THIRTY-SECOND

ANNUAL REPORT

OF THE

ELECTRICITY SUPPLY BOARD

IRELAND

FOR THE YEAR ENDED

MARCH 31st

1959

INCLUDING REPORT ON FISHERIES

(Pr. 5048)

PRICE ONE SHILLING

THIRTY-SECOND

ANNUAL REPORT

OF THE

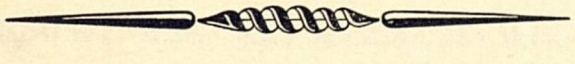
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ELECTRICITY SUPPLY BOARD

●

R. F. BROWNE, *Chairman*

T. MURRAY, B.A.

Part-time members :

J. P. DIGBY

T. MacMAHON, B.E., B.Sc.

HENRY KENNEDY, M.A., D.Sc.

B. O'CARROLL, B.A., LL.B.

J. A. RYAN

●

Secretary :

JOHN G. GARGAN, B.L., A.C.C.A.

Chief Engineer :

P. G. MURPHY, B.Sc., M.E., M.I.E.E., M.I.Mech.E.

Chief Accountant :

JOSEPH FOGARTY, B.Comm., A.C.A.

●

Head Office :

27 LOWER FITZWILLIAM STREET, DUBLIN, IRELAND

ELECTRICITY SUPPLY BOARD

REPORT AND ACCOUNTS

YEAR ENDED 31st MARCH, 1959

(Including Report on the Fisheries)

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ELECTRICITY SUPPLY BOARD

REPORT AND ACCOUNTS

YEAR ENDED 31st MARCH, 1959

(Inclusive Report on the Fisheries)

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REPORT

OF THE

ELECTRICITY SUPPLY BOARD

27 Lower Fitzwilliam 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, 1959.

Notwithstanding the several sources from which electricity is now generated, weather conditions are still a material influence on generation. The heavy rainfall during the summer and autumn of 1958 increased significantly the output of the hydro stations, but on the other hand interfered seriously with the harvesting of peat. The relatively dry period, which followed in the winter, created a special difficulty in that the inflow of water to the hydro stations was very low at a time when supplies of peat were below expectations. The main oil and coal fired stations, over this period, were operated to maximum capacity assisted by the standby station at Pigeon House.

The total number of units generated was 1,895 millions, an increase of 124 million units, or approximately 7 per cent on the output of 1,771 millions in the previous year. The units sent out by the hydro stations amounted to 773 million units, i.e., 12 per cent above average.

The output of the peat-fired stations fell to 385 million units compared with 489 million units in the previous year. This drop occurred notwithstanding an increase of 92 million units from the Ferbane Station, where a large stock of the previous year's harvest was available for use. The effect was more pronounced in the case of the sod turf stations at Portarlington and Allenwood the combined output of which fell to 135 million units compared with 346 million units in the previous year.

The sources of supply were as follows :—

Hydro	42·7%
Peat (sod)	9·4%
Peat (milled)	11·9%
Coal (native)	1·1%
Oil/Coal (imported) ...	34·9%

Thus generation from native sources amounted to 65·1% of the total output.

The installed generating plant was adequate to meet requirements. All plant was maintained in first-class condition.

Sales of electricity realised £13,784,000, an increase of £881,000 over the previous year. The number of new consumers was 20,576 of whom 14,997 were from rural areas, and at the end of the year there were 590,921 consumers. The sales and publicity campaign was maintained ; it was aimed particularly at the widening of the uses of electricity which have not so far been sufficiently developed. Many consumers purchasing equipment have availed themselves of the Board's hire-purchase scheme, the terms of which are very reasonable.

The summarised revenue and expenditure figures in respect of electricity supply are :

	Year ended 31st March, 1959	Year ended 31st March, 1958
	£	£
Gross revenue	13,839,231	12,947,602
Working expenditure on wages, fuel, and other materials and overheads	6,908,060	6,841,176
	£6,931,171	£6,106,426

This surplus is subject to the following capital charges :—

Interest	3,624,056	3,268,110
Provision for plant renewal ...	2,600,000	2,347,000
Capital redemption	805,998	685,899
Leaving Deficiency	98,883	194,583

The year's results can be considered satisfactory in that income and expenditure remained closely related in amount. The financial position at the close of the year continued to be sound.

The deficiency of £98,883 is subject to a number of adjustments the effect of which is to leave a small credit of £71,091 to be carried forward in the Net Revenue Account. Two of these adjustments require special mention.

Firstly, electricity supplied in March cannot be billed to consumers until after the end of the financial year. The practice has been to take credit for the growth in this unbilled revenue when it became substantial. It has now been decided to make the appropriate adjustment each year in future and the effect

is that revenue of £107,600 which accrued during 1956/57 and 1957/58 is being taken to credit in the present year.

Secondly, it has been the practice to apportion the profit on deferred payment transactions by reference to the debt outstanding but this procedure is being discontinued in recognition of the modern trend. Having made adequate provision for possible bad debts, a balance of £45,143 profit in suspense at the commencement of the year is released and brought to credit. In future, the profit will be credited in full in the year in which the original transaction takes place.

The deficiency on the Rural Account of £656,000 has, in the year, been almost wholly offset by the surplus on the Non-rural Account. It was stated in the Report for 1957/58 that the deficiency would continue to grow as the work under the Rural Electrification Scheme proceeded but the restoration of the subsidy, as from 1st April, 1958, under the Electricity (Supply) (Amendment) Act, 1958, will tend to check this growing deficiency. About five-sixths of the Scheme has been completed, and the remainder involves development in difficult and sparsely populated territory from which economic returns, even with the subsidy, are unlikely.

At the close of last year reserves of £1,000,000 for contingencies and £500,000 for fuel equalisation were held. It has been decided, in the circumstances which now obtain, to merge the two reserves into a single contingencies reserve of £1,500,000. This sum is considered to be adequate in existing circumstances.

The total expenditure chargeable to revenue increased during the year by £796,000. Of this £729,000 related to interest, capital repayment and provision for plant renewal. Working costs, other than fuel, increased by £263,000 which reflects the annual growth to be expected in supplying an expanding market. Fuel costs were lower than in the preceding year by £196,000 because of the satisfactory water conditions and by reason of a favourable market in coal. The import duty on oil continued at the same level as last year but did not involve a substantial cost as power was available from other sources.

CAPITAL

The value of plant brought into commission was £5,418,691 of which £2,541,546 related to Rural Electrification. The total investment in assets in productive use at the end of the year was :

	£
Generation	45,249,404
Transmission	13,420,210
Distribution (incl. Rural £24,224,776) ...	37,397,000
Premises, equipment, transport, etc. ...	2,863,438
	£98,930,052

In addition, expenditure of £4,052,618 was incurred on new capital works still under construction at the end of the year. The fixed capital investment was almost £103,000,000.

BORROWING POWERS

The capital requirements for the year were provided for the greater part from internal resources such as the depreciation funds. These were augmented by the remaining proceeds of the Electricity Supply Board 6% Stock issue of March, 1958 and by receipts of rural subsidy.

The Electricity (Supply) Acts authorise the Board to incur capital expenditure not exceeding £100,000,000 for its general purposes. At 31st March, 1959, the Board had approved expenditure totalling £92,962,003 of which £74,705,276 represented electricity assets actually in commission at that date, the balance £18,256,727 representing either work in progress or work authorised.

The amount similarly authorised for Rural Electrification is now £30,000,000. At 31st March, 1959, the amount approved was £25,891,047 of which £24,224,776 represented assets in commission, and £1,666,271 work in progress or authorised.

SALE OF ELECTRICITY AND NUMBER OF CONSUMERS

The number of units generated and sold, the revenue, the average price per unit and the number of consumers for each of the last thirty years are shown in the following table :—

Year ended 31st March	Units generated (and purchased) millions	Units sold millions	Revenue from sales of energy thousands	Average price in pence per unit sold	Total consumers
			£		
1930 ..	60·948	43·177	478	2·66	48,606
1931 ..	119·843	85·500	735	2·06	69,045
1932 ..	151·844	110·677	939	2·04	78,511
1933 ..	166·076	120·099	1,044	2·09	83,052
1934 ..	185·383	138·503	1,150	1·99	91,267
1935 ..	206·106	156·964	1,258	1·92	103,037
1936 ..	244·099	187·016	1,430	1·84	116,704
1937 ..	284·118	218·758	1,584	1·74	130,483
1938 ..	314·477	244·460	1,725	1·69	145,230
1939 ..	377·637	295·259	1,901	1·54	160,382
1940 ..	406·999	318·552	1,946	1·47	172,545
1941 ..	435·864	345·231	2,072	1·44	183,747
1942 ..	450·412	357·252	2,183	1·47	200,419
1943 ..	414·363	328·052	2,224	1·63	210,475
1944 ..	442·893	346·938	2,426	1·68	222,013
1945 ..	406·273	319·010	2,458	1·85	228,008
1946 ..	483·626	379·094	3,062	1·94	237,136
1947 ..	571·876	453·655	3,589	1·90	248,030
1948 ..	619·966	492·149	3,863	1·88	262,598
1949 ..	710·215	569·257	4,344	1·83	284,198
1950 ..	784·776	626·174	4,774	1·83	310,639
1951 ..	972·951	770·377	5,584	1·74	343,376
1952 ..	1,032·697	835·326	6,531	1·88	372,743
1953 ..	1,163·616	929·641	7,628	1·97	402,395
1954 ..	1,295·520	1,051·746	8,517	1·94	435,985
1955 ..	1,461·736	1,192·172	9,522	1·92	461,901
1956 ..	1,573·150	1,306·642	10,465	1·92	509,546
1957 ..	1,647·713	1,352·642	11,555	2·05	547,910
1958 ..	1,774·821	1,424·645	12,903	2·17	570,345
1959 ..	1,898·215	1,549·402	13,784	2·14	590,921

Appendix I gives details of the number of consumers and certain other particulars relating to supply.

ANALYSIS OF UNITS SOLD

The following table gives an analysis of the units sold in the main categories of supply:—

Class of Supply	Units Sold		Increase	Percentage increase
	Year ended 31st March, 1959 millions	Year ended 31st March, 1958 millions	millions	
Domestic ..	679·415	610·609	68·806	11·3
General Lighting	89·813	87·363	2·450	2·7
General Heating, Cooking and Water Heating, (excluding Night Storage Heating ..	161·129	148·922	12·207	8·1
Night Storage Heating ..	98·822	91·902	6·920	7·4
Motive Power ..	475·853	442·357	33·496	7·6
Public Lighting	31·944	31·251	0·693	2·1
Traction ..	0·255	0·266	—0·011	—4·1
Miscellaneous ..	12·171	11·975	0·196	1·6
Totals ..	1,549·402	1,424·645	124·757	8·8

SALES OF APPLIANCES

The sales of appliances amounted to £752, 524 as compared with £603,831 in the preceding year. The rate of gross profit was 19·4%. The Merchandise Trading Account, having been charged with overhead expenses and interest on working capital, showed a profit of £16,921. While in previous years it was the practice to apportion the profit on deferred payment transactions it has now been thought more satisfactory to take full credit in the year in which sales are completed.

CONSUMERS' INSTALLATIONS

The credit taken for contracts completed and invoiced for work carried out amounted to £401,288 as compared with £367,042 for the preceding year. The rate of gross profit was 18·8%. Having debited to the Installations Trading Account overhead expenses and interest on working capital, there was a net profit of £9,879.

GENERATION

The output statistics for the generating stations and the corresponding figures for the preceding year are shown in the following table :—

Station	Year ended 31st March, 1959			Year ended 31st March, 1958
	Generated million units	Station use million units	Sent out million units	Sent out million units
Ardnacrusha ..	362·248	3·285	358·963	306·821
Cliff	77·155	0·790	76·365	78·437
Cathaleen's Fall	189·915	2·372	187·543	194·095
Carrigadrohid	26·806	0·500	26·306	14·922
Inniscarra ..	67·071	0·751	66·320	52·509
Pollaphuca ..	28·581	0·485	28·096	23·508
Golden Falls ..	10·515	0·097	10·418	9·089
Leixlip ..	18·609	0·155	18·454	14·611
Clady ..	0·849	0·021	0·828	—
Portarlington	67·685	4·665	63·020	129·952
Allenwood ..	77·945	6·142	71·803	216·014
Ferbane ..	233·953	18·638	215·315	123·043
Lanesborough	21·246	1·255	19·991	—
Cahirciveen ..	1·685	0·292	1·393	3·056
Miltown-Malbay	2·140	0·313	1·827	11·651
Screeb ..	1·629	0·262	1·367	5·083
Gweedore ..	11·258	0·840	10·418	0·343
Pigeon House	18·568	3·406	15·162	0·689
North Wall ..	60·791	4·463	56·328	41·604
Ringsend ..	359·399	21·622	337·777	273·707
Marina ..	234·436	12·428	222·008	193·434
Arigna ..	22·007	1·416	20·591	—
Purchased ..	3·724	—	3·724	3·559
Totals ..	1,898·215	84·198	1,814·017	1,696·127
Maximum daily generation, million units			7·887	7·044
Maximum load generated in kW			462,000	412,000

The units generated and purchased showed an increase of 123·394 million units or 7·0% higher than the preceding year. The annual load factor, on the basis of units generated, was 46·8 as compared with 49·1% in the previous year. The units purchased include 954,000 units from the Electricity Board for Northern Ireland.

An analysis of the cost of generation appears in the Electricity Production Account. For reference purposes the following information is given in the Appendices :—

Generation load duration, and integrated load duration curves ...	Appendix III
Monthly outputs of the generating stations	Appendix V
Performance of generating plant ...	Appendix VI
Particulars of the generating plant ...	Appendix VII
Typical daily generation load curves ...	Appendix VIII
Weekly generation and peak loads ...	Appendix XIII
Annual generation from 1st April, 1930 to 31st March, 1959 ...	Appendix XIV

GENERATING STATIONS

The installed capacity of the Board's generating stations on the 31st March, 1959, amounted to 688,500 kW, comprising 469,500 kW of steam plant and 219,000 kW of hydro plant. These figures include 95,000 kW of steam plant in Pigeon House which has become purely a reserve station for standby purposes.

New steam stations at Arigna (15,000 kW coal-fired) and at Lanesborough (20,000 kW peat-fired) and the hydro station at Clady (4,000 kW) were placed in commission. An 80,000 kW peat-fired station at Rhode and a 40,000 kW peat-fired station at Bellacorick were under design or construction. These will bring the total installed capacity to 808,500 kW.

Details of the stations commissioned, as well as of those under design or construction, are set out hereunder :—

HYDRO-ELECTRIC STATIONS :

River Clady (Co. Donegal) : (1—4,000 kW set.)

The civil construction works, including the Cung dam, the weir at Gweedore, the head-race canal and the power station, were substantially completed. The installation of the plant was finished and the station went into commission on the 19th February, 1959.

STEAM STATIONS :

Arigna (Co. Roscommon) : (1—15,000 kW set. Coal.)

The civil construction works and the plant installation having been completed the station was placed in service on the 6th October, 1958.

Lanesborough (Co. Longford) : (1—20,000 kW set. Sod Peat.)

The civil construction works and the erection of all the mechanical and electrical plant were completed, and the station was commissioned on the 24th September, 1958.

Rhode (Co. Offaly) : (2—20,000 kW sets and 1—40,000 kW set. Milled Peat.)

Satisfactory progress was maintained on the civil construction works. Work on the engine room, boiler house, office block, stores and control room buildings was nearing completion. The shell of the cooling tower was finished to the full height of 260 feet and the pre-cast work for the internal stack was erected. The distribution gallery and cooling water culverts were completed. The construction of the tippler pit for the fuel handling plant was almost finished.

Good progress was made on the erection of the boilers for the two 20,000 kW sets and the erection of the first turbo-alternator set was about to commence.

Plans for the extension of the station by one 40,000 kW boiler/turbo-alternator unit were being prepared.

The two 20,000 kW sets are due for commissioning in summer 1960, and it is anticipated that the installation of the 40,000 kW set will be completed in 1963/64.

Bellacorick (Co. Mayo) : (2—20,000 kW sets. Milled Peat.)

The contract for levelling the site and the construction of the approach road was placed in May, 1958 and the work was completed in November. The contract for the civil construction works, including the cooling tower, was placed in November, 1958. Work was in progress on the foundations of the station and the tower.

Contracts for the boilers and turbo sets had been placed and orders were issued for part of the electrical and auxiliary plant.

The station is due for completion in 1962/63.

MAIN TRANSMISSION SYSTEM

(a) 110 kV Overhead Lines :

The 110 kV branch lines connecting the Kilbarry/Waterford and Kilbarry/Cahir 110 kV lines to the oil refinery at Whitegate, Co. Cork, were completed and placed in service. The ends of the Ardnacrusha and Cahir 110 kV lines at Kilbarry were interchanged to increase security of supply to the refinery.

The short connection between the Arigna generating station and the Erne/Carrick-on-Shannon 110 kV line was constructed and put into service, and the branch line between the Ardnacrusha/Tralee 110 kV line and Limerick 110 kV station was completed.

Survey and design of the new 110 kV line from Rhode generating station to Finglas was almost completed and survey had begun on the Carrick-on-Shannon/Cavan/Dundalk 110 kV line.

(b) 110 kV Transformer Stations :

The Whitegate station was completed and placed in commission with two 7·5 MVA transformers. A new station at Dungarvan with one 15 MVA transformer was constructed and placed in commission.

(c) 38 kV Overhead Lines :

About ten miles of 38 kV lines were erected and about half a mile was retired from service.

(d) 38 kV Transformer Stations :

Four stations were completed and put into commission :—
Little Bray, Co. Dublin.
Granagh, Co. Kilkenny.
Patrickswell, Co. Limerick.
Whitegate, Co. Cork.

The station at Patrickswell replaced a smaller station. The Castletownroche station was retired from service.

TRANSMISSION AND DISTRIBUTION SYSTEMS

The following extensions and alterations to the high tension and low tension networks were carried out :—

1.	Low tension overhead mains erected ...	24·25 miles
2.	Low tension overhead mains reconstructed or strengthened	12·63 ,,
3.	Low tension underground mains—net increase	11·62 ,,
4.	10 kV underground cables—net increase ...	9·96 ,,
5.	10 kV overhead distribution lines (excluding rural lines)—net increase ...	34·67 ,,
6.	38 kV overhead transmission lines—net increase	9·30 ,,
7.	38 kV overhead transmission lines reconstructed or strengthened	23·00 ,,
8.	110 kV overhead transmission lines erected	31·80 ,,
9.	Rural lines erected	2,700·00 ,,

One hundred and nineteen 10 kV and six 5 kV transformer stations were completed ; eleven 10 kV transformer stations and one 5 kV station were retired from service. The operating voltage in seventeen stations was increased from 5 to 10 kV.

In 1955 a programme was initiated to raise the operating voltage of the Dublin City high tension network from 5 to 10 kV. There are now four areas operating satisfactorily on the higher voltage with an installed transformer capacity of 30,000 KVA. Approximately 110,000 KVA transformer capacity is still operating at 5 kV.

The raising of the low tension supply voltage in Dublin from 346/200V to 380/220V, to standardise it with that of the rest of the country was completed. This standardisation will be of benefit to consumers and suppliers generally as special equipment will no longer be required for use in Dublin City.

A new 5 kV distribution station was built on the north side of Fleet Street, Dublin, to replace that on the south side of the street. The old station, which was built in 1892 as a generating station to supply Dublin City, had been converted into a 5 kV distribution station when generation was transferred to Pigeon House in 1903.

Appendix IX tabulates the data for the transmission and distribution systems at the end of the year. A map and a diagram showing the existing and projected transmission lines and stations will be found in Appendices XV and XVI respectively.

RURAL ELECTRIFICATION

The progress of the Rural Electrification Scheme is shown in the table below :—

Period	Poles erected	Miles of line strung	Consumers connected	Areas completed
Year ended 31st March				
1947 ..	1,300	39	Nil	Nil
1948 ..	15,986	721	2,203	7
1949 ..	32,002	1,730	9,262	30
1950 ..	40,972	2,083	13,688	45
1951 ..	42,423	2,232	15,803	49
1952 ..	46,008	2,466	18,067	49
1953 ..	48,059	2,703	18,818	49
1954 ..	68,382	3,769	23,477	60
1955 ..	91,391	4,977	27,316	75
1956 ..	112,616	6,196	34,257	99
1957 ..	91,794	5,149	34,627	80
1958 ..	61,696	3,332	17,725	60
1959 ..	50,113	2,700	14,997	45
Totals ..	702,742	38,097	230,240	648

The target of 45 areas for the year was reached. Of the areas scheduled for development 792, or 99% of the total, have been canvassed ; 681, or 85% have been selected for development and 648, or 81% were completed.

The 648 areas completed cover 18,321 square miles or an average of 28·3 square miles per area. A further 33 areas are under construction or selected for development, making a total of 681 areas. The proportion of dwellings connected in the completed areas is approximately 75·4%.

The areas completed during the year, and those under construction at the end of the year, are listed in Appendix II.

The total value of materials used was approximately £1,340,000 of which 70% or £938,000, was obtained from home suppliers. The cost of poles used showed a reduction of 5% consequent on the lower prices and reduced shipping rates prevailing at the time they were purchased. During the year a further reduction in price took place, but this will not be reflected in construction costs until 1959/60. Aluminium conductors decreased in price by 4·5% owing to a drop in the price of ingots, but transformers increased by 3·0% because of increased labour and raw material costs. With the exception of these three main items, prices in general remained steady.

Capital expenditure for the year, including purchases of materials not yet erected, was £3,078,000. The value of rural work done at 31st March, 1959 amounted to £25,220,000.

The consumption of electricity by the rural community has continued to increase with the growth of consumers, being 319 million units as against 273 million units last year. The average consumption for all consumers supplied under the rural electrification scheme was 1,360 units as against 1,252 units last year, an increase of 8·6% ; the average consumption per domestic consumer increased from 830 to 884 units, i.e., an increase of 6·5%.

Sales of current amounted to 319,167,213 units, or 17% more than last year. The revenue earned was £3,780,301 which represents a price per unit of 2·84d.

The programme of demonstrations and displays was expanded with the mobile farm kitchen as a special feature. The itinerary of the kitchen was planned in co-operation with various rural organisations. Evening lectures and demonstrations on a wide variety of subjects were held in the kitchen. A second unit is being assembled.

A scheme of scholarship courses was successfully conducted in conjunction with the Irish Countrywomen's Association at "An Grianan," the college of the Association at Termonfeckin, County Louth. Among the subjects taught were household management, cooking, laundry, dairying, poultry rearing and gardening, as well as general home crafts. The application of electricity to each subject was fully covered.

Sales of appliances showed an increase in value of 18% over the previous year. One hundred and nine farmers installed grain driers of the normal sizes up to 15 kW. In addition, three larger installations up to 50 kW were carried out, and, in all cases, the results were satisfactory. Sales of other agricultural equipment were well maintained, particularly in the cases of water pumps, grain grinders, electric motors and welders.

Experiments dealing with the application of electricity to certain branches of agriculture and horticulture were carried out at Glasnevin by the Faculty of Agriculture of University College, Dublin. As the experiments have been in operation for one season only, no conclusions can yet be published.

Co-operation was maintained with the Kildare County Committee of Agriculture in connection with pilot farms sponsored by the Committee and the possibility of establishing additional farms on somewhat similar lines is being investigated.

WATER STORAGE AND RIVER CONTROL

The inflows at the hydro plants varied between about 90% and 110% of the long term mean flows. From mid-May to mid-October the inflows were well above the normal. On the other hand, the winter flows were generally well below the normal. The utilisation of the available inflows at the power stations varied between 97·5% and 100% except in the case of the River Clady which was in commission for a small part of the year only.

The important hydrometric figures at the hydro-electric stations are given in Appendix VI.

The total average inflows for the calendar year 1958 were :—

	Cbm/sec
River Shannon at Killaloe ...	207·6
,, Liffey at Pollaphuca ...	11·7
,, Liffey at Leixlip	18·1
,, Erne at Ballyshannon ...	104·6
,, Lee at Inniscarra	37·6

WATER POWER INVESTIGATIONS AND HYDROMETRIC SURVEY

In accordance with Section 28 of the Electricity (Supply) Act, 1927, the Board continued its investigations into water power resources.

The collection of data with a view to the investigation and possible later development of the further water power resources continued. The total number of undeveloped rivers under observation was seventeen.

The collection of hydrometric data on the Rivers Shannon, Liffey, Erne, Lee and Clady was also continued.

NUCLEAR ENERGY

Although the use of nuclear energy for electricity generation is not foreseen in the immediate future, the closest touch is being maintained with developments in this field.

PREMISES

Progress was maintained in the provision, where required, of new and improved office, stores and showrooms accommodation. The erection of a three-storey extension to the Dublin City Office at Fleet Street had commenced. Six new service depots were completed and a further three reconstructed ; work was in progress on seven and was about to commence on twelve others. Suitable sites were being sought in eight areas.

The provision of houses for the staffs working at outlying generating stations continued. Those at Lanesborough, Inniscarra, Cahirciveen and Miltown-Malbay were completed ; schemes at Arigna and Gweedore were well advanced ; work had started at Screeb and Rhode ; sites had been acquired at Crossmolina, Co. Mayo for houses for Bellacorick station staff.

PERMITTED UNDERTAKINGS

No new permits were issued during the year. The Board acquired the undertakings at Moville and Pettigo, Co. Donegal. At the 31st March, 1959, there were eight electricity undertakings operating under permit from the Board.

Particulars of the permitted undertakings, except where the number of consumers is three or under, are contained in Appendix X.

SUPERANNUATION SCHEMES

The number of contributing members in the General Employees' Superannuation Scheme at the end of the year was 1,824 and in the Manual Workers' Superannuation Scheme 2,381.

The total amount of Electricity Supply Board 5% Stock 1966/75 and Electricity Supply Board 6% Stock 1968/78 held by the Trustees was £2,029,880 and £400,000 respectively.

TRIBUNALS TO DETERMINE DISPUTES

The reports of the proceedings of the General Employees' and of the Manual Workers' Tribunals respectively, for the year ended 31st March, 1959, are reproduced in Appendices XI and XII.

STAFF

At the 31st March, 1959, the numerical strength of the Board's regular staff was 5,339. In addition there was a casual staff of 1,986.

The Board wishes to place on record its appreciation of the efficient manner in which the members of the staff performed their duties.

(Signed) R. F. BROWNE, Chairman.
*T. MURRAY.
J. P. DIGBY.
HENRY KENNEDY.
T. MacMAHON.
*BREANDÁN Ó CEARBHAILL.
J. A. RYAN.

(Signed) J. G. GARGAN, Secretary.

23rd June, 1959.

*Messrs. T. Murray and B. Ó Cearbhaill, although not members of the Board during the period covered by this Report, were members on the date of signing of the Report.

REPORT

ON THE

FISHERIES

27 Lower Fitzwilliam Street,
Dublin.

TO THE MINISTER FOR INDUSTRY AND COMMERCE

In accordance with the provisions of the Shannon Fisheries Act, 1935, and the Electricity (Supply) (Amendment) Acts, 1945 and 1958, the Board presents the Annual Report for the year ended 31st March, 1959.

The Electricity (Supply) (Amendment) Act, 1958, requires that an account be kept showing the financial result of the discharge by the Board of its responsibilities for fisheries, and provides that the balance on this account shall be incorporated in its general accounts. This account is under the title "Fisheries Account".

The responsibility for fisheries is directly associated with the hydro-electric development of the waters which, of necessity, alters the character of rivers and thereby affects the movements of fish. In addition, the continuing control of water levels is necessary for the satisfactory operation of hydro stations. The Board is endeavouring to minimise, by preservation and re-stocking, the harmful effects on fish life of hydro-electric development.

The financial result of fisheries activities during the year ended 31st March, 1959, is shown in the Fisheries Account. Expenditure on fishery operation, preservation, and development on the Rivers Shannon, Erne, Lee, and Liffey is recorded, and credit taken for the income therefrom. The net result for the year is a loss of £19,280 which has been transferred to the Net Revenue Account.

RIVER SHANNON

The Board is at present engaged in a programme to rehabilitate game fish stocks which were adversely affected by the construction and operation of the hydro-electric scheme. It is aimed at re-opening the large catchment area to salmon and at benefiting all species of non-predatory fish life in these waters. This long term project, which is an expensive and large

scale operation, has been undertaken in the belief that, apart from its value as a tourist attraction, it will also prove to be a profitable investment for the Board.

As part of this scheme, a fish pass at Ardnacrusha was completed during the year. The pass is of the hydraulic fish lift design and incorporates a number of new principles. The water supply is provided through a by-pass and is delivered to the bottom of the tower, instead of coming down inside the tower as it does in ordinary "Borland" type passes. A top horizontal channel provides a collecting ground for descending smolts and kelts on their seaward migration and also allows the ascending salmon to rest quietly before entering the head-race canal. A special electronic counting device has been fitted. It is encouraging to note that not only did the ascending salmon readily take the new pass, but the descending smolts and kelts found an unobstructed outlet in their passage to the sea.

In order to accelerate the fisheries development, a salmon hatchery, with an initial capacity of two million eggs, has been built and operated at Parteen Villa. In anticipation of the new fish pass, one million fry were planted out last year in small streams which had been surveyed, cleaned, and cleared of predators. This planting programme will be continued and extended. Consideration is also being given to the experimental rearing of young salmon beyond the fry stage.

As part of the development programme the reduction of predators in Lough Derg was undertaken. A netting survey was carried out which disclosed that the lake was overstocked with immature perch, and a superabundance of pike. A planned programme of control of these predators will go hand in hand with the re-stocking of the upper reaches with fry. To improve Lough Derg trout fishing, restocking with 5"-6" yearling brown trout was initiated. During the year the Lough Derg Fishing Committee was formed. This is fully representative of the many fishing, tourist and development interests in the area and acts in liaison with the Board. A grant of £300 was made to the Committee in order to sponsor pike angling competitions. The Board records its appreciation of the help and co-operation given to it by the Committee and the local clubs. Much valuable information on such subjects as spawning streams, fish stocks and obstructions was furnished. Full co-operation continued to be received from the Limerick Board of Fishery Conservators in the protection of the fisheries.

The development costs for the year were £9,300.

SALMON FISHING

The catch at Thomond Weir is limited to 28% of the ascending fish, leaving 72% to pass upstream for angling and for propagation purposes. In addition, four stake weirs are

operated in the estuary. The recorded run of fish through Thomond Weir during the period under review compared with previous years is shown in the following table.

Year ended 31st March		Recorded run through Thomond Weir
1949	...	10,261
1950	...	12,551
1951	...	14,403
1952	...	14,653
1953	...	10,289
1954	...	17,408
1955	...	13,629
1956	...	9,433
1957	...	12,542
1958	...	13,032
1959	...	11,359

The average weight of salmon captured at Thomond Weir was 9.9 compared with 9.0 lbs. in the preceding year. Grilse averaged 5.5 as against 5.7 lbs.

At the stake weirs the average weight of salmon taken was 10.4 as against 9.6 lbs. in the preceding year, while the average weight of grilse was 4.8 compared with 5.3 lbs.

The proceeds from the sale of salmon were £13,720.

EEL FISHERIES

A survey of the eel stocks in the Shannon was continued. Re-stocking with elvers was again carried out successfully. The take at the Killaloe eel weir was 20,186 lbs. compared with 23,568 lbs. in the previous season. Experiments were carried out with new netting materials in order to improve the efficiency of the weir.

The receipts amounted to £3,739 from the sale of eels compared with £3,875 the previous year.

RIVER MULCAIR

This is a tributary of the River Shannon which joins the main river above Limerick City. It offers approximately 20 miles of angling stretches with a proportionate area of spawning beds.

The Mulcair suffered comparatively little interference by the hydro-scheme. During the construction of Thomond Weir, Limerick, which lasted for four years, no commercial fishing was carried out by the Board, and the total run of fish passed upstream for stocking. By the system of measured propagation at Thomond Weir these stocks have been carefully preserved and to-day the Mulcair holds a considerable head of salmon. It is now one of the finest grilse rivers in the country, providing excellent sport. Last year approximately 2,500 salmon were taken by anglers.

RIVER ERNE

Having regard to the reduction in the stocks of salmon in the river, the Minister for Lands made a Bye-law prohibiting fishing on the Erne estuary during the 1958 fishing season.

The recorded run of salmon through the counter at Cathaleen's Fall was 8,032. The main spawning area for the Erne salmon is unaffected by the hydro-electric scheme, but in order to speed natural re-stocking, the Board completed and put into operation a salmon hatchery on the Erne capable of rearing 500,000 fry. In co-operation with the staff of the Fisheries Branch, Department of Lands, a survey of Knader Lough was made. This small lough has an artificial outlet close to Ballyshannon and drains into the Erne reservoir. The existing stocks of small perch were eliminated and it is proposed to rear a proportion of the hatchery fish in this lough under natural conditions until they reach the smolt stage of development. In the absence of predators the resultant survival is expected to be high.

Pike reduction was carried out in the Erne reservoir.

There was close co-operation with the staffs of the Ballyshannon and Enniskillen Conservators in a scheme for winter protection of the spawning beds of the Erne. A grant was made for this work.

The costs of preservation on the Erne amounted to £3,300.

RIVER LEE

The changed conditions in the river were kept under observation.

An electronic fish counter was installed in the fish pass at Inniscarra. During 1958, 3,068 salmon were counted. A temporary salmon hatchery was constructed at Carrigadrohid and re-stocking has commenced. Full co-operation was received from the staff of the Cork Board of Fishery Conservators.

The costs of preservation on the River Lee amounted to £2,800.

(Signed) R. F. BROWNE, Chairman.
*T. MURRAY.
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HENRY KENNEDY.
T. MacMAHON.
*BREANDÁN Ó CEARBHAILL.
J. A. RYAN.

(Signed) J. G. GARGAN, Secretary.

23rd June, 1959.

*Messrs. T. Murray and B. Ó Cearbhaill, although not members of the Board during the period covered by this Report, were members on the date of signing of the Report.

APPENDICES

APPENDICES

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Appendix I

Number of Consumers and other particulars relating to areas supplied by the Board

District	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
ATHLONE	**178.9**	**33,867**	**32,207**	**16,599**	**17,332**
Town	44.8	11,234	11,149	14,969	15,895
Rural	*134.1*	*22,633*	*21,058*	*1,630*	*1,437*
CORK No. 1	**112.0**	**28,477**	**27,910**	**39,092**	**37,493**
Town	112.0	28,477	27,910	39,092	37,493
Rural	—	—	—	—	—
CORK No. II.	**179.6**	**37,695**	**35,661**	**25,034**	**23,417**
Town	53.1	14,732	14,644	17,566	16,922
Rural	*126.5*	*22,963*	*21,017*	*7,468*	*6,495*
DUBLIN No. I.	**494.7**	**126,200**	**125,995**	**105,000**	**100,934**
Town	494.7	126,200	125,995	105,000	100,934
Rural	—	—	—	—	—
DUBLIN No. II. ...	**238.0**	**71,151**	**69,848**	**82,842**	**63,398**
Town	164.4	55,743	54,608	60,568	54,127
Rural	*73.6*	*15,408*	*15,240*	*22,274*	*9,271*
DUNDALK	**215.8**	**42,567**	**40,234**	**59,058**	**55,162**
Town	72.3	18,597	18,296	52,441	49,513
Rural	*143.5*	*23,970*	*21,938*	*6,617*	*5,649*
GALWAY	**188.0**	**33,788**	**32,922**	**9,017**	**7,967**
Town	44.6	10,434	10,186	7,671	6,817
Rural	*143.4*	*23,354*	*22,736*	*1,346*	*1,150*
LIMERICK	**268.0**	**57,048**	**54,335**	**42,844**	**44,742**
Town	95.6	24,257	23,654	35,986	38,433
Rural	*172.4*	*32,791*	*30,681*	*6,858*	*6,309*
PORTLAOISE	**181.9**	**39,271**	**37,412**	**44,065**	**40,785**
Town	65.6	17,524	17,221	37,561	34,526
Rural	*116.3*	*21,747*	*20,191*	*6,504*	*6,259*
SLIGO	**297.6**	**48,602**	**44,527**	**9,783**	**11,456**
Town	45.3	11,653	11,515	5,953	5,343
Rural	*252.3*	*36,949*	*33,012*	*3,830*	*6,113*
TRALEE	**131.2**	**27,008**	**25,419**	**7,634**	**7,152**
Town	28.9	7,497	7,485	4,986	4,597
Rural	*102.3*	*19,511*	*17,934*	*2,648*	*2,555*
WATERFORD	**226.3**	**45,247**	**43,875**	**35,055**	**33,041**
Town	95.1	24,056	23,789	23,654	21,980
Rural	*131.2*	*21,191*	*20,086*	*11,401*	*11,061*
Totals	**2712.0**	**590,921**	**570,345**	**476,023**	**442,879**
Town	1316.4	350,404	346,452	405,447	386,580
Rural	*1395.6*	*240,517*	*223,893*	*70,576*	*56,299*

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power: Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
ATHLONE DISTRICT					
ATHLONE AREA ...	**24.8**	**5,410**	**5,268**	**4,673**	**4,447**
Athlone	9.0	2,423	2,407	4,503	4,338
Moate	1.3	288	289	106	46
Rural Areas	*14.5*	*2,699*	*2,572*	*64*	*63*
BALLINASLOE AREA ...	**15.3**	**2,436**	**2,410**	**1,762**	**1,792**
Ballinasloe	5.6	815	809	1,252	1,236
Villages under 1,000 population	.2	*77*	*76*	*184*	*242*
Rural Areas	*9.5*	*1,544*	*1,525*	*326*	*314*
BIRR AREA	**24.1**	**4,655**	**4,567**	**1,132**	**1,112**
Birr and Crinkle	3.6	836	827	320	296
Villages under 1,000 population	*2.3*	*882*	*845*	*361*	*334*
Rural Areas	*18.2*	*2,937*	*2,895*	*451*	*482*
LONGFORD AREA ...	**34.2**	**6,375**	**5,956**	**1,141**	**970**
Granard	1.2	260	255	20	17
Longford...	3.8	1,054	1,040	367	306
Villages under 1,000 population	*1.1*	*337*	*361*	*468*	*445*
Rural Areas	*28.1*	*4,724*	*4,300*	*286*	*202*
MULLINGAR AREA ...	**35.6**	**6,884**	**6,273**	**1,157**	**1,035**
Mullingar	5.6	1,424	1,409	987	895
Rural Areas	*30.0*	*5,460*	*4,864*	*170*	*140*
ROSCOMMON AREA ...	**20.6**	**3,950**	**3,941**	**1,130**	**1,679**
Roscommon	2.0	563	559	870	1,512
Rural Areas	*18.6*	*3,387*	*3,382*	*260*	*167*
TULLAMORE AREA ...	**24.3**	**4,157**	**3,792**	**5,604**	**6,297**
Clara	1.7	496	494	2,141	2,020
Tullamore	6.2	1,487	1,489	3,342	4,154
Villages under 1,000 population	*1.2*	*292*	*289*	*48*	*54*
Rural Areas	*15.2*	*1,882*	*1,520*	*73*	*69*
Totals	**177.9**	**33,867**	**32,207**	**16,599**	**17,332**
CORK No. 1 DISTRICT					
CORK CITY AREA ...	**112.0**	**28,477**	**27,910**	**39,092**	**37,493**
Cork City	112.0	28,477	27,910	39,092	37,493
Totals	**112.0**	**28,477**	**27,910**	**39,092**	**37,493**
CORK No. 2 DISTRICT					
BANDON AREA ...	**22.1**	**4,135**	**4,080**	**1,655**	**1,749**
Bandon	3.3	1,070	1,042	639	649
Kinsale	2.1	634	621	124	129
Villages under 1,000 population	—	—	*22*	—	*50*
Rural Areas	*16.7*	*2,431*	*2,395*	*892*	*921*

Appendix I—continued.

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
CORK No. 2 DISTRICT—*continued*					
BANTRY AREA	**12.3**	**2,297**	**1,931**	**178**	**152**
Bantry	2.3	604	598	124	111
Villages under 1,000 population	*.1*	*164*	*157*	*5*	*5*
Rural Areas	*9.9*	*1,529*	*1,176*	*49*	*36*
CARRIGALINE AREA ...	**14.0**	**2,533**	**2,538**	**993**	**858**
Monkstown	2.7	205	209	1	2
Passage West		431	432	20	38
Villages under 1,000 population	*1.3*	*404*	*392*	*546*	*506*
Rural Areas	*10.0*	*1,493*	*1,505*	*426*	*312*
CLONAKILTY AREA ...	**12.5**	**2,250**	**1,930**	**934**	**908**
Clonakilty	2.7	628	630	391	348
Rural Areas	*9.8*	*1,622*	*1,300*	*543*	*560*
COBH AREA	**7.4**	**1,938**	**1,904**	**3,926**	**3,537**
Cobh	5.7	1,599	1,569	3,901	3,516
Rural Areas	*1.7*	*339*	*335*	*25*	*21*
DUNMANWAY AREA ...	**9.7**	**2,229**	**2,197**	**952**	**909**
Dunmanway	1.4	425	414	102	99
Skibbereen	2.3	669	665	166	168
Villages under 1,000 population	*1.4*	*484*	*478*	*589*	*574*
Rural Areas	*4.6*	*651*	*640*	*95*	*68*
FERMOY AREA ...	**21.7**	**4,643**	**4,450**	**2,028**	**1,755**
Fermoy	4.0	1,055	1,066	216	209
Mitchelstown	2.1	668	662	1,239	1,139
Villages under 1,000 population	*1.0*	*160*	*164*	*69*	*63*
Rural Areas	*14.6*	*2,760*	*2,558*	*504*	*344*
KILBARRY AREA ..	**23.8**	**4,654**	**4,569**	**2,691**	**2,209**
Villages under 1,000 population	*1.5*	*494*	*477*	*1,043*	*869*
Rural Areas	*22.3*	*4,160*	*4,092*	*1,648*	*1,340*
MACROOM AREA ...	**9.7**	**2,991**	**2,463**	**563**	**441**
Macroom...	2.3	598	625	206	174
Rural Areas	*7.4*	*2,393*	*1,838*	*357*	*267*
MALLOW AREA ...	**21.6**	**4,635**	**4,513**	**3,974**	**4,943**
Mallow	5.6	1,364	1,366	2,716	3,138
Villages under 1,000 population	*1.6*	*503*	*493*	*161*	*150*
Rural Areas	*14.4*	*2,768*	*2,654*	*1,097*	*1,655*
MIDLETON AREA ...	**17.8**	**3,752**	**3,573**	**3,910**	**3,056**
Midleton	2.8	784	792	1,679	1,677
Villages under 1,000 population	*2.1*	*600*	*602*	*415*	*431*
Rural Areas	*12.9*	*2,368*	*2,179*	*1,816*	*948*
YOUGHAL AREA ...	**7.0**	**1,638**	**1,513**	**3,230**	**2,900**
Youghal	4.8	1,189	1,168	3,214	2,877
Rural Areas	*2.2*	*449*	*345*	*16*	*23*
Totals	**179.6**	**37,695**	**35,661**	**25,034**	**23,417**
DUBLIN No. 1 DISTRICT					
DUBLIN CITY AREA ...	**494.7**	**126,200**	**125,995**	**105,000**	**100,934**
Dublin City	494.7	126,200	125,995	105,000	100,934
Totals	**494.7**	**126,200**	**125,995**	**105,000**	**100,934**

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power: Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
DUBLIN No. 2 DISTRICT					
BRAY AREA ... ... (Including former Greystones Area)	**24.4**	**6,840**	**6,925**	**2,838**	**1,629**
Bray	15.0	4,184	4,286	2,603	1,395
Shankill–Loughlinstown ...					
Greystones	2.2	781	763	43	43
Delgany-Killincarrig ...	1.6	441	440	14	10
Newtownmountkennedy ...					
Rural Areas	*5.6*	*1,434*	*1,436*	*178*	*181*
CHAPELIZOD AREA ...	**27.3**	**7,880**	**7,738**	**28,735**	**28,248**
Chapelizod					
The Ranch	21.5	5,998	5,865	439	494
Palmerstown					
Clondalkin	2.3	1,066	1,060	27,649	26,961
Bluebell					
Rural Areas	*3.5*	*816*	*803*	*647*	*793*
COOLOCK AREA ... (formerly Ballymun, Grange & Howth areas)	**28.7**	**14,630**	**13,916**	**17,339**	**14,282**
Ballymun	16.3	9,916	9,337	16,304	13,290
Grange	2.3	2,285	2,184	342	343
Howth–Sutton	5.8	1,341	1,326	348	319
Rural Areas	*4.3*	*1,088*	*1,069*	*345*	*330*
DUN LAOGHAIRE AREA	**75.9**	**23,877**	**23,461**	**4,578**	**4,067**
Dundrum–Milltown ...					
Dun Laoghaire Borough ...	74.0	23,188	22,776	4,363	3,629
Stillorgan–Ballybrack ...					
Kilternan–Scalp					
Rural Areas	*1.9*	*689*	*685*	*215*	*438*
LEIXLIP AREA	**11.7**	**3,619**	**3,677**	**8,685**	**7,805**
Lucan	1.3	445	545	5,923	5,318
Celbridge	1.5	426	421	151	211
Leixlip					
Maynooth	.8	258	253	137	110
Rural Areas	*8.1*	*2,490*	*2,458*	*2,474*	*2,166*
NAAS AREA	**15.4**	**2,987**	**2,942**	**1,991**	**2,174**
Naas	3.7	910	900	545	523
Rural Areas	*11.7*	*2,077*	*2,042*	*1,446*	*1,651*
SKERRIES AREA ...	**13.5**	**2,635**	**2,605**	**697**	**702**
Balbriggan	2.9	726	716	411	375
Skerries	2.5	776	761	76	104
Rural Areas	*8.1*	*1,133*	*1,128*	*210*	*223*
SWORDS AREA ...	**13.4**	**3,687**	**3,676**	**1,258**	**1,481**
Malahide–Portmarnock ...	3.1	893	883	121	131
Rush	1.9	589	584	120	102
Swords	1.1	425	423	178	168
Rural Areas	*7.3*	*1,780*	*1,786*	*839*	*1,080*

Appendix I—continued.

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
DUBLIN No. 2 DISTRICT—*continued*					
KILCOCK AREA (Rural)	**14.7**	**2,243**	**2,226**	**504**	**548**
Kilcock Rural	*14.7*	*2,234*	*2,226*	*504*	*548*
WICKLOW AREA ...	**13.0**	**2,753**	**2,692**	**16,217**	**2,462**
Rathdrum	1.3	231	227	14	45
Wicklow	3.3	864	858	787	556
Rural Areas	*8.4*	*1,658*	*1,607*	*15,416*	*1,861*
Totals	**238.0**	**71,151**	**69,848**	**82,842**	**63,398**
DUNDALK DISTRICT					
ARDEE AREA	**11.2**	**2,262**	**2,258**	**4,904**	**5,424**
Ardee	2.5	582	580	1,942	2,018
Villages under 1,000 population	*.6*	*192*	*191*	*1,750*	*1,930*
Rural Areas	*8.1*	*1,488*	*1,487*	*1,212*	*1,476*
CARRICKMACROSS AREA	**12.6**	**2,816**	**2,705**	**1,414**	**1,031**
Carrickmacross	2.1	617	606	272	250
Villages under 1,000 population	*.9*	*415*	*402*	*454*	*559*
Rural Areas	*9.6*	*1,784*	*1,697*	*688*	*222*
MONAGHAN AREA ...	**27.9**	**4,787**	**4,406**	**1,863**	**2,017**
Ballybay	1.0	323	323	204	244
Castleblayney	2.2	525	516	513	493
Monaghan	4.7	1,055	1,025	594	613
Rural Areas	*20.0*	*2,884*	*2,542*	*552*	*667*
CAVAN AREA	**27.7**	**5,303**	**4,294**	**1,904**	**1,879**
Belturbet	1.2	311	310	207	201
Cavan	3.6	894	889	691	721
Villages under 1,000 population	*2.8*	*647*	*650*	*559*	*623*
Rural Areas	*20.1*	*3,451*	*2,445*	*447*	*334*
COOTEHILL AREA	**17.6**	**3,129**	**2,807**	**471**	**417**
Clones	2.5	689	691	109	96
Cootehill	1.5	392	397	260	248
Villages under 1,000 population	*.1*	*23*	*17*	*1*	*1*
Rural Areas	*13.5*	*2,025*	*1,702*	*101*	*72*
DROGHEDA AREA ...	**35.9**	**7,167**	**7,048**	**43,139**	**38,885**
Drogheda	16.8	4,082	3,972	40,246	36,658
Villages under 1,000 population	*.6*	*214*	*207*	*41*	*40*
Rural Areas	*18.5*	*2,871*	*2,869*	*2,852*	*2,187*
DUNDALK AREA ...	**40.2**	**9,036**	**8,925**	**3,750**	**3,878**
Dundalk	19.7	4,791	4,751	3,402	3,596
Villages under 1,000 population	*.8*	*265*	*235*	*29*	*21*
Rural Areas	*19.7*	*3,980*	*3,939*	*319*	*261*

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
DUNDALK DISTRICT—*continued*					
NAVAN AREA	**20.3**	**4,231**	**4,164**	**1,213**	**1,230**
An Uaimh (Navan) ...	4.3	1,150	1,140	773	822
Trim	1.3	391	380	137	139
Rural Areas	*14.7*	*2,690*	*2,644*	*303*	*269*
KELLS AREA	**22.4**	**3,836**	**3,627**	**400**	**401**
Ceannanus Mór (Kells) ...	2.1	625	605	114	109
Villages under 1,000 population	*1.0*	*414*	*409*	*143*	*131*
Rural Areas	*19.3*	*2,797*	*2,613*	*143*	*161*
Totals	**215.8**	**42,567**	**40,234**	**59,058**	**55,162**
GALWAY DISTRICT					
ATHENRY AREA ...	**16.8**	**3,099**	**3,056**	**1,082**	**956**
Athenry	1.2	304	299	222	234
Loughrea	2.8	543	528	769	641
Rural Areas	*12.8*	*2,252*	*2,229*	*91*	*81*
CLAREMORRIS AREA ...	**33.6**	**5,980**	**5,726**	**794**	**718**
Ballinrobe	1.2	362	342	75	75
Ballyhaunis	1.1	359	358	136	117
Claremorris	1.1	424	420	278	253
Rural Areas	*30.2*	*4,835*	*4,606*	*305*	*273*
GALWAY AREA ...	**49.8**	**8,717**	**8,581**	**3,963**	**3,411**
Galway	21.3	4,776	4,704	3,353	2,872
Villages under 1,000 population	*.2*	*64*	*61*	*4*	*8*
Rural Areas	*28.3*	*3,877*	*3,816*	*606*	*531*
GORT AREA	**14.2**	**2,951**	**2,923**	**209**	**127**
Gort	1.0	317	313	103	77
Villages under 1,000 population	*.1*	*41*	*34*	*9*	*9*
Rural Areas	*13.1*	*2,593*	*2,576*	*97*	*41*
TUAM AREA	**34.8**	**6,551**	**6,386**	**344**	**210**
Tuam	5.0	1,169	1,128	292	167
Villages under 1,000 population	*.5*	*148*	*146*	*5*	*5*
Rural Areas	*29.3*	*5,234*	*5,112*	*47*	*38*
WESTPORT AREA ...	**38.8**	**6,490**	**6,250**	**2,625**	**2,545**
Castlebar	5.3	1,004	967	1,694	1,622
Westport	3.1	806	770	723	728
Villages under 1,000 population	*.7*	*117*	*116*	*8*	*9*
Rural Areas	*29.7*	*4,563*	*4,397*	*200*	*186*
Totals	**188.0**	**33,788**	**32,922**	**9,017**	**7,967**

Appendix I—continued.

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
LIMERICK DISTRICT					
CAHIR AREA	**20.7**	**3,830**	**3,727**	**757**	**655**
Cahir	1.6	521	514	208	208
Cashel	2.8	612	592	76	72
Rural Areas	*16.3*	*2,697*	*2,621*	*473*	*375*
ENNIS AREA	**17.2**	**3,807**	**3,215**	**2,465**	**2,472**
Ennis	6.1	1,832	1,799	710	788
Villages under 1,000 population	*.8*	*211*	*198*	*1,022*	*940*
Rural Areas	*10.3*	*1,764*	*1,218*	*733*	*744*
ENNISTYMON AREA ...	**8.1**	**2,012**	**1,931**	**226**	**211**
Ennistymon	1.1	338	336	156	149
Villages under 1,000 population	*1.5*	*544*	*521*	*43*	*46*
Rural Areas	*5.5*	*1,130*	*1,074*	*27*	*16*
KILMALLOCK AREA ...	**21.7**	**4,178**	**4,111**	**852**	**854**
Kilmallock	1.1	346	340	184	173
Villages under 1,000 population	*2.2*	*494*	*487*	*102*	*94*
Rural Areas	*18.4*	*3,338*	*3,284*	*566*	*587*
KILRUSH AREA	**14.9**	**3,286**	**3,173**	**1,051**	**946**
Kilkee	1.7	504	421	54	48
Kilrush	3.2	758	736	953	862
Rural Areas	*10.0*	*2,024*	*2,016*	*44*	*36*
LIMERICK AREA ...	**77.9**	**17,910**	**17,425**	**31,028**	**30,068**
Killaloe–Ballina	1.0	302	310	85	75
Limerick	50.8	12,294	12,000	29,788	28,994
Villages under 2,000 population	*1.1*	*204*	*197*	*77*	*77*
Rural Areas	*25.0*	*5,110*	*4,918*	*1,078*	*922*
NENAGH AREA	**21.0**	**4,590**	**3,786**	**1,148**	**3,919**
Nenagh	4.4	1,210	1,180	778	3,846
Villages under 1,000 population	*.8*	*81*	*80*	*7*	*6*
Rural Areas	*15.8*	*3,299*	*2,526*	*363*	*67*
NEWCASTLE WEST AREA	**14.2**	**3,192**	**3,139**	**1,023**	**619**
Newcastlewest	2.6	658	632	149	147
Villages under 1,000 population	*.8*	*247*	*245*	*175*	*195*
Rural Areas	*10.8*	*2,287*	*2,262*	*699*	*277*
RATHKEALE AREA ...	**17.3**	**3,599**	**3,570**	**1,763**	**1,977**
Rathkeale	1.5	345	338	90	75
Villages under 1,000 population	*2.0*	*511*	*514*	*354*	*566*
Rural Areas	*13.8*	*2,743*	*2,718*	*1,319*	*1,336*
RATHLUIRC AREA ...	**11.4**	**2,679**	**2,651**	**903**	**1,037**
Rathluirc (Charleville) ...	1.9	592	585	289	251
Rural Areas	*9.5*	*2,087*	*2,066*	*614*	*786*
SCARRIFF AREA ...	**9.0**	**1,639**	**1,389**	**222**	**282**
Villages under 1,000 population	*.5*	*126*	*128*	*16*	*15*
Rural Areas	*8.5*	*1,513*	*1,261*	*206*	*267*
TIPPERARY AREA ...	**34.6**	**6,326**	**6,218**	**1,406**	**1,702**
Tipperary	5.1	1,281	1,257	581	724
Villages under 1,000 population	*1.0*	*246*	*244*	*89*	*82*
Rural Areas	*28.5*	*4,799*	*4,717*	*736*	*896*
Totals	**268.0**	**57,048**	**54,335**	**42,844**	**44,742**

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
PORTLAOISE DISTRICT					
ATHY AREA	**14.2**	**2,406**	**2,384**	**9,816**	**8,999**
Athy	3.8	913	909	9,556	8,693
Rural Areas	*10.4*	*1,493*	*1,475*	*260*	*306*
CARLOW AREA ...	**19.9**	**4,477**	**4,291**	**2,223**	**1,939**
Carlow	7.7	1,880	1,843	1,336	1,216
Muine Bheag	1.9	489	491	245	219
Rural Areas	*10.3*	*2,108*	*1,957*	*642*	*504*
DROICHEAD NUA AREA	**11.9**	**2,952**	**2,859**	**3,348**	**3,199**
Droichead Nua	3.0	1,022	985	3,303	3,150
Villages under 1,000 population	*1.1*	*321*	*280*	*14*	*25*
Rural Areas	*7.8*	*1,609*	*1,594*	*31*	*24*
EDENDERRY AREA ...	**6.7**	**2,173**	**1,998**	**793**	**731**
Edenderry	2.6	558	549	785	719
Rural Areas	*4.1*	*1,615*	*1,449*	*8*	*12*
KILDARE AREA ...	**11.4**	**1,807**	**1,761**	**9,521**	**8,387**
Kildare	2.3	618	618	8,276	7,206
Villages under 1,000 population	*.4*	*136*	*137*	*55*	*67*
Rural Areas	*8.7*	*1,053*	*1,006*	*1,190*	*1,114*
KILKENNY AREA ...	**33.7**	**7,577**	**7,144**	**6,776**	**6,356**
Callan	1.5	362	356	183	181
Kilkenny	10.8	2,885	2,819	1,196	983
Castlecomer	1.1	315	308	3,205	2,771
Villages under 1,000 population	*1.6*	*479*	*465*	*263*	*237*
Rural Areas	*18.7*	*3,536*	*3,196*	*1,929*	*2,184*
PORTARLINGTON AREA	**13.6**	**2,592**	**2,551**	**3,290**	**3,600**
Mountmellick	2.5	597	580	229	233
Portarlington	2.2	701	688	2,937	3,234
Villages under 1,000 population	*.4*	*181*	*170*	*52*	*92*
Rural Areas	*8.5*	*1,113*	*1,113*	*82*	*41*
PORTLAOISE AREA ...	**19.9**	**4,510**	**4,203**	**2,074**	**2,118**
Mountrath–Castletown ...	1.2	271	271	55	52
Portlaoise	3.8	1,111	1,084	1,613	1,661
Villages under 1,000 population	*2.1*	*664*	*638*	*298*	*312*
Rural Areas	*12.8*	*2,464*	*2,210*	*108*	*93*
ROSCREA AREA ...	**11.9**	**2,720**	**2,576**	**2,798**	**2,231**
Roscrea	3.0	812	854	2,232	1,703
Villages under 1,000 population	*.9*	*336*	*320*	*61*	*58*
Rural Areas	*8.0*	*1,572*	*1,402*	*505*	*470*
THURLES AREA ...	**25.8**	**5,436**	**5,120**	**2,447**	**2,816**
Templemore	2.0	467	462	486	472
Thurles	6.3	1,447	1,432	883	954
Villages under 1,000 population	*.5*	*149*	*147*	*67*	*71*
Rural Areas	*17.0*	*3,373*	*3,079*	*1,011*	*1,319*
TULLOW AREA ...	**12.9**	**2,621**	**2,525**	**979**	**409**
Tullow	1.7	429	426	132	115
Villages under 1,000 population	*1.2*	*381*	*389*	*109*	*102*
Rural Areas	*10.0*	*1,811*	*1,710*	*738*	*192*
Totals	**181.9**	**39,271**	**37,412**	**44,065**	**40,785**

Appendix I—continued.

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
SLIGO DISTRICT					
BALLAGHADEREEN AREA	**17.6**	**3,352**	**3,120**	**365**	**332**
Ballaghadereen	1.4	362	360	168	125
Castlerea	1.2	476	473	140	163
Villages under 1,000 population	*.3*	*35*	*33*	*3*	*1*
Rural Areas	*14.7*	*2,479*	*2,254*	*54*	*43*
BALLINA AREA ...	**44.0**	**7,510**	**6,515**	**494**	**572**
Ballina–Crocketstown	6.3	1,607	1,574	262	276
Villages under 1,000 population	*1.5*	*322*	*342*	*36*	*38*
Rural Areas	*36.2*	*5,581*	*4,599*	*196*	*258*
BALLYSHANNON AREA	**12.6**	**2,052**	**1,721**	**205**	**145**
Ballyshannon	2.8	693	693	42	49
Bundoran	1.7	397	400	129	78
Rural Areas	*8.1*	*962*	*628*	*34*	*18*
BUNCRANA AREA ...	**23.2**	**4,322**	**3,316**	**358**	**246**
Buncrana	3.0	702	693	266	216
Rural Areas	*20.2*	*3,620*	*2,623*	*92*	*30*
CARRICK-ON-SHANNON AREA	**35.1**	**5,594**	**5,201**	**1,439**	**1,337**
Carrick-on-Shannon ...	1.5	408	404	494	597
Villages under 1,000 population	*2.4*	*766*	*744*	*182*	*201*
Rural Areas	*31.2*	*4,420*	*4,053*	*763*	*539*
FALCARRAGH AREA (Rural)	**18.9**	**3,512**	**3,226**	**82**	**51**
Rural Areas	*18.9*	*3,512*	*3,226*	*82*	*51*
KILLYBEGS AREA (Rural)	**17.6**	**2,986**	**2,905**	**479**	**441**
Donegal	1.1	2,986	2,905	479	441
Rural Areas	*16.5*				
LETTERKENNY AREA	**57.3**	**6,959**	**6,785**	**2,591**	**3,028**
Letterkenny	3.0	869	855	365	339
Villages under 1,000 population	*1.1*	*380*	*367*	*959*	*961*
Rural Areas	*53.2*	*5,710*	*5,563*	*1,267*	*1,728*
SLIGO AREA	**38.7**	**7,376**	**7,050**	**3,161**	**4,696**
Sligo	13.5	3,037	3,012	2,378	1,740
Villages under 1,000 population	*.9*	*299*	*297*	*27*	*47*
Rural Areas	*24.3*	*4,040*	*3,741*	*756*	*2,909*
SWINFORD AREA ...	**32.6**	**4,939**	**4,688**	**609**	**608**
Kiltimagh	1.0	264	261	210	209
Swinford	1.2	332	316	16	14
Villages under 1,000 population	*2.5*	*704*	*691*	*276*	*289*
Rural Areas	*27.9*	*3,639*	*3,420*	*107*	*96*
Totals	**297.6**	**48,602**	**44,527**	**9,783**	**11,456**
TRALEE DISTRICT					
CAHERCIVEEN AREA (Rural)	**6.3**	**979**	**883**	**65**	**27**
Caherciveen	1.7	979	883	65	27
Rural Areas	*4.6*				

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March 1959	No. of Consumers at 31st March 1958	Motive Power Units sold year ended 31st March 1959 thousands	Motive Power Units sold year ended 31st March 1958 thousands
TRALEE DISTRICT—*continued*					
KANTURK AREA ...	**19.1**	**4,293**	**4,281**	**1,394**	**1,439**
Kanturk	1.6	493	488	456	449
Villages under 1,000 population	*1.9*	*577*	*561*	*155*	*187*
Rural Areas	*15.6*	*3,223*	*3,232*	*783*	*803*
KILLARNEY AREA ...	**30.4**	**5,672**	**5,136**	**1,909**	**1,692**
Killarney	6.3	1,282	1,264	318	288
Villages under 1,000 population	*1.2*	*397*	*391*	*1,107*	*1,008*
Rural Areas	*22.9*	*3,993*	*3,481*	*484*	*396*
LISTOWEL AREA ...	**27.3**	**5,830**	**5,050**	**1,063**	**969**
Abbeyfeale	1.2	348	344	79	73
Listowel	3.1	703	694	346	355
Villages under 1,000 population	*1.1*	*396*	*488*	*151*	*178*
Rural Areas	*21.9*	*4,383*	*3,524*	*487*	*363*
TRALEE AREA	**48.1**	**10,234**	**10,069**	**3,203**	**3,025**
Castleisland	1.5	423	418	482	464
Tralee	11.0	2,878	2,837	1,892	1,595
Dingle	1.5	6,933	6,814	829	966
Rural Areas	*34.1*				
Totals	**131.2**	**27,008**	**25,419**	**7,634**	**7,152**
WATERFORD DISTRICT					
ARKLOW AREA ...	**13.3**	**2,834**	**2,701**	**2,273**	**2,169**
Arklow	5.2	1,372	1,367	2,179	2,094
Rural Areas	*8.1*	*1,462*	*1,334*	*94*	*75*
CARRICK-ON-SUIR AREA	**17.7**	**3,283**	**3,244**	**3,528**	**3,178**
Carrick-on-Suir	4.8	1,045	1,030	1,339	1,155
Villages under 1,000 population	*.9*	*258*	*254*	*1,336*	*1,082*
Rural Areas	*12.0*	*1,980*	*1,960*	*853*	*941*
CLONMEL AREA ...	**25.7**	**5,255**	**4,968**	**2,306**	**2,428**
Clonmel	10.5	2,500	2,432	1,777	1,658
Fethard	1.0	295	291	41	40
Villages under 1,000 population	*.5*	*141*	*134*	*56*	*44*
Rural Areas	*13.7*	*2,319*	*2,111*	*432*	*686*
DUNGARVAN AREA ...	**24.0**	**4,445**	**4,135**	**3,040**	**3,068**
Dungarvan	5.4	1,318	1,327	1,501	1,292
Lismore	1.1	318	312	16	17
Villages under 1,000 population	*1.5*	*491*	*477*	*456*	*436*
Rural Areas	*16.0*	*2,318*	*2,019*	*1,067*	*1,323*
ENNISCORTHY AREA ...	**27.9**	**5,439**	**5,328**	**2,149**	**1,964**
Enniscorthy	5.9	1,456	1,459	1,723	1,576
Villages under 1,000 population	*1.5*	*407*	*431*	*94*	*84*
Rural Areas	*20.5*	*3,576*	*3,438*	*332*	*304*
GOREY AREA	**11.4**	**2,169**	**2,162**	**1,135**	**1,036**
Gorey	2.9	691	695	950	863
Villages under 1,000 population	*.5*	*119*	*116*	*28*	*23*
Rural Areas	*8.0*	*1,359*	*1,351*	*157*	*150*

Appendix I—continued.

Areas and Towns Supplied	Approx. Population thousands	No. of Consumers at 31st March		Motive Power Units sold year ended 31st March	
		1959	1958	1959 thousands	1958 thousands
WATERFORD DISTRICT—*continued*					
NEW ROSS AREA ...	**29.1**	**5,372**	**5,223**	**1,745**	**1,734**
Graiguenamanagh-Tinnahinch	1.4	329	327	264	272
New Ross	4.9	1,147	1,141	1,096	1,120
Villages under 1,000 population	*1.6*	*502*	*483*	*49*	*46*
Rural Areas	*21.2*	*3,394*	*3,272*	*336*	*296*
TRAMORE AREA ...	**8.2**	**2,112**	**1,991**	**391**	**462**
Tramore	2.8	850	831	100	91
Villages under 1,000 population	*.7*	*294*	*293*	*101*	*78*
Rural Areas	*4.7*	*968*	*867*	*190*	*293*
WATERFORD AREA ...	**38.8**	**8,790**	**8,679**	**15,653**	**14,456**
Waterford	28.7	7,171	7,096	8,983	8,389
Rural Areas	*10.1*	*1,619*	*1,583*	*6,670*	*6,067*
WEXFORD AREA ...	**30.2**	**5,548**	**5,444**	**2,835**	**2,546**
Wexford	12.0	2,984	2,932	1,467	1,549
Villages under 1,000 population	*1.3*	*368*	*361*	*98*	*71*
Rural Areas	*16.9*	*2,196*	*2,151*	*1,270*	*926*
Totals	**226.3**	**45,247**	**43,875**	**35,055**	**33,041**

RURAL ELECTRIFICATION

Areas Completed during Year ended 31st March, 1959

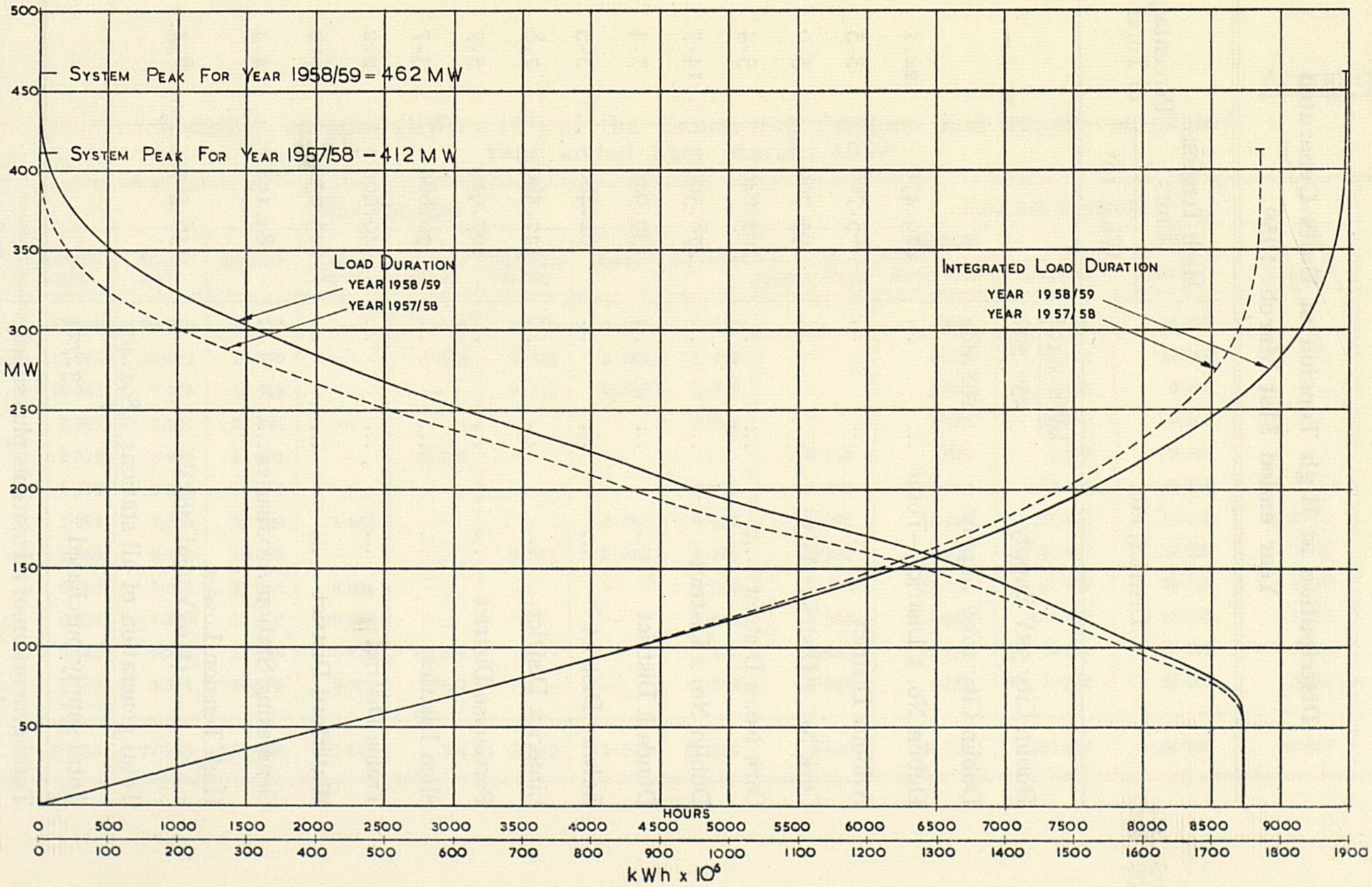
Area	County
Ballyhaise	Cavan
Rassan	Cavan
Barefield	Clare
Kilmaley	Clare
Ogonnelloe	Clare
Ballyvourney	Cork
Clonmult	Cork
Kealkil	Cork
Kilnamartyra	Cork
Rossmore	Cork
Brosna	Cork/Kerry
Araglin	Cork/Waterford/Tipperary
Derrydruel	Donegal
Doobally	Donegal
Drung	Donegal
Moville	Donegal
Pettigo	Donegal
Ballyconneely	Galway
Glenbeigh	Kerry
Templenoe	Kerry
Galmoy	Kilkenny
Tournafulla	Limerick
Fallmore	Mayo
Glenamoy	Mayo
Kilvine	Mayo
Moyrahan	Mayo
Pontoon	Mayo
Moylagh	Meath
Clonmellon	Meath/Westmeath
Oram	Monaghan
Rockcorry	Monaghan
Cloneygowan	Offaly
Lullymore	Offaly/Kildare
Mount Delvin	Roscommon/Galway
Achonry	Sligo
Kesh	Sligo/Roscommon
Ballincor	Tipperary
Carrigatoher	Tipperary
Coologe	Tipperary
Derrycastle	Tipperary
Puckane	Tipperary
Upperchurch	Tipperary
Clashmore	Waterford
Moyvore	Westmeath
Durrow	Westmeath/Offaly

APPENDIX II—*continued*

Areas under Construction or Selected for Development at the 31st March, 1959

Area	County
Crosskeys	Cavan
Kildallon	Cavan
Killeshandra	Cavan
Tonyduff	Cavan
Dowra	Cavan/Leitrim
Bridgetown	Clare
Lisdoonvarna	Clare
Drinagh	Cork
Kildinan	Cork
Rockchapel	Cork
Rosscarbery	Cork
Church Hill	Donegal
Leitrim	Galway
Sneem	Kerry
Crutt	Kilkenny
Woodsgift	Kilkenny
Coone	Kilkenny/Laois/Carlow
Ballinakill	Laois
Wolfhill	Laois
Vicarstown	Laois/Kildare
Garrymore	Laois/Offaly
Devon Road	Limerick
Mayfield	Mayo
Shercock	Monaghan/Cavan
Ballycumber	Offaly
Ballydooly	Roscommon
Cootehall	Roscommon/Sligo
Mount Frisco	Tipperary
Carroll's Cross	Waterford
Kilwatermoy	Waterford
Kilmyshall	Wexford
Johnstown	Wexford/Wicklow
Garrettstown	Wicklow/Carlow/Kildare

GENERATION LOAD DURATION & INTEGRATED LOAD DURATION CURVES YEAR ENDED 31ST MARCH 1959



Distribution at High Tension of Units Generated
Year ended 31st March, 1959.

District, etc.	kWh x 10^6	High Tension Units kWh x 10^6	Percentage of Total
Dublin City 5kV Supply	250.590		
Dublin City 10kV Supply	168.880		
Dublin No. 1 District—Total		419.470	22.1
Athlone District		65.760	3.5
Cork No. 1 District (City)		95.700	5.0
Cork No. 2 District		102.640	5.4
Dublin No. 2 District		278.500	14.7
Dundalk District		139.940	7.4
Galway District		62.480	3.3
Limerick District		147.560	7.8
Portlaoise District		107.910	5.7
Sligo District		70.880	3.7
Tralee District		40.960	2.2
Waterford District		125.650	6.6
Generating Station Auxiliaries		84.198	4.4
High Tension Losses (110kV and 38kV) ...		156.567	8.2
Total generation of all stations	1,894.491		
Total supply purchased	3.724		
Total generation of all stations plus supply purchased		1,898.215	100.0

Monthly outputs (kWh x 10^6) of the Generating Stations and supply purchased
Year ended 31st March, 1959

Month (Calendar)	PEAT STATIONS								COAL/OIL STATIONS					Total of Steam Stations
									DUBLIN			CORK		
	Portarlington	Allenwood	Ferbane	Laneshoro'	Cahirciveen	Miltown-Malbay	Screeb	Gweedore	Pigeon House	North Wall	Ringsend	Marina	Arigna	
April ...	15·106	20·318	18·810	—	0·402	0·676	0·640	1·315	—	3·534	42·128	21·824	—	124·753
May ...	13·904	14·004	14·070	—	0·390	0·734	0·583	1·450	—	3·674	34·932	21·764	—	105·505
June ...	12·656	7·620	18·622	—	—	0·719	0·302	0·679	—	1·354	12·034	6·733	—	60·719
July ...	8·591	6·494	31·843	—	—	—	—	0·595	—	1·264	14·922	9·949	—	73·658
August ...	3·310	2·625	11·954	—	0·129	—	—	—	0·533	2·460	4·969	0·807	—	26·787
September	1·419	2·311	17·280	—	—	—	—	0·900	0·121	1·919	14·361	9·344	—	47·655
October ...	1·682	3·389	32·726	1·463	—	—	0·081	0·860	0·041	0·623	20·249	15·235	0·901	77·250
November	1·960	3·341	18·396	—	—	0·011	0·023	0·199	2·594	8·576	38·091	37·225	1·425	111·841
December ...	2·462	3·980	17·591	0·284	—	—	—	1·212	7·642	12·173	45·079	30·447	1·903	122·773
January ...	2·586	4·824	16·627	2·422	—	—	—	1·652	0·312	4·905	38·957	25·066	5·122	102·473
February ...	2·847	6·385	19·758	8·375	0·267	—	—	1·427	7·069	15·141	43·412	34·558	6·522	145·761
March ...	1·162	2·654	16·276	8·702	0·497	—	—	0·969	0·256	5·168	50·265	21·484	6·134	113·567
TOTALS ...	67·685	77·945	233·953	21·246	1·685	2·140	1·629	11·258	18·568	60·791	359·399	234·436	22·007	1,112·742

Monthly outputs (kWh x 10^6) of the Generating Stations and supply purchased Year ended 31st March, 1959—*continued*

Month (Calendar)	HYDRO STATIONS										Total Generation of all Stations	Total Supply Purchased	Total Generation and Supply Purchased
	River Shannon	River Erne		River Lee		River Liffey			River Clady	Total of Hydro Stations			
	Ardnacrusha	Cliff	Cathaleen's Fall	Carrigadrohid	Inniscarra	Pollaphuca	Golden Falls	Leixlip					
April	16·178	1·549	3·474	1·000	3·073	0·478	0·246	0·506	—	26·504	151·257	0·230	151·487
May	15·271	2·283	4·946	1·445	3·604	0·744	0·330	0·823	—	29·446	134·951	0·248	135·199
June	19·274	8·085	19·342	1·445	3·492	4·843	1·650	2·289	—	60·420	121·139	0·264	121·403
July	20·675	4·332	10·580	2·250	5·948	3·672	1·271	2·056	—	50·784	124·442	0·231	124·673
August	42·777	9·993	24·316	2·766	6·817	1·689	0·638	1·760	—	90·756	117·543	0·311	117·854
September	40·799	7·150	18·310	3·639	9·842	3·076	1·105	1·844	—	85·765	133·420	0·320	133·740
October	38·218	9·088	22·592	2·151	5·728	4·013	1·433	2·180	—	85·403	162·653	0·365	163·018
November	28·990	6·542	16·809	1·054	3·285	3·158	1·112	1·850	—	62·800	174·641	0·373	175·014
December	37·245	8·059	20·507	2·683	6·923	2·073	0·796	1·599	—	79·885	202·658	0·370	203·028
January	53·450	11·444	28·165	3·011	7·912	3·754	1·381	2·289	—	111·406	213·879	0·402	214·281
February	19·980	2·608	6·454	0·661	2·030	0·538	0·270	0·635	0·017	33·193	178·954	0·318	179·272
March	29·391	6·022	14·420	4·701	8·417	0·543	0·283	0·778	0·832	65·387	178·954	0·292	179·246
		77·155	189·915	26·806	67·071	28·581	10·515	18·609					
TOTALS	362·248	267·070		93·877		57·705			0·849	781·749	1,894·491	3·724	1,898·215

Performance of Generating Plant Year ended 31st March, 1959

(*a*) HYDRO-ELECTRIC STATIONS

Station	River	Total average inflow cbm/sec.	Water utilisation* %	Average water used at station cbm/sec.	Average water used per unit generated cbm	Rainfall at power station inches	Average available head metres	Installed capacity kW	Units sent out kWh x 10^6	Plant load factor %	Cost of generation per unit sent out Pence
ARDNACRUSHA ...	Shannon	185·4	100	175·5	15·28	39·9†	28·28	85,000	358·963	48·7	0.267
CLIFF	Erne	90·1	100	86·5	35·34	41·3†	12·13	20,000	76·365	44·0	0.413
CATHALEEN'S FALL	Erne	90·1	100	88·1	14·62	41·3†	29·73	45,000	187·543	48·2	
CARRIGADROHID	Lee	25·2	99	24·3	28·60	47·2	15·54	8,000	26·306	38·3	0.802
INNISCARRA ...	Lee	30·0	100	29·4	13·82	48·2	31·95	19,000	66·320	40·3	
POLLAPHUCA ...	Liffey	10·4	100	8·3	9·15	42·2	48·54	30,000	28·096	10·9	0.618
GOLDEN FALLS ...	Liffey	10·4	100	8·6	25·85	42·2	16·73	4,000	10·418	30·0	
LEIXLIP ...	Liffey	19·3	97·5	15·4	26·10	37·5	17·33	4,000	18·454	53·1	
CLADY§ ...	Clady	—	—	—	—	—	—	4,000	—	—	—

* The percentage utilisation of the total discharge for power production is exclusive of river compensation water and, in the case of the River Liffey, of the draw-off for the Dublin City water supply from Pollaphuca reservoir which averaged 17·0 million gallons per day (0·895 cbm/sec.).

† Average of catchment area.

§ In commission at end of year only.

Performance of Generating Plant Year ended 31st March, 1959—*continued*

(*b*) STEAM STATIONS

Station	Location	Installed Capacity kW	Units Sent Out kWh x 10^6	Plant Load Factor %	Fuel Type	Total Fuel Used Tons	Total Fuel Cost £	Fuel Cost per Unit Sent Out pence	Total Cost per Unit Sent Out pence
PORTARLINGTON ...	Co. Laoise ...	25,000	63·020	30·9	Sod Peat	(*a*) 80,100	210,105	0·790	1·584
ALLENWOOD ...	Co. Kildare ...	40,000	71·803	22·2	Sod Peat	(*a*) 98,900	286,970	0·946	1·909
LANESBOROUGH (*c*)	Co. Longford	20,000	19·991	—	Sod Peat	(*a*) 24,100	—	—	—
FOUR 5 MW STATIONS ...	West Coast ...	20,000	15·005	9·5	Sod Peat	24,300	53,735	0·853	3·324
FERBANE ...	Co. Offaly ...	60,000	215·315	44·5	Milled Peat Oil	(*b*) 418,000 2,600	553,892	0·616	1·033
NORTH WALL ...	Dublin ...	44,500	56·328	21·0	Oil	20,400	162,763	0·692	1.673
RINGSEND ...	Dublin ...	90,000	337·777	45·6	Coal Oil	114,800 41,500	830,723	0·595	1·059
MARINA ...	Cork ...	60,000	222·008	44·6	Coal Oil	96,900 17,200	570,972	0·617	1·051
ARIGNA (*c*) ...	Co. Roscommon	15,000	20·591	—	Coal Oil	13,300 400	—	—	—
PIGEON HOUSE ... (Stand-by Station)	Dublin ...	95,000	15·162	—	Coal Oil	— 9,500	70,531	—	—

(*a*) Portarlington, Allenwood and Lanesborough peat figures are for equivalent standard fuel of 30 per cent. moisture content.

(*b*) Ferbane peat figures are for equivalent standard fuel of 55 per cent. moisture content.

(*c*) Lanesborough and Arigna in commission for part of year only.

The outputs are given for the calendar year but for convenience costing figures are for 52 weeks.

Particulars of Generating Plant

(*a*) HYDRO-ELECTRIC STATIONS

Station	River	Catchment area km²	Average annual flow m³/sec	Average head m	Generating Sets No.	Generating Sets Capacity each kW	Type of turbine	Total capacity kW	Average annual output kWh x 10⁶	Remarks
ARDNACRUSHA ...	Shannon	10,400	194.4	28.3	3 1	20,000 25,000	Francis Kaplan	85,000	310	In commission.
POLLAPHUCA ...	Liffey	312	9.5	46.9	2	15,000	Kaplan	30,000	22	In commission.
GOLDEN FALLS ...	,,	312	9.5	17.4	1	4,000	Propellor	4,000	9	In commission.
LEIXLIP ...	,,	854	14.7	17.5	1	4,000	Kaplan	4,000	10	In commission.
CLIFF ...	Erne	3,950	102.1	10.0	2	10,000	Kaplan	20,000	85	In commission.
CATHALEEN'S FALL	,,	3,950	102.1	28.5	2	22,500	Kaplan	45,000	185	In commission.
CARRIGADROHID ...	Lee	610	18.2	13.55	1	8,000	Kaplan	8,000	17	In commission
INNISCARRA ...	,,	790	27.5	29.4	1 1	15,000 4,000	Kaplan Kaplan	19,000	51	In commission
CLADY ...	Clady	80	3.9	57.85	1	4,000	Francis	4,000	13	In commission.

Particulars of Generating Plant *continued*

(*b*) STEAM STATIONS

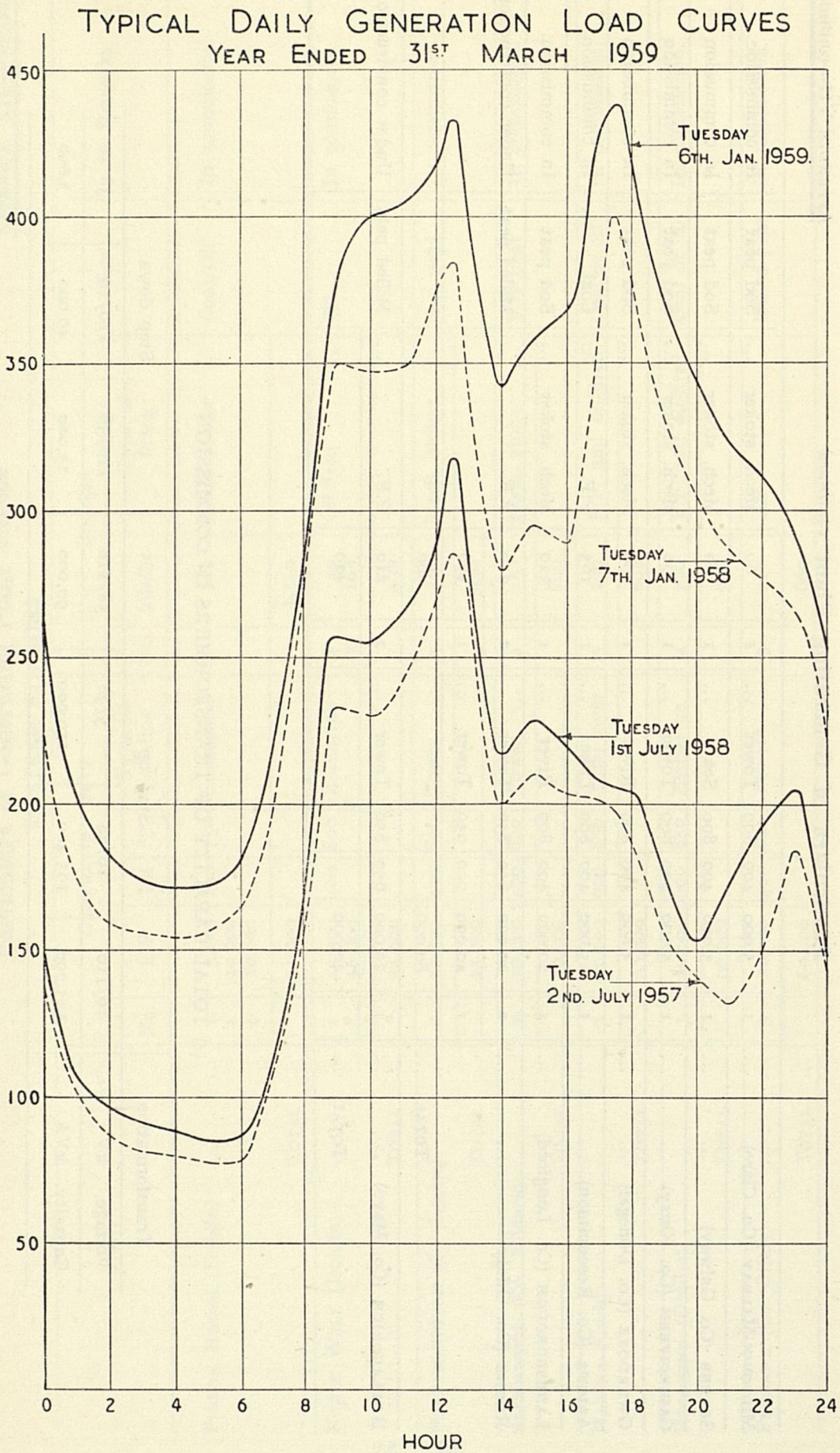
Station	Generating Sets					Boilers			Fuel	Remarks
	No.	kW	Psi	°F.	Type of cooling	No.	klb/hr	Type of firing		
PIGEON HOUSE (Dublin)	1 1 4	5,000 10,000 20,000	250	750	Estuarine	11	100	Mech. stoker ...	Coal/Oil	In commission.
TOTAL ...		95,000					1,100			
NORTH WALL (Dublin)	1 2	12,500 16,000	400	800	Estuarine	4 2	40 165	Oil-fired ...	Oil ...	In commission.
TOTAL ...		44,500					490			
PORTARLINGTON (Co. Laoise) ...	2	12,500	400	800	Tower ...	3	150	Mech. stoker ...	Sod peat	In commission.
TOTAL ...		25,000					450			
ALLENWOOD (Co. Kildare)	2	20,000	400	800	Tower ...	4	150	Mech. stoker ...	Sod peat	In commission.
TOTAL ...		40,000					600			
MARINA (Cork)	2	30,000	600	850	Tidal river	3	200	P.F. and oil-fired	Coal or oil	In commission.
TOTAL ...		60,000					600			
RINGSEND (Dublin)	3	30,000	600	850	Estuarine	4	200	P.F. and oil-fired	Coal or oil	In commission.
TOTAL ...		90,000					800			
FERBANE (Co. Offaly)	3	20,000	400	800	Towers ...	3	220	P.F. ...	Milled peat	In commission
TOTAL ...		60,000					660			

MILTOWN-MALBAY (Co. Clare) ...	1	5,000	400	800	Tower ...	1	60	Mech. stoker ...	Sod peat	In commission.
SCREEB (Co. Galway)	1	5,000	400	800	Sea ...	1	60	Mech. stoker ...	Sod peat	In commission
CAHIRCIVEEN (Co. Kerry)	1	5,000	400	800	Tower ...	1	60	Mech. stoker ...	Sod peat	In commission
GWEEDORE (Co. Donegal)	1	5,000	400	800	River ...	1	60	Mech. stoker ...	Sod peat	In commission
ARIGNA (Co. Roscommon)	1	15,000	400	800	Lake ...	1	165	P.F. ...	Coal ...	In commission.
LANESBOROUGH (Co. Longford) ...	1	20,000	400	800	River ...	1	220	Mech. stoker ...	Sod peat	In commission.
RHODE (Co. Offaly)	2	20,000	650	850	Tower	2	210	P.F. ...	Milled peat	Under construction.
	1	40,000	900	950	Tower ...	1	380			
TOTAL ...		80,000					800			
BELLACORICK (Co. Mayo)	2	20,000	650	850	Tower ...	2	210	P.F. ...	Milled peat	Under construction
TOTAL ...		40,000					420			

(*c*) TOTAL CAPACITY OF TRANSFORMERS IN COMMISSION

Transformation	Step up				Step down		
Voltage, kV ...	10/110	10/38	5/38	38/110	110/38	110/10	38/10
Capacity, kVA ...	545,000	195,400	110,000	90,000	15,000	40,000	3,000

Appendix VIII



Transmission and Distribution Systems in Commission at 31st March, 1959

Transformer Stations	Number in commission	Increase for year	Total capacity in kVA	Increase in capacity for year in kVA
110 kV Stations ...	18	2	580,000 at 110/38kV 15,000 at 110/10kV 64,200 at 38/10kV	Nil at 110/38kV 15,000 at 110/10kV Nil at 38/10kV
38 kV Stations ...	172	2	711,620	26,660
10 kV Substations	3,939	108	535,977	31,053
5 kV Substations	166	—12	114,748	—9,470
10 kV Rural Substations ...	48,648	4,565	281,129	31,222

Transmission and distribution systems	Length km.	Increase (+) or decrease(—) for year km.	Description
110 kV Lines ...	192·6	—	6 x 95 sq. mm. double circuit copper.
110 kV Lines ...	750·8	+0·3	3 x 95 sq. mm. single circuit copper.
110 kV Lines ...	4·1	—	6 x 300 sq. mm. double circuit s.c.a.
110 kV Lines ...	48·3	—	3 x 425 sq. mm. single circuit s.c.a.
110 kV Lines ...	430·2	—	3 x 300 sq. mm. single circuit s.c.a.
110 kV Lines ...	716·9	+50·7	3 x 200 sq. mm. single circuit s.c.a.
110 kV Cables ...	9·8	—	3 single core 325 sq. mm. oil-filled.
38 kV Lines ...	15·6	—	3 x 300 sq. mm. s.c.a.
38 kV Lines ...	2·4	—	3 x 200 sq. mm. s.c.a.
38 kV Lines ...	553·9	+14·6	3 x 100 sq. mm. s.c.a.
38 kV Lines ...	2,456·0	+0·3	3 x 50 sq. mm. copper.
38 kV Lines ...	326·4	—	3 x 35 sq. mm. copper.
38 kV Cables ...	40·5	—	3 x 260 sq. mm. oil-filled.
38 kV Cables ...	4·0	—	3 x 130 sq. mm. oil-filled.
38 kV Cables ...	2·2	—	3 single core 260 sq. mm. oil-filled.
38 kV Cables ...	69·1	—	3 x 185 sq. mm. solid.
38 kV Cables ...	27·7	—	3 x 150 sq. mm. solid.
38 kV Cables ...	1·5	—	3 x 95 sq. mm. solid including 1 km. submarine.
10 kV Lines ...	5,435·04	55·72	Single phase and three phase.
10 kV Cables ...	714·33	16·04	3 x 10 to 3 x 185 sq. mm.
5 kV Cables ...	239·74	—0·66	3 x 10 to 3 x 185 sq. mm.
3·3 kV Cables ...	3·7	—	3 x 185 sq. mm.
10 kV and L.T. Rural Lines ...	61,311	4,369	Single phase and three phase.

Permitted Electricity Undertakings at 31st March, 1959

Type of generator used is shown hereunder in column 4 as follows :—

Hydro = H ; Oil = O ; Hydro and Oil = H & O

(1) Town	(2) Population (1951)	(3) Name of undertaker	(4) Type of generator	(5) No. of consumers	(6) Normal Tariffs per Unit for			(7) Units sold, year ended 31st March, 1959
					Lighting	Heating and cooking	Power	
Ballisodare, Co. Sligo ...	153	W. & G. T. Pollexfen, Ltd. ...	H	66	7½d.	3d.	—	79,597
Boyle, Co. Roscommon	1,934	John Stewart	H & O	584	5d. to 8d.	2d. to 2¼d.	3½d.	598,415
					Miscellaneous 0·6d. to 3½d. per unit			
Dromahair, Co. Leitrim	262	Paul Jeiter	H	60	9d.	3d.	3d.	21,608
Glendalough, Co. Wicklow	—	Messrs. Wynne	H	17	Included in Rent Maximum charge 1½d. per unit			118,525
Various Districts ...	—	Coras Iompair Eireann	O	16	6·5d. and 8d.	—	—	Est. 190,613

Total number of undertakings, 8 ; total population, 2,349 ; total number of consumers, 743 ; units sold, approximately, 1,008,758.

NOTE : Permits have also been issued in three cases where the number of consumers is three or under ; these undertakings are not shown above.

GENERAL EMPLOYEES' TRIBUNAL

REPORT OF PROCEEDINGS IN THE YEAR ENDED 31st MARCH, 1959, OF THE TRIBUNAL ESTABLISHED UNDER SECTION 3 OF THE ELECTRICITY (SUPPLY) (AMENDMENT) ACT, 1949.

In the year ended 31st March, 1959, the Tribunal dealt with nine disputes under Section 5 of the Electricity (Supply) (Amendment) Act, 1949. The disputes were as follows :—

(1) A claim by officer personnel for a 12½% increase in remuneration. The Tribunal decided that there did not appear to be convincing grounds to justify the over-riding of the national agreement on wages and, accordingly, awarded an increase of ten shillings per week up to Grade VI, with a proportionate increase for juveniles. Subsequently, the Tribunal allowed the increase of ten shillings per week to grades V and IV. The Tribunal decided that the evidence was inconclusive in regard to the adjustment of higher grades.

(2) A claim by certain main station operators for a special increment at the maximum of grade VIII as a compensation for loss of promotion. The Tribunal decided to award a special increment at the maximum of grade VIII to three station operators who were in grade IIID in 1937.

(3) A claim for the provision of subsidised transport for the clerical staff at Ferbane generating station, or alternatively, a weekly allowance to cover the cost of transport to and from the station. The Tribunal heard evidence of the difficulties in living at a distance from the station and felt that the merits of the case would be met by acceptance of the Board's assurance that after three years' service at Ferbane a request for a transfer would be favourably considered.

(4) Representations for the re-consideration of a decision of the Tribunal rejecting a claim for increased remuneration for Divisional Engineers. The Tribunal decided that there were no grounds to justify a revision of its previous decision.

(5) A claim by an officer for higher grading or increased remuneration as compensation for loss of opportunities and earnings. The Tribunal rejected the claim.

(6) A claim by two officials concerning their conditions of employment on their becoming redundant following the closing of a distribution station. The Tribunal held that the grading and salaries of the officials should not be reduced and that the status as officer personnel should continue. It was decided that they should be given the opportunity of qualifying for appropriate promotion but that in the meantime they should accept the alternative employment offered by the Board.

(7) and (8) Claims by two shift operators for the extension to them of the special increment granted to other station operators who were in grade IIID in 1937. In the special circumstances of the cases the Tribunal allowed the increment from a current date.

(9) A claim for a five-day week by the clerical staff at Allenwood and Portarlington generating stations. The Tribunal decided that where a generating station is in an isolated position the advantages of a five-day week—without a reduction of working

hours—should be accorded to clerical staff and decided that the claim in respect of Portarlington and Allenwood stations should be allowed.

During the period under review one claim was withdrawn by the appellants and one claim was adjourned sine die. Three claims were outstanding at the close of the year.

(Signed) J. J. O'LEARY, *Chairman.*

M. R. BLAIR, *Member.*

T. MacMAHON, *Member.*

(Signed) J. A. QUINN, *Secretary.*
Date : 3rd June, 1959

MANUAL WORKERS' TRIBUNAL

REPORT OF PROCEEDINGS IN THE YEAR ENDED 31st MARCH, 1959.

In the year ended the 31st March, 1959, the Tribunal dealt with nine industrial disputes and one claim in regard to superannuation.

The industrial disputes were as follows :—

(1) A claim by the E.S.B. Group of Unions affiliated to the Provisional United Trade Union Organisation in regard to the rate of pay of casual rural labourers in the Board's service. An increase in the rate of pay was allowed.

(2) A claim by the Amalgamated Engineering Union on behalf of a member whose services were terminated, that he should be reinstated. The claim was rejected.

(3) An application by an employee transferred from a former electricity undertaking in regard to the fixing of a date from which he had continuous service. The Tribunal allowed the claim.

(4) A claim by the Amalgamated Transport & General Workers' Union on behalf of casual unskilled workmen in Cork No. 2 District for the district headquarters' rate when employed on the erection of the 110kV Line at Whitegate. The claim was allowed.

(5) A claim by the Amalgamated Transport & General Workers' Union in regard to the provision of transport for semi-skilled workmen on rural electrification work in Cork No. 2 District. The claim was rejected.

(6) A claim by the Electrical Trades Union that the date from which an increased rate of pay was granted by the Board to operation electricians should apply also to contracts electricians. The Tribunal allowed the claim.

(7) A claim by the Electrical Trades Union and the Amalgamated Transport & General Workers' Union on behalf of certain meter readers in Cork, Waterford and Limerick for an increase in the rate of pay. The claim was allowed.

(8) A claim by the Workers' Union of Ireland, the Irish Municipal Employees' Trade Union, the Irish Transport & General Workers' Union and the Amalgamated Transport & General Workers' Union in regard to the rate of pay of overhead men in Dublin No. 1 District. An increase in the rate of pay was granted. The Tribunal also recommended that the suggested promotional positions should not be limited to a specified number but should be altered as circumstances require.

(9) A claim by the E.S.B. Group of Unions affiliated to the Provisional United Trade Union Organisation for the same overtime rates for semi-skilled and unskilled workers in the Board's service outside Dublin as obtain in Dublin. The Tribunal decided that the overtime rates in Dublin should be extended to apply to the whole city and county of Dublin and adjourned for three months consideration of the other areas.

The superannuation claim under Section 13(6) of the Electricity Supply Board (Superannuation) Act, 1942, was a matter affecting the superannuation benefits payable to the estate of a late employee. The claim was allowed.

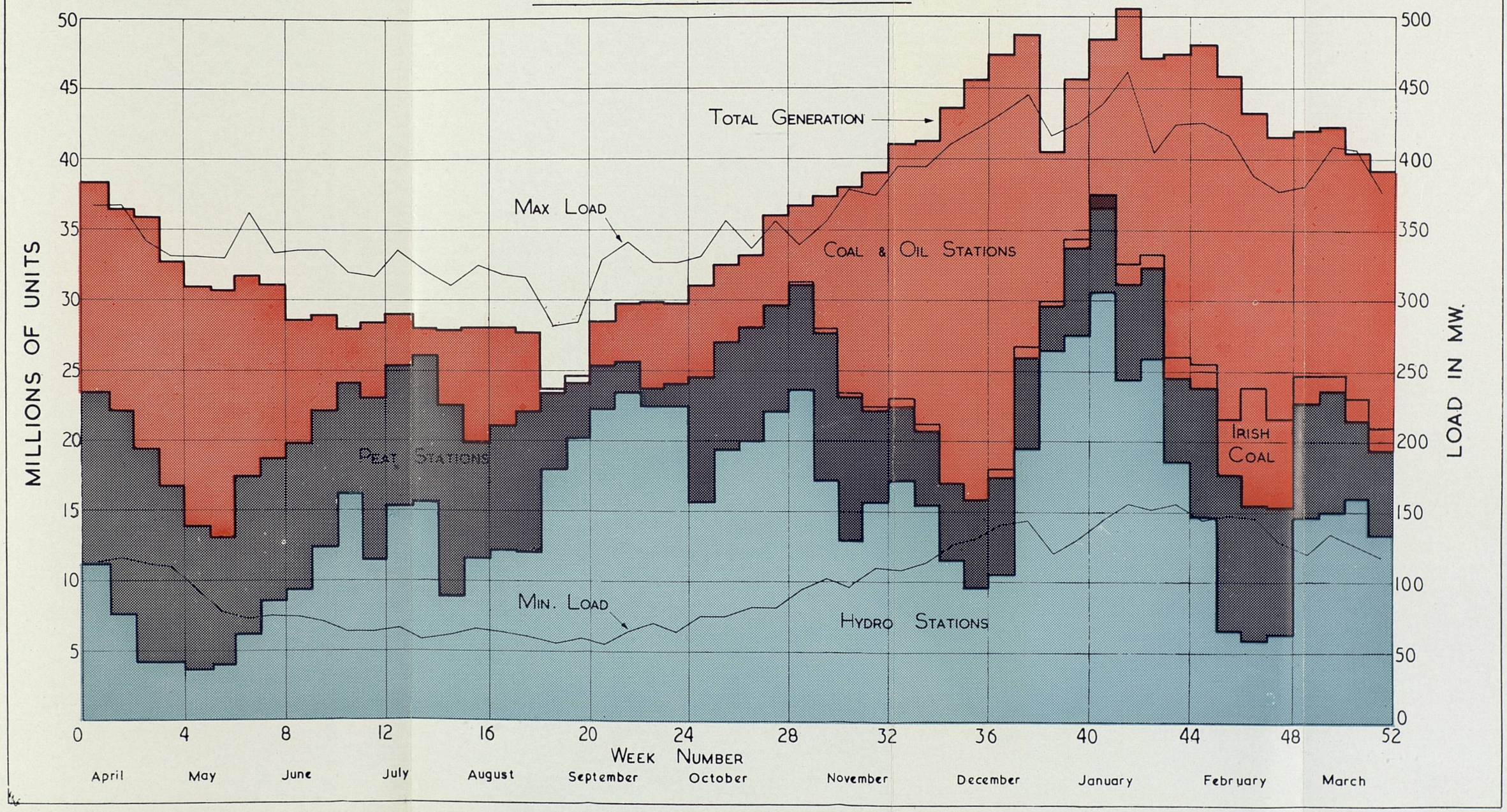
At the close of the period under review one claim was sub judice.

(Signed) J. J. O'LEARY, *Chairman.*
R. F. BROWNE, *Member.*
GILBERT LYNCH, *Member.*

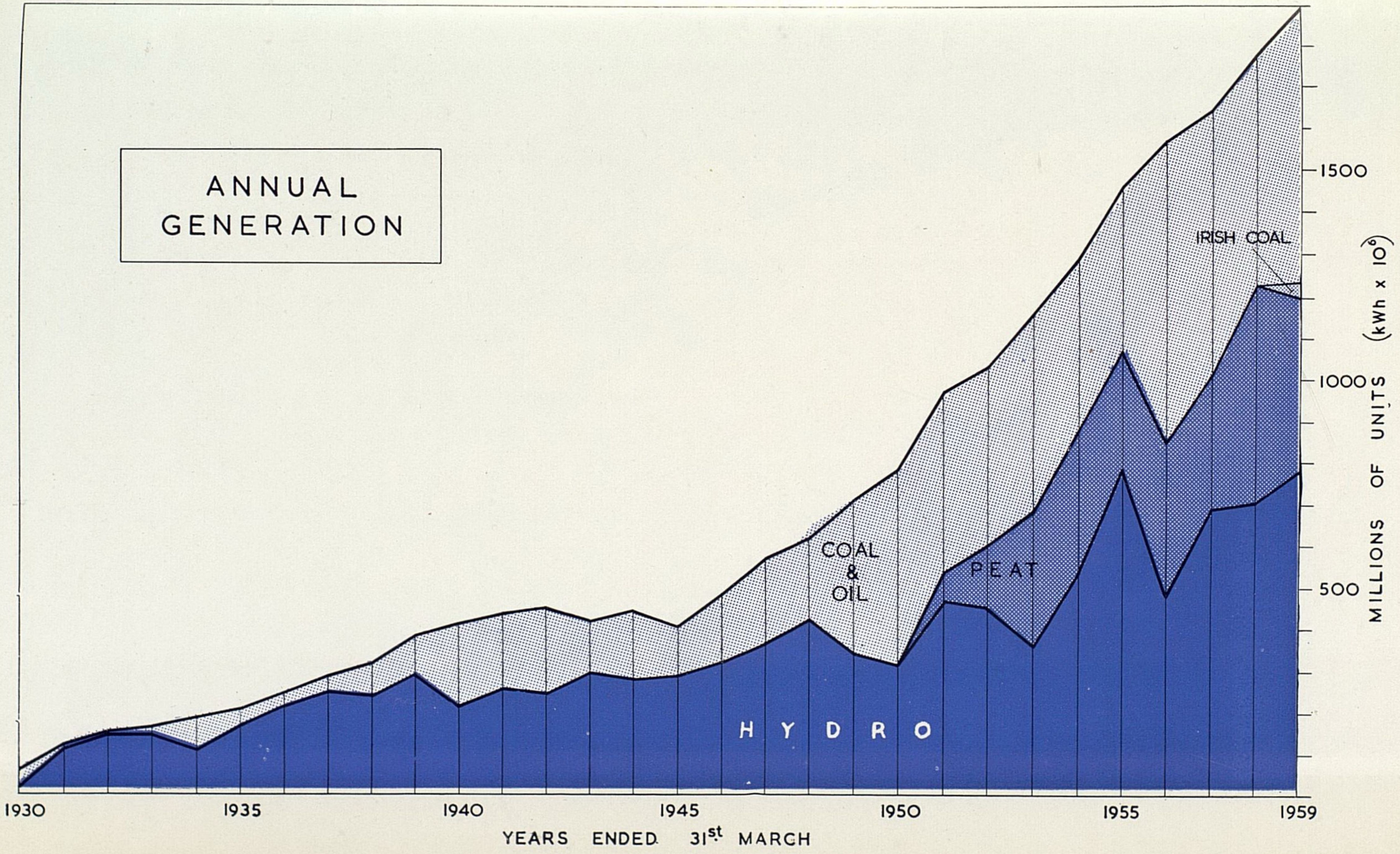
(Signed) C. DOWLING, *Secretary,*
Date : 22nd May, 1959

WEEKLY GENERATION & MAX/MIN. LOADS

YEAR ENDED 31ST MARCH 1959



ANNUAL GENERATION

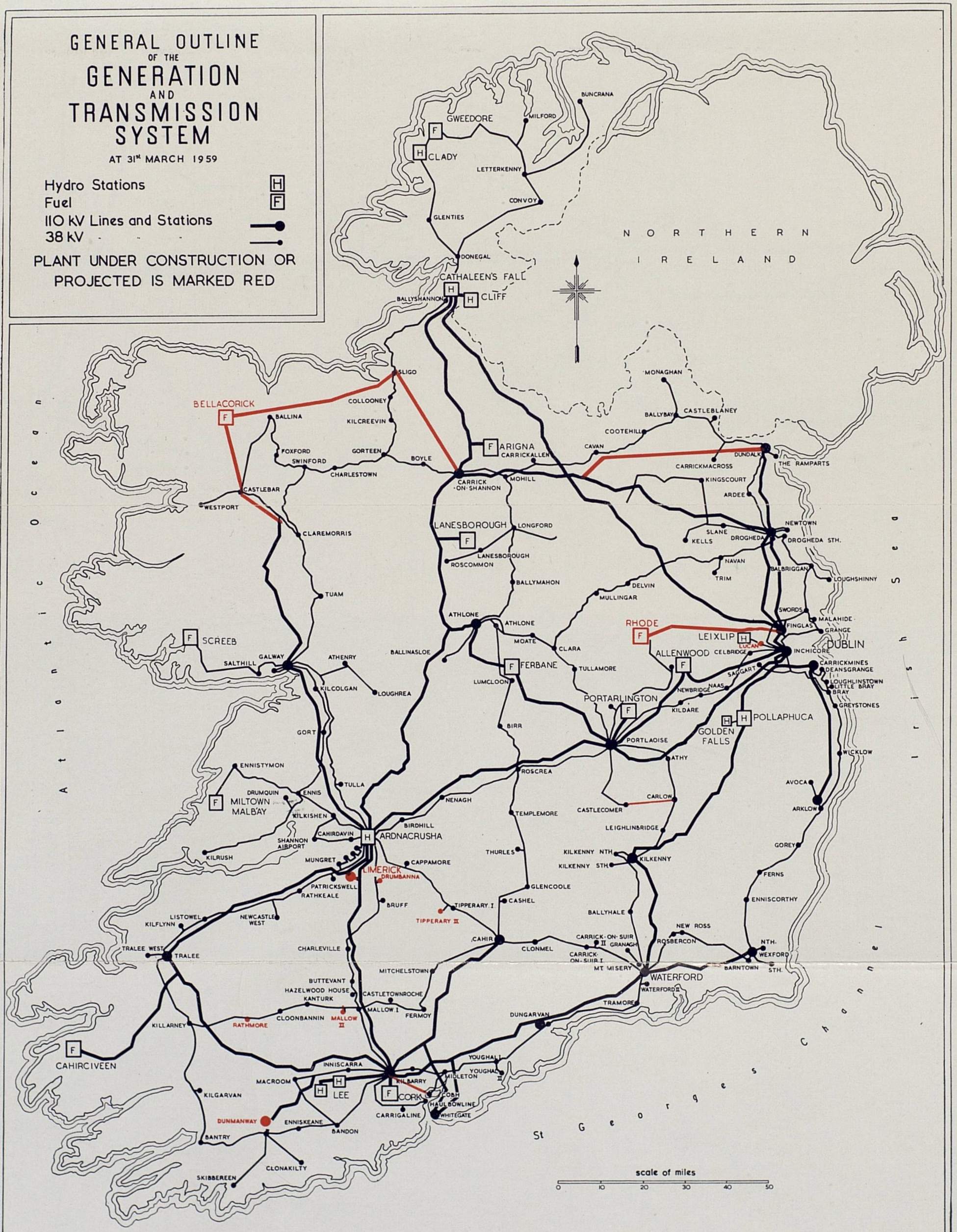


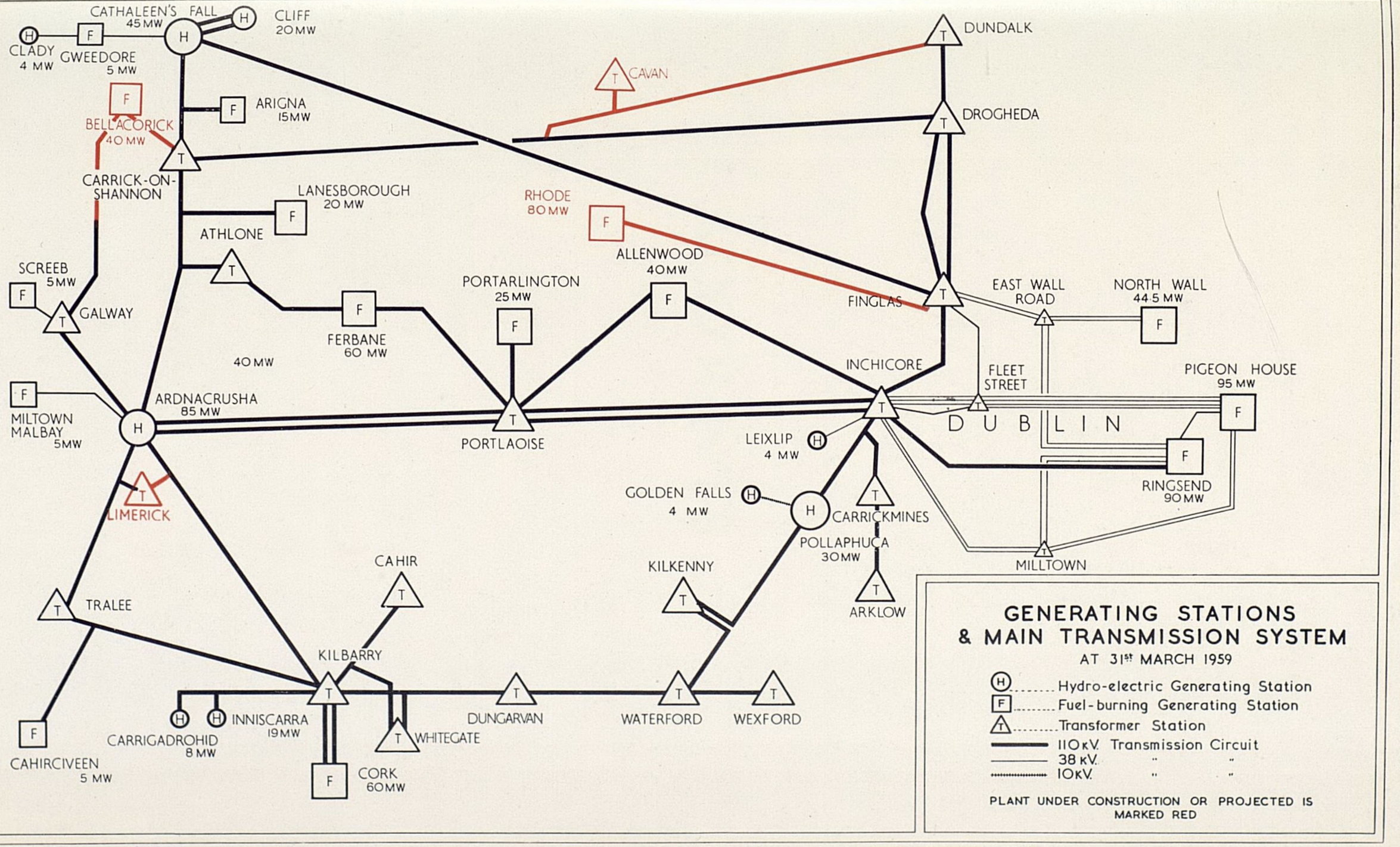
GENERAL OUTLINE OF THE GENERATION AND TRANSMISSION SYSTEM

AT 31ST MARCH 1959

Hydro Stations [H]
Fuel [F]
110 kV Lines and Stations
38 kV - - - -

PLANT UNDER CONSTRUCTION OR PROJECTED IS MARKED RED





GENERATING STATIONS & MAIN TRANSMISSION SYSTEM

AT 31st MARCH 1959

(H) ..... Hydro-electric Generating Station
[F] ..... Fuel-burning Generating Station
△T ..... Transformer Station
——— 110 kV. Transmission Circuit
——— 38 kV. " "
····· 10 kV. " "

PLANT UNDER CONSTRUCTION OR PROJECTED IS MARKED RED

ACCOUNTS

No. 1. ELECTRICITY PRODUCTION ACCOUNT FOR

	1 Fuel £	2 Operating Expenses £	3 Maintenance and Repair £	4 Supervision and Local Administration £
GENERATION				
Coal/Oil				
North Wall	162,763	38,098	19,206	9,483
Marina	570,972	56,027	48,312	18,425
Ringsend	830,723	85,276	80,563	21,396
Arigna	51,710	9,233	982	1,557
Sod Peat (Machine)				
Portarlington ...	210,105	40,807	44,195	9,164
Allenwood	286,970	44,196	39,794	16,059
Lanesborough ...	62,924	9,170	1,208	2,445
Milled Peat				
Ferbane	553,892	53,893	15,657	15,070
Sod Peat (Hand-won)				
Four 5 MW Stations ...	53,735	28,762	10,728	—
Stand-by				
Pigeon House ...	70,531	53,341	31,579	18,758
Total—Fuel Stations ...	2,854,325	418,803	292,224	112,357
Hydro				
Shannon	—	53,062	38,174	24,011
Erne	—	34,188	17,785	14,716
Liffey	—	17,532	12,052	8,052
Lee	—	11,663	16,683	7,182
Clady	—	152	15	—
Total—Hydro Stations ...	—	116,597	84,709	53,961
Total—All Stations ...	2,854,325	535,400	376,933	166,318
TRANSMISSION ...	—	49,624	166,740	76,838
	2,854,325	585,024	543,673	243,156

*Stations recently commissioned and undergoing test.

THE YEAR ENDED 31st MARCH, 1959.

5 WORKS COST (1–4) £	Per Unit Sent Out (Pence) 1958/59	Per Unit Sent Out (Pence) 1957/58	6 Depreciation and Renewals £	7 Interest and Capital Repayments £	TOTAL 1958/59 £	TOTAL 1958/59 Per Unit Sent Out (Pence	TOTAL 1957/58 £	TOTAL 1957/58 Per Unit Sent Out (Pence)
229,550	·976	1·218	71,000	93,203	393,753	1·673	374,777	2·167
693,736	·750	·892	115,000	163,669	972,405	1·051	989,004	1·237
1,017,958	·730	·820	180,000	279,781	1,477,739	1·059	1,383,210	1·221
63,482	*	—	22,000	36,821	122,303	*	—	—
2,004,726	*·759*	*·880*			*2,966,200*	*1·124*	*2,746,991*	*1·305*
304,271	1·143	·896	50,000	67,131	421,402	1·584	600,035	1·113
387,019	1·276	·925	82,000	110,170	579,189	1·909	1,022,352	1·140
75,747	*	—	30,000	49,815	155,562	*	—	—
767,037	*1·184*	*·914*			*1,156,153*	*1·785*	*1,622,387*	*1·130*
638,512	·710	·696	116,000	174,186	928,698	1·033	632,577	1·243
93,225	1·481	1·255	46,000	70,049	209,274	3·324	167,745	2·010
174,209	—	—	75,000	102,554	351,763	—	313,596	—
3,677,709	·853	·911	787,000	1,147,379	5,612,088	1·301	5,483,296	1·325
115,247	·077	·084	49,000	234,667	398,914	·267	390,982	·306
66,689	·061	·059	92,000	293,641	452,330	·413	452,156	·397
37,636	·159	·188	26,000	83,175	146,811	·618	146,161	·742
35,528	·092	*	52,000	222,866	310,394	·802	162,663	*
167	*	—	—	—	167	*	—	—
255,267	·079	·080	219,000	834,349	1,308,616	·407	1,151,962	·398
3,932,976	·523	·569	1,006,000	1,981,728	6,920,704	·920	6,635,258	·944
293,202	—	—	402,000	612,823	1,308,025	—	1,233,821	—
4,226,178	—	—	1,408,000	2,594,551				
ELECTRICITY PURCHASED IN BULK AND OTHER EXPENDITURE ATTRIBUTABLE TO GENERATION					14,684	—	15,110	—
GENERAL ADMINISTRATION :				£				
Generation ...				302,664				
Transmission ...				138,099	440,763	—	449,138	—
Total Production Cost					8,684,176		8,333,327	
TRANSFERRED TO REVENUE ACCOUNTS:								
Non-rural				6,788,147			6,602,760	
Rural				1,896,029			1,730,567	
					8,684,176		8,333,327	

No. 2. **ELECTRICITY (NON-RURAL) REVENUE ACCOUNT**

Dr.

	£	£	1957/58 £
To Electricity Production Account		6,788,147	6,602,760
,, Distribution Charges :			
Operation and maintenance ...	751,625		
Reserve for depreciation and renewals	445,000		
Interest and capital repayments ...	630,014		
Supervision and local administration	555,973		
		2,382,612	2,279,212
,, General Administration :			
Salaries and wages	568,290		
Travelling expenses	28,933		
Stationery	15,485		
Telephones and postage	14,862		
Lighting and heating	14,771		
Rents and rates	10,480		
Insurance	38,200		
Professional fees	11,167		
Publicity	93,020		
Maintenance of office buildings and equipment	17,981		
Staff training	29,637		
Pensions	61,124		
Capital charges—general assets ...	199,127		
Provision for bad debts	26,945		
Sundry expenses	5,439		
	1,135,461		
Less apportionments charged to :			
Production Account	440,763		
Rural Revenue Account ...	216,169		
Capital Works and other accounts ...	86,219		
		392,310	410,157
,, Balance, carried to Profit and Loss Account ...		440,236	248,705
		£10,003,305	£9,540,834

FOR THE YEAR ENDED 31st MARCH, 1959.

Cr.

	£	1957/58 £
By Electricity Charges	9,892,526	9,431,248
,, Meter and other Charges	110,779	109,586
	£10,003,305	£9,540,834

No. 3. **ELECTRICITY (RURAL) REVENUE ACCOUNT**
Dr.

	£	£	1957/58 £
To Electricity Production Account		1,896,029	1,730,567
,, Distribution Charges :			
Operation and maintenance ...	229,405		
Reserve for depreciation and renewals	694,000		
Interest and capital repayments ...	1,120,871		
Supervision and local administration	280,080		
		2,324,356	2,016,771
,, General Administration		216,169	166,957
		£4,436,554	£3,914,295

No. 4.
Dr. **PROFIT AND LOSS ACCOUNT FOR**

	£	£	1957/58 £
To Interest payable to the Minister for Finance	2,898,305		
,, Interest on E.S.B. Stocks (less temporary investment earnings) ...	576,349		
,, Stock management and transfer charges	19,151		
,, Other interest	449,705		
		3,943,510	3,753,373
,, Reserves :			
Repayment of capital advances from the Minister for Finance ...	564,564		
Sinking Fund provision for redemption of E.S.B. Stocks	242,255		
		806,819	686,680
		£4,750,329	£4,440,053
To Balance transferred from Rural Revenue Account		656,253	552,197
		£656,253	£552,197

FOR THE YEAR ENDED 31st MARCH, 1959.

Cr.

		1957/58
	£	£
By Electricity Charges	3,757,399	3,341,145
,, Meter and Other Charges	22,902	20,953
,, Balance, carried to Profit and Loss Account ...	656,253	552,197
	£4,436,554	£3,914,295

THE YEAR ENDED 31st MARCH, 1959.

Cr.

		1957/58
	£	£
By Interest and Capital Repayments :		
Production Account	2,594,551	2,307,399
Non-rural Revenue Account	630,014	597,281
Rural Revenue Account	1,120,871	977,178
Administration	146,127	136,390
Fisheries Account	4,286	5,585
Installations Account	8,200	7,800
Merchandise Sales Account	6,100	5,200
Capital Works	240,180	403,220
	£4,750,329	£4,440,053
By Balance transferred from Non-rural Revenue Account	440,236	248,705
,, Miscellaneous revenue	55,625	44,670
,, Interest receivable	61,509	64,239
,, Balance, carried to Net Revenue Account ...	98,883	194,583
	£656,253	£552,197

No. 5. **INSTALLATIONS TRADING ACCOUNT FOR**
Dr.

	£	£	1957/58 £
To Cost value of work for which credit had not been taken at 31st March, 1958		90,702	74,421
,, Cost of installation work carried out during the year		363,077	314,962
,, Gross profit, carried down		75,817	68,361
		£529,596	£457,744
To Salaries, wages and State insurance ...	37,023		
,, Travelling expenses	4,583		
,, Rents and rates	457		
,, Sundry expenses	4,501		
,, General overhead expenses and interest as apportioned	19,374		
		65,938	60,811
,, Balance, carried to Net Revenue Account ...		9,879	7,550
		£75,817	£68,361

No. 6 **MERCHANDISE TRADING ACCOUNT FOR**
Dr.

	£	£	1957/58 £
To Cost of goods sold		552,042	438,291
,, Direct costs in connection with sales		54,623	50,093
,, Gross profit, carried down		145,859	115,447
		£752,524	£603,831
To Salaries, wages, commission and travelling expenses	79,173		
,, General publicity	11,536		
,, Rents and rates	1,757		
,, Sundry expenses	8,882		
,, General overheads expenses and interest as apportioned	27,590		
		128,938	119,617
,, Balance, carried to Net Revenue Account ...		16,921	—
		£145,859	£119,617

The change in treatment of profit on hire-purchase sales

THE YEAR ENDED 31st MARCH, 1959

Cr.

	£	1957/58 £
By Credit taken for contracts completed and charged	401,288	367,042
,, Cost value of work for which credit has not yet been taken	128,308	90,702
	£529,596	£457,744
By Gross profit, brought down	75,817	68,361
	£75,817	£68,361

THE YEAR ENDED 31st MARCH, 1959.

Cr.

	£	1957/58 £
By Sales	752,524	603,831
	£752,524	£603,831
By Gross profit, brought down	145,859	115,447
,, Balance (loss)	—	4,170
	£145,859	£119,617

is commented on in the foregoing report.

Dr.

	£
To Balance, brought forward from last year's account ...	56,551
To Operation, preservation and other direct costs	25,690
	£25,690
To Balance, brought down	4,764
„ Salaries and sundry expenses	4,644
„ Fishery rates	3,176
„ Reserve for depreciation and renewals	2,310
„ General overhead expenses and interest	3,565
	£18,459
To Balance, brought down	18,459
„ Capital repayments	821
	£19,280

YEAR ENDED 31st MARCH, 1959.

Cr.

	£
By Amount reserved in previous years	56,551
By Sales of fish, letting of fishing rights and miscellaneous income	20,926
,, Balance, carried down	4,764
	£25,690
By Balance, carried down	18,459
	£18,459
By Balance, carried to Net Revenue Account	19,280
	£19,280

No. 8. **NET REVENUE ACCOUNT FOR**

Dr.

	£
To Balance transferred from Profit and Loss Account ...	98,883
To Balance transferred from Fisheries Account	19,280
	£118,163
To Balance, brought down	91,363
,, E.S.B. 6% Stock flotation expenses (balance)	2,635
,, Provision for ex-gratia compensatory payments to staff not covered by the Workmen's Compensation Acts ...	10,000
,, Transfer to reserve for renewals, of credits (per contra), as additional provision for the renewal of plant ...	156,956
,, Balance, carried forward	71,091
	£332,045

THE YEAR ENDED 31st MARCH, 1959.

Cr.

	£	£
By Installations trading profit	9,879	
,, Merchandise trading profit	16,921	26,800
,, Balance, carried down		91,363
		£118,163
By Balance, brought forward from last year's account ...		22,346
,, Adjustment in respect of unbilled March electricity revenue relevant to earlier years		107,600
,, Profit now taken to account on merchandise sold on deferred terms in earlier years		45,143
,, Credits arising consequent on the retirement of assets and the sale of scrapped material		156,956
		£332,045

No. 9. **CAPITAL ACCOUNT FOR THE**

Dr.

	Total at 31st March, 1958 less retirements	Expenditure less retirements during year	Total at 31st March, 1959 less retirements
	£	£	£
To Generation	43,609,009	1,640,395	45,249,404
,, Transmission	13,034,350	385,860	13,420,210
,, Distribution	34,395,097	3,001,903	37,397,000
,, General	2,799,525	(–) 5,903	2,793,622
,, Fisheries	69,006	810	69,816
	£93,906,987	£5,023,065	98,930,052
,, Capital Works in Progress, including payments on account to contractors and others			4,052,618
Total of Fixed Assets, carried to Balance Sheet ...			£102,982,670

YEAR ENDED 31st MARCH, 1959.

Cr.

	Total at 31st March, 1959
	£
By Repayable Receipts as per Statement No. 10 ...	78,320,810
,, Non-Repayable Receipts :	
Contributions from Minister for Finance under Electricity (Supply) Acts towards capital cost of supplying rural areas	2,974,400
Contributions from consumers and others for capital works	1,196,123
,, Capital Reserves :	
Repaid capital, less intangible assets written off ...	4,240,635
Capital Assets Adjustment Reserve, representing surplus arising from revaluation	270,297
Provision for depreciation, renewal and retirement of physical assets, together with proceeds of sale of assets, less physical assets retired	22,448,967
Total Capital Reserves (including non-repayable receipts)	31,130,422
Total of Capital Receipts and Reserves, carried to Balance Sheet	£109,451,232

No. 10. STATEMENT OF REPAYABLE CAPITAL RECEIPTS

Loans and loan stocks, local authority undertakings	
Minister for Finance :	
Advances under the Electricity (Supply) Acts and the Shannon Fisheries Act, 1935	
Electricity Supply Board Stocks :	
5% redeemable 1966—1975	
6% ,, 1968—1978	

AND REDEMPTION THEREOF TO THE 31st MARCH, 1959.

Total Receipts to 31st March, 1959	Redeemed			Balance Outstanding at 31st March, 1959
	Total to 31st March, 1958	Redeemed during year	Total to 31st March, 1959	
£	£	£	£	£
756,021	756,021	—	756,021	—
68,450,236	3,899,927	564,564	4,464,491	63,985,745
10,000,000	323,900	181,800	505,700	9,494,300
5,000,000	—	159,235	159,235	4,840,765
£84,206,257	£4,979,848	£905,599	£5,885,447	£78,320,810

LIABILITIES AND RESERVES	£	31/3/58 £
REPAYABLE RECEIPTS, as per CAPITAL ACCOUNT	78,320,810	78,276,409
CAPITAL RESERVES, as per CAPITAL ACCOUNT	31,130,422	26,416,270
	109,451,232	104,692,679
LOANS under the Electricity Supply Board (Superannuation) Act, 1942	4,275	4,275
THE MUNSTER AND LEINSTER BANK LTD., OVERDRAFT	144,805	—
SUNDRY CREDITORS	2,399,778	2,630,660
RESERVES: £ Contingencies reserve ... ...1,500,000 Other reserves and provisions ... 40,000	1,540,000	1,586,551
SURPLUS, as per NET REVENUE ACCOUNT ...	71,091	22,346
	£113,611,181	£108,936,511

NOTE:

At 31st March, 1959, there were outstanding contractual commitments in respect of capital and other expenditure, estimated to amount to £2,500,000.

R. F. BROWNE, *Chairman.*
J. G. GARGAN, *Secretary.*

AT 31st MARCH, 1959.

ASSETS	£	31/3/58 £
FIXED ASSETS, as per CAPITAL ACCOUNT ...	102,982,670	98,194,192
ELECTRICITY SUPPLY BOARD STOCKS (nominal £55,471), at cost, held by The Munster and Leinster Bank Nominees Ltd., as depositaries of the Board	54,334	132,955
STOCKS ON HAND AND IN TRANSIT	2,967,492	3,441,948
COST VALUE OF WORK DONE FOR WHICH CREDIT HAS NOT BEEN TAKEN	184,064	740,202
SUNDRY DEBTORS, after providing for bad and doubtful debts and including advances for goods not yet delivered	4,365,843	3,242,768
TEMPORARY CASH INVESTMENT	3,047,945	3,000,000
CASH IN HAND AND WITH BANKS	8,833	127,895
DEFICIENCY: per SHANNON FISHERIES PROFIT AND LOSS ACCOUNT	—	56,551
	£113,611,181	£108,936,511

JOSEPH FOGARTY, *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 note thereon and the undermentioned qualifications, that the Balance Sheet as at the 31st March, 1959, 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.

Costs of Generation, Transmission and purchase of Electricity set out in the Electricity Production Account are allocated to Non-rural and Rural Revenue Accounts in accordance with estimates made by the Board's officials, and approved of by the Board.

Various charges in each of the foregoing accounts are similarly approved allocations:—

(*a*) Overhead Expenses are apportioned to the Electricity Production Account, the Electricity (Non-rural) Revenue Account, the Electricity (Rural) Revenue Account, the Installations Trading Account, the Merchandise Trading Account, the Fisheries Account and to Capital Expenditure on new works.

(*b*) The Interest chargeable to the Electricity Profit and Loss Account has been apportioned and transferred to Electricity Production Account, Electricity (Non-rural) Revenue Account, Electricity (Rural) Revenue Account, Installations Trading Account, Merchandise Trading Account, Fisheries Account and to Capital Expenditure on new works. The amount of Capital repaid in respect of advances from the Minister for Finance and others chargeable to Electricity Profit and Loss Account has been apportioned and transferred to Electricity Production Account, Electricity (Non-rural) Revenue Account, Electricity (Rural) Revenue Account and Fisheries Account.

(*c*) Credit has been given to Merchandise Trading Account for a sum representing a proportion of the expenses regarded as relating to the sale of Electricity, and this has been charged to Electricity (Non-rural) Revenue Account and Electricity (Rural) Revenue Account.

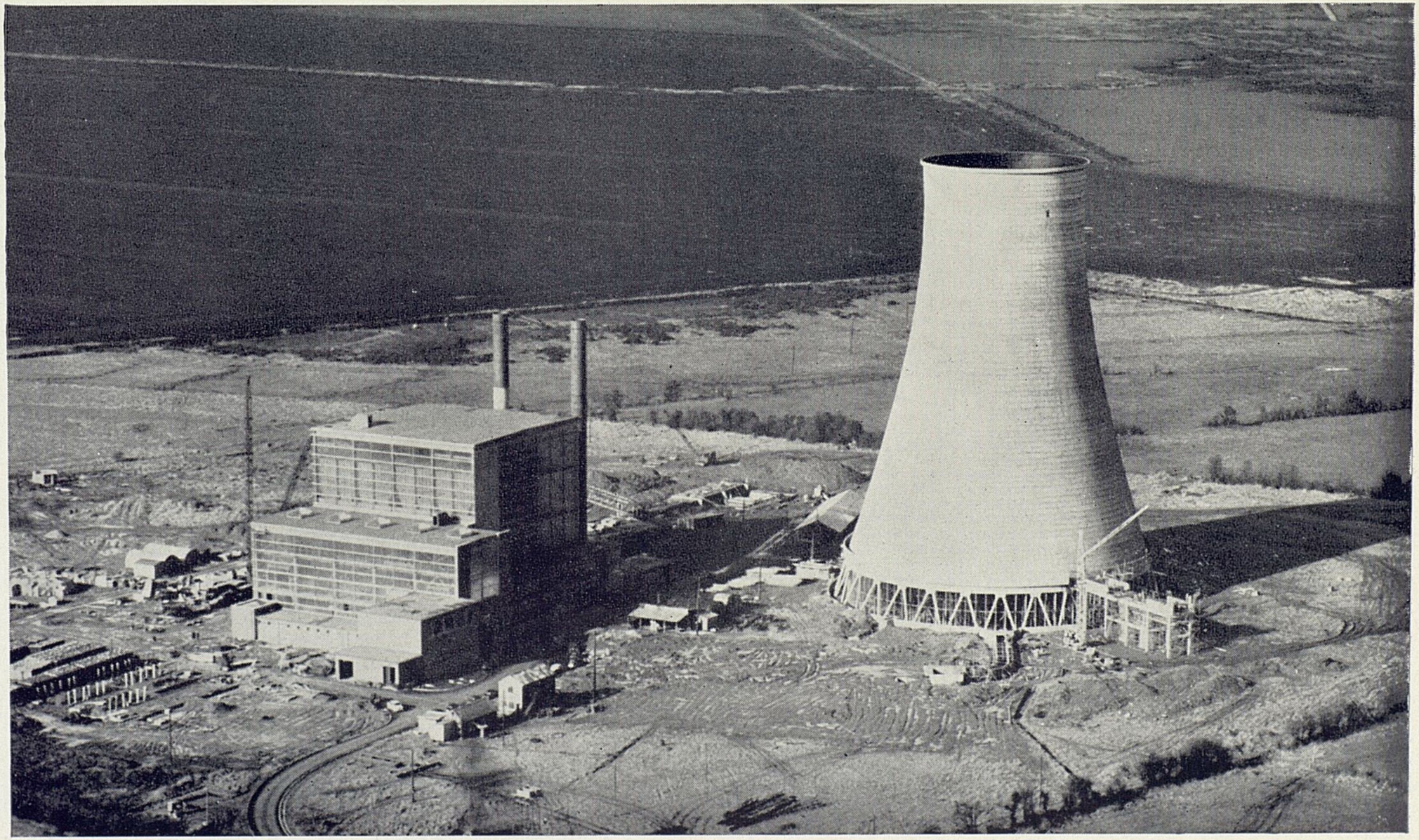
Depreciation has been charged in the foregoing Accounts on the physical assets on the same basis as heretofore, and additions have been made to the reserve to provide a fund for the increase in costs of renewals of physical assets, the original cost of which has been fully covered by the amounts already set aside to Depreciation Reserve.

The value of certain intangible assets as classified by the Board's officials has been written off out of the amounts at credit of Capital Reserves with the approval of the Board.

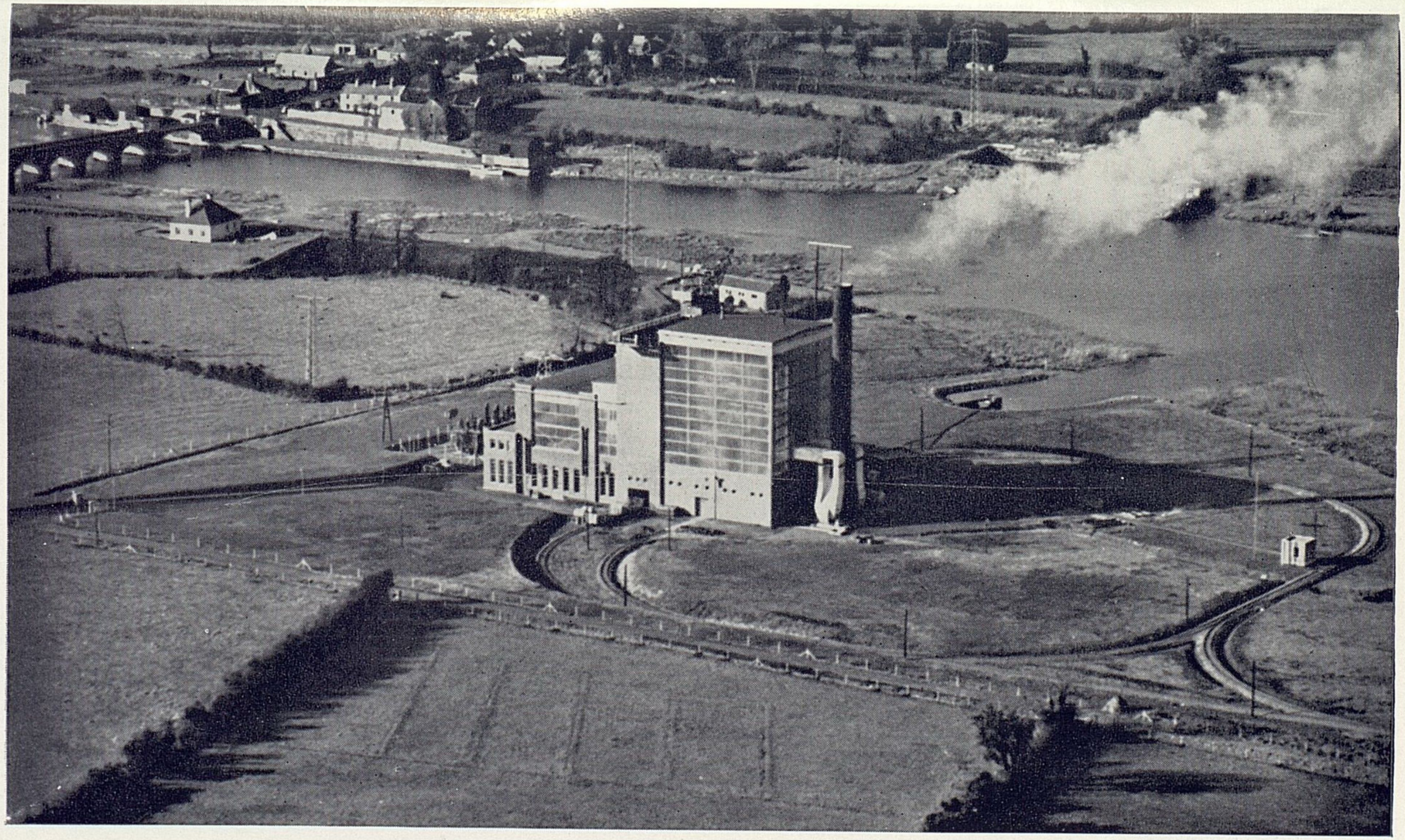
KENNEDY, CROWLEY & CO.,
Auditors.

4 AND 5 WESTMORELAND STREET,
DUBLIN.

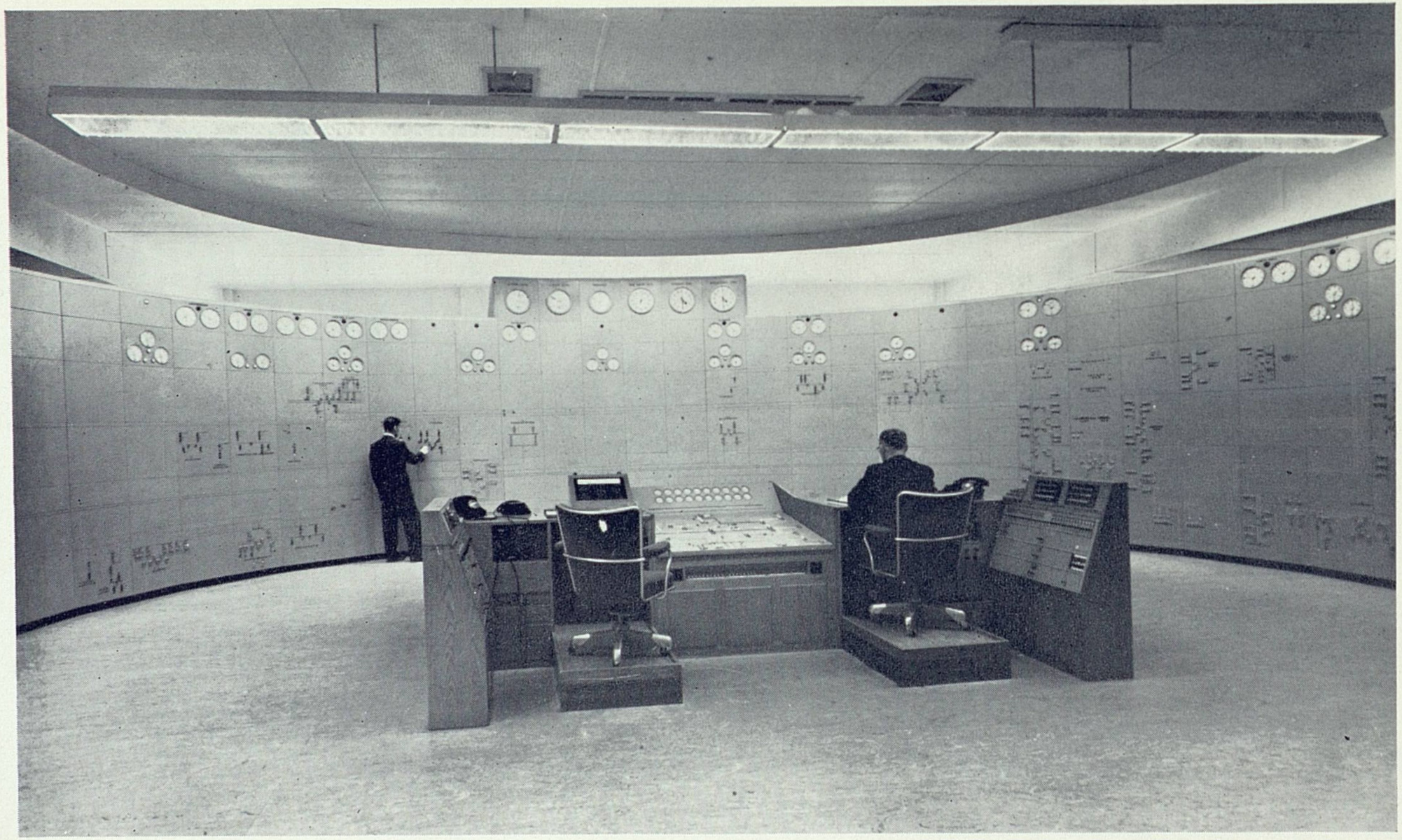
12*th June*, 1959.



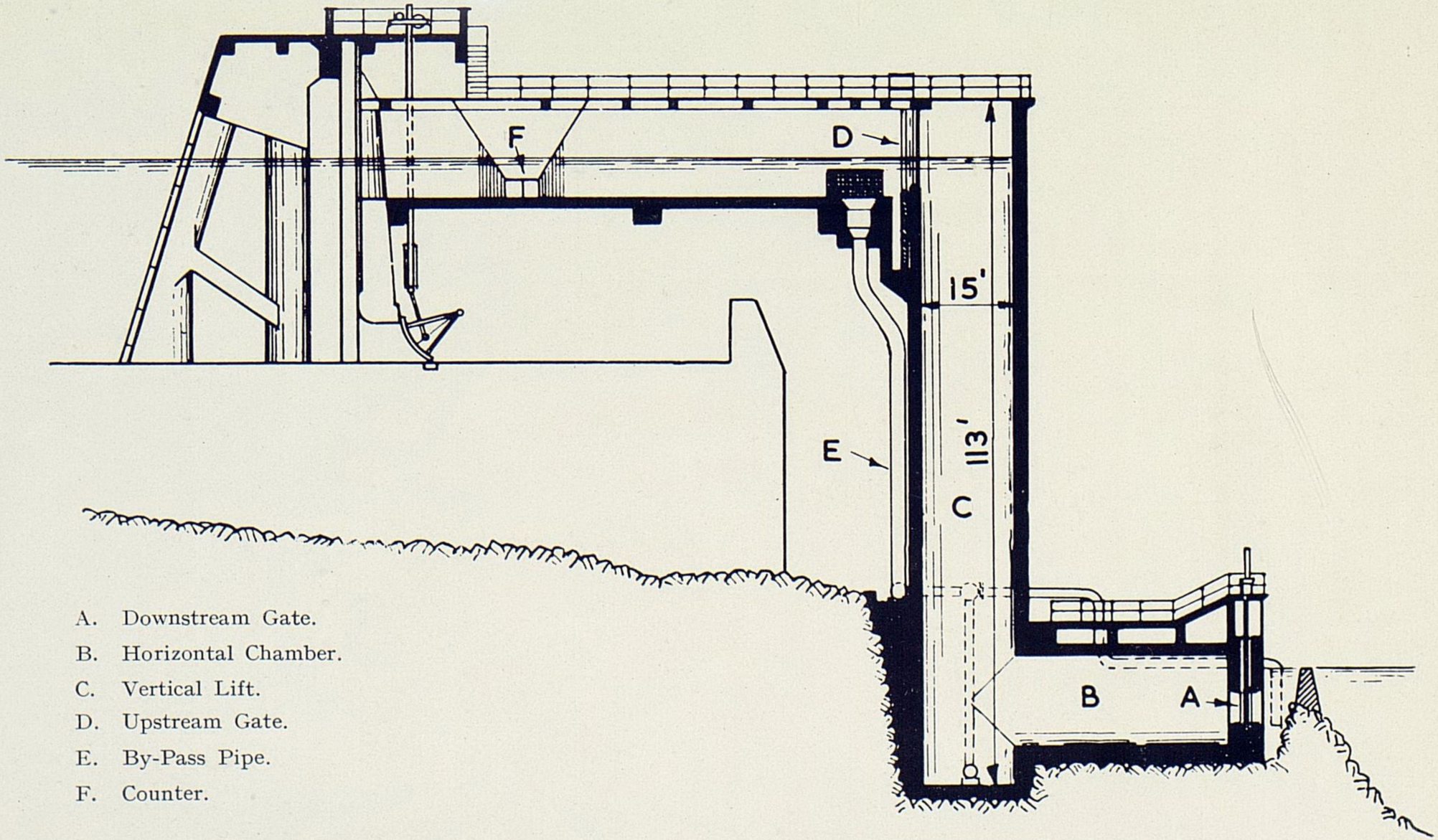
RHODE GENERATING STATION UNDER CONSTRUCTION



LANESBOROUGH GENERATING STATION WHICH OPERATES ON SOD PEAT



SYSTEM OPERATION CONTROL ROOM AT HEAD OFFICE



A. Downstream Gate.
B. Horizontal Chamber.
C. Vertical Lift.
D. Upstream Gate.
E. By-Pass Pipe.
F. Counter.

SIMPLIFIED SECTION OF ARDNACRUSHA FISH PASS