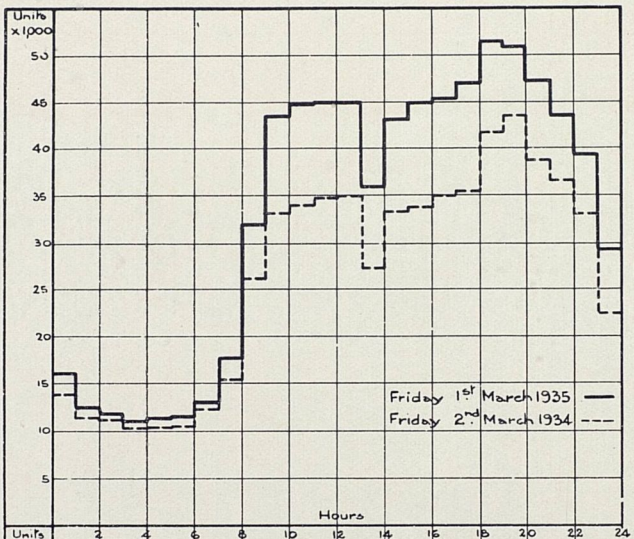
Transformer Stations	Number in Commission	Increase for year	Total Capacity	Increase in capacity for year
110 kV Stations ...	2		For 110/38 kV Stations=68,000 kVA For 110/10 kV Stations=15,000 kVA	
38 kV Stations ...	75	3	111,620 kVA.	1,200 kVA
10 kV Sub-stations	565	55	66,350 kVA.	13,700 kVA
5 kV Sub-stations	96	1	44,808 kVA.	2,000 kVA
D.C. Sub-stations	6	—	14,900 kVA.	—
Frequency-Changing Sub-station ...	1	—	6,320 kVA.	—

Transmission and Distribution Systems	Length	Increase for Year	Description
110 kV Lines ...	184·4 Kms.	—	6×95 sq. mm. Double Circuit.
110 kV Lines ...	95·7 Kms.	—	3×95 sq. mm. Single Circuit.
38 kV Lines ...	1,581 Kms.	—	3×50 sq. mm.
38 kV Lines ...	266·88 Kms.	·886 Kms.	3×35 sq. mm.
10 kV Lines ...	1,887·01 Kms.	137·01 Kms.	—
38 kV Cables ...	28·6 Kms.	—	3×150 sq. mm.
38 kV Cables ...	7·2 Kms.	—	3×95 sq. mm.
10 kV Cables ...	142·0 Kms.	8 Kms.	—
5 kV Cables ...	227·2 Kms.	1·2 Kms.	—

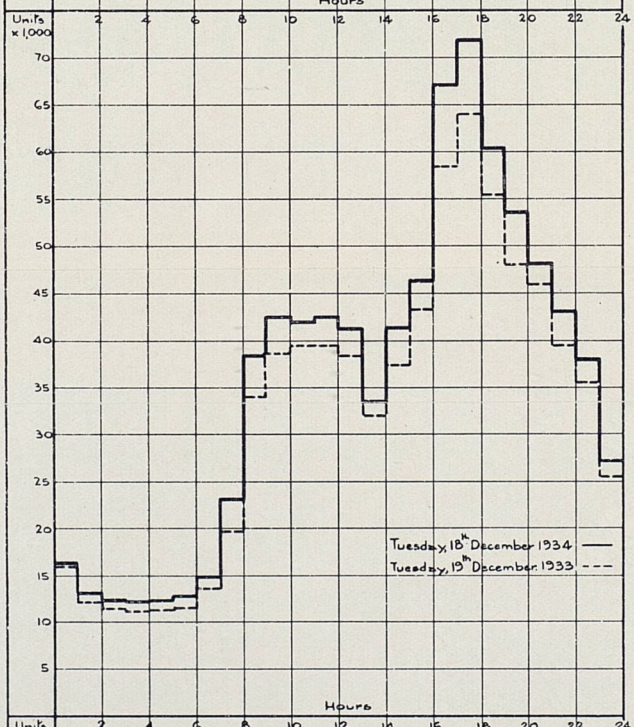


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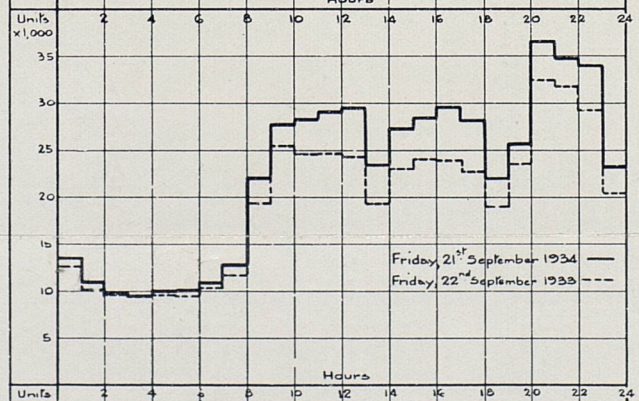
TYPICAL DAILY LOAD CURVES.



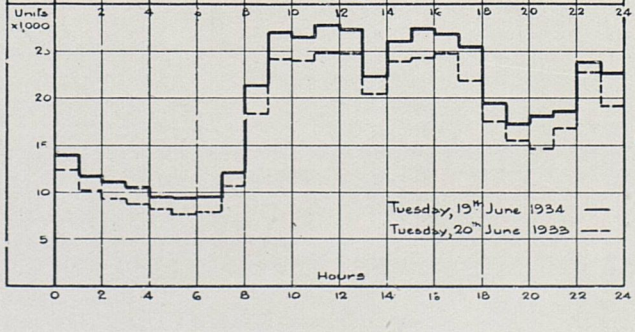
March.



December.



September.



June.

APPENDIX IV

To face page 28 (2)

Distribution at High Tension of Units Generated
Year ending the 31st March, 1935.

District		High Tension Units	Percentage of Total
Dublin City, Fleet Street	67,466,400		
,, ,, Milltown	10,268,820		
DUBLIN CITY TOTAL		77,735,220	37·7
Dublin United Tramways Co. (1896), Ltd.		21,968,810	10·7
Cork City, D.C.	12,834,710		
,, ,, A.C.	3,487,660		
CORK CITY TOTAL		16,322,370	7·9
Messrs. H. Ford & Son, Ltd.		534,600	0·3
Athlone District		4,033,320	2·0
Cork No. 2 District		3,038,640	1·5
Dublin No. 2 District		12,741,760	6·2
Dundalk District		6,545,360	3·2
Galway District		3,624,120	1·8
Limerick District		8,749,170	4·2
Portlaoighise District		6,894,690	3·3
Sligo District		2,471,240	1·2
Tralee District		1,995,720	1·0
Waterford District		6,275,070	3·0
Compensatory and other Non-chargeable Units ...		1,055,350	0·5
Board's Own Consumption		5,227,000	2·5
Losses		26,893,130	13·0
NET TOTAL GENERATED ...		206,105,570	100·0
Generated for Electric Boilers		4,085,800	
GROSS TOTAL GENERATED ...		210,191,370	

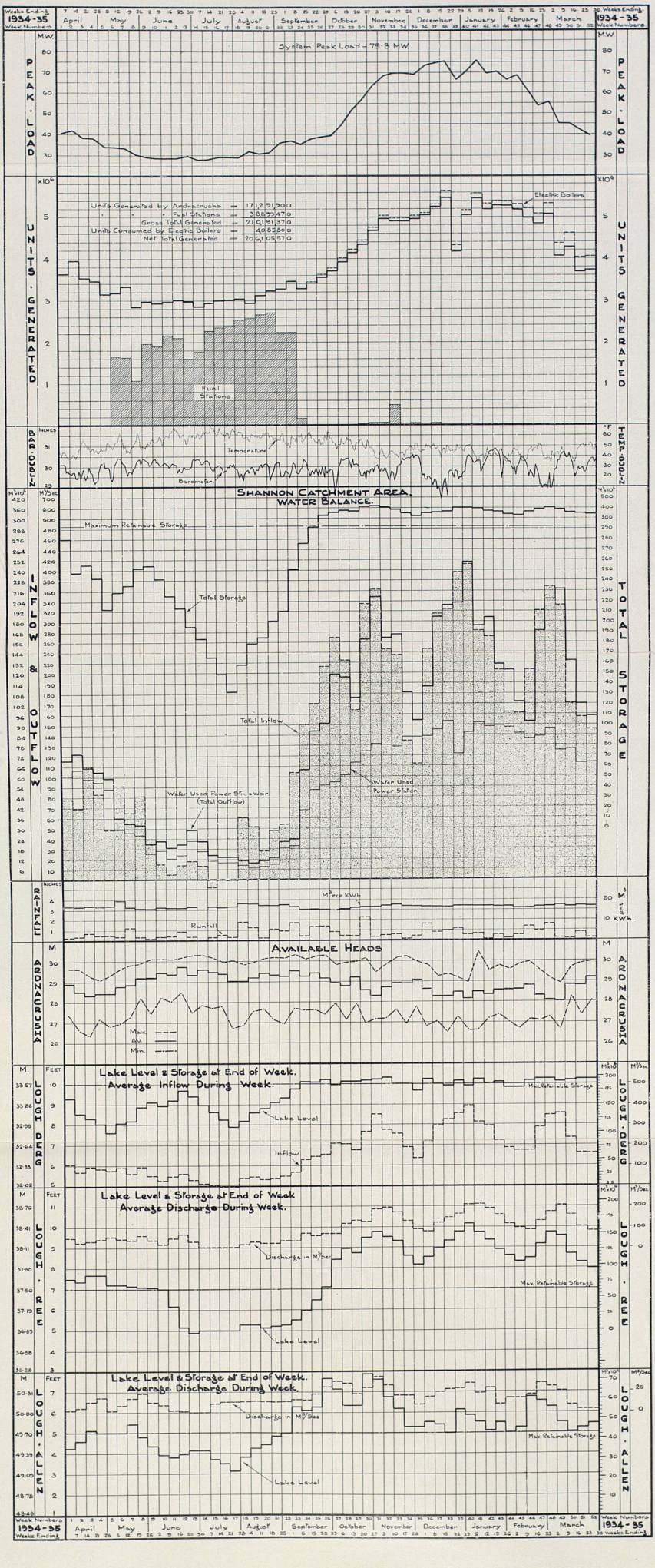
Monthly Output (KWH) of the Board's Generating Stations Year ending 31st March, 1935.

Month (Calendar)	Ardnacrusha *less* Electric Boilers	Pigeon House (Dublin)	Cork	Letterkenny	Bailieboro' and Killeshandra	Monaster-evan	Ballagha-derreen	Newcastle West	Macroom	Total of all Stations
April ...	15,288,800	—	—	11,101	1,400	993	—	—	—	15,302,294
May ...	8,116,400	5,714,300	33,362	10,075	900	780	7,400	—	—	13,883,217
June ...	4,338,400	8,325,900	—	11,263	—	320	5,600	—	—	12,681,483
July ...	3,153,700	9,648,100	173,174	12,887	—	—	2,469	1,312	—	12,991,642
August ...	2,559,600	10,664,400	698,144	14,876	—	—	3,599	4,230	—	13,944,849
September	11,817,300	2,695,500	—	16,555	—	—	5,300	6,210	—	14,540,865
October ...	18,272,800	32,400	—	19,321	—	—	10,500	8,971	4,671	18,348,663
November	20,620,600	546,900	—	21,539	—	—	12,200	10,567	6,331	21,218,137
December	21,855,800	—	5,902	24,555	—	—	5,700	12,795	7,805	21,912,557
January ...	23,504,200	—	—	23,368	—	—	—	11,463	7,219	23,546,250
February ...	20,150,600	—	—	19,124	—	—	—	9,071	2,788	20,181,583
March ...	17,527,900	—	—	17,758	—	—	—	8,372	—	17,554,030
TOTALS	167,206,100	37,627,500	910,582	202,422	2,300	2,093	52,768	72,991	28,814	206,105,570

MAIN SHANNON SYSTEM.

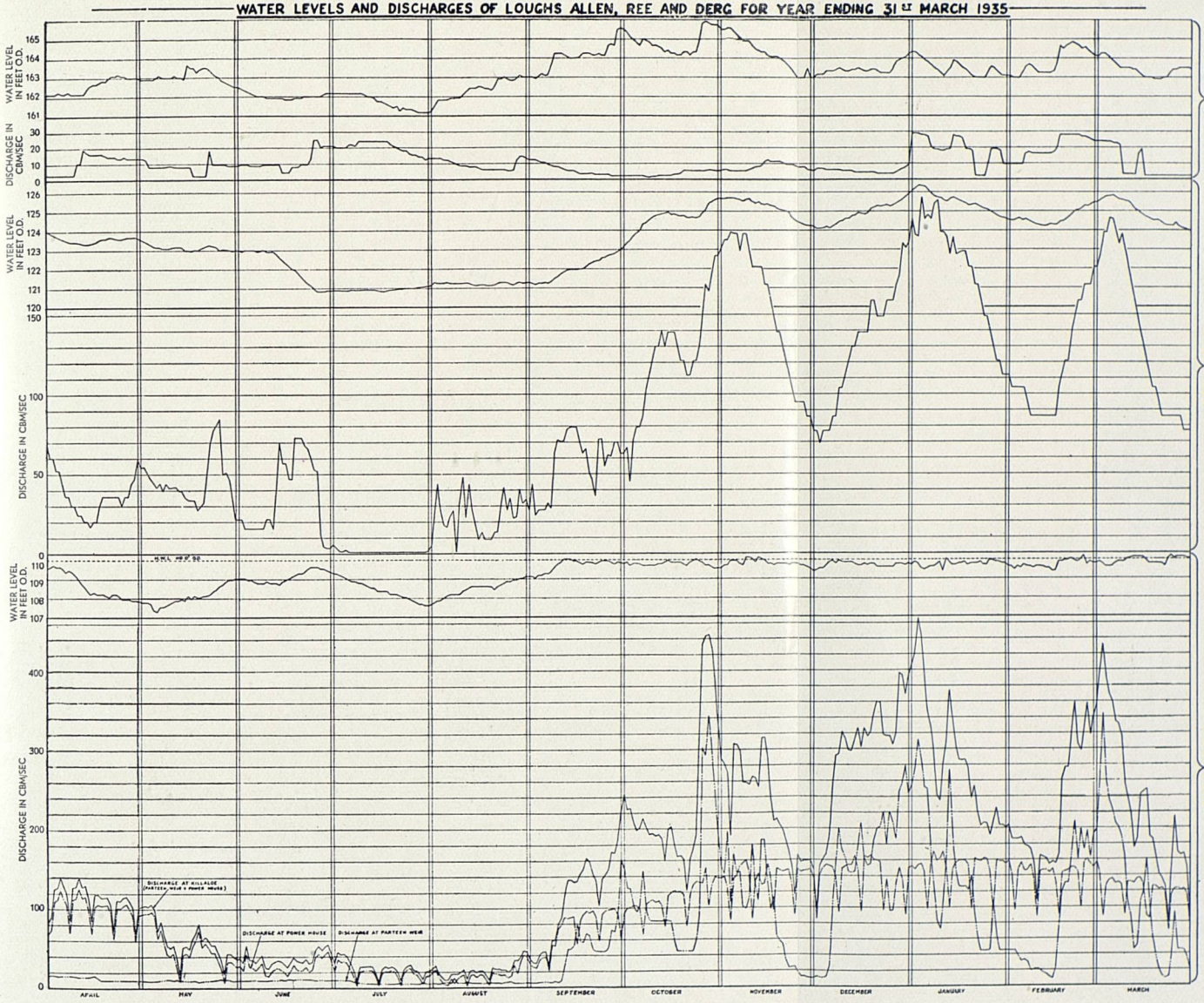
Weekly Summary of Operating Conditions.

Year Ending March 31st, 1935.



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WATER LEVELS AND DISCHARGES OF LOUGHS ALLEN, REE AND DERG FOR YEAR ENDING 31ST MARCH 1935



To face page 30 (2)

Capacity of the Board's Main Generating Stations at the 31st March, 1935.

Generating Stations	Type	Installed Capacity
ARDNACRUSHA ...	Hydro	(*a*) 3 Francis Turbines, each rated at 30,000 H.P. coupled to 30,000 kVA generators, each giving an output of approximately 21,000 KW. 1 Kaplan Turbine rated at 30,000 H.P. coupled at 25,000 kVA generator. Total capacity at Generator Terminals :— 93,500 KW. at 30 m. head, 77,500 KW. at 25·5 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 44,000 KW. approximately. (*b*) Steam accumulator capacity of approximately 5,000 KW. for 45 minutes. (*c*) Generator capacity equivalent to 31,000 KW. *N.B.*—New Turbo Alternator of 23,000 KW. capacity to be completed in May, 1935. (*d*) 1 Transformer (38/5 kV) of 15,000 kVA capacity. *N.B.*—New Transformer (38/5 kV) of 20,000 kVA to be completed in May, 1935.
CORK	Steam	(*a*) Steam capacity equivalent to 5,000 KW. approximately. (*b*) Generator capacity equivalent to 6,500 KW. (D.C.).

Particulars of Electricity Undertakings which at 31st March, 1935, had not been acquired by the Electricity Supply Board.

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

NOTE.—In 18 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, 1935
				Lighting	Heating and Cooking	Power	
Ardara	411	The Ardara Woollen & Industrial Co., Ltd ...	87	10d.	1d.	—	12,935
Ardee	1,729	The Ardee Electric Co., Ltd.	139	1/–	4d.	1½d. & 4d.	77,952
Ardfinnan	302	Mulcahy, Redmond & Co., Ltd.	7	1/6	—	—	1,410
Athenry	993	Ruane's Electric Light Works	125	1/–	6d. & 3d.	6d., 4d. & 3d.	20,174
Balla	259	John McEllin	28	1/–	6d.	6d.	2,883
Ballinlough	275	Ballinlough Electricity Supply Co. ...	144	1/–	—	5d.	3,924
Ballinamore	712	F. J. McAvinia	132	1/–	—	—	12,500
Ballindine	203	E. W. Griffith	25	8d. & 10d.	—	—	1,910
Ballinrobe	1,337	The Ballinrobe Electric & Woollen Co., Ltd.	196	10d.	3d.	3d.	43,345
Ballybofey and Stranorlar	1,250	Ballybofey & Stranorlar Electric Supply Co.	131	1/–	6d.	6d.	13,341
Ballybunion	378	The Ballybunion Electricity Supply Co., Ltd.	108	1/–	6d.	6d.	9,561
Ballyconnell	314	William Stewart	67	1/–	—	—	5,500
Ballymote	750	The Ballymote E. L. & Town Improvements Co.	95	1/–	Nil	Nil	13,744
Ballyshannon	2,112	John Myles & Co.	600	8d.	1d. & 2d.	2d. & 3d.	116,505
Ballysodare	253	W. G. & T. Pollexfen	32	6d./7d.	—	—	4,935
Bandon	2,830	The Bandon Milling & Electric Lighting Co., Ltd.	572	*10d.	4d. to 1d.	4d. to 1d.	343,434
Bantry	2,685	The Bantry Electric Light Co., Ltd. ...	341	*11d.	4d.	4d. to 1d.	103,304
Belmullet	650	M. McEntyre	11	1/–	—	9d.	2,145
Belturbet	1,307	William Stewart	138	10d.	—	—	26,415
Birr	3,402	The Birr E. L. & Power Co., Ltd. ...	414	(1d. plus 8d.	£70 p.a. for 3d. to 4d.	U.D.C. power). 3d. to 4d.	95,467
Blacklion	116	Capt. W. J. Nixon	25	1/–	—	—	1,301
Boyle	2,323	George Stewart	82	7d.	1d. to 3d.	2d.	28,272

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

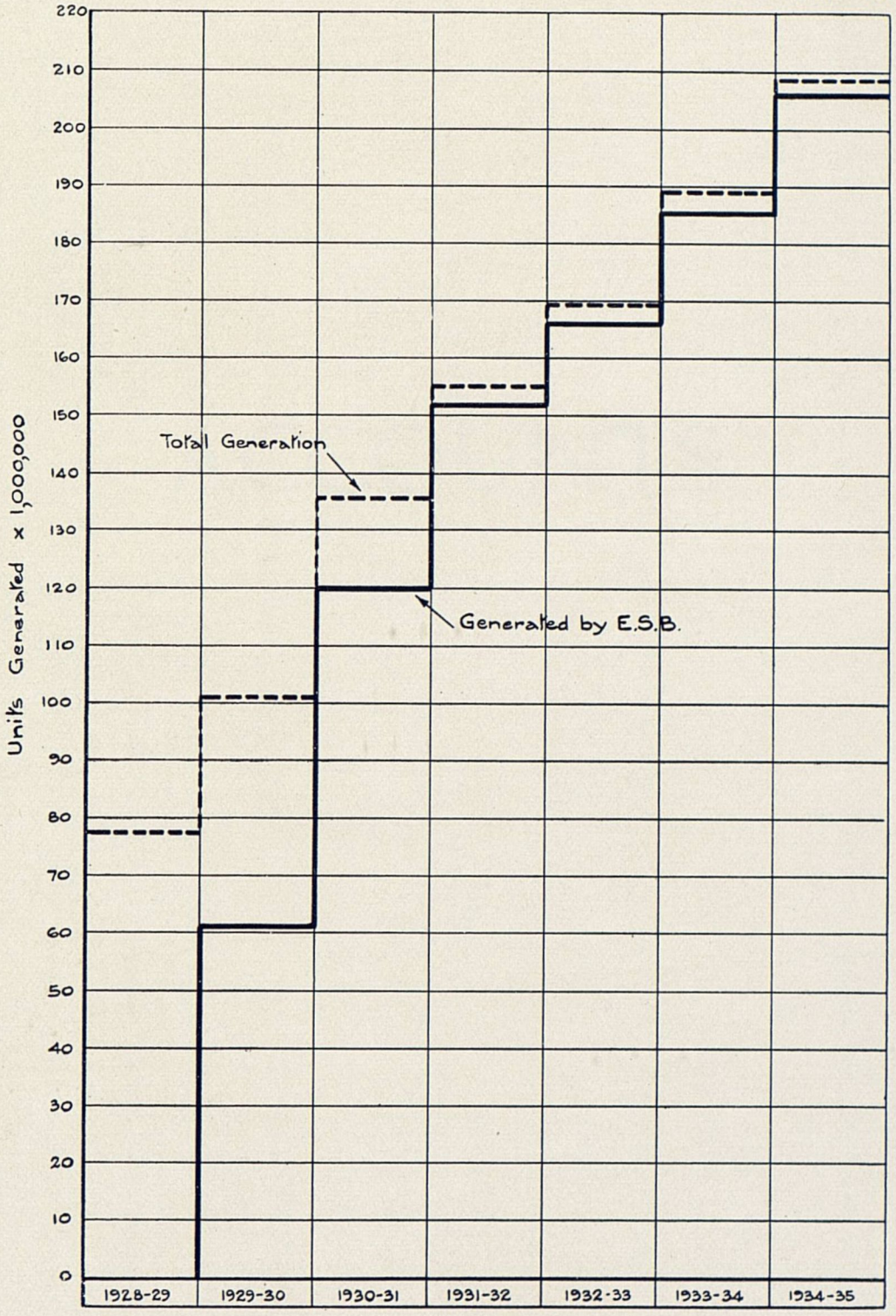
(1) Town	(2) Population	(3) Name of Undertaker	(4) No. of Consumers	(5) Normal Tariffs per Unit for			(6) Units Sold, Year ended 31st March, 1935
				Lighting	Heating and Cooking	Power	
Boyle	—	John Stewart	250	6d. to 7d.	1d.	2d. to 3d.	88,923
Borris	996	Borris Electricity Co., Ltd.	30	1/–	—	—	4,900
Buncrana	2,309	The Buncrana Electric Supply Co. ...	300	4d. to 7d.	2½d.	2½d. to 1½d.	162,342
Bundoran	1,339	John Myles & Co.	405	6d.	2d.	2d. & 3d.	103,425
Cahirciveen	1,773	The Cahirciveen E. L. & Power Co., Ltd.	244	10d.	6½d.	6½d.	29,090
Carlingford	547	The Carlingford Electricity Co., Ltd. ...	44	1/–, 10d., 6d., 3d.	10d. & 3d.	5d.	2,109
Carndonagh	719	James Kelly	75	10d.	2d. to 4d.	4d.	17,000
Carrickmacross ...	1,195	The Carrickmacross Lighting Co., Ltd. ...	203	1/–	6d.	4d.	40,657
Carrigart	124	Miss M. Maguire	15	1/–	—	—	738
Castleblayney	1,550	The Castleblayney E. L. & P. Co. ...	165	10d.	—	6d.	38,567
Castlepollard	492	The Irish Electrical Construction Co. ...	70	11d.	—	5d.	7,795
Castlerea	1,207	The Castlerea Lighting & Milling Co. (1923) Ltd.	147	1/–	5d.	6d.	27,543
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	74	11d.	—	—	9,235
Collooney	319	W. A. G. Middleton	59	7½d.	1½d.	1½d.	14,012
Cloughjordan	404	Martin Gleeson	80	1/–	6d.	—	10,350
Dingle	1,998	The Dingle E. L. & Power Co.	157	10d.	5d.	5d. & 4d.	23,485
Donegal	1,214	J. McGowan & Sons	153	10d.	3d.	4d.	20,824
Doneraile	809	The Doneraile Saw Mills, Ltd.	63	10d.	6d.	—	6,336
Drumkeeran	250	The Drumkeeran Electricity Supply Co., Ltd.	49	1/–	4d.	—	4,285
Drumshambo	440	C. S. Laird	86	8d.	3d.	—	16,938
Dromahair	265	Paul Jeiter	27	9d.	3d. & 1½d.	—	10,425
Dungloe	577	The Templecrone Co-op. Agrl. Society, Ltd.	112	8d.	£5 & £3 per year for radiators.		13,500
Dunmanway	1,565	The Dunmanway E. L. Co., Ltd. ...	258	9d.	4d.	4d.	31,277
Dunmore	530	Dunmore Electric Light Co., Ltd. ...	63	1/–	—	5d.	2,245
Enniskerry	214	The Enniskerry E. S. Co-op. Society ...	45	1/–	—	4d.	6,582
Foynes	358	Foynes Saw Mills, Ltd.	50	8d.	—	4d.	7,688
Glendalough	—	Messrs. Wynne	10	Included in rent.			5,000
Glenties	366	Glenties Electricity Supply Co., Ltd. ...	65	1/–	—	4d.	9,732
Graiguenamanagh ...	799	John M. Murphy & Son (Graiguenamanagh), Ltd.	48	1/–, 9d. & 6d.	—	3½d.	11,169
Kenmare	883	O'Shea Bros.	158	4d. to 10d.	2d.	2d.	21,750
Kilkee	1,682	Kilkee Electricity Supply Co., Ltd. ...	249	1/–	—	6d.	22,855
Kilkelly	191	Michael Snee	28	1/–	—	—	4,800
Killarney (*A.*) ...	5,328	The Kerry Electric Supply Co.	528	10d. to 8d.	1½d. to ½d.	2½d. to 1d.	274,261

(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, 1935
				Lighting	Heating and Cooking	Power	
Killorglin	1,057	The Killorglin E. L. & Power Co., Ltd. ...	149	10d.	4d.	4d.	22,247
Killybegs	571	Rev. Bro. Superior, St. Columba's E. L. Station	70	1/–	—	—	7,192
Kilmacthomas ...	407	Patrick Kiersey	29	10d.	5d.	2½d.	5,043
Kilrush	3,345	The Kilrush E. L. & Power Co., Ltd. ...	364	1/–	6d.	6d.	45,920
Kingscourt	616	J. W. Gilmore	44	1/–	—	—	4,260
Letterfrack	—	The Superior, Industrial School	9	8d.	—	—	1,700
Manorhamilton ...	989	Manorhamilton & District E. L. Co., Ltd. ...	116	6½d. & 9½d.	2d.	2d.	33,804
Milford	383	William Russell	23	1/–	—	—	1,800
Mohill	653	Edward Cope	88	1/–	—	6d.	17,651
Monaghan	4,636	The Monaghan Lighting Co., Ltd. ...	279	9d.	4d.	4d.	88,301
Monasterevan	574	Samuel E. Holmes	31	9d. & 11d.	—	—	6,819
Mountbellew	304	Mountbellew Co-op. Agrl. Dairy Society, Ltd.	39	1/–	—	—	7,374
Mountrath	1,165	Mountrath Electric Supply Co., Ltd. ...	104	1/–	—	3d.	18,392
Moville	941	The Moville Electric Supply Co.	161	10d. & 9d.	—	4d.	11,270
Newtownbarry ...	709	The Newtownbarry E. L. & Power Co., Ltd.	97	1/–	4d.	4d.	13,530
Pettigo	382	Shaw Bros.	36	8d.	—	—	4,240
Piltown	273	Piltown Co-op. Agrl. & Dairy Society, Ltd.	32	1/–	—	—	1,619
Portumna	892	The Portumna E. L. & Power Co., Ltd. ...	132	10d. & 1/–	—	7d.	18,427
Ramelton	976	Robert J. Campbell	56	9d. & 6d.	6d.	—	9,481
Raphoe	748	Raphoe Electric Lighting Co., Ltd. ...	65	1/–	—	6d.	8,378
Rathfarnham	657	The Rathfarnham Mfg. Co., Ltd. ...	21	3d.	3d.	3d.	10,238
Riverstown	140	Flanagan Bros.	9	1/2	—	—	750
Shillelagh	133	The Earl of Fitzwilliam	6	6d. and 435 Units for £11.	—	—	1,720
Sixmilebridge	303	James O'Flynn & Sons, Ltd.	18	6d.	—	2½d.	47,500
Skerries	1,973	W. Flanagan	348	1/– to 6d.	6d. to 3d.	4d. to 3½d.	80,659
Skibbereen	2,627	The Skibbereen Gas & E. L. Co., Ltd. ...	307	1/–, 11d., 10d.	4d. to 3d.	3d.	46,740
Thomastown	746	Ryan & Son	57	1/–, 1/1, 1/2	—	9d.	8,262
Tuam	3,293	The Tuam Electricity Co., Ltd.	403	9d.	4d.	4d.	122,712
Tubbercurry	748	The Tubbercurry E. L. and Town Improvements Co., Ltd.	96	1/2	7d.	7d.	15,200
Windgap	77	Windgap Co-op. Dairy Society, Ltd. ...	9	Fixed yearly rent including Wiring, etc.	—	—	1,360
Woodford	247	John Roche	21	10d.	—	—	6,080

UNITS GENERATED IN IRISH FREE STATE

From April 1st, 1928, to March 31st, 1935.

APPENDIX XI



Financial Years Ending March 31st.

To face page 34

ACCOUNTS

No. 1.

Dr. **INSTALLATIONS TRADING ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1935.** *Cr.*

	£ s. d.		£ s. d.
To Cost value of work for which credit had not been taken at 31st March, 1934 ...	8,161 4 4	By Credit taken for contracts completed and charged	43,520 8 6
„ Cost of installation work carried out during the year	35,563 10 6	„ Cost value of work for which credit has not yet been taken	11,162 0 8
„ Gross profit, carried down	10,957 14 4		
	£54,682 9 2		£54,682 9 2
To Salaries, wages and state insurance £3,981 16 5		By Gross profit, brought down	10,957 14 4
„ Travelling expenses ... 682 0 8			
„ Rents and rates 237 13 3			
„ Sundry expenses 392 2 1			
„ General overhead expenses and interest, as apportioned ... 4,765 9 4			
	10,059 1 9		
BALANCE, carried to PROFIT AND LOSS ACCOUNT	898 12 7		
	£10,957 14 4		£10,957 14 4

ACCOUNTS

No. 2.

Dr. **MERCHANDISE TRADING ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1935.** *Cr.*

	£ s. d.		£ s. d.
To Cost value of transactions for which credit had not been taken at 31st March, 1934	6,664 17 7	By Credit taken for sales	34,833 12 3
,, Cost of goods issued as sales	26,666 7 10	,, Cost value of transactions for which credit has not yet been taken	6,801 18 8
,, Sundry costs in connection with sales ...	1,658 6 4		
,, Gross profit, carried down	6,645 19 2		
	£41,635 10 11		£41,635 10 11
To Salaries, wages, commission and state insurance ... £2,132 7 1		By Gross profit, brought down	6,645 19 2
,, Travelling expenses ... 185 13 10		,, Hireage receipts on hire-purchase appliances	185 7 6
,, Rents and rates 255 10 3			
,, Sundry expenses 405 1 9			
,, General overhead expenses and interest, as apportioned ... 2,997 14 1			
	5,976 7 0		
,, BALANCE, carried to PROFIT AND LOSS ACCOUNT	854 19 8		
	£6,831 6 8		£6,831 6 8

No. 3.

Dr. **REVENUE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1935.** *Cr.*

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To GENERATION :—			By Charges for electricity, etc. :—		
Operating expenses	81,291 4 8		General consumers ...	...1,158,604 3 1	
Maintenance and repair	30,758 0 6		Public lighting	... 70,552 18 2	
		112,049 5 2	Meter and other rents	... 29,230 10 2	
,, TRANSMISSION :—					1,258,387 11 5
Operating expenses	4,760 16 5				
Maintenance and repair	16,742 8 3				
		21,503 4 8			
,, DISTRIBUTION :—					
Operating expenses	90,923 8 7				
Maintenance and repair	42,025 12 1		,, Miscellaneous revenue		7,069 3 0
		132,949 0 8			
,, GENERAL MANAGEMENT AND OVERHEAD EXPENSES :—					
Salaries, wages, commission and state insurance	197,127 2 11				
Transport and travelling expenses ...	17,859 9 6				
Rents and rates of office and store premises	7,681 9 6				
Insurances	5,298 12 3				
Stationery	9,502 1 2				
Telephones and postage	10,956 19 0				
Up-keep of buildings	3,674 3 9				
Up-keep of furniture and equipment	2,431 19 7				
Publicity	8,781 4 7				
Exhibition and demonstration ...	11,200 7 7				
Legal expenses	378 8 2				
Audit fees	1,000 0 0				
Electricity consumed	2,570 16 8				
Sundry expenses	449 16 10				
	278,912 11 6				
Less : Apportionment charged to other accounts and to capital works ...	24,954 4 11				
		253,958 6 7			
,, Pensions and compensation to officers of acquired undertakings		15,652 4 4			
,, Provision for bad debts		3,361 16 11			
,, Depreciation of stocks of material		6,130 6 7			
,, BALANCE, carried to PROFIT AND LOSS ACCOUNT ...		719,852 9 6			
		£1,265,456 14 5			£1,265,456 14 5

No. 4.

Dr. **PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1935.** *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 ...	719,852	9	6
Under section 13, in respect of advances under—	£ s. d.	£ s. d.					
(*a*) section 12 (2) ...	7,799 19 10			,, Loan-stock sinking funds' and other investment income	4,640	6	5
(*b*) section 12 (3) ...	95,036 15 1						
Under section 15 (3) in respect of the liability transferred from the Shannon Power Development Fund under Section 15 (2)	290,793 1 0			,, Discount at which loan-stock was redeemed	1,475	7	0
,, Interest payable to the Minister for Finance under the Electricity (Supply) (Amendment) Acts, 1931 to 1934	96,052 19 1			,, Interest receivable	856	0	4
		489,682 15 0					
,, Interest on loans and loan-stocks of acquired undertakings		18,708 13 3					
,, Other interest		92 0 11					
		508,483 9 2					
Less : Apportionment charged to other accounts and to capital works ...		15,222 0 0					
			493,261 9 2				
,, Loan-stock management charges			382 17 1				
,, Gross contributions to loan-stock sinking funds of acquired undertakings			28,125 16 5				
,, Reserves, being the amount of capital of acquired undertakings repaid or provided for repayment			37,312 1 10				
,, Premium at which loan-stock was redeemed			606 8 8				
,, BALANCE, carried down			167,135 10 1				
			£726,824 3 3				£726,824 3 3
To Annuity in respect of moiety of advance by the Minister for Finance under the provisions of the Cork Tramways (Employees' Compensation) Act, 1933			1,589 0 6	By BALANCE brought down			167,135 10 1
,, Provisions for :—				,, Installations Trading Profit ...	£898 12 7		
Depreciation of furniture and fittings	4,000 0 0			,, Merchandise Trading Profit ...	854 19 8		
Loss on retirement of assets ...	8,000 0 0						1,753 12 3
			12,000 0 0				
,, BALANCE, carried down			155,300 1 10				
			£168,889 2 4				168,889 2 4
To GENERAL RESERVE			173,102 6 1	By BALANCE, brought down			155,300 1 10
				,, Balance brought forward from last year's accounts ...			17,802 4 3
			£173,102 6 1				£173,102 6 1

No. 5.

Dr. **CAPITAL ACCOUNT FOR THE YEAR ENDED 31st MARCH, 1935.** *Cr.*

	Total Expenditure to 31st March, 1934 less— amounts written off	Expenditure during year to 31st March, 1935 less— amounts written off	Total Expenditure to 31st March, 1935 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	1,214,416 3 8	(—) 64,332 17 2	1,150,083 6 6
„ 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	323,114 1 2	85,402 6 4	408,516 7 6
Transmission System ...	416,821 2 1	43,089 12 8	459,910 14 9
Distribution System ...	1,519,947 15 7	246,506 18 2	1,766,454 13 9
Plant and Machinery	236,984 0 11	154,530 6 2	391,514 7 1
Motor Transport ...	21,844 12 11	4,675 2 6	26,519 15 5
Furniture and Office Machinery ...	37,777 6 9	(—) 10,188 11 0	27,588 15 9
Sundry Equipment ...	28,760 1 6	(—) 6,935 9 2	21,824 12 4
Preliminary and Development Expenses	294,519 19 5	47 6 7	294,567 6 0
	£ 10,028,407 15 1	£452,794 15 1	£10,481,202 10 2
Non-Classified Expenditure :— New works in progress			187,131 14 7
Total ...			£10,668,334 4 9
			£10,668,334 4 9

	Total Receipts to 31st March, 1934 less— redemptions	Receipts during year to 31st March, 1935 less— redemptions	Total Receipts to 31st March, 1935 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 ...	463,201 17 1	(—) 110,401 18 7	352,799 18 6
Liability under Section 39 (7)	8,529 3 4	(—) 588 10 9	7,940 12 7
„ 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) Acts, 1932 and 1934	1,808,074 1 4	319,747 11 4	2,127,821 12 8
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 ... £	10,155,354 6 11	£208,757 2 0	£10,364,111 8 11
By Balance			304,222 15 10
			£10,668,334 4 9

No. 6.

STATEMENT OF CAPITAL RECEIPTS AND REDEMPTION THEREOF TO THE 31st MARCH, 1935.

	Total Receipts to 31st March, 1935	Redeemed			Balance of Capital Receipts Outstanding at 31st March, 1935
		Total to 31st March, 1934	During year to 31st March, 1935	Total to 31st March, 1935	
	£ 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	740,955 7 5	277,450 7 4	110,705 1 7	388,155 8 11	352,799 18 6
Liability under Section 39 (7) ...	14,250 12 3	4,741 14 9	1,568 4 11	6,309 19 8	7,940 12 7
The 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) Acts, 1932 and 1934	2,127,821 12 8	—	—	—	2,127,821 12 8
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
	£10,758,576 17 6	£282,192 2 1	£112,273 6 6	£394,465 8 7	£10,364,111 8 11

No. 7.

Dr. **BALANCE SHEET AS AT THE 31st MARCH, 1935.** *Cr.*

LIABILITIES.	£ s. d.	ASSETS.	£ s. d.
To Receipts, as per Capital Account ...	10,364,111 8 11	By Expenditure, as per Capital Account ...	10,668,334 4 9
„ Sundry Creditors	311,007 10 6	„ Stocks on Hand or in Transit ...	231,067 19 3
„ Working Capital Loan of an acquired undertaking	21,600 0 0	„ Cost Value of Installations Work and Sales for which Credit has not been taken	75,389 16 8
„ Sinking Funds for loan-stocks of acquired undertakings—		„ Sundry Debtors, after providing for bad and doubtful debts	314,848 0 6
Balance of amount provided by undertakings £4,554 17 0		„ Cash in Hand or with Banks ...	83,683 12 4
Balance of amount provided in accordance with section 39 (6) of the Electricity (Supply) Act, 1927 ... ... 43,904 17 11		„ Sinking Funds (held by local authorities) for loan-stocks—	
	48,459 14 11	Investments (at cost) £43,395 4 1	
„ Amount reserved in respect of capital loans of acquired undertakings repaid, capital receipts non-repayable and sale of assets, less assets retired	388,913 2 6	Cash not invested ... 5,064 10 10	
			48,459 14 11
„ Reserves: Amount provided by acquired undertakings ... £80,719 5 3			
Other reserves and provisions 206,972 6 4			
	287,691 11 7		
	£11,421,783 8 5		£11,421,783 8 5

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, 1935, 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 ;

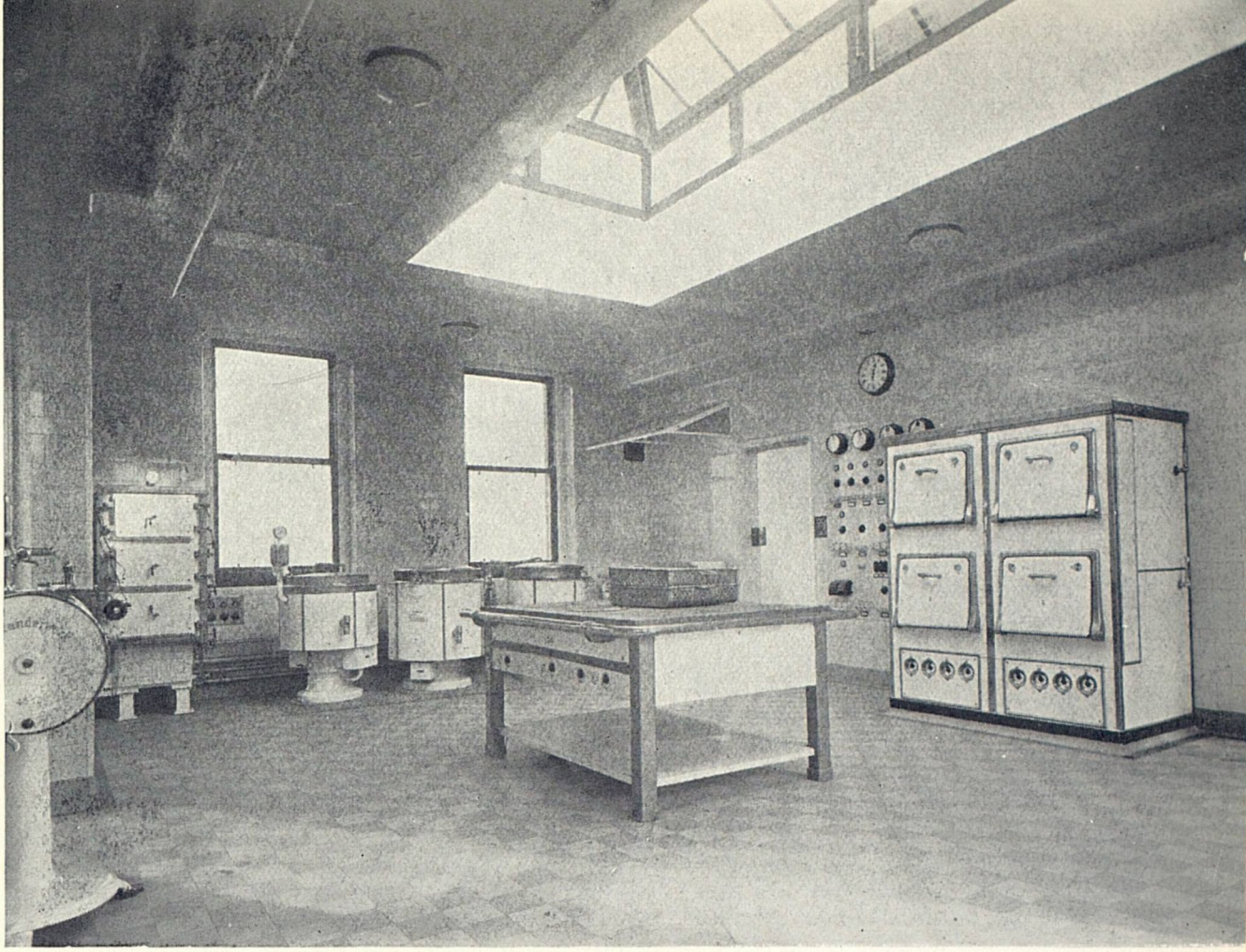
(*b*) the Profit and Loss Account has been relieved of a proportion of the interest chargeable which has been transferred to Installations Trading Account, to Merchandise Trading Account, and to capital expenditure on new works under construction ;

(*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.

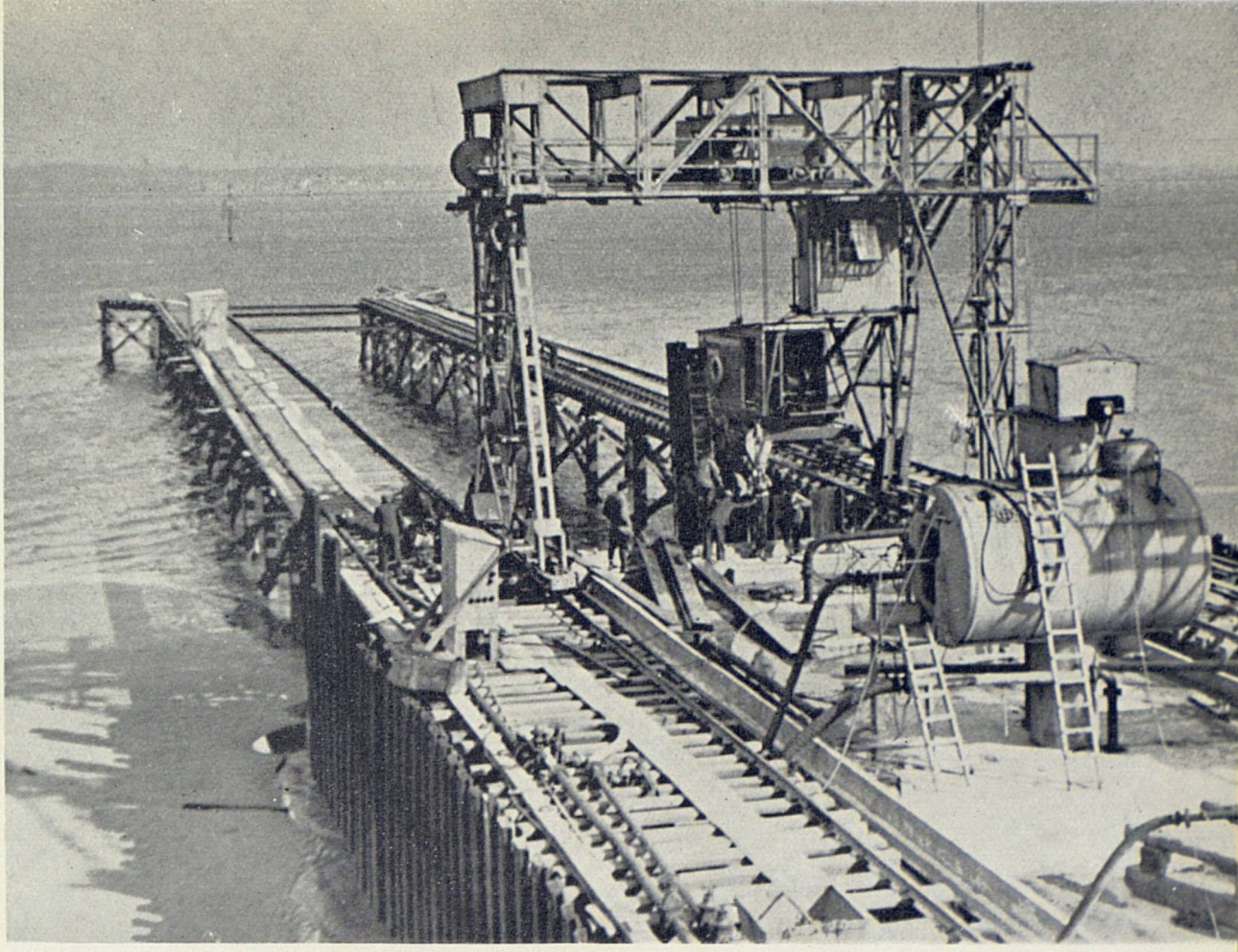
KENNEDY, CROWLEY & CO.,
Auditors.

4 AND 5 WESTMORELAND STREET,
DUBLIN, 27*th June*, 1935.

AUDITORS' REPORT.



Section of the Kitchen of the All-Electric National Maternity Hospital, Dublin.



SINKING OF THE FIRST RIVER CAISSON DURING CONSTRUCTION OF THE NEW COOLING WATER SYSTEM AT PIGEON HOUSE STATION.



An example of good Street Lighting from Cork City.

Alex. Thom & Co., Ltd