ELEVENTH ANNUAL REPORT

OF THE

ELECTRICITY SUPPLY BOARD

(Including Report on Shannon Fisheries.)

DUBLIN
1937-38

ELEVENTH

ANNUAL REPORT

OF THE

ELECTRICITY SUPPLY BOARD

Year ended 31st March, 1938.

(Including Report on the Shannon Fisheries.)

(Presented to the Minister for Industry and Commerce in pursuance of Section 32 (1) and Section (7) 4 of the Electricity (Supply), Act, 1927, and Sections 17 and 18 of the Shannon Fisheries Act, 1935.

ELECTRICITY SUPPLY BOARD.

Report and Accounts

YEAR ENDED 31st MARCH, 1938.

(Including Report on the Shannon Fisheries.)

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REPORT

OF THE

Electricity Supply Board.

60-62 UPPER MOUNT STREET,
DUBLIN.

TO THE MINISTER FOR INDUSTRY AND COMMERCE.

In accordance with Section 7 (4) and Section 32 (1) of the Electricity (Supply) Act, 1927, the Board presents the Annual Report and Accounts for the year ended 31st March, 1938.

The presentation of the Accounts has been modified by the inclusion in the Revenue Account of an amount in respect of depreciation accrued during the year as part of the working expenditure.

The balance carried down in the Profit and Loss Account, having provided for the year's depreciation, payment of interest on capital at the rate of 5 per cent. per annum to the Minister for Finance, and the discharge of interest and repayment of capital in respect of liabilities assumed by the Board on the acquisition of Local Authority Undertakings amounted to £195,952.

If, for the purpose of comparing the figure with that of the previous year, the depreciation charge is excluded the excess of income over expenditure, subject to depreciation, would have amounted to £410,952. The corresponding figure in the previous year was £377,422,

The following are the summarised figures of income and expenditure for the years ended 31st March, 1938, and 31st March, 1937, respectively :—

	To Year ended 31st March, 1938	To Year ended 31st March, 1937
	£	£
Gross Revenue	1,736,800	1,590,455
Working Expenditure (including depreciation £215,000 for the year ended 31st March, 1938)	954,064	646,245
Balance carried to Profit and Loss Account	782,736	944,210
Interest and discharge of Capital liabilities acquired with Local Authority Undertakings	586,784	566,788
Balance ..	195,952	377,422

Sales of electricity were affected to some extent by the interruption of building activities in the cities of Dublin and Cork and the increase in the volume of sales at 25,702,150 units compares with an increase of 31,742,495 units in the preceding year. The growth in revenue was £140,440 as compared with an increase of £154,545 in the preceding year. The total revenue from sales was £1,724,273.

Working expenditure shows a growth of £92,819, Of this £32,863 represents increased coal expenditure which was somewhat abnormal owing to the weather conditions prevailing during the latter part of the year. The balance of the growth is due to expansion of business and increase in the number of areas of supply, to increase in cost of maintenance and repair, and to improvement in staff remuneration and conditions.

Commencing from the 1st April, 1935, the Board had set aside annually to a depreciation fund an amount adequate to write off each renewable asset fully within the period of life unexpired at that date. This provision covered all physical assets forming part of the transferred Shannon Works or created by the Board through advances from the Minister for Finance. In addition a General Reserve was created to which has been transferred each year the remaining surplus. Pending an indication of the date for commencement and method of repayment of advances to the Minister for Finance, it has now been decided to amalgamate the two reserves. The object of this amalgamation is to secure that as soon as possible the Fund will be adequate, having regard to the provisions of Section 21 of the Electricity (Supply) Act, 1927, to cover the full wastage of capital which has accrued. The amount transferred from the General Reserve, including the balance available in the present year, brings the total in the Fund to £1,324,735.

The assets acquired with Local Authority Undertakings carried with them on transfer capital liabilities the repayment of which, as and when maturing, has been provided for each year through the Profit and Loss Account. The total of such liabilities which had been discharged at 31st March, 1938, was £536,007.

The gross amount of additional capital investment for the year was £751,812 as compared with £703,653 in the preceding year. The capital expansion related mainly to extensions of supply and to the steady growth in total demand which necessitated extensions of plant on generation and transmission systems. The following is an analysis of the year's capital expenditure :—

Generation	£244,605
Transmission	79,872
Distribution	389,061
Equipment, Transport, etc.	38,274
	£751,812

The aggregate capital expenditure at 31st March, 1938, was £13,425,278.

The aggregate amount of capital advanced by the Minister for Finance in respect of the Shannon Works, and in respect of the subsequent development by the Board, amounted at 31st March, 1938, to £11,398,141. It should be noted that the funds which have been accumulated in the depreciation and other reserves are being availed of, for the time being, by agreement with the Minister, to meet capital expenditure in lieu of new advances.

SALE OF ELECTRICITY AND NUMBER OF CONSUMERS.

The following table sets out the number of units generated and sold, the average price per unit, the revenue, and the number of consumers for each of the nine years ending on 31st March, 1938 :—

Year ended on 31st March	Units Generated	Units Sold	Revenue from Sales of Energy	Average Price in Pence per Unit		Total Consumers
				Generated	Sold	
			£			
1930 ..	60,947,775	43,177,228	478,006	1·88	2·66	48,606
1931 ..	119,842,716	85,500,494	735,302	1·47	2·06	69,045
1932 ..	151,843,717	110,677,196	938,933	1·48	2·04	78,511
1933 ..	166,076,275	120,098,523	1,044,475	1·51	2·09	83,052
1934 ..	185,383,327	138,503,130	1,149,681	1·49	1·99	91,267
1935 ..	206,105,570	156,964,146	1,258,388	1·47	1·92	103,037
1936 ..	244,098,692	187,015,590	1,429,888	1·41	1·84	116,704
1937 ..	284,117,500	218,758,085	1,584,433	1·34	1·74	130,483
1938 ..	314,477,200	244,460,235	1,724,873	1·31	1·69	145,230

Details of the number of consumers in each area in this year as compared with the previous year, and certain other particulars relating to supply will be found in Appendix I. The total number of new consumers connected during the year amounted to 14,747.

AREA DEVELOPMENT.

Accelerated progress was made in extending the Board's supply. The electricity undertakings at Killarney, Monaghan, Bantry, Skibbereen, Lucan, Belturbet, Athenry, Graiguenamanagh, Ballymote, Newtownbarry and Mohill were acquired. The following areas were connected :—

Athenry.
Ahascragh.
Borrisokane.
Bantry.
Brownstown.
Blessington.
Ballydowd.
Belturbet.
Ballingarry (Co, Limerick).
Ballylanders.
Birdhill.
Ballymote.
Ballyhale.
Courtmacsherry.
Clonee.
Crocketstown.
Curry.
Carnew.
Donabate.
Dunboyne.
Glandore.
Glanworth.
Galbally.
Graiguenamanagh and Tinnehinch.
Innishannon.
Johnstown (Co. Kilkenny).
Kilcormac (or Frankford).
Knockmaroon.
Kilcullen.
Killarney.
Lorrha.
Leap.
Lucan.
Monaghan.
Mohill.
Newport (Mayo).
Newtownbarry and Carrickduff.
Palmerstown.
Poulaphouca.
Portlaw.
Piltown.
Rynanna and Ballygireen.
Skibbereen.
Upper Aghada.
Urlingford.
Whitegate.

ANALYSIS OF UNITS SOLD

The following table gives an analysis of the units sold divided approximately amongst the various categories of supply, and indicates the progress made in these classes :—

Class of Supply	Units Sold		Increase	Percentage Increase
	Year Ending 31st March, 1938	Year Ending 31st March, 1937		
Domestic	71,923,321	59,645,102	12,278,219	20·6
General Lighting	28,444,462	26,532,901	1,911,561	7·2
General Heating, Cooking and Water Heating	23,922,715	21,472,442	2,450,273	11·4
Motive Power	80,517,818	72,631,570	7,886,248	10·8
Public Lighting	12,871,464	12,014,701	856,763	7·1
Traction	22,557,240	22,794,070	(—)236,830	(—)1·0
Miscellaneous	4,223,215	3,667,299	555,916	15·2
Totals ..	244,460,235	218,758,085	25,702,150	11·7

DOMESTIC DEVELOPMENT.

The sale of electricity for domestic purposes continued to show good progress, the increase in units sold being maintained over the country as a whole. The sales in Dublin City showed a reasonable increase, but the increase was not so marked as in the previous year, probably owing in the main to the effects of the prolonged strike in the building trade. The limited increase in Dublin was compensated for by the rapid expansion in the remainder of the country. Exhibitions and demonstrations of domestic electric appliances in country towns were a particular feature of the year's work.

The following table indicates the increasing consumption of electricity for domestic purposes in Dublin City :—

Year ended on 31st March	Units sold to domestic consumers	Increase in units sold over previous year
1934 ..	12,470,000	—
1935 ..	15,146,000	2,676,000
1936 ..	20,159,000	5,013,000
1937 ..	25,465,000	5,306,000
1938 ..	28,702,000	3,237,000

In the suburbs of Dublin, progress was well maintained as the following table indicates :—

Year ended on 31st March	Units sold to domestic consumers	Increase in units sold over previous year
1934 ..	3,410,000	—
1935 ..	4,449,000	1,039,000
1936 ..	7,313,000	2,864,000
1937 ..	9,969,000	2,656,000
1938 ..	12,466,000	2,497,000

The expansion in domestic consumption in the remainder of the country is shown in the following table :—

Year ended on 31st March	Units sold to domestic consumers	Increase in units sold over previous year
1934 ..	13,683,000	—
1935 ..	16,032,000	2,349,000
1936 ..	20,050,000	4,018,000
1937 ..	24,211,000	4,161,000
1938 ..	30,755,000	6,544,000

GENERAL LIGHTING.

The consumption of electricity for general lighting purposes continued to expand during the year. In Dublin City the increase was 5%, but over the remainder of the country it averaged approximately 11%.

To assist consumers in the lay-out of improved lighting schemes, and to interest the public in improved standards of lighting, the Board continued the activities of the Lighting Service Bureau. Lectures and demonstrations were given by the staff of the Bureau in a number of the larger towns, while public appreciation was shown by an increased call on the services of the expert staff for the design of lighting schemes not only in the cities but throughout the country.

GENERAL HEATING, COOKING AND WATER HEATING.

Under this heading is included electricity sold for heating, cooking and water heating to consumers other than domestic consumers, such as public institutions, hotels, restaurants, schools, etc. Consumption here showed an overall increase of 11·4% being an improvement on the progress of the previous year. In electricity consumption for cooking purposes, the increase reached the satisfactory figure of 25%. Appreciation of the economy of electricity as a source of heat for hot water supply was shown in the figure of 22% increase.

A special effort was made to interest the hotel and restaurant trade in the advantages of electricity as an efficient and economic medium of heat for cooking purposes. A demonstration of electric appliances suitable for use in hotels was held during the Annual Hotel Congress, and a booklet entitled " Electricity in Hotels " was prepared and distributed. This effort met with considerable success, and the Board anticipates rapid progress as hotel proprietors become more conversant with the many advantages which the extended use of electricity can bring in the way of better catering.

An interesting development was the introduction of electricity as the sole source of heat in a number of large-scale laundries, replacing steam in all laundry processes.

Legislation dealing with city milk supplies brought forth a demand for sterilisation plant, and this new requirement was largely met by electrical equipment which possesses the advantages of cleanliness, economy and ease of operation.

INDUSTRIAL MOTIVE POWER.

The total recorded industrial motive power, representing motors of ½ H.P. and upwards, connected to the Board's system at the end of the financial year was 94,161 H.P., being an increase of 13,631 H.P. on the previous year. Of this new motive power load, Dublin City was responsible for 1,417 H.P., and Cork City for 557 H.P. In the remainder of the country, 11,657 H.P. was connected. In Appendix I the growth of connection and the horse-power are recorded for all cities, towns and villages supplied from the Board's system.

It is a remarkable tribute to the economy and efficiency of the national electricity supply that all new industries purchase their motive power requirements from the Board, while existing industries similarly provide for their expanding requirements in power. The most important contract concluded in the year was for the motive power requirements of the two new cement factories, with an estimated total annual demand of 30 million units. The factories were partially connected to the Board's system and production had begun just at the close of the year under review.

Units sold for industrial motive power purposes showed an increase of 10·8% over the previous year for the country as a whole. Progress was particularly good outside the

cities ; in the rest of the country the high percentage increase of 24% was reached. The following table sets out an analysis of the units sold for industrial motive power during the past five years :—

ANALYSIS OF UNITS SOLD FOR INDUSTRIAL MOTIVE POWER.

Year ended on 31st March	In Dublin City	In Cork City	In rest of country	In whole country
1934	23,046,000	7,735,000	11,858,000	42,639,000
1935	26,040,000	9,064,000	14,887,000	49,991,000
1936	29,807,000	12,436,000	20,092,000	62,335,000
1937	31,911,000	14,842,000	25,878,000	72,631,000
1938	33,653,000	14,737,000	32,128,000	80,518,000

PUBLIC LIGHTING.

The total number of public lighting lamps supplied from the Board's system was 22,924, an increase of 1,583 lamps over the previous year. The consumption of electricity for public lighting purposes showed an increase of 13·6% in Dublin City, and 7% over the country as a whole.

A stage has now been reached in this sphere of development where public appreciation of the value of good street lighting as a most desirable amenity has been definitely secured. As a result, the year showed much increased activity in the preparation and execution of plans for very considerably improved street lighting, more particularly in Dublin City and Dun Laoghaire Borough area. Through the courtesy of the Dublin Corporation, a mile of main traffic route on the Merrion Road was utilised by the Board for experimental and demonstration purposes on a modern scheme of public lighting for such routes. Consequent upon this demonstration, contracts were placed with the Board by the Public Authorities concerned for the public lighting on the lines demonstrated of seven miles of this main traffic route from Dublin to Dalkey.

At the close of the previous year the Dublin City Manager commissioned the Board to prepare designs and estimates for improved lighting in the central city area over a period of three years. The greater part of these designs and estimates was completed, approved by the Dublin Corporation and the work was put in hands during the year under review. It is anticipated that portion of the new installation will be in operation in the Autumn of 1938.

SALES OF APPLIANCES.

The sale of appliances and apparatus for which credit has been taken amounted to £68,274 8s., which compares with a figure of £53,843 14s. 10d. for the previous year. The rate of gross profit on sales was 18·4%. Having charged a proper proportion of general overhead expenses, the Merchandise Trading Account shows a net profit of £4,692 0s. 8d. It will be noticed in this Account that the cost value of transactions for which credit has not yet been taken amounted in the present year to £32,465, as against a figure of £19,631 for the previous year. This growth reflects the increase in the number of hire purchase transactions.

CONSUMERS' INSTALLATIONS DEPARTMENT.

The credit taken for contracts completed and invoiced for work carried out by the Department amounted to £73,102 1s. 11d., as compared with a figure of £64,807 0s. 11d. for the previous year. The rate of gross profit was 21·1%. Having debited to the Installations Trading Account a proper proportion of overhead expenses, there is net profit of £5,487 1s. 7d.

GENERATION.

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

	UNITS GENERATED.			Load Development (Main Stations)	
Year ended on 31st March	Main Stations	Local Stations	Total of all Stations	Maximum Daily Output in KWH.	Maximum Load in K.W.
1937	Ardnacrusha ... 246,398,100 Pigeon House ... 37,160,100 Cork ... 143,800 Total ... 283,702,000	415,500	284,117,500	1,228,700	97,500
1938	Ardnacrusha ... 239,202,800 Pigeon House ... 73,528,600 Cork ... 736,700 Total ... 313,468,100	1,009,100	314,477,200	1,389,900	106,800
	Increase during year ended 31st March, 1938 ...	—	30,359,700	161,200	9,300

The total number of units generated (314,477,200) represents an increase of 10·7% on the output of the previous year.

The average yearly load was 35·9 MW. The yearly load factor, on the basis of units generated, was 33·6% as compared with 33·3% last year.

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

(i)	Duration of load curve for the main system ..	.. Appendix II.
(ii)	Distribution at high tension of units generated	.. Appendix III.
(iii)	Monthly output of all Stations	.. Appendix IV.
(iv)	Typical daily load curve for each quarter ..	.. Appendix V.
(v)	Capacity of the Board's Main Generating Stations	.. Appendix VI.
(vi)	Weekly summary of operating conditions ..	.. Appendix VIII.

EXTENSIONS OF PLANT AND NEW WORKS.

Shannon Works :

The works for securing additional water storage at Lough Allen have been completed, and the storage capacity is now 118,000,000 cubic metres, which corresponds to a high water level of 165′ O.D. This brings the total storage in the Shannon to 408,000,000 cubic metres as follows :—

Lough Derg—	High water level 110·0′ O.D.	186,000,000 cbm.	
	Low „ „ 105·0′ O.D.		
Lough Ree—	High „ „ 123·0′ O.D.	64,000,000 cbm.	
	Low „ „ 121·0′ O.D.		
(Emergency)	Low „ „ 120·75′ O.D.	40,000,000 cbm.	
Lough Allen—	High „ „ 165·0′ O.D.	118,000,000 cbm.	
	Low „ „ 154·0′ O.D.		
		408,000,000 cbm.	

The works at Lough Allen as completed, provide for an ultimate high water level of 168′ O.D. to give a total storage capacity of 150,000,000 cubic metres. Representations having been received from the owners of land which would be flooded at the higher level, it was decided not to raise the water to this level pending further enquiries.

At the Ardnacrusha Power Station a closed circuit air cooling system has been provided for generators Nos. 1 and 2. A new runner wheel for No. 1 turbine has been installed. Work is proceeding on the extension of the 38 kV. Station. An order has been placed for an 8,000 kVA, 10/38 kV. on-load tap-changing transformer.

Pigeon House Works :

In the course of the year the following works, involved in the extension of the Pigeon House Station, were completed :—

(a) The erection of the 38kV. switchgear house, and control room.
(b) The installation of 38kV. arc suppression plant of 6·5 mVA. capacity.
(c) The extension of the coal conveyor system by two shuttle belt conveyors, each capable of dealing with 100 tons of coal per hour.

The following plant was in process of erection :—

(a) A 20/25,000 kVA. steam turbo-generator set (No. 6). This unit, which it is anticipated will be in commission before the end of 1938, is being installed in the space previously occupied by two 3,000 kW. sets which were dismantled during the year.

(b) Two steam boilers, each of 100,000 lbs. steam per hour capacity (boilers No. 6 and 7), which it is expected will be in commission before the end of 1938.

(c) Oil storage and filtering plant for the transformers and switchgear.

(d) Coal handling plant which will make it possible to avail of storage accommodation for 40,000 tons of coal.

Contracts have been placed for the following works :—

(a) A 25,000 kVA, 5/38 kV. Transformer.

(b) A 1,600 B.H.P. Diesel engine house set.

When the works enumerated above have been completed, the capacity of the Pigeon House Station will be :—

Steam Boiler capacity :

(a) 7 boiler units each having a normal output of 100,000 lbs. of steam per hour.

(b) 4 boiler units each having a normal output of 25,000 lbs. of steam per hour.

Generating capacity :

One 5 M.W. steam turbo alternator set (Unit No. 1).
„ 10 M.W. „ „ „ „ („ No. 2).
„ 20/25 M.W. „ „ „ „ („ No. 3).
„ 23 M.W. „ „ „ „ („ No. 4).
„ 20/25 M.W. „ „ „ „ („ No. 6).

LIFFEY HYDRO-ELECTRIC DEVELOPMENT.

The proposed hydro-electric development of the River Liffey involves the construction of a reservoir, having an area of approximately 32 sq. kms. and a storage capacity of 150,000,000 cbm., one main power station at Poulaphouca with an installed capacity of 30,000 kW. in two sets, and a smaller station at Golden Falls with an installed capacity of 4,000 kW.

In October, 1937, an order was placed for the main constructional works consisting of the dam, tunnel and power station at Poulaphouca, and the dam and power station at Golden Falls. By the end of the year the erection of the buildings for offices, stores and camps, had almost been completed ; most of the construction plant had been erected ; and the work of clearing the dam site and the excavation of the river diversion channel at Poulaphouca had been commenced.

A contract was entered into in December, 1937, for the construction of three bridges at Burgage, Blessington, and Humphreystown, respectively, in substitution for bridges which it will be necessary to demolish. Work on the sites at Burgage and Blessington was commenced in January 1938.

At the end of the period under review, notices had been served in connection with the acquisition of the land which will be flooded, or required for constructional purposes and negotiations to determine the amount of compensation were in progress.

TRANSMISSION AND DISTRIBUTION SYSTEMS.

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

	Miles.
(1) Low tension overhead mains	108·5
(2) Low tension overhead mains (reconstructed or strengthened) ..	40·0
(3) Low tension underground mains	30·3
(4) 3·3 kV. underground cables	1·6
(5) 5 kV. underground cables	4·0
(6) 10 kV. underground cables	17·5
(7) 10 kV. overhead transmission lines	218·6
(8) 38 kV. overhead transmission lines	92·2
(9) 110 kV. overhead transmission lines	51·2

Due to the increase in load on the 38 kV. system, it was decided to increase its capacity by the erection of new 110/38 kV. Transformer Stations at Dundalk, Carrick-on-Shannon and Waterford, these stations to be fed by new 110 kV. lines originating at Dublin and Ardnacrusha.

The erection of the first of these new 110 kV. lines—Dublin to Dundalk—was commenced and was nearing completion at the end of the year.

The design and survey of further 110 kV. lines from Dublin via Waterford to Cork and Ardnacrusha to Carrick-on-Shannon was also commenced during the year.

Two 15,000 kVA 110/38 kV. transformers were delivered at the Portlaoighise 110 kV. station. One of these transformers, with the 110 kV. and 38 kV. switchgear, was placed in commission.

An order has been placed for a 110/38/10 kV. transformer for Kilbarry Station (Cork).

The additional transformer stations which have been placed in commission, and the increase in capacity of the existing stations, are shown in Appendix VII.

Automatic on-load tap-changing transformers of a total capacity of 43,500 kVA. were installed on the system, representing an increase of 16,600 kVA. over the capacity installed during the previous year.

WATER STORAGE AND SHANNON RIVER CONTROL.

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

(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 average inflow to the Shannon catchment at Killaloe for the calendar year 1937 was 171·7 cbm./sec. or 88·2% of the mean of 194·4 cbm./sec. over a long period of years. This is the sixth successive year for which the inflow has been below the mean flow. The distribution of the flow over the year was generally favourable for power production. The water used for power generation amounted to 73·3% of the total inflow for the calendar year 1937.

The important hydrometric figures for the year ending 31st March, 1938, are as follows :—

Total average rainfall in Shannon catchment	35·6	inches.
Average inflow to Shannon catchment	143·9	cbm/sec.
Average water used at Ardnacrusha	124·2	cbm/sec.
Average water used per unit generated	16·4	cbm.
Maximum level reached in Lough Derg	33·6	metres O.D.
Minimum level reached in Lough Derg	32·4	metres O.D.
Average available head at Power Station	28·5	metres.
Maximum available head at Power Station	30·3	metres.
Minimum available head at Power Station	25·4	metres.

PERMITTED UNDERTAKINGS.

At the 31st March, 1938, there were 90 permitted undertakings holding permits from the Board as compared with a figure of 98 at the end of the previous year. During the year 9 permits lapsed as a result of the acquisition of the undertakings ; 2 permits were not renewed owing to cessation of supply, and 3 new permits were granted. Particulars of all permitted undertakings, except where the number of consumers supplied is 3 or under, are contained in Appendix X.

STAFF.

The strength of the Board's regular staff at the 31st March, 1938, was 2,456.

The Board once more desires to take this opportunity of recording its appreciation of the willing and competent manner in which the members of its staff have performed their duties.

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

PATRICK J. DEMPSEY, Secretary.
11th July, 1938.

REPORT

ON THE

SHANNON FISHERIES.

60-62 UPPER MOUNT STREET,
DUBLIN.

TO THE MINISTER FOR INDUSTRY AND COMMERCE.

In accordance with the provisions of Sections 17 and 18 of the Shannon Fisheries Act, 1935, a report for the year ended 31st March, 1938, is presented.

A revision of the records of earlier years has been effected in view of the requirements of Sections 13 and 17 of the Act, and separate Accounts are now presented. These show that the proceeds of sales of fish and letting of fishing rights fell short of the cost of operation and maintenance and repair by £4,248 and that, after charging interest £1,694, a debit balance of £5,942 resulted on the year's transactions. Adding to this the adjusted debit balance of earlier years £4,589, a balance of £10,531 to the debit of the Profit and Loss Accounts results.

During the year the acquisition of the principal fresh water fisheries and estuarine salmon fisheries was completed. In order to facilitate the Board in the development of the fisheries, amending legislation was introduced on the 18th March, 1938, whereby all fisheries in the fresh waters of the Shannon will vest in the Board on a day to be appointed.

SALMON FISHERIES.

Having in view the better protection of the fisheries, the Board made arrangements for the expenditure, through the Limerick Board of Conservators, of the sum of £2,500. For the purposes of increasing the stock of spawning fish, the Board did not engage in any salmon fishing, and as all the stake weirs in the estuary, together with the netting rights in the fresh waters have been acquired (excepting the drift nets operating in the estuary), the salmon now have practically a free run up to the spawning beds. These measures, it is anticipated, will result in a normal stock of fish in the Shannon within the next few years.

Plans and estimates were prepared for the erection of a salmon catching weir in the vicinity of Limerick. This weir, it is anticipated, will be in operation at the commencement of the 1940 fishing season.

ROD FISHERIES.

The old rod fisheries at Castleconnell were extremely valuable before the advent of the Shannon Scheme and are a potential source of revenue. With a view to re-establishing these fisheries, steps were taken to erect spur walls which would concentrate the present flow of water into the old fishing pools. This work will be completed by the end of 1938, and it is anticipated that revenue will be derived in future years from the leasing of fishing rights.

EEL FISHERIES.

The eel fisheries were operated by the Board on a small scale. The new eel weir at Killaloe was completed but was not ready for operation until late in the season. In consequence most of the work was of an experimental nature in the testing of types of nets to find the one most suitable for the water conditions at the weir. The Castleconnell eel weir, which was in bad condition, was repaired. In general, the eel fishing season was bad owing to the extremely dry winter and low water conditions ; eels did not begin to run in any numbers until the middle of January. As the close season for eels extends from the 1st February to the 31st July the weirs had to be closed down at a time when eels were being taken in considerable numbers. During the past year, to prevent the destruction of eel fry at Ardnacrusha, a hydraulic device was erected at the base of the dam to lift the fry up into the head race. During the coming year this device will be more fully developed.

OYSTER FISHERIES.

For some time the Board has had under consideration the feasibility of endeavouring to revive the oyster fisheries in the Shannon estuary. Legislative authority to permit the Board to develop oyster fisheries was accordingly sought and was secured under the Shannon Fisheries Act, 1938. In the first instance it is intended that cultivation will be limited to experimental beds and any large development will not be undertaken until the Board is satisfied on the suitability of sites for the beds.

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

PATRICK J. DEMPSEY, Secretary.
11th July 1938.

LIST OF APPENDICES.

Appendix.

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

II.—Duration of load, main Shannon system.

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

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

V.—Typical daily load curves.

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

VII.—Transmission and distribution systems in commission.

VIII.—Weekly summary of operating conditions.

IX.—Water levels and discharges of Loughs Allen, Ree and Derg, for the year.

X.—Particulars of authorised and permitted undertakings providing supply at 31st March, 1937.

XI.—Units generated in Irish Free State (from 1st April, 1928, to 31st March, 1937).

XII.—Map showing high tension transmission lines and stations.

DUBLIN No. 1 DISTRICT.

Areas Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Dublin City	42,924	46,139				
Rathmines	6,866	7,281				
Terenure and Kimmage ...	1,694	1,940	23,351	24,604		
Crumlin	3,015	3,617				
Rathfarnham	534	615				
Pembroke	7,815	8,202	2,418	2,582	110,806,900	44,000
Templeogue	127	133	Nil	Nil		
Firhouse	23	24	Nil	Nil		
Woodtown	1	1	284	284		
Dublin United Tramways Co. (1896) Ltd. ...	—	—	—	—	22,557,200	5,650
TOTALS ...	62,999	67,952	26,053	27,470	133,364,100	—

CORK No. 1 DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Cork City	8,773	9,686	16,066	16,623	24,979,100	9,000
TOTALS ...	8,773	9,686	16,066	16,623	24,979,100	—

ATHLONE DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Athlone	860	954	369	667		
Ahascragh	Nil	39	Nil	6		
Athleague	10	10	Nil	Nil	3,852,500	1,600
Ballinasloe	224	259	223	299		
Ballygar	58	58	Nil	Nil		
Roscommon	203	233	43	59		
Ballymahon	73	78	18	18	96,800	60
Birr	1	1	54	54		
Banagher	76	81	45	45		
Borrisokane	Nil	94	Nil	Nil		
Cloghan...	22	22	Nil	Nil	482,600	300
Eyrecourt	31	29	Nil	Nil		
Ferbane	62	65	1	1		
Kilcormac (or Frankford) ...	Nil	28	Nil	Nil		
Lorrha	Nil	12	Nil	Nil		
Clara	199	213	320	320	579,600	290
Kilbeggan	62	67	Nil	Nil		
Longford	394	419	73	74		
Edgeworthstown ...	67	68	27	27	846,500	370
Granard	88	111	6	7		
Moate	94	108	2	2	94,000	60
Mullingar	495	521	394	394	957,500	380
Tullamore	511	553	436	468	766,900	330
TOTALS ...	3,530	4,023	2,011	2,441	7,676,400	—

DUBLIN No. 2 DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Balbriggan	211	217	165	165	390,800	190
Skerries	2	2	64	64		
Blackrock and Monkstown	1,823	2,069	233	247	12,302,400	4,860
Cabinteely	56	60	18	18		
Carrickmines	69	70	1	1		
Dalkey	486	547	88	89		
Dundrum	1,082	1,240	59	46		
Dun Laoghaire	2,263	2,534	444	495		
Foxrock	251	267	36	36		
Killiney—Ballybrack ...	221	260	29	33		
Kill-o'-the-Grange ...	38	48	55	55		
Stillorgan	142	180	147	148		
Bray	1,567	1,653	1,109	1,122	2,821,500	1,020
Kilmacanogue	7	20	Nil	Nil		
Shankill—Loughlinstown ...	208	236	1	1		
Celbridge	82	94	47	72	5,471,900	1,800
Ballydowd	Nil	20	Nil	Nil		
Blessington	Nil	56	Nil	2		
Clondalkin	92	139	73	1,491		
Kilcock	50	56	23	23		
Leixlip	78	91	79	79		
Lucan	Nil	140	Nil	9		
Maynooth	76	77	62	62		
Rathcoole	38	43	Nil	6		
Saggart	16	16	913	913		
Tallaght	68	78	138	138		
Chapelizod	155	200	98	60	830,900	340
Blanchardstown	48	61	7	7		
Castleknock	92	95	18	20		
Clonee	Nil	15	Nil	Nil		
Clonsilla	63	67	Nil	Nil		
Dunboyne	Nil	23	Nil	1		
Finglas	139	149	44	44		
Knockmaroon	Nil	8	Nil	Nil		
Palmerstown	Nil	28	Nil	56		
The Ranch	66	70	Nil	Nil		

DUBLIN No. 2 DISTRICT—*continued.*

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Greystones	454	462	10	11	1,233,900	430
Delgany—Killincarrig ...	51	91	Nil	Nil		
Newtownmountkennedy ...	21	25	30	30		
Naas	263	287	122	129	917,100	290
Clane	16	19	Nil	Nil		
Kill and Johnstown ...	20	23	Nil	Nil		
Poulaphouca	Nil	1	Nil	860		
Sallins	27	29	179	179		
Swords	121	147	62	76	3,761,900	1,230
Artane	25	34	Nil	Nil		
Baldoyle	105	118	12	12		
Coolock	27	37	1	2		
Donabate	Nil	41	Nil	Nil		
Howth and Sutton ...	910	964	114	116		
Lusk	42	48	4	4		
Malahide	183	191	6	6		
Portmarnock	69	83	Nil	10		
Raheny	97	123	6	6		
Rush	123	197	12	16		
Santry	55	57	19	19		
Wicklow	246	287	66	65	676,000	250
Rathdrum	99	133	242	244		
Rathnew	48	53	Nil	7		
TOTALS ...	12,491	14,379	4,836	7,295	28,406,400	—

CORK No. 2 DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Bandon	5	5	261	261		
Clonakilty	292	312	455	487		
Courtmacsherry	Nil	27	Nil	Nil	1,263,700	500
Innishannon	Nil	5	Nil	Nil		
Kinsale	219	254	108	108		
Blarney	91	100	74	74		
Bishopstown	2	3	11	82		
Carrigaline	42	51	15	15		
Crosshaven	107	112	18	18	978,900	400
Kilnap	3	6	119	119		
Monkstown	61	68	Nil	Nil		
Mount Desart	1	1	6	6		
Passage West	92	101	6	14		
Rochestown	1	1	Nil	Nil		
Buttevant	122	132	53	53		
Doneraile	91	94	2	2	139,100	60
Castletownroche	23	28	Nil	12	17,000	10
Cobh	459	525	70	70	467,800	200
Dunmanway	190	195	118	223		
Ballineen	44	47	10	10		
Bantry	Nil	373	Nil	106		
Drinagh	8	13	Nil	Nil		
Enniskeane	22	24	2	2	1,029,600	450
Glandore	Nil	2	Nil	Nil		
Leap	Nil	3	Nil	Nil		
Macroom	245	262	14	31		
Skibbereen	Nil	283	Nil	83		
Fermoy	293	320	127	127		
Glanworth	Nil	31	Nil	Nil	810,400	360
Mitchelstown	299	307	180	180		
Mallow	432	472	188	188		
Drommahane	9	12	Nil	Nil	786,100	320
Midleton	177	203	201	201		
Ballinacurra	47	55	172	172		
Castlemartyr	38	39	5	5	374,800	140
Cloyne	66	65	45	45		
Upper Aghada	Nil	15	Nil	Nil		
Whitegate	Nil	21	Nil	Nil		
Youghal	248	263	154	154	260,400	140
TOTALS ...	3,729	4,830	2,414	2,848	6,127,800	—

DUNDALK DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Ardee	170	192	99	119	379,900	150
Ballybay	149	165	Nil	5		
Bailieborough	111	125	125	88		
Carrickmacross	251	261	105	105		
Castleblayney	2	3	60	60	1,443,200	650
Monaghan	2	259	Nil	364		
Shercock	26	30	2	12		
Cavan	346	376	177	192		
Arvagh	60	64	11	11		
Ballyjamesduff	77	81	7	8		
Belturbet	1	117	69	106	1,387,400	600
Killeshandra	69	71	176	193		
Oldcastle	116	119	7	9		
Virginia	50	54	Nil	Nil		
Cootehill	146	152	30	34	387,500	200
Clones	289	298	47	49		
Drogheda	991	1,148	1,916	2,625	3,525,400	1,100
Dundalk	1,794	1,969	2,562	2,767	4,210,400	1,950
Blackrock (Louth) ...	67	75	20	23		
An Uaimh (Navan) ...	409	438	366	406		
Athboy	88	94	18	18	1,808,800	950
Ceanannus Mor (Kells) ...	266	293	151	179		
Trim	139	143	12	32		
TOTALS ...	5,619	6,527	5,960	7,405	13,142,600	—

GALWAY DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Castlebar	401	500	369	370		
Newport (Mayo) ...	Nil	52	Nil	5	1,426,700	600
Westport	388	417	292	320		
Claremorris	245	291	176	209		
Ballyhaunis	211	211	30	31	641,100	280
Galway	2,130	2,315	1,086	1,140		
Athenry	Nil	158	Nil	52	3,671,200	1,550
Gort	157	155	86	86		
Loughrea	262	266	121	121	449,000	220
Tuam	396	528	93	118	514,000	250
TOTALS ...	4,190	4,893	2,253	2,452	6,702,000	—

LIMERICK DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Cahir	199	212	180	180		
Cashel	208	247	68	77	657,700	300
New Inn	9	9	95	96		
Castlemungret	1	1	Nil	2,670	610,100	1,700
Rathluirc (Charleville) ...	251	261	239	242		
Ballylanders	Nil	20	Nil	Nil		
Bruff	62	65	13	13		
Galbally	Nil	18	Nil	Nil		
Hospital	75	81	129	171	1,051,900	350
Kilfinane	95	102	26	26		
Kilmallock	137	148	160	198		
Knocklong	13	14	261	295		
Ennis	666	724	220	249		
Clarecastle	35	42	Nil	Nil		
Ennistymon	137	151	122	135		
Lahinch	43	49	Nil	Nil	1,437,600	550
Lisdoonvarna	65	66	19	19		
Miltown-Malbay ...	93	96	Nil	1		
Newmarket-on-Fergus ...	44	51	12	17		
Rynanna and Ballygireen...	Nil	6	Nil	5		
Kilkishen	15	14	Nil	Nil	59,700	50
Tulla	71	77	Nil	25		
Limerick	5,623	6,058	4,125	5,366	7,561,200	3,200
Nenagh	466	515	788	794	871,200	350
Newport	60	64	122	122		
Annacotty	8	9	90	90		
Ardnacrusha and Clonlara	62	64	227	248		
Birdhill	Nil	2	Nil	15	1,700,600	350
Castleconnell	36	33	Nil	Nil		
Castletroy	11	18	Nil	10		
Killaloe	133	141	71	38		
Rathkeale	163	168	96	97		
Adare	72	79	93	93		
Ardagh	10	13	91	91		
Askeaton	75	79	9	42	850,700	300
Ballingarry (Co. Limerick)	Nil	11	Nil	Nil		
Croom	61	70	10	10		
Newcastle West	249	276	123	217		
Tipperary	386	421	223	244		
Cappamore	51	54	108	108		
Cappawhite	41	43	3	3	744,100	320
Doon	48	50	9	9		
Limerick Junction ...	32	37	64	64		
TOTALS ...	9,806	10,659	7,796	12,080	15,544,800	—

PORTLAOIGHISE DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Athy	286	335	362	372	664,300	220
Carlow	545	646	517	554		
Muine Bheag (Bagenalstown)	145	150	104	126		
Baltinglass	85	87	Nil	5		
Castledermot	63	69	71	71	2,010,200	780
Leighlinbridge	32	37	100	107		
The Swan	3	3	151	151		
Tullow	149	162	62	66		
Kildare	143	157	114	126		
Ballymany and Loughbrown	5	20	Nil	9		
Brownstown	Nil	26	Nil	5		
Curragh Camp	1	1	Nil	258		
Edenderry	196	208	213	220		
Kilcullen	Nil	45	Nil	Nil	4,318,700	1,400
Monasterevan	61	72	67	83		
Droichead Nua (Newbridge)	184	246	351	383		
Portarlington	226	239	792	825		
Rathangan	33	38	20	22		
Kilkenny	863	905	330	338		
Ballyragget	54	53	15	15		
Callan	136	148	50	55		
Castlecomer	118	114	75	79		
Freshford	58	63	14	48	1,618,400	780
Johnstown (Co. Kilkenny)	Nil	35	Nil	Nil		
Talbot's Inch	26	28	13	13		
Urlingford	Nil	28	Nil	Nil		
Portlaoighise	457	473	462	654		
Abbeyleix	123	129	34	36		
Ballinakill	24	21	Nil	Nil		
Ballyroan	5	6	Nil	Nil		
Durrow	67	69	6	6	2,261,200	700
Mountmellick	182	196	43	55		
Mountrath	121	126	10	11		
Stradbally	91	93	20	20		
Roscrea	376	396	433	442		
Ballybrophy	1	1	7	7		
Borris-in-Ossory ...	27	30	Nil	Nil	857,100	370
Rathdowney	102	107	8	8		
Templemore	163	174	30	41		
Borrisoleigh	59	66	34	34	961,900	420
Thurles	548	613	203	224		
TOTALS ...	5,758	6,415	4,711	5,469	12,691,800	—

SLIGO DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Ballymote	Nil	144	Nil	25	62,600	40
Boyle	1	1	36	36		
Elphin	60	61	Nil	Nil	256,500	110
Strokestown	105	118	4	13		
Carrick-on-Shannon ...	197	205	42	59	330,800	150
Charlestown and Bellahy	102	109	7	8		
Curry	Nil	13	Nil	Nil	150,400	90
Tubbercurry	105	114	5	23		
Foxford...	93	96	235	240		
Crocketstown (Ballina Quay)	Nil	10	Nil	Nil		
Ballina	613	650	240	249	882,200	440
Crossmolina	77	91	40	41		
Enniscrone	74	72	Nil	Nil		
Gorteen	25	26	Nil	Nil	206,300	120
Ballaghaderreen	202	218	22	21		
Letterkenny	283	291	79	88	335,500	140
Mohill	Nil	108	Nil	8	53,300	40
Sligo	1,050	1,194	451	547	1,626,100	800
Swinford	201	207	60	62	376,400	240
Kiltimagh	145	150	18	19		
TOTALS ...	3,333	3,878	1,239	1,439	4,280,100	—

TRALEE DISTRICT.

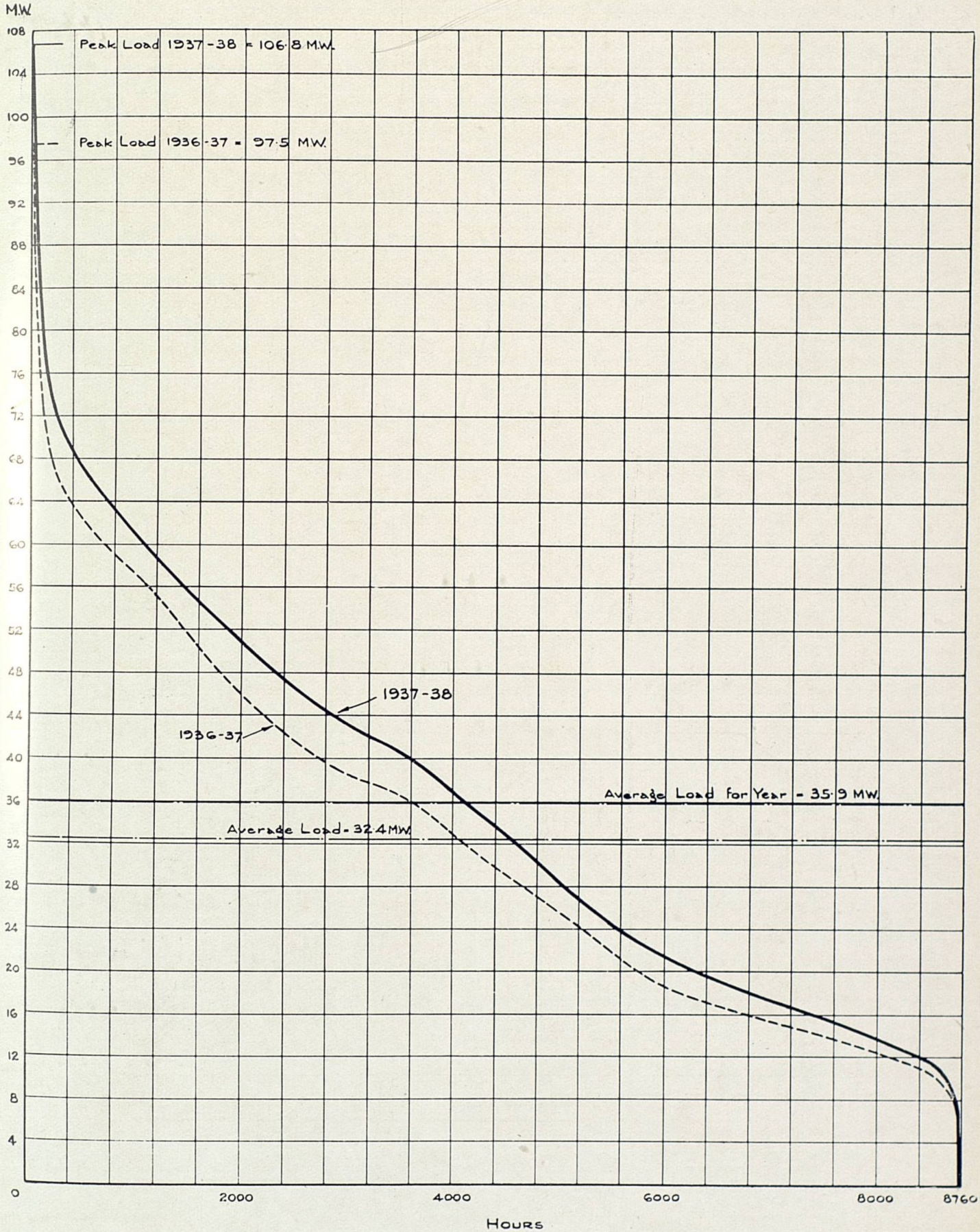
Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Kanturk	233	237	71	152		
Boherbue	34	38	21	21		
Dromtariffe	2	2	44	44	521,200	180
Millstreet	165	170	50	57		
Newmarket	132	132	6	6		
Killarney	2	535	80	155		
Castlemaine	4	16	108	128	741,700	370
Killorglin	135	142	5	39		
Milltown	47	50	Nil	7		
Listowel	381	411	344	409	590,700	240
Abbeyfeale	158	165	6	44		
Tralee	1,222	1,341	708	1,132		
Castleisland	173	190	153	164	1,911,400	650
Edenburn	1	1	18	18		
TOTALS ...	2,689	3,430	1,614	2,376	3,765,000	—

WATERFORD DISTRICT.

Towns Supplied	No. of Consumers at 31st March		Industrial Motive H.P. at 31st March		Units Supplied at H.T. during Year	Peak Load in KW
	1937	1938	1937	1938		
Arklow	487	542	260	280	968,000	270
Ballyhale	Nil	10	Nil	Nil	100,200	60
Graiguenamanagh and Tinnehinch ...	Nil	51	Nil	37		
Thomastown	66	75	3	4		
Ballypatrick	1	1	58	58	27,700	20
Carrick-on-Suir	380	442	132	159	478,800	340
Piltown	Nil	25	Nil	Nil		
Portlaw	Nil	1	Nil	450		
Clonmel	511	586	427	455	1,098,500	570
Fethard	139	141	25	28		
Dungarvan	513	556	460	462	972,800	420
Cappoquin	131	131	26	26		
Lismore...	97	101	8	8		
Tallow	115	115	10	10		
Enniscorthy	434	478	428	430	849,700	350
Ferns	36	43	20	21	49,600	50
Carnew	Nil	39	Nil	Nil		
Newtownbarry	Nil	104	Nil	40		
Gorey	190	214	38	38	319,600	180
New Ross	435	475	398	398	673,000	250
Tramore	400	393	102	102	654,500	280
Dunmore East ...	55	57	16	16		
Passage East	34	36	Nil	Nil		
Waterford	2,887	3,204	1,925	1,939	4,500,300	1,700
Wexford	549	612	990	1,012	1,380,000	680
Rosslare Strand	50	51	12	51		
Rosslare Harbour and Kilrane	56	75	239	239		
TOTALS ...	7,566	8,558	5,577	6,263	12,072,700	—

DURATION OF LOAD—MAIN SYSTEM GENERATION
YEAR ENDING 31st MARCH, 1938

APPENDIX II.



To face page 30

Distribution at High Tension of Units Generated Year ending 31st March, 1938.

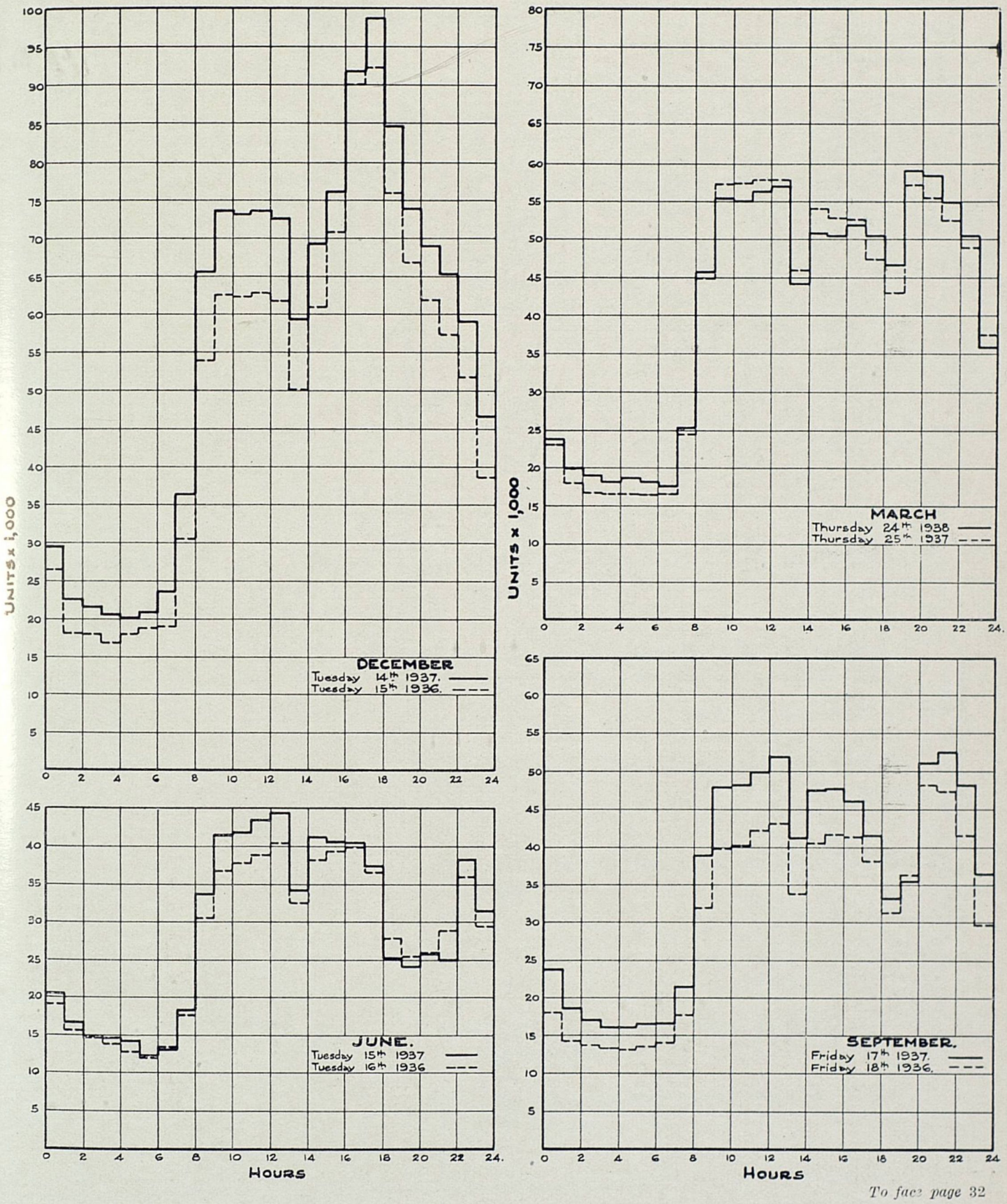
District		High Tension Units	Percentage of Total
Dublin City 5 kV. Supply	90,885,500		
Dublin City 10 kV. Supply	20,921,400		
DUBLIN CITY TOTAL		111,806,900	35·6
Dublin United Tramways Co. (1896), Ltd.		22,557,200	7·2
Cork City D.C. Supply	12,253,100		
Cork City A.C. Supply	12,726,000		
CORK CITY TOTAL		24,979,100	7·9
Athlone District		7,676,400	2·4
Cork No. 2 District		6,127,800	2·0
Dublin No. 2 District		28,406,400	9·0
Dundalk District		13,142,600	4·2
Galway District		6,702,000	2·1
Limerick District		15,544,800	4·9
Portlaoighise District		12,691,800	4·0
Sligo District		4,280,100	1·4
Tralee District		3,765,000	1·2
Waterford District		12,072,700	3·8
Station Auxiliaries		11,490,800	3·7
High Tension Losses		33,233,600	10·6
TOTAL GENERATION—ALL STATIONS ...		314,477,200	100·0

Monthly Output (kWH) of the Board's Generating Stations—Year ending 31st March, 1938.

Month (Calendar)	Ardnacrusha	Pigeon House (Dublin)	Cork	Letterkenny	Acquired Stations closed down	Total of all Stations
April	23,089,600	281,300	—	24,000	10,800	23,405,700
May	19,828,000	64,800	—	21,400	15,800	19,930,000
June	10,038,800	9,264,700	21,600	20,100	47,700	19,392,900
July	17,448,800	2,467,500	—	20,700	50,000	19,987,000
August	14,795,000	5,074,700	—	20,700	50,500	19,940,900
September ...	15,942,800	7,185,200	32,000	24,300	54,300	23,238,600
October ...	20,701,200	7,312,100	—	30,400	71,800	28,115,500
November ...	14,972,500	16,566,700	138,500	35,500	90,500	31,803,700
December ...	20,050,000	15,244,200	490,200	40,100	94,500	35,919,000
January ...	30,531,300	3,764,400	54,400	37,200	73,700	34,461,000
February ...	27,562,300	2,022,000	—	31,500	61,700	29,677,500
March	24,242,500	4,281,000	—	29,600	52,300	28,605,400
TOTALS ...	239,202,800	73,528,600	736,700	335,500	673,600	314,477,200

TYPICAL DAILY LOAD CURVES.

APPENDIX V.



To face page 32

Capacity of the Board's Main Generating Stations at the 31st March, 1938.

Generating Stations	Type	Installed Capacity
LOCH AWE	Hydro.	(a) 3 Francis Turbines, each rated at 3,000 B.H.P. operated to 2,000 I.P.S. Generator each rated at output of approximately 2,125 K.V.A.
		Carries Turbine rated to 20,000 B.H.P.
		2,000 K.V.A. generator.
		1 Condensing Horizontal
		1 at 10 m. Head
		1 at 12 m. Head.
		Generator (11/13 kV)
		1 at 10,000 K.V.A.
		Turbo (11/13 kV)
		1 at 10,000 K.V.A.
		equivalent to 21,000 kW.
		...ic capacity at approx.
		...W. for ... minutes.
		...ity equivalent to 7,5
		(b) 2 ... of 6,000 kW.
	Steam	(a) ... capacity equivalent to 6,000 kW. approximately
		(b) Reserve capacity equivalent to 6,0 kW. (D.C.)

Capacity of the Board's Main Generating Stations at the 31st March, 1938.

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 to a 25,000 kVA generator. Total capacity at Generator Terminals :— 93,500 kW. at 30 m. head. 77,500 kW. 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 64,000 kW. approximately. (*b*) Steam accumulator capacity of approximately 5,000 kW. for 45 minutes. (*c*) Generator capacity equivalent to 79,000 kW. (*d*) 3 Transformers (5/38 kV) of 60,000 kVA total capacity.
CORK	Steam	(*a*) Steam capacity equivalent to 5,000 kW. approximately. (*b*) Generator capacity equivalent to 6,500 kW. (D.C.).

Transmission and Distribution Systems in Commission and under Construction at the 31st March, 1938.

Transformer Stations	Number in Commission	Increase for year	Total Capacity	Increase in capacity for year
110 kV Stations ...	3	1	110/38 kV. Stations=83,000 kVA 110/10 kV. Stations=15,000 kVA	15,000 kVA
38 kV Stations ...	86	3	188,110 kVA.	42,720 kVA
10 kV Sub-stations	862	112	112,230 kVA.	20,190 kVA
5 kV Sub-stations	103	4	68,438 kVA.	6,270 kVA
D.C. Sub-stations	7	—	15,500 kW.	—
Frequency-Changing Sub-station ...	1	—	6,320 kVA.	—

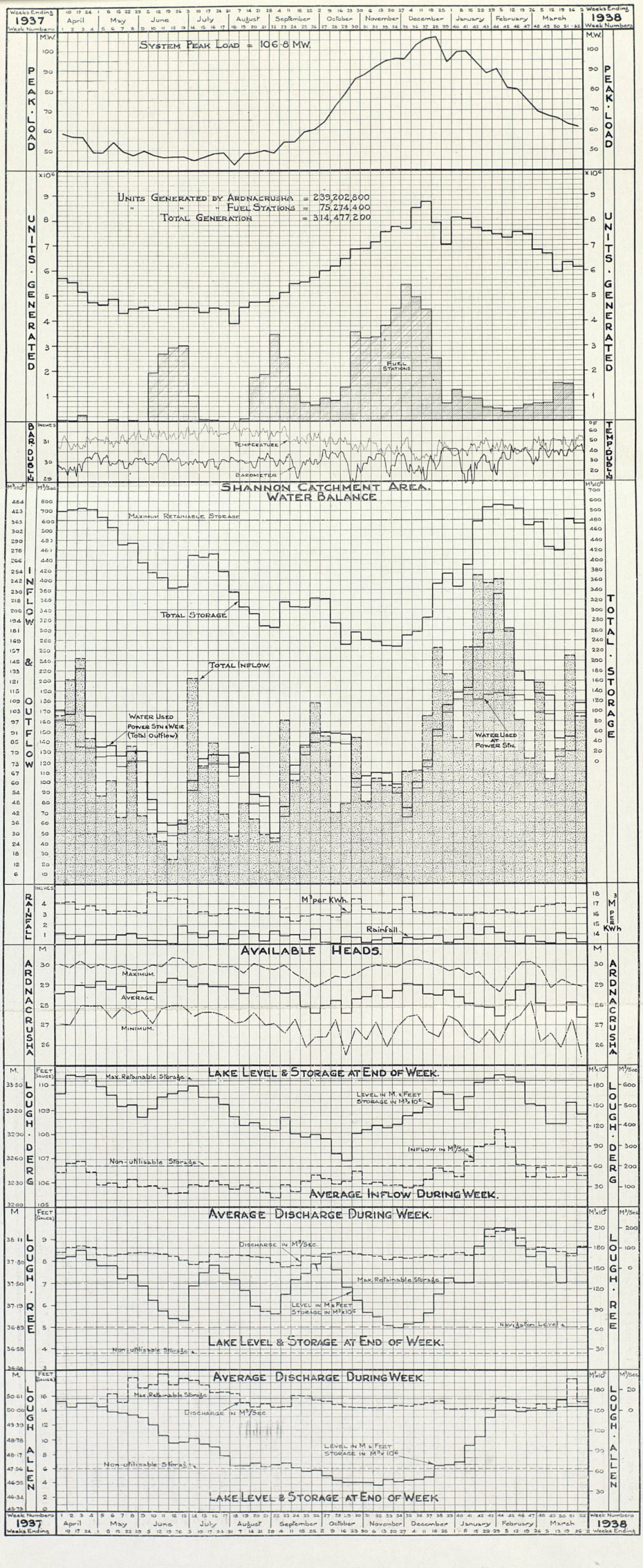
Transmission and Distribution Systems	Length	Increase for Year	Description
110 kV Lines ...	184·4 Kms.	—	6×95 sq. mm. Double Circuit.
110 kV Lines ...	177·7 Kms.	82 Kms.	3×95 sq. mm. Single Circuit.
38 kV Lines ...	1,719·7 Kms.	96·3 Kms.	3×50 sq. mm.
38 kV Lines ...	325·0 Kms.	53·1 Kms.	3×35 sq. mm.
10 kV Lines ...	2,691·2 Kms.	349·9 Kms.	—
38 kV Cables ...	12·2 Kms.	—	3×185 sq. m.m.
38 kV Cables ...	28·6 Kms.	—	3×150 sq. mm.
38 kV Cables ...	7·2 Kms.	—	3×95 sq. mm.
10 kV Cables ...	198·2 Kms.	28·2 Kms.	—
5 kV Cables ...	252·2 Kms.	6·4 Kms.	—
3·3 kV Cables ...	2·6 Kms.	2·6 Kms.	2–3×185 sq. mm.

MAIN SHANNON SYSTEM.

WEEKLY SUMMARY OF OPERATING CONDITIONS.

YEAR ENDING 31ST MARCH 1938

APPENDIX VIII.



To face page 34 (a)

Particulars of Electricity Undertakings which at 31st March, 1938, had not been acquired by the Electricity Supply Board.

NOTE.—In 8 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 1938
				Lighting	Heating and Cooking	Power	
Ardara	411	The Ardara Woollen & Industrial Co., Ltd ...	87	10d.	1d.	—	12,935
Ardfinnan	302	Mulcahy, Redmond & Co., Ltd.	7	1/6	—	—	1,410
Balla	259	John McEllin	46	1/–	6d.	6d.	7,658
Ballinlough	275	Ballinlough Electricity Supply Co. ...	48	1/–	5d.	—	3,588
Ballinamore	712	F. J. McAvinia	126	1/–	—	—	26,000 estd.
Ballindine	203	E. W. Griffith	25	8d. & 10d.	—	—	1,910
Ballinrobe	1,337	The Ballinrobe Electric & Woollen Co., Ltd.	200	10d.	3d.	3d.	55,671
Ballybofey and Stranorlar	1,250	Ballybofey & Stranorlar Electric Supply Co.	140	1/–	6d.	6d.	15,949
Ballybunion	378	The Ballybunion Electricity Supply Co., Ltd.	156	1/–	6d.	6d.	20,271
Ballyconnell	314	William Stewart	65	1/–	—	—	5,187
Ballyshannon	2,112	John Myles & Co.	660	8d.	1d. & 2d.	1d. & 2d.	150,799 estd.
Ballysodare	253	W. G. & T. Pollexfen	32	6d./7d.	2½d.	2½d.	11,573
Bandon	2,830	The Bandon Milling & Electric Lighting Co., Ltd.	589	10d.	4d. to 1d.	4d. to 1d.	410,524
Belmullet	566	M. McEntyre	58	10d.	—	5d.	7,883
Belmont, Offaly ...	—	Robert Perry & Co. (1927), Ltd. ...	9	6d.	—	—	2,282
Birr	3,402	The Birr E. L. & Power Co., Ltd. ...	423	6d. & 8d.	2½d.	3d. to 4d.	113,260
Blacklion	116	Capt. W. J. Nixon	24	1/–	—	—	1,688
Boyle	2,323	George Stewart	82	7d.	1d. to 3d.	2d.	28,272

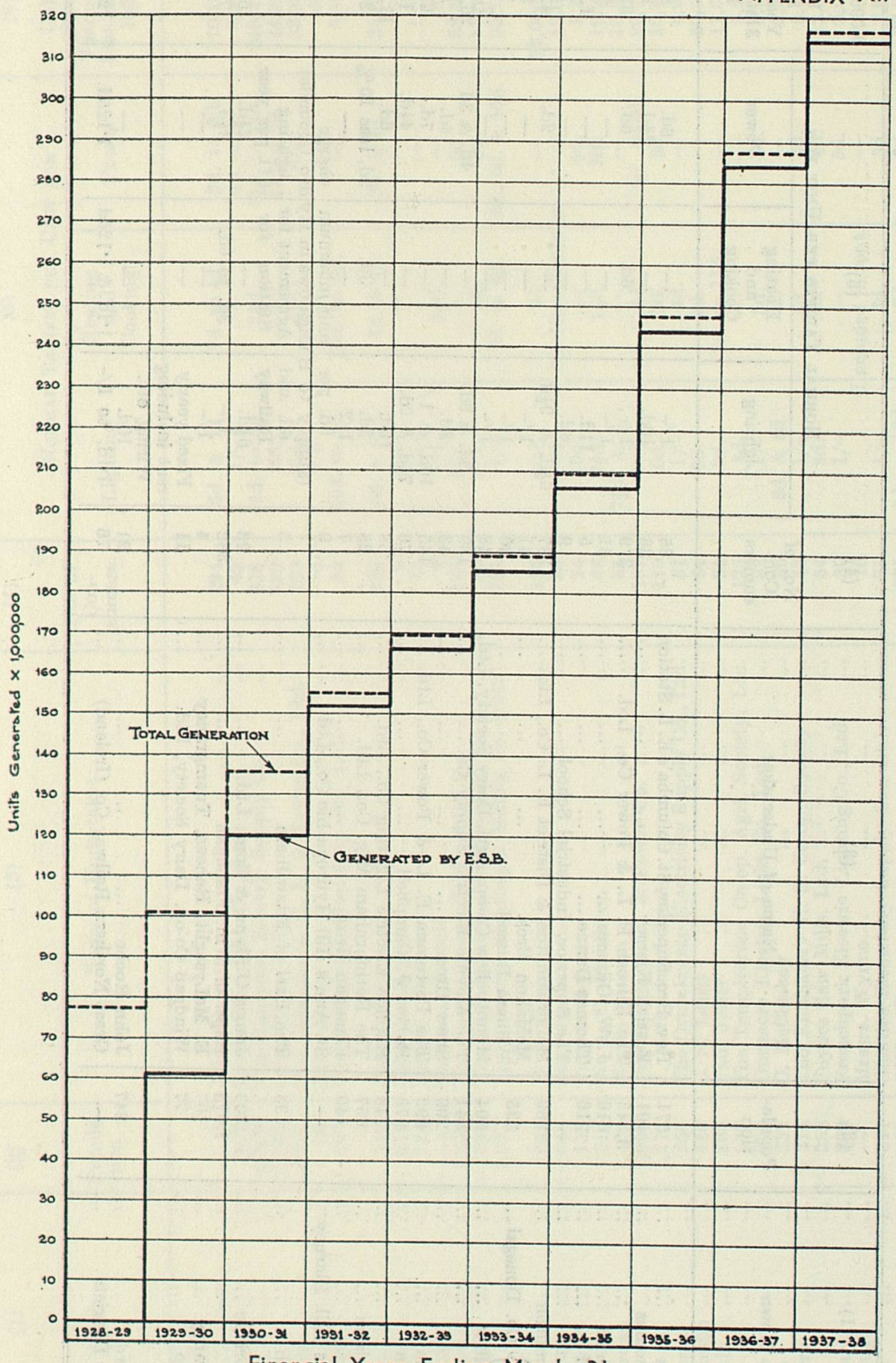
(1) Town	(2) Population	(3) Name of Undertaker	(4) No. of Consumers	(5) Normal Tariffs per Unit for			(6) Units Sold, Year ended 31st March, 1938
				Lighting	Heating and Cooking	Power	
Boyle	—	John Stewart	294	6d. & 7d.	1d. to 4d.	2d. to 3d.	110,163
Borris	452	Borris Electricity Co., Ltd.	43	1/-	—	4d. & 6d.	5,300 estd.
Buncrana	2,309	The Buncrana Electric Supply Co. ...	318	4d. to 7d.	2½d.	2½d. to 1½d.	248,319
Bundoran	1,339	John Myles & Co.	490	6d.	2d.	1½d. & 2d.	124,397
Cahirciveen	1,773	The Cahirciveen E. L. & Power Co., Ltd.	250	10d.	6½d.	6½d.	33,382
Campile	90	John Kenny	4	1/6	—	—	404
Carlingford	547	The Carlingford Electricity Co., Ltd. ...	59	10d. to 3d.	10d. to 3d.	5d.	8,815
Carndonagh	719	James Kelly	125	6d. & 10d.	2d. & 4d.	2d. & 4d.	25,840
Carrigallen	214	John McLoughlin	4	1/-	—	—	700
Carrigart	124	Miss M. Maguire	15	1/-	—	—	1,016
Carrigtwohill	—	Patrick O'Connell	4	1/1	6½d.	—	812
Castleblayney	1,550	The Castleblayney E. L. & P. Co. ...	165	10d.	—	6d.	38,567
Castlepollard	492	The Irish Electrical Construction Co. ...	80	11d.	5d.	3d.	13,818
Castlerea	1,207	The Castlerea Lighting & Milling Co. (1923) Ltd.	171	1/-	5d. & 6d.	5d., 6d. & 10d.	33,747
Clifden	964	E. J. King	130	10d.	3d.	—	22,000 approx.
Clogheen	641	John Browne	82	11d.	6d.	Miscellaneous	10,637
Clonmany	153	Patrick Gallen	24	10d.	—	5d.	1,250
Collooney	319	W. A. G. Middleton	66	7½d.	1½d.	Nil	19,000 estd.
Cloughjordan	404	Martin Gleeson	84	7½d. & 1/-	—	—	15,300 estd.
Dingle	1,998	The Dingle E. L. & Power Co.	187	10d.	5d.	5d. & 4d.	29,791
Donegal	1,272	J. McGowan & Sons	180	10d.	3d.	3d.	36,403
Drumkeeran	250	The Drumkeeran Electricity Supply Co., Ltd.	51	1/-	4d.	—	4,931
Drumshambo	440	C. S. Laird	84	8d.	2d.	—	20,550
Dromahair	265	Paul Jeiter	31	9d.	3d. & 1½d.	—	11,500
Dungloe	577	The Templecrone Co-op. Agrl. Society, Ltd.	125	8d.	—	—	5,261
Dunmore	530	Dunmore Electric Light Co., Ltd. ...	82	1/-	5d.	5d.	9,166
Emyvale	237	C. McCluskey	30	8d. & 4d.	—	—	2,520
Enniskerry	214	The Enniskerry E. S. Co-op. Society ...	48	1/-	4d.	4d.	6,403
Foynes	358	Foynes Saw Mills, Ltd.	54	8d.	—	4d.	13,356
Frenchpark	200	Frenchpark Electric Lighting Co., Ltd. ...	30	1/-	—	5d.	3,046
Glendalough	—	Messrs. Wynne	10		Included in rent.	—	5,000 approx.
Glenties	311	Glenties Electricity Supply Co., Ltd. ...	75	1/-	3d.	3d.	7,894
Kenmare	883	O'Shea Bros.	171	6d. to 10d.	3d.	3d.	27,663
Kilkee	1,682	Kilkee Electricity Supply Co., Ltd. ...	268	1/-	6d.	6d.	23,538
Kilkelly	191	Michael Snee	51	8d.	—	—	9,000 estd.

(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, 1938
				Lighting	Heating and Cooking	Power	
Killybegs	571	Rev. Bro. Superior, St. Columba's E. L. Station	85	1/-	—	6d.	8,831
Kilmacthomas ...	401	Patrick Kiersey	36	10d.	—	2¾d.	6,228
Kilrush	3,345	The Kilrush E. L. & Power Co., Ltd. ...	379	1/-	6d.	6d.	53,900
Kingscourt	616	J. W. Gilmore	51	1/-	—	—	4,172
Kinnegad	316	Thomas Dunne	5	11d.	—	—	1,500 estd.
Letterfrack	—	The Superior, Industrial School	9	8d.	—	—	1,500
Manorhamilton ...	989	Manorhamilton & District E. L. Co., Ltd. ...	137	6½d. & 9½d.	—	2d.	42,183
Milford } Co. Donegal ...	535	McMahon Bros.	41	1/-	—	—	5,040
Milford }		William Russell	30	1/-	—	—	1,300
Mountbellew	304	Mountbellew Co-op. Agrl. Dairy Society, Ltd.	48	1/-	—	—	7,500 estd.
Moville	941	The Moville Electric Supply Co.	189	8d. & 9d.	—	4d. & 3d	26,000 estd.
Pettigo	299	Shaw Bros.	43	8d.	—	4d.	5,070
Portumna	892	The Portumna E. L. & Power Co., Ltd. ...	145	10d. & 1/-	—	7d.	22,042
Ramelton	976	Robert J. Campbell	76	7½d. & 9d.	—	4½d.	11,390
Raphoe	748	Raphoe Electric Lighting Co., Ltd. ...	68	10d.	—	6d.	11,000 estd.
Rathfarnham	657	The Rathfarnham Mfg. Co., Ltd. ...	25	3d.	3d.	3d. less 10%	21,771
Riverstown	140	Flanagan Bros.	7	1/2	—	—	266
St. Ann's Hill, Blarney	—	St. Ann's Hill Hydropathic Co., Ltd ...	9	6d. per unit minimum charge (Supply to Bungalows in Hydro Grounds)			3,190
Shillelagh	133	The Earl of Fitzwilliam	5	6d. and Agreement for lighting Railway Station for £11 per year.			1,478
Sixmilebridge	303	James O'Flynn & Sons, Ltd.	23	6½d.	—	2½d.	51,900
Skerries	1,973	Reps. of Wm. Flanagan	382	1/-	3d. to 6d.	3½d.	74,667
Tuamgraney	107	E. McLysaght, Raheen, Tuamgraney ...	4	1/-	—	—	1,350
Windgap	77	Windgap Co-op. Dairy Society, Ltd. ...	11	Fixed yearly rent including Wiring, etc.	—	—	1,500
Woodford	247	John Roche	21	10d.	—	—	6,080
Various Districts ...	—	Great Northern Railway Co. (Ireland) ...	76	1·1d. to 1/-	1·1d. & 1·125d.	1·125d.	24,382

UNITS GENERATED IN IRELAND

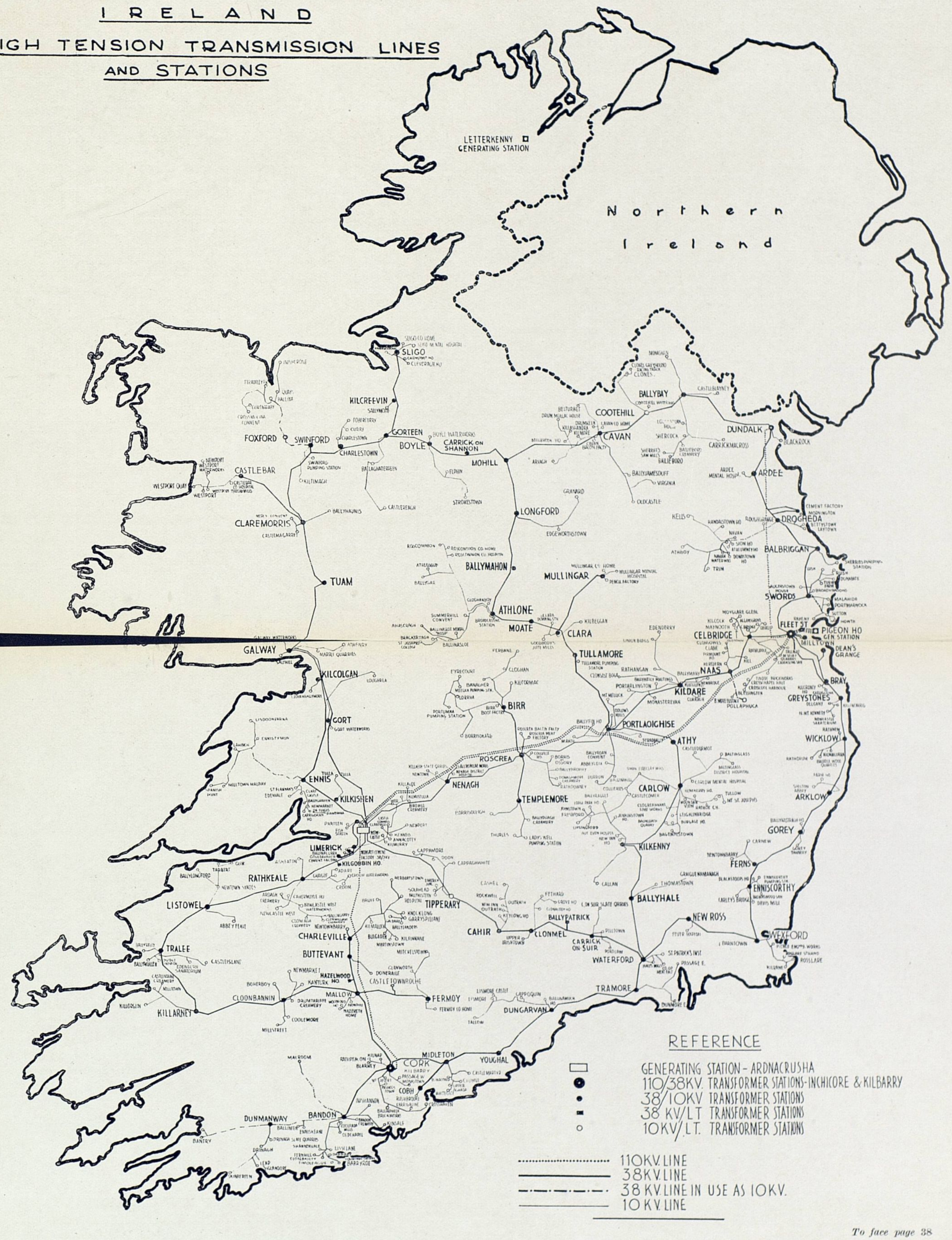
From April 1st, 1928, to March 31st, 1938.

APPENDIX XI.



APPENDIX XII.

IRELAND
HIGH TENSION TRANSMISSION LINES AND STATIONS

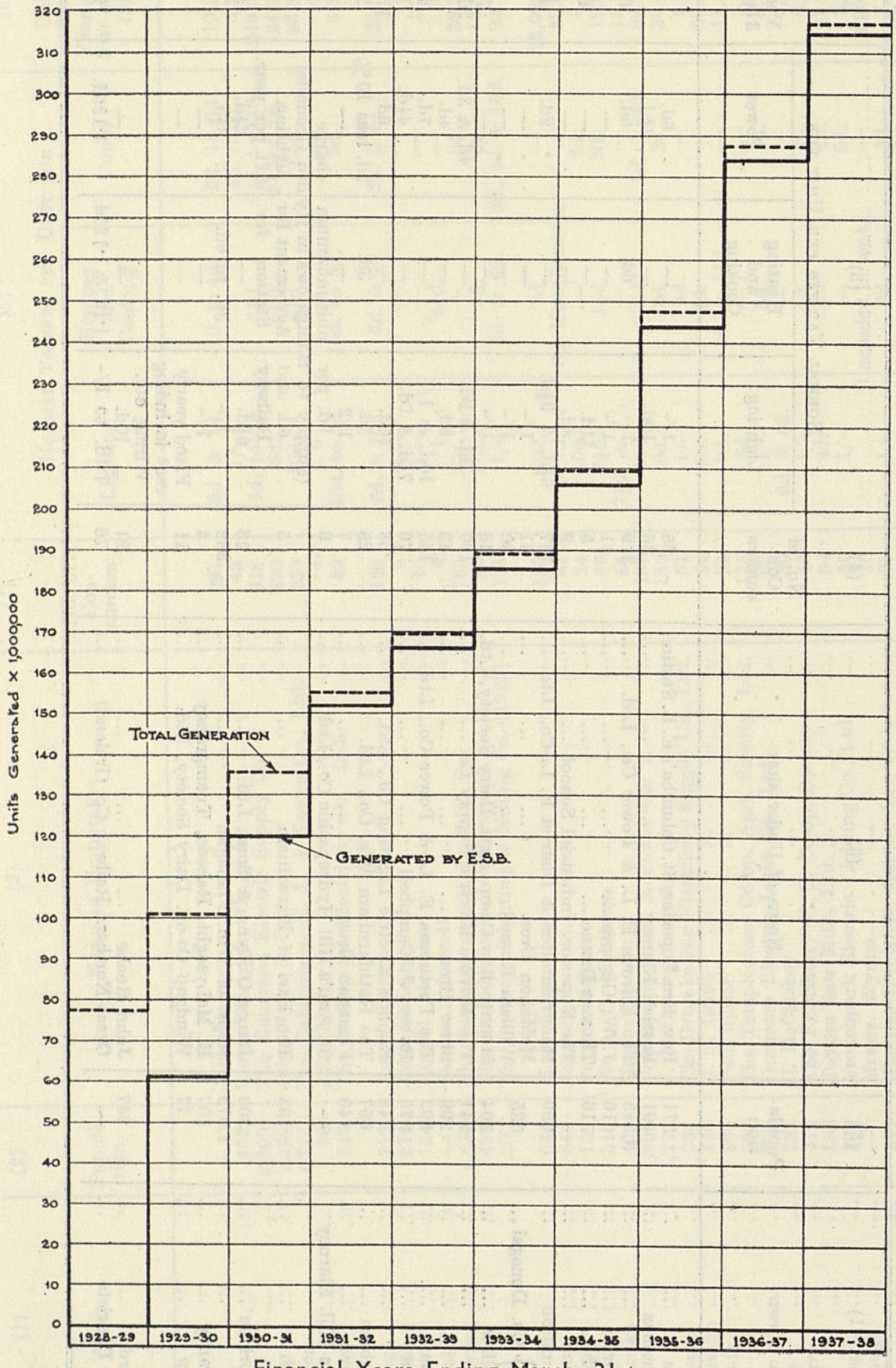


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UNITS GENERATED IN IRELAND

From April 1st, 1928, to March 31st, 1938.

APPENDIX XI.



ACCOUNTS

No. 1. **INSTALLATIONS TRADING ACCOUNT**

Dr.

	£	s.	d.	£	s.	d.
To Cost value of work for which credit had not been taken at 31st March, 1937				27,313	3	8
,, Cost of installation work carried out during the year				53,848	17	5
,, Gross profit, carried down				15,408	9	10
				£96,570	10	11
To Salaries, wages and state insurance	4,800	6	2			
,, Travelling expenses	769	16	0			
,, Rents and rates	109	13	4			
,, Sundry expenses	486	10	10			
,, General overhead expenses and interest, as apportioned	3,755	1	11			
				9,921	8	3
,, Balance, carried to Profit and Loss Account				5,487	1	7
				£15,408	9	10

No. 2. **MERCHANDISE TRADING ACCOUNT FOR**

Dr.

	£	s.	d.	£	s.	d.
To Cost value of transactions for which credit had not been taken at 31st March, 1937				19,631	3	4
,, Cost of goods issued as sales				62,772	11	8
,, Sundry costs in connection with sales				5,781	3	0
,, Gross profit, carried down				12,554	12	2
				£100,739	10	2
To Salaries, wages, commission and state insurance	3,373	16	3			
,, Travelling expenses	355	2	1			
,, Rents and rates	270	6	9			
,, Sundry expenses	664	11	8			
,, General overhead expenses and interest, as apportioned	3,989	19	1			
				8,653	15	10
,, Balance, carried to Profit and Loss Account				4,692	0	8
				£13,345	16	6

FOR THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£	s.	d.
By Credit taken for contracts completed and charged	73,102	1	11
,, Cost value of work for which credit has not yet been taken ...	23,468	9	0
	£96,570	10	11
By Gross profit, brought down	15,408	9	10
	£15,408	9	10

THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£	s.	d.
By Credit taken for sales	68,274	8	0
,, Cost value of transactions for which credit has not yet been taken	32,465	2	2
	£100,739	10	2
By Gross profit, brought down	12,554	12	2
,, Hireage receipts on hire-purchase appliances	791	4	4
	£13,345	16	6

No. 3. ELECTRICITY REVENUE ACCOUNT FOR

Dr.

	£ s. d.	£ s. d.
To Generation:		
Operating expenses	110,071 8 11	
Maintenance and repair	44,181 12 1	
		154,253 1 0
„ Transmission:		
Operating expenses	9,107 4 4	
Maintenance and repair	23,251 15 0	
		32,358 19 4
„ Distribution:		
Operating expenses	117,788 13 9	
Maintenance and repair	76,447 14 9	
		194,236 8 6
„ Depreciation of Physical Capital Assets		215,000 0 0
„ General Management and Overhead Expenses:		
Salaries, wages, commission and state insurance	258,072 18 0	
Transport and travelling expenses ...	25,439 10 4	
Rents and rates of office and store premises	6,800 3 2	
Insurances	8,742 18 1	
Stationery	12,182 10 0	
Telephones and postage	8,964 19 2	
Upkeep of buildings	4,727 7 7	
Upkeep of furniture and equipment ...	6,336 8 11	
Publicity	13,421 7 1	
Exhibition and demonstration	14,848 0 0	
Audit fees	1,000 0 0	
Other professional fees and expenses ...	1,210 15 5	
Electricity consumed	4,916 10 8	
Sundry expenses	1,745 14 9	
	368,409 3 2	
Less: apportionment charged to other accounts and to capital works ...	34,256 0 0	
		334,153 3 2
„ Pensions and compensation to officers of acquired undertakings		14,897 1 0
„ Provision for bad debts		3,300 0 0
„ Depreciation of stocks of material		5,865 0 3
„ Balance, carried to Profit and Loss Account		782,736 9 10
		£1,736,800 3 1

THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£ s. d.	£ s. d.
By Charges for electricity, etc.:		
General consumers	1,594,143 7 2	
Public lighting	86,042 9 10	
Meter and other rents	44,686 17 10	
		1,724,872 14 10
„ Miscellaneous revenue		11,927 8 3
		£1,736,800 3 1

No. 4. *Dr.*

ELECTRICITY PROFIT AND LOSS ACCOUNT

	£	s.	d.	£	s.	d.	£	s.	d.
To Interest payable to the Minister for Finance under the Electricity (Supply) Act, 1927, as follows :—									
Under section 13, in respect of advances under—									
(*a*) section 12 (2) ...	7,800	0	0						
(*b*) section 12 (3) ...	95,184	8	3						
Under section 15 (3) in respect of the liability transferred from the Shannon Power Development Fund under section 15 (2)	297,678	11	3						
,, Interest payable to the Minister for Finance under the Electricity (Supply) (Amendment) Acts, 1931 to 1934 and Liffey Reservoir Act, 1936	150,401	12	3						
				551,064	11	9			
,, Interest on loans and loan-stocks of acquired undertakings				15,593	0	10			
,, Other interest				25,030	12	5			
				591,688	5	0			
Less : apportionment charged to other accounts and to capital works				30,052	0	0			
							561,636	5	0
,, Loan-stock management charges							221	16	7
,, Gross contributions to loan-stock sinking funds of acquired undertakings							14,298	15	7
,, Reserves, being the amount of capital of acquired undertakings repaid or provided for repayment							17,010	5	0
,, Premium at which loan-stock was redeemed							329	12	9
,, BALANCE, carried down							195,852	1	10
							£789,448	16	9
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
,, BALANCE, carried down							204,542	3	7
							£206,131	4	1
To BALANCE transferred to reserve for depreciation of physical capital assets							601,010	12	11
							£601,010	12	11

FOR THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£	s.	d.
By Balance transferred from Revenue Account	782,736	9	10
„ Loan-stock sinking funds' investment income	4,032	3	1
„ Discount at which loan-stock was redeemed	68	4	3
„ Interest receivable	2,611	19	7
	£789,448	16	9

	£	s.	d.			
By Balance, brought down	...		...	195,952	1	10
„ Installations trading profit	5,487	1	7			
„ Merchandise trading profit	4,692	0	8			
				10,179	2	3
				£206,131	4	1

By Balance, brought down	204,542	3	7
„ Shannon Fisheries Profit and Loss Account—transfer of adjusted losses for the years 1935/36 and 1936/37	4,588	19	11
„ General Reserve—transfer of balance at 31st March, 1937 ...	391,879	9	5
	£601,010	12	11

No. 5. ELECTRICITY CAPITAL ACCOUNT FOR

Dr.

	Total to 31st March, 1937 less— amounts written off	Expenditure during year to 31st March, 1938 less— amounts written off	Total to 31st March, 1938 less— amounts written off
	£ s. d.	£ s. d.	£ s. d.
To GENERATION : physical assets ...	5,522,312 14 3	231,012 12 7	5,753,325 6 10
,, TRANSMISSION : physical assets ...	2,392,012 14 5	68,379 11 3	2,460,392 5 8
,, DISTRIBUTION : (*a*) physical assets ...	2,936,457 9 9	301,666 5 6	3,238,123 15 3
(*b*) other capital expenditure	426,173 12 5	55,715 18 2	481,889 10 7
,, GENERAL : (*a*) physical assets ...	180,591 0 2	30,992 9 11	211,583 10 1
(*b*) other capital expenditure	326,398 19 5	12,524 9 11	338,923 9 4
,, SHANNON FISHERIES ...	29,399 10 0	*(—)29,399 10 0	——
£	11,813,346 0 5	£670,891 17 4	12,484,237 17 9
,, NON-CLASSIFIED EXPENDITURE : New works in progress			520,834 0 1
		TOTAL ...	13,005,071 17 10
**Of this sum* £8,700 12s. 1d. *has been transferred to Shannon Fisheries Capital Account and the balance* £20,698 17s. 11d. *reclassified as Generation Assets.*			£ 13,005,071 17 10

THE YEAR ENDED 31st MARCH, 1938.

Cr.

	Total Receipts to 31st March, 1937 less— redemptions	Receipts during year to 31st March, 1938 less— redemptions	Total Receipts to 31st March, 1938 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	235,095 0 0	(—)19,317 5 4	215,777 14 8
Liability under Section 39 (7) ...	5,742 14 4	(—) 1,506 11 5	4,236 2 11
„ 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 and Liffey Reservoir Act, 1936	2,834,881 12 3	550,000 0 0	3,384,881 12 3
For advances to the Shannon Power Development Fund applicable as determined under section 15 of the Electricity (Supply) Act, 1927, to Shannon Works handed over	5,953,571 5 8	——	5,953,571 5 8
Total ...£	11,088,978 18 4	£529,176 3 3	11,618,155 1 7
By Balance			1,386,916 16 3
			£ 13,005,071 17 10

No. 6. ELECTRICITY BALANCE SHEET

Dr.

LIABILITIES.

	£	s.	d.	£	s.	d.
To Receipts, as per Capital Account				11,618,155	1	7
„ Sundry Creditors				358,394	17	9
„ Working Capital Loan of an acquired undertaking ...				14,400	0	0
„ Sinking Funds for loan-stocks of acquired undertakings—						
Balance of amount provided by undertakings	4,554	17	0			
Balance of amount provided in accordance with section 39 (6) of the Electricity (Supply) Act, 1927 ...	26,376	4	7			
				30,931	1	7
„ Amount reserved in respect of capital loans repaid, capital receipts non-repayable and sale of assets, together with additional amounts reserved for depreciation and retirement of assets, less assets retired				1,838,040	6	4
„ Capital Assets Adjustment Reserve				185,973	1	5
„ Reserves: Amount provided by acquired undertakings	77,897	14	4			
Other reserves and provisions ...	9,334	18	8	87,232	13	0
				£14,133,127	1	8

AS AT 31st MARCH, 1938.

Cr.

ASSETS.

	£	s.	d.	£	s.	d.
By Capital Assets, as per Capital Account				13,005,071	17	10
„ Stocks on Hand or in Transit				585,831	15	0
„ Cost Value of Installations Work and Sales for which Credit has not been taken				59,721	2	9
„ Sundry Debtors, after providing for bad and doubtful debts				354,952	9	5
„ Shannon Fisheries, temporary advances				46,828	17	5
„ Cash in Hand or with Banks				49,789	17	8
„ Sinking Funds (held by local authorities) for loan-stocks—						
Investments (at cost)	24,612	11	7			
Cash not invested	6,318	10	0			
				30,931	1	7
				£14,133,127	1	8

No. 7. SHANNON FISHERIES TRADING ACCOUNT

Dr.

	£	s.	d.
To Operation, maintenance and repair of fisheries	5,059	0	6
,, Fishery rates	347	9	9
,, General management and overhead expenses	686	7	6
	£6,092	17	9

No. 8. SHANNON FISHERIES PROFIT AND LOSS ACCOUNT

Dr.

	£	s.	d.
To Balance brought from Trading Account	4,248	14	6
,, Apportionment of interest on capital invested in fisheries ...	1,694	0	0
	£5,942	14	6
To Balance, brought down	5,942	14	6
,, Electricity Profit and Loss Account—transfer of adjusted losses for the years 1935/36 and 1936/37	4,588	19	11
	£10,531	14	5
To Balance, brought down	£10,531	14	5

FOR THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£	s.	d.
By Sales of fish and letting of fishing rights	1,844	3	3
„ Balance, carried to Profit and Loss Account	4,248	14	6
	£6,092	17	9

FOR THE YEAR ENDED 31st MARCH, 1938.

Cr.

	£	s.	d.
By Balance, carried down	5,942	14	6
	£5,942	14	6
By Balance, carried down	10,531	14	5
	£10,531	14	5

No. 9. **SHANNON FISHERIES CAPITAL ACCOUNT**

Dr.

	Total Expenditure to 31st March, 1938
	£ s. d.
To Fishery rights and fisheries	*30,051 11 5
,, Non-classified expenditure : New Works in Progress	5,943 18 5
* *Including* £8,700 12s. 1d. *transferred from Electricity Capital Account.*	£35,995 9 1 0

No. 10. **SHANNON FISHERIES BALANCE SHEET**

Dr.

LIABILITIES.	
	£ s. d.
To Electricity Funds, temporary advances	46,828 17 5
	£46,828 17 5

FOR THE YEAR ENDED 31st MARCH, 1938.

Cr.

	Total Receipts to 31st March, 1938
	£ s. d.
By Balance	35,995 9 10
	£35,995 9 10

AS AT 31st MARCH, 1938.

Cr.

ASSETS.	
	£ s. d.
By Capital Assets, as per Capital Account	35,995 9 10
„ Stock of Material	194 16 6
„ Cash in Hand and with Bank	106 16 8
„ Deficiency, as per Profit and Loss Account	10,531 14 5
	£46,828 17 5

	Total Receipts to 31st March, 1938
	£ 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
Liability under Section 39 (7)	15,065 16 10
Minister for Finance :—	
For advances under the Electricity (Supply) Act, 1927—	
Section 12 (2)	156,000 0 0
Section 12 (3)	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 and Liffey Reservoir Act, 1936	3,384,881 12 3
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	5,953,571 5 8
	£12,154,162 8 3

REDEMPTION THEREOF TO THE 31st MARCH, 1938.

Redeemed			Balance of Capital Receipts Outstanding at 31st March, 1938
Total to 31st March, 1937	During year to 31st March, 1938	Total to 31st March, 1938	
£ s. d.	£ s. d.	£ s. d.	£ s. d.
505,860 7 5	19,317 5 4	525,177 12 9	215,777 14 8
9,323 2 6	1,506 11 5	10,829 13 11	4,236 2 11
—	—	—	156,000 0 0
—	—	—	1,903,688 6 1
—	—	—	3,384,881 12 3
—	—	—	5,953,571 5 8
£515,183 9 11	£20,823 16 9	£536,007 6 8	£11,618,155 1 7

No. 12. **GENERAL BALANCE SHEET**

Dr.

LIABILITIES.

			£ s. d.
To Receipts : per Electricity Capital Account			11,618,155 1 7
,, Sundry Creditors			358,394 17 9
,, Working Capital Loan of an acquired undertaking ...			14,400 0 0
,, Sinking Funds for loan-stocks of acquired undertakings—			
Balance of amount provided by undertakings	£ s. d. 4,554 17 0		
Balance of amount provided in accordance with section 39 (6) of the Electricity (Supply) Act, 1927 ...	26,376 4 7		
			30,931 1 7
,, Amount reserved in respect of capital loans repaid, capital receipts non-repayable and sale of assets, together with additional amounts reserved for depreciation and retirement of assets, less assets retired			1,838,040 6 4
,, Capital Assets Adjustment Reserve			185,973 1 5
,, Reserves : Amount provided by acquired undertakings	£ s. d. 77,897 14 4		
Other reserves and provisions ...	9,334 18 8		
			87,232 13 0
			£14,133,127 1 8

R. F. BROWNE, *Chairman.*

PATK. J. DEMPSEY, *Secretary.*

AS AT 31st MARCH, 1938.

Cr.

ASSETS.	£	s.	d.	£	s.	d.
By Capital Assets :						
per Electricity Capital Account ...	13,005,071	17	10			
per Shannon Fisheries Capital Account	35,995	9	10			
				13,041,067	7	8
,, Stocks on Hand or in Transit				586,026	11	6
,, Cost Value of Installations Works and Sales for which Credit has not been taken				59,721	2	9
,, Sundry Debtors, after providing for bad and doubtful debts				354,952	9	5
,, Cash in Hand or with Banks				49,896	14	4
,, Sinking Funds (held by local authorities) for loan-stocks—						
	£	s.	d.			
Investments (at cost)	24,612	11	7			
Cash not invested	6,318	10	0			
				30,931	1	7
,, Deficiency, as per Shannon Fisheries Profit and Loss Account				10,531	14	5
				£14,133,127	1	8

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 undermentioned qualifications, that the Balance Sheet as at the 31st March, 1938, 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.

Depreciation has been charged in the Revenue Account in respect of the year ended 31st March, 1938, on the Capital Assets referred to as physical assets in the Capital Account, including those acquired from Local Authorities, on the basis of a re-classification and re-valuation made by the Board's Officials and at rates approved by the Board governed by the life of the Assets as estimated by the Board's Officials. On this basis the total amount set aside for depreciation up to the 31st March, 1938, either by way of direct charge or by transfer of the balance of the Profit and Loss Account is considered by the Board's Officials to be within £100,000 of the amount required to provide fully for depreciation of the Board's physical assets, excluding assets acquired from Local Authorities, up to that date. Depreciation of the physical assets acquired from Local Authorities has been treated, up to the 31st March, 1937, as having been provided for in the amounts charged in respect of the replacement of loans and loan-stocks of the undertakings acquired.

Overhead expenses are charged in the foregoing accounts in accordance with the 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, the Shannon Fisheries 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 the Installations Trading Account, the Merchandise Trading Account, the Shannon Fisheries Profit and Loss Account, and to capital expenditure on new works.

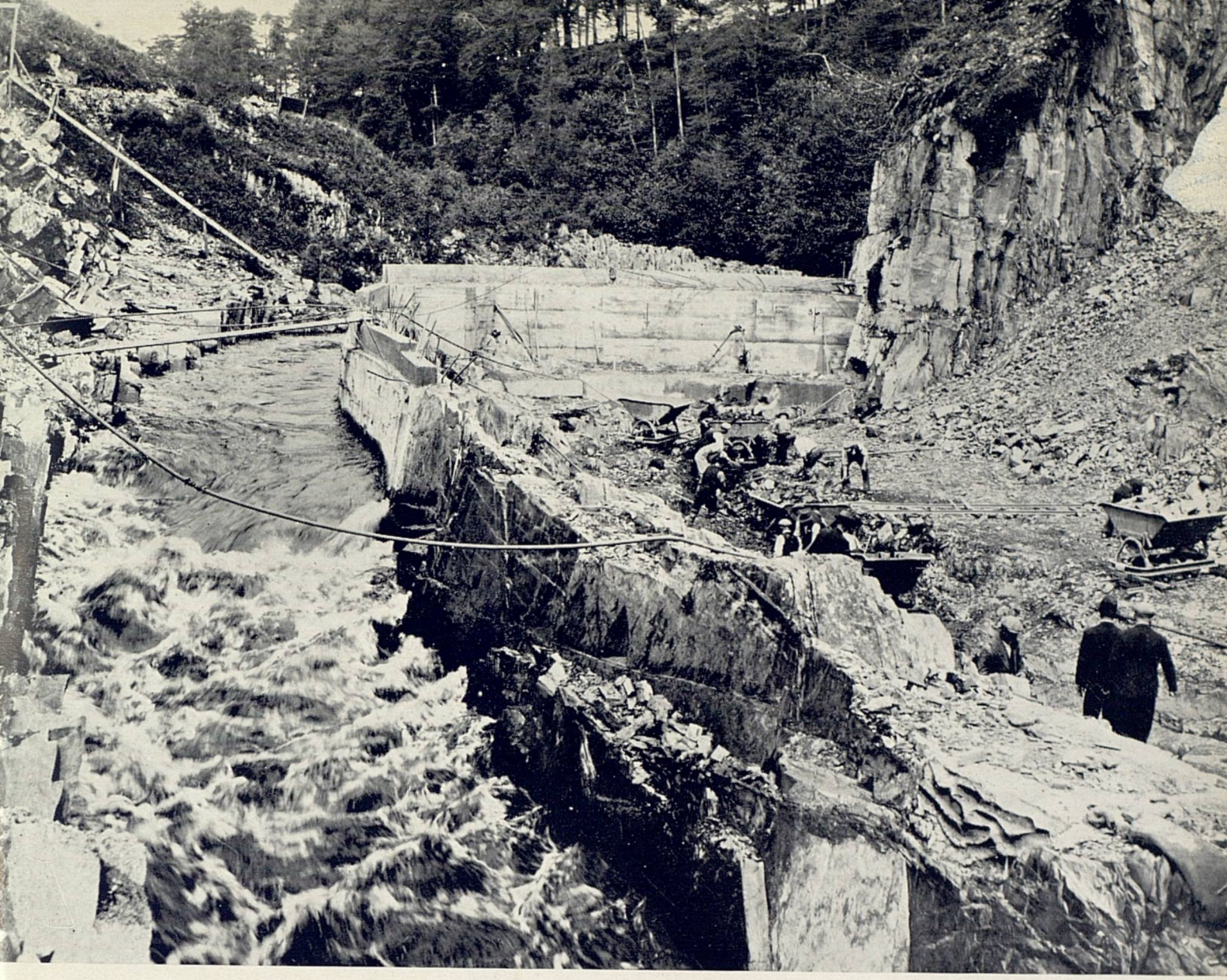
(*c*) Credit has been given to the Merchandise Trading Account for a sum representing a proportion of the expenses regarded as relating to the sales of electricity, and this amount has been charged to Revenue Account.

(Signed) KENNEDY, CROWLEY & CO.,
Auditors.

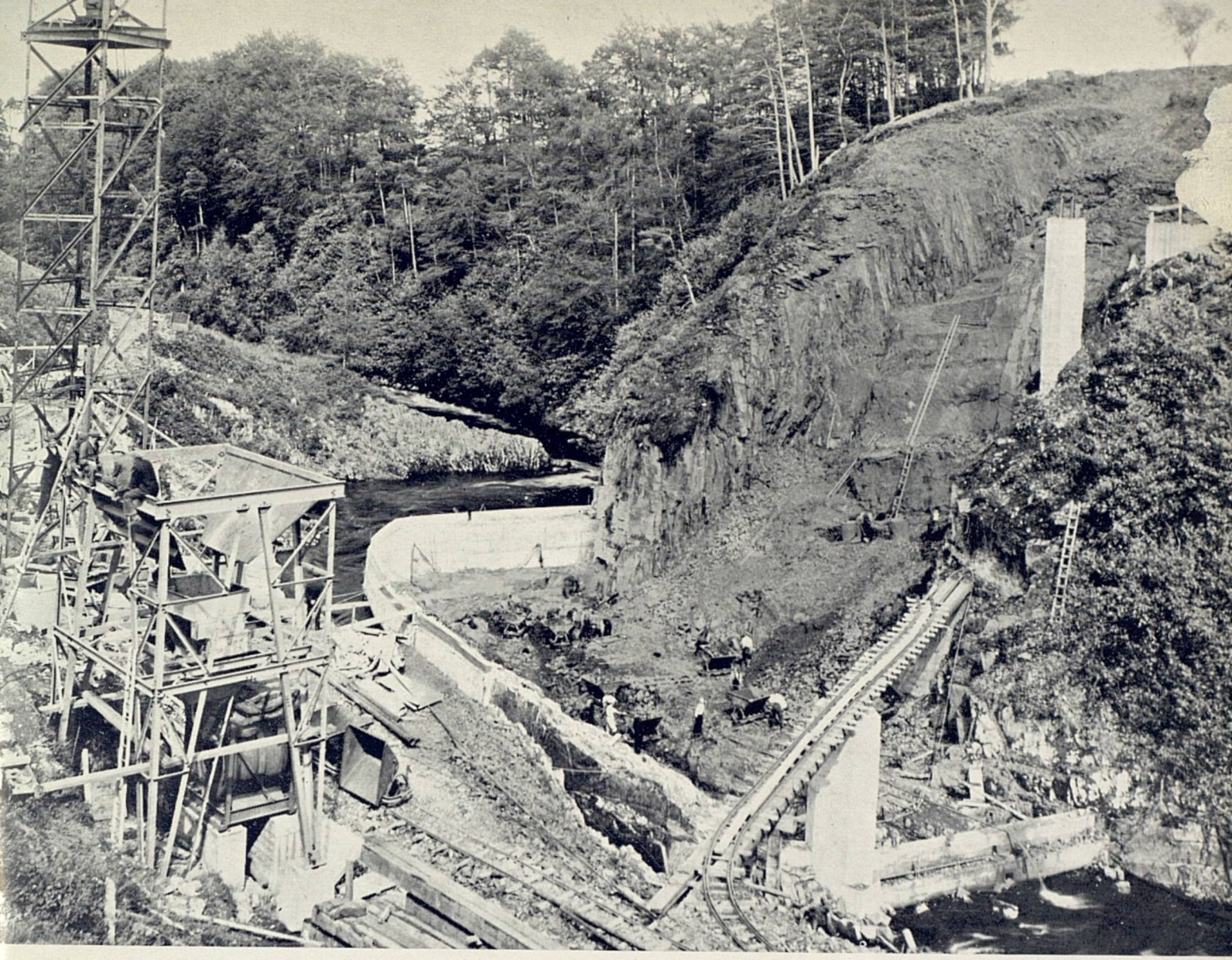
4 AND 5 WESTMORELAND STREET,
DUBLIN, 12*th July*, 1938.



New Public Lighting System
on Merrion Road, Dublin.



Liffey Hydro-Electric Development
River Diversion and Coffer Dam.



Liffey Hydro-Electric Development
Preparatory Work on Site of Dam.

Alex. Thom & Co., Ltd