1930.

VICTORIA

STATE ELECTRICITY COMMISSION OF VICTORIA.

ELEVENTH ANNUAL REPORT

FOR THE

FINANCIAL YEAR ENDED 30TH JUNE, 1930;

TOGETHER WITH

APPENDICES.

PRESENTED TO PARLIAMENT PURSUANT TO SECTION 35 (*b*) OF STATE ELECTRICITY COMMISSION ACT No. 3776.

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APPENDICES.

ELEVENTH ANNUAL REPORT.

The Hon. John Cain, M.L.A.,
Minister in Charge of Electrical Undertakings,
Melbourne.

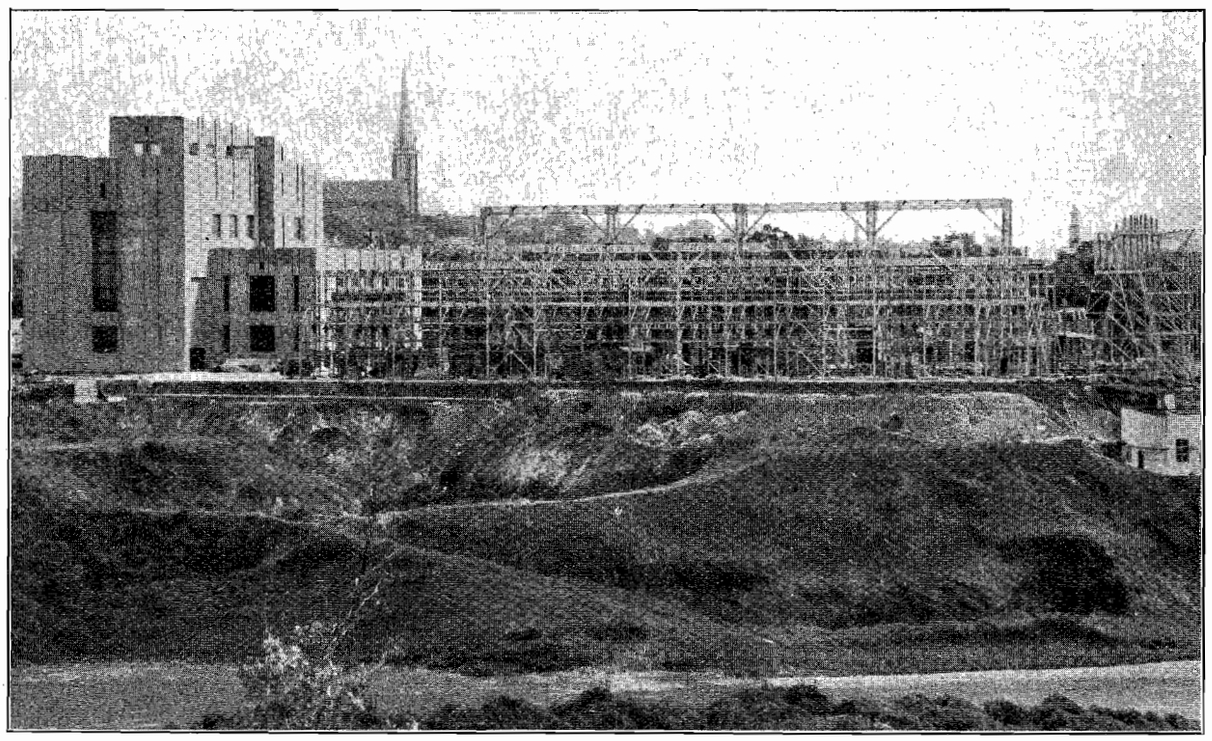
SIR,

As directed by section 35 (*b*) of the *State Electricity Commission Act* 1928 (No. 3776), we have the honour to present our Eleventh Annual Report, covering the financial year ended the 30th June, 1930, with Profit and Loss Accounts and Balance-sheet.

PART I.—ADMINISTRATION.

MAJOR EXTENSION OF THE SUPPLY SYSTEM.

At the date of this Report two sections of the major extension of the main supply system, as authorized by Parliament in 1928, were almost completed, viz., the second 132,000-volt transmission line from Yallourn to Melbourne, and the new terminal station at Richmond. Good progress had been made also with the erection of the second power house at Yallourn (Yallourn "B"), where the first of the three 25,000 kw. units of the new generating plant to be installed is designed to be ready for the winter of 1931. The Yallourn–Richmond transmission line had actually been in temporary commission. The works of erecting this line and the Richmond terminal station have been expedited as much as possible, in order to increase the safety, reliability and flexibility of the main supply system, the condition of constant loading up to full designed capacity of the Yallourn–Yarraville transmission line having for some years constituted a serious disability.



Richmond Terminal Station.

In the Tenth Annual Report were shown the tenders accepted for the three sections of the scheme up to the 7th November, 1929. These tenders amounted in all to £820,319, including £615,319 for the Yallourn power house, £72,973 for the Richmond terminal station, and £132,027 for the Yallourn–Richmond 132,000-volt transmission line. Since the date mentioned, the following additional tenders, bringing the total to £895,857, have been accepted, viz. :—

Yallourn Power House.

Plant.		£	s.	d.
6,600-volt metal-clad switchgear and accessories	Metropolitan - Vickers Aust. Pty. Ltd.	3,054	5	0
2,200-volt metal-clad switchgear and accessories	Metropolitan - Vickers Aust. Pty. Ltd.	14,724	0	0
2 electrically-operated passenger lifts and accessories	Edmiston and O'Neill	2,849	0	0
Refractory bricks for boiler furnaces ..	Ordish Firebrick Co. Pty. Ltd.	9,600	0	0
6,000 k.v.a. 11,000/2,200-volt transformers..	Weymouth's Ltd. ..	4,980	0	0
2,200-volt. current limiting reactors ..	Aust. Westinghouse Elec. Co.	644	0	0
Steelwork for 11 k.v. switchgear structure ..	Johns and Waygood Ltd.	976	10	0
Iron and steelwork for pre-drying shafts ..	A. Challingsworth Pty. Ltd.	5,884	13	0
Boiler house galleries, stairways, ladders, &c.	A. Challingsworth Pty. Ltd.	7,665	0	0
Coal chutes with auxiliary and accessory equipment	A. Challingsworth Pty. Ltd.	6,053	0	0
Coal handling plant (first section)	Gibson, Battle (Melb.) Pty. Ltd.	14,920	0	0
		71,350	8	0
Richmond Terminal Station.				
Water cooling plant	Robison Bros. & Co. Ltd.	3,557	0	0
Yallourn–Richmond Transmission Line.				
Steel clips for vibration dampers	McPherson's Pty. Ltd.	631	6	3
		£75,538	14	3

The amount of Australian expenditure included in the above tenders is £69,895 4s. 3d., or over 92 per cent.

METROPOLITAN ELECTRICITY SUPPLY.

Under the provisions of the *Melbourne Electric Supply Company Act* 1924 the Company's undertakings in Melbourne and Geelong passed to the ownership of the Commission on the 1st September, 1930. The Act referred to gave parliamentary ratification to an agreement which had been arrived at with the Company for the acquisition of its assets, and which extended the 25 years' franchise of the Company for a period of approximately five years, subject to the following conditions, viz. :—

(1) The Company's distributable profits were limited to certain fixed rates upon its share capital, surplus profits being transferred to the Commission to provide for depreciation and other charges.

(2) The Company was required to carry out, when called upon to do so, and under the supervision of the Commission, all works of converting its system from single-phase to three-phase, as well as all extensions of supply, and to purchase all of its energy requirements from the State scheme.

(3) The Company was not to issue further shares, nor to raise further capital on debentures without the approval of the Commission, and all moneys necessary for capital works, such as conversions and extensions, were to be provided by the Government.

(4) The Company had to obtain the concurrence of the Commission before embarking upon any course of action involving questions of policy, the more important problems of management, and tariffs.

Under the agreement the purchase price was determined by simple accountancy methods, and, inclusive of a payment for stores of approximately £160,000, the State assumed responsibility for the following liabilities on the 1st September, 1930 :—

(*a*) A cash payment of £1,350,000 approximately.

(*b*) Payment on the due dates of interest and sinking fund on debentures totalling £1,800,000 approximately.

Interest and sinking fund for the debenture issues will be met by the Commission from the revenues of the Melbourne and Geelong undertakings. With the exception of two 5 per cent. issues, which will mature later, the debentures fall due in various amounts and on various dates up to 1946. In the case of one American issue, involving a high rate of interest, Parliament, during the 1929 session, approved of the Commission borrowing on overdraft to discharge the liability abroad. This, it is expected, will result in a saving in interest of at least 2 per cent.

In view of the general financial position, the cash payment due on the 1st September, 1930, was of considerable moment, as, although the accumulated surplus profits transferred from the Company under the agreement were sufficient to meet the liability, almost the whole of the amount is invested in Government securities, and it was of obvious advantage to the State to defer the redemption of such securities at this juncture. As a result of negotiations, the parties, by mutual arrangement, agreed that the sum of £1,350,000 be paid in 6 per cent. Government securities maturing in five years' time.

The favorable nature of the original agreement, which was negotiated with the Company by the Commission in 1924, is emphasized by the fact that, while nearly half the purchase price in a transaction involving over £3,000,000 has been met by moneys already transferred from the undertakings, there had, concurrently, been substantial reductions in domestic and industrial tariffs in both Melbourne and Geelong and in the charges for public lighting in Melbourne. It needs to be appreciated, however, that the surplus moneys from the Company represent depreciation of its assets, no provision for which had been made in its annual accounts. Provision for such depreciation will, therefore, have to be made by the Commission in the future financing of the undertakings.

The money advanced by the Government to the Company for capital works in Melbourne and Geelong during the five years' term of the extended franchise amounted to approximately £1,750,000. Of this sum, a little over £1,000,000 had been devoted to ordinary extensions and the reticulation of the areas served by the Company, the expenditure evidencing the particularly rapid growth of the Company's lines and services during the last five years, in which period £108,000 had been spent also on the Geelong tramways. The remainder of the expenditure—some £610,000—had been applied to the very necessary work of conversion of those portions of the Company's metropolitan areas where industrial consumers predominate. This expenditure represents a definite addition to the capital value of the undertaking.

The merging of both of the Company's undertakings into that of the Commission has been effected with as little change as possible in their identity. In the metropolis, the undertaking is known as the Metropolitan Electricity Supply. It includes the Melbourne district and the present Essendon–Flemington and Sunshine undertakings of the Commission. The new district embraces 21 municipalities, viz., parts of the Shires of Braybrook, Broadmeadows, Keilor, and Moorabbin, part of the City of Melbourne (Flemington), and the Cities of Brighton, Collingwood, Camberwell, Caulfield, Essendon, Fitzroy, Hawthorn, Kew, Malvern, Mordialloc, Oakleigh, Prahran, Richmond, St. Kilda, Sandringham, and South Melbourne.

Mr. G. G. Jobbins, who was Engineer and Manager of the Company, is in charge of Metropolitan Electricity Supply as Engineer and Manager. He also acts as consultant to the Commission in all matters relating to the tramways in Geelong, Ballarat, and Bendigo, in which cities the street transport systems form part of the electrical undertakings.

Eventually, the head-quarters of Metropolitan Electricity Supply will be the building in Flinders-street purchased from Messrs. Sargood, Gardiner Ltd. some little time ago. Remodelling and reconstruction will first of all be necessary, however, and this work will probably occupy twelve months from the date on which it is commenced. Careful investigation has shown that the most economical method of utilizing the site for the purposes of the Commission is the erection on half the site of an eleven-storied building facing Flinders-street, thus enabling the premises on the other half of the site, facing Flinders-lane, to be made available for letting purposes. The large Metropolitan Electricity Supply undertaking is at present very cramped for room at its offices in Queen-street, and the new building to be erected will not only enable it to be properly housed and equipped, but will provide for natural expansion for many years, and, at the same time, afford the opportunity of establishing spacious show and demonstration rooms for the display and sale of electrical appliances.

PURCHASE OF BALLARAT AND BENDIGO ELECTRIC SUPPLY AND TRAMWAY UNDERTAKINGS.

The agreement concluded on the 14th June, 1929, between the Commission and the Electric Supply Company of Victoria Ltd., for the acquisition by the former of the whole of the assets and undertakings of the latter in Ballarat and Bendigo, received the ratification of Parliament in December, 1929, when the State Electricity Commission (Ballarat and Bendigo Purchase) Act was passed.

Under the agreement the whole of the franchises of the Company have been altered, so that all shall expire simultaneously on the 30th June, 1934, when the Commission will enter into possession. The date of sale, however, is the 1st July, 1931, from which time the operations of the Company will be under the control and supervision of the Commission, which will provide the money (to be voted by Parliament) necessary for capital works, and to which will be paid all surplus profit remaining from the operations of the Company, after allowing 7 per cent. interest on ordinary shares, 6 per cent. interest on preference shares and debentures, and the Company's Liverpool office expenses. Under these headings, the Company will be entitled to draw annually from profits an aggregate sum of £30,250.

The internal management of the undertakings will, however, remain with the Company until 1st July, 1934, and its ordinary dealings with consumers and the public will not be affected in the meantime.

Amongst the advantages accruing from the agreement is that the Company will take transmitted supply as soon as the Commission's mains are extended to Ballarat and Bendigo. The Commission expected that the ring main, which will link Ballarat, Bendigo, and Geelong with its system, and serve those cities and other centres within and without the ring with transmitted energy, would be extended to Ballarat and Bendigo in 1931. The severe curtailment of loan funds which took place during the year under review, and which practically limited the Commission's capital works to major items for ensuring the safety and sufficiency of the main supply system, will be more drastic in the succeeding period, and, as a result, it is not possible to make any provision for Bendigo and Ballarat during the 1930–31 financial year.

In the reference made in the Commission's Tenth Annual Report to the acquisition of the Ballarat and Bendigo undertakings, and to the fact that the Geelong undertaking of the Melbourne Electric Supply Co. Ltd. would be taken over by the Commission on the 1st September, 1930, it was explained that the Commission had no statutory authority to operate the tramways associated with electric supply in each of the cities mentioned, but that the several councils in the municipal districts concerned had asked the Government to introduce legislation to enable the Commission to do so, and had signed a uniform agreement, embodying the conditions under which the Commission was prepared to accept the responsibility. The enabling legislation was passed by Parliament in December, 1929. One of the main provisions of the enabling Act is that designed to protect the tramways from competitive motor omnibus traffic, it being provided that no licence to operate a motor omnibus in any area served by any tramway of the Commission shall be granted by the licensing authority without the Commission's consent. In furtherance of this principle, the councils of Ballarat, Bendigo, and Geelong, which are the licensing authorities for their respective urban districts under the *Motor Omnibus Act* 1928, have, with the approval of the Commission, prepared by-laws governing the licensing of motor omnibuses, and setting forth the routes in respect of which licences may be granted.

NORTH-EASTERN DISTRICT OFFICES AND SHOW-ROOMS.

The need of more suitable and extensive office accommodation at Benalla than that which existed in Nunn-street having become apparent, the Commission acquired a central and adequate site for a new building in Bridge-street. The plan of the new brick building which it was decided to erect on the latter site embodied up-to-date show-rooms for the display and sale of electrical appliances.

Owing to the stringency of loan funds, the erection of the new offices and show-rooms had to be eliminated from the programme of capital works which the Commission proposed to undertake during the financial year ended 30th June, 1930. This was extremely disappointing, both to the Commission and the residents, and Mr. E. J. Cleary, M.L.A., Benalla, initiated a movement to finance the erection of the new offices and show-rooms locally. The movement received enthusiastic support, and was immediately brought to fruition, the whole of the money necessary being readily subscribed. The agreement governing the transaction provides, *inter alia*, for the appointment of six trustees of the residents; the erection by the trustees on the land in Bridge-street of offices and show-rooms according to the Commission's plans and under the Commission's supervision; the leasing of the premises by the Commission at an annual rental equal to $5\frac{3}{4}$ per cent. of the moneys expended on and during the erection of the building, and the purchase by the Commission of the property at the end of three years at actual cost.

Benalla Offices and Showrooms.

The Commission greatly appreciates the action of those who so readily subscribed the necessary moneys for the erection of the building, and takes this opportunity of inscribing their names in its records :—

P. Rebbechi	River View-road, Benalla.
F. W. Wallace	Byrne-street, Benalla.
A. E. Crivelli (Mrs.) ..	Benalla-street, Benalla.
J. Moore	c/o Victoria Hotel, Benalla.
C. E. Lewers	18 Washington-street, Toorak.
M. Geddes (Mrs.) ..	Barkley-street, Benalla.
F. Myers	Benalla.
C. Stolz	Nunn-street, Benalla.
J. H. Bischoff	Bridge-street, Benalla.
Bourke & Thewlis ..	Bridge-street, Benalla.
T. J. Berry	Carrier-street, Benalla.
T. V. Cowan	" Marangan," Benalla.
M. Cowan (Mrs.) ..	" Marangan," Benalla.
E. F. Cleary	Benalla P.O.
W. N. Davies	Nunn-street, Benalla.
A. Guppy	c/o Ledger, Wann & Co., Benalla.
M. J. Guppy (Mrs.) ..	c/o Ledger, Wann & Co., Benalla.
Hiscock & Sons Pty. Ltd.	Nunn-street, Benalla.
E. Hanlon (Mrs.) ..	Nixon-street, Benalla.
C. E. R. Irwin	c/o State Electricity Commission, Benalla.
H. L. Irwin (Mrs.) ..	c/o C. E. R. Irwin, State Electricity Commission, Benalla.
H. Ledger, Wann & Co. ..	Bridge-street, Benalla.
R. P. Lewers	Bridge-street, Benalla.
R. M. Ledger	Bridge-street, Benalla.
E. L. McCardel	Nunn-street, Benalla.
M. E. Murphy	Benalla.
W. MacGregor	Tatong Estate, Private Bag, Benalla P.O.
E. W. B. Osborne ..	Benalla P.O.
John Reilly & Son ..	Nunn-street, Benalla.
A. M. Reilly (Mrs.) ..	Grey-street, Benalla.

G. T. Say	..	Bridge-street, Benalla.
I. E. Say (Mrs.)	..	Nunn-street, Benalla.
Wm. H. Sherwill (senr.)	..	Carrier-street, Benalla.
S. E. Thomson (Mrs.)	..	Bridge-street, Benalla.
G. J. Walker	..	Hanna-street, Benalla.
M. M. Witt (Miss)	..	Benalla.

The foundation stone of the building was laid by the Chairman of the Commission on the 5th February, 1930. The premises were completed in August, 1930, and were formally opened on the 5th of that month by Mr. E. J. Cleary, M.L.A. Apart from constituting a commendable example of local enterprise, public spirit and self-help, they are an important addition to the commercial actitivies of the town, and will, at the same time, meet the growing requirements of the head-quarters of the Commission's large North-eastern district.

CASTLEMAINE.

In the Tenth Annual Report, mention was made of the acquisition by the Commission of the municipal electric supply undertakings at Kyneton, Woodend, and Gisborne, and of the private undertaking at Castlemaine, as part of the scheme for extending transmitted supply to the North-western and North-central areas of the State, following upon the acquisition of the private undertakings in Ballarat and Bendigo.

The conversion of the Castlemaine system from D.C. to A.C. supply having been completed, and transmitted energy made available for the first section of the Ballarat–Bendigo-Geelong–Melbourne ring main, the formal ceremony of switching on the energy from the State system was performed at Castlemaine by the Chairman of the Commission on the 20th February, 1930. The first section of the ring main now serves Castlemaine, Kyneton, Woodend, Sunbury, Gisborne, Macedon, Upper Macedon, Riddell, Romsey, Lancefield, Monegeetta, St. Albans, and Diggers' Rest. The last eight centres mentioned had no supply previously.

MORNINGTON PENINSULA.

The municipal electric supply undertaking in the town of Mornington, which had been receiving a bulk supply of energy, and was the only local undertaking remaining on the Peninsula, was acquired by the Commission from the Mornington Shire Council shortly after the close of the financial year. The direct administration of electricity supply for the whole of the Peninsula is, therefore, now undertaken by the Commission, whose lines traverse the area as far as Sorrento and Portsea, serving those towns, as well as Frankston, Hastings, Tyabb, Somerville, Mornington, Dromana, Rosebud, Rye, and Crib Point. With the exception of Sorrento, Frankston, and Mornington, where local undertakings were acquired, none of the centres mentioned had supply previously. Service to them was made possible by, and followed quickly upon, the acquisition of Sorrento and Frankston, and the addition now of Mornington will provide more effective and uniform administration of the entire area.

PROPOSED MOE–YALLOURN DEVIATION OF MAIN GIPPSLAND LINE.

Since the proposal to place Yallourn on the main Gippsland line was investigated by the Railways Standing Committee in 1925 there has been considerable growth of the town and its general passenger and freight requirements, allied to which is the fact that extensions being made to the briquetting factory will, towards the end of 1930, increase the output of briquettes from approximately 500 tons to 1,200 tons a day, for which there is a proved demand. In view of these facts, the Commission requested that the question of the deviation of the main line should be re-opened, and during the year the Railways Standing Committee accordingly continued its investigations into the proposal, as originally referred to it by Parliament on 22nd July, 1924.

In raising this question for the Committee's further review, the Commission in evidence stated that it fully appreciated that the existing financial stringency would preclude an immediate commencement of the works involved in the deviation if the Committee decided to recommend its construction. Nevertheless, it did desire that the Committee should consider whether as a principle it would endorse the deviation project, having regard to the substantial increment of traffic that would arise from the increased briquette factory output. If the question should be decided in the affirmative, then the construction of the deviated line could be proceeded with immediately the requisite funds were available.

The Committee took evidence at Yallourn, Moe, and Morwell, in all of which centres the residents expressed a strong desire for the deviation. Evidence of a detailed nature was also given by the Commission and the Chairman of the Railways Commissioners.

In reviewing the evidence, the Railways Standing Committee reported as follows :— " Though the briquette production is not the only factor in arriving at a decision as to whether the deviation is justified, in preference to the continuance of the present cockspur line, it is the principal one, and the Committee feels that, until there is a substantial advance in the tonnage of briquettes forwarded by rail, the proposed deviation should not be further investigated. It is, however, felt that this time may not be long deferred, and in that expectation the Committee is making this a progress report, so that the matter may be revived again at a later date when these anticipations have been realized."

The formal resolution of the Committee was as follows :—" That it is not expedient to carry out the proposed work at the present time, but that the Committee should submit a progress report, so that the matter may be reviewed later on when the general financial outlook has improved, and the briquette output and demand have substantially increased."

NEW REGULATIONS.

Amendments of the Wiring Regulations were gazetted on 3rd July, 1929, dealing with the following matters :—

(*a*) Service fuses and the installation and protection of consumers' mains.
(*b*) Balancing of loads in installations.
(*c*) Omission of main fuses under certain conditions.
(*d*) Bunching of cables in conduits.
(*e*) Additional safety precautions in bathrooms and damp situations.
(*f*) Distinguishing colours of conductors.
(*g*) Wiring under pavements and tracks.
(*h*) Indicating switches.

DEMAND FOR ELECTRICAL ENERGY WITHIN RANGE OF THE STATE SCHEME AS AT PRESENT DEVELOPED.

The growth and nature of the demand within range of the present development of the State scheme as at 30th June, 1930, are summarized hereunder :—

Electric Supply Requirements for all Purposes.

Interesting data are contained in the graphs appearing herein, showing the generation and distribution of energy and the growth of the demand for all purposes since 1923.

Graph No. 1 depicts a typical winter daily load curve during 1930 in the metropolitan area. The peak periods occurred at 9 a.m. and 6 p.m. daily, corresponding to the times when the industrial, railway and lighting loads overlap. This graph is interesting as showing the fluctuations in the demand for electricity during the 24 hours. In regard to the industrial and domestic demand, the average winter peak load rose during the year from 91,000 kw. to 97,000 kw., and the yearly load factor from 50·3 per cent. to 50·9 per cent.

Graph No. 2 shows the energy sent out from the Commission's terminal stations and district supply stations. The Yarraville terminal station receives the energy from Yallourn, and Thomastown that from the Sugarloaf–Rubicon hydro-electric stations. Energy generated at the hydro stations is also fed to the North-Eastern district direct from the Sugarloaf power station and through the Rubicon "A" terminal station. Belmont terminal station is fed from the power station at Geelong. This power station passed to the Commission on the 1st September, 1930, with the other assets in Melbourne and Geelong of the Melbourne Electric Supply Company Ltd. The graph indicates that the net energy sent out from the metropolitan terminal stations increased during the year from approximately 356,000,000 kw.h. to approximately 384,000,000 kw.h., and that increases also took place in the cases of the various rural terminal and district supply stations.

Graph No. 3 shows the energy delivered in bulk to distributing authorities and other consumers in the metropolitan area. Marked increases are shown in the cases of supply to the Melbourne Electric Supply Company Ltd., the Melbourne City Council, and the Melbourne and Metropolitan Tramways Board.

Graph No.4 shows the total energy made available from all sources for distribution in the metropolitan area for all purposes. Excluding the railways, it will be seen that the Commission supplies almost the whole of the electrical requirements of the metropolis.

Graph No. 5 shows the maximum demands upon and the distribution of demand among the various stations in the Commission's system during the last five years.

Appendix No. 2 is a tabulation showing the actual growth in distribution and demand in the twelve years from 1918 to 1930.

Appendix No. 3 gives details of overhead transmission lines erected, &c.

Appendix No. 4 gives details of the number and capacity of sub-stations installed, &c.

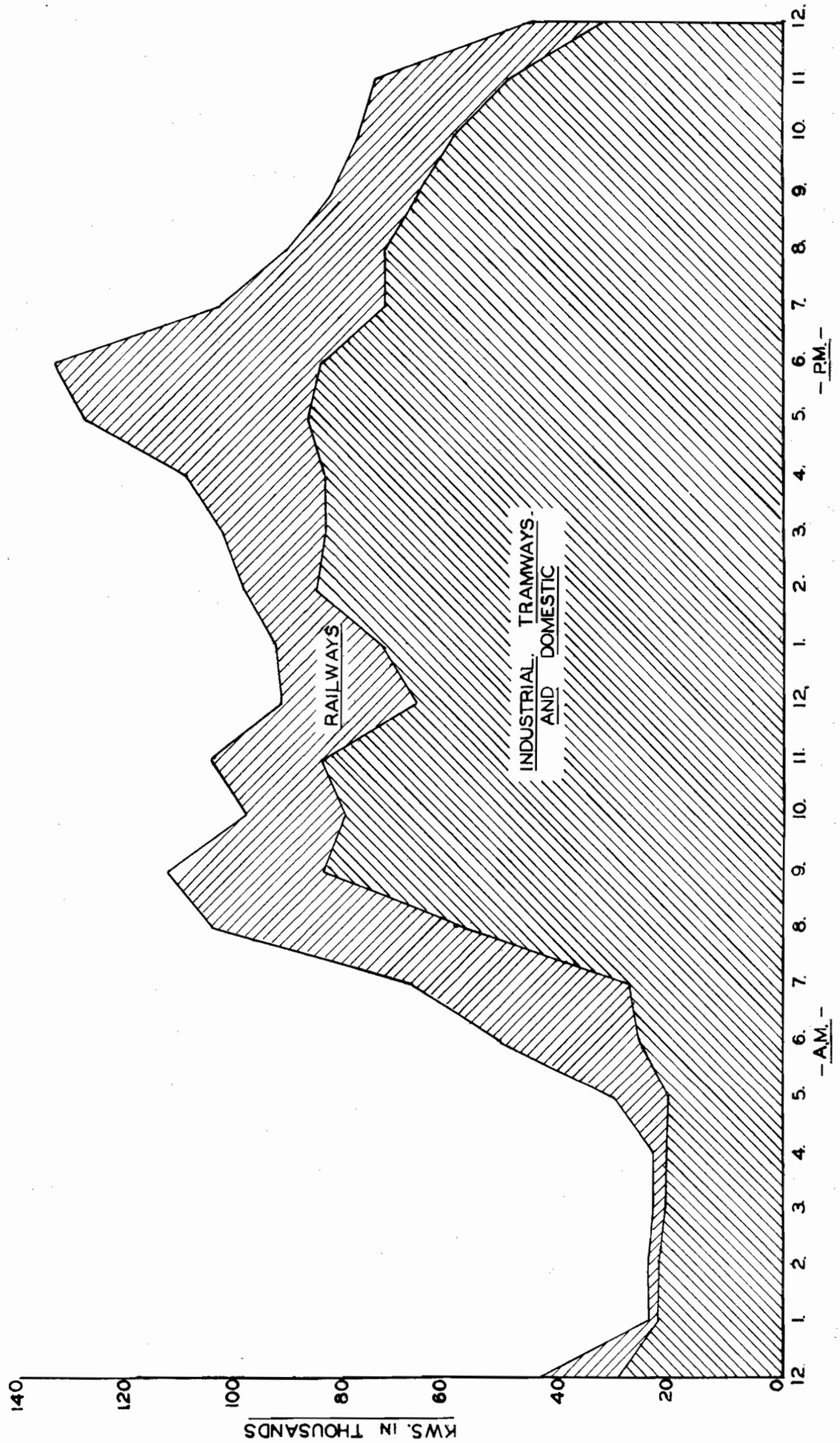
Distribution of Energy.—Within the metropolis the following undertakings are supplied in bulk from the State scheme, viz. :—The City Councils of Box Hill, Brunswick, Coburg, Footscray, Melbourne, Northcote, Port Melbourne, Preston and Williamstown, and portion of the Shire of Heidelberg.

As from the 1st September, 1930, the retail distribution of electricity was undertaken by the Commission in the following municipalities, which had been previously supplied in bulk through the Melbourne Electric Supply Company Ltd. :—Fitzroy, Collingwood, Camberwell, Kew, Hawthorn, Richmond, South Melbourne, Prahran, Malvern, St. Kilda, Caulfield, Oakleigh, Brighton, Sandringham, Moorabbin, and Mordialloc. These municipalities now form, with the Commission's Essendon–Flemington and Sunshine areas, the Metropolitan Electricity Supply district.

Extensions of Supply.—Eight extensions of supply from the State scheme were made during the year, viz. :—Dingley, Crib Point (Eastern Metropolitan district), Macedon, Woodend, Kyneton, Castlemaine, St. Albans (Castlemaine district), and Garfield (Gippsland district). Since the close of the year supply has been initiated in Bena, Poowong, Loch, Kongwak, Jumbunna, Swan Reach, Wiseleigh, Mossiface, and Bruthen (Gippsland district), while the Mornington undertaking was acquired. With Geelong City, Geelong West City, and Torquay, and the sixteen municipalities in the metropolitan area taken over from the Melbourne Electric Supply Company Ltd., the number of centres supplied by the Commission is, at the date of this Report, 178. Of these, 108 had no supply previously.

GRAPH No. 1.

TYPICAL WINTER DAILY LOAD CURVE, 1930, METROPOLITAN AREA.



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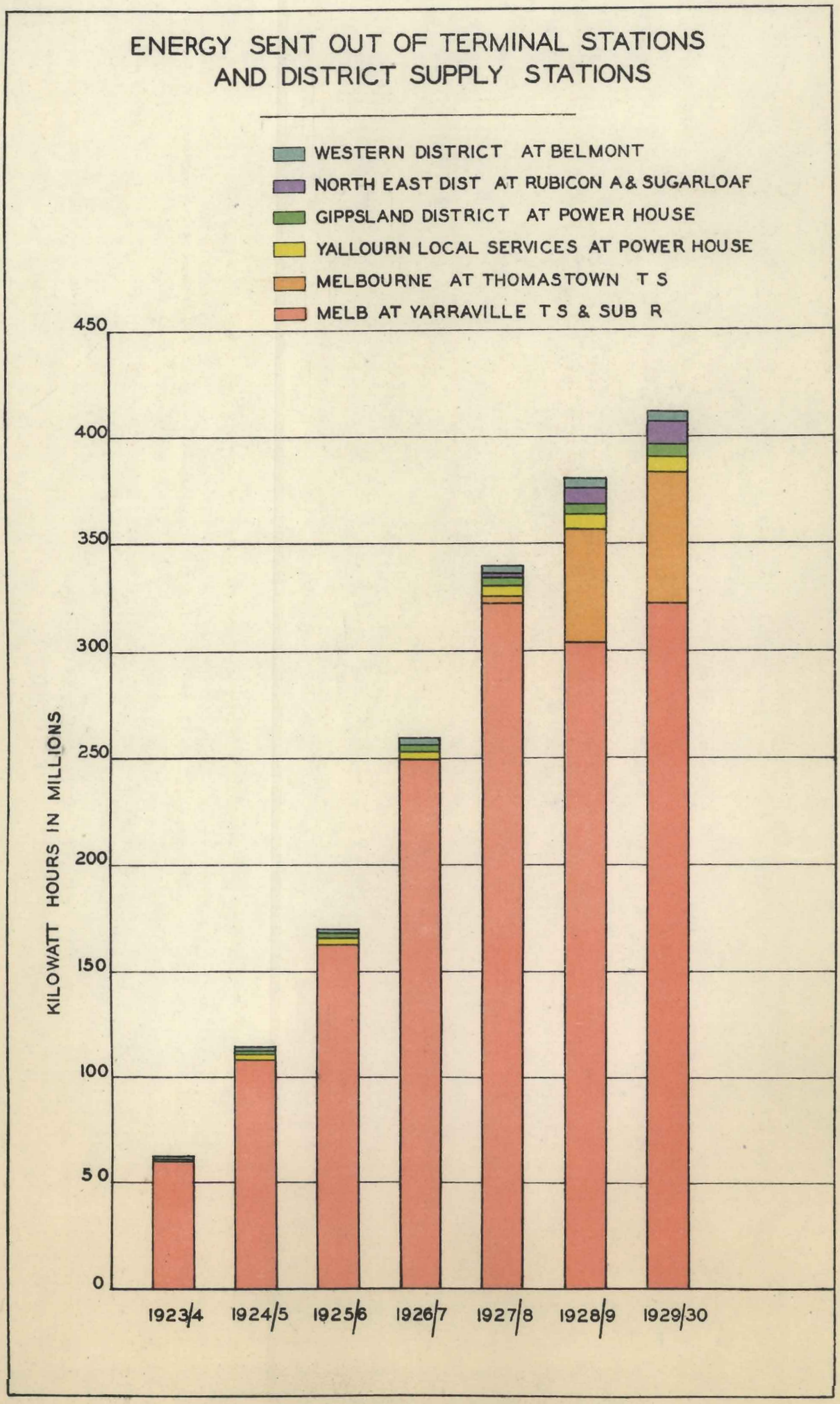
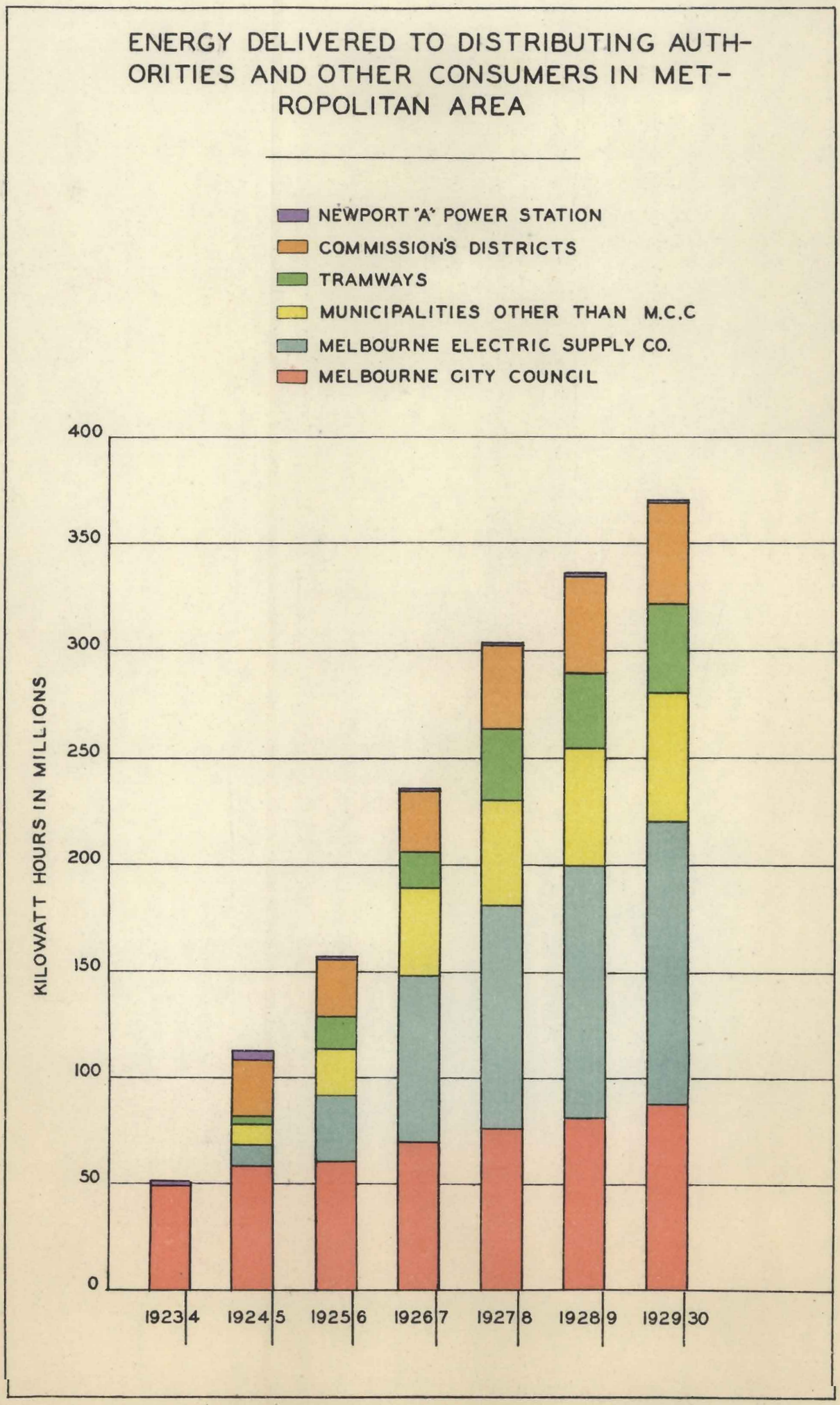
GRAPH No. 2.



NOTE.—Sub R is at Richmond. T.S. = Terminal Stations.

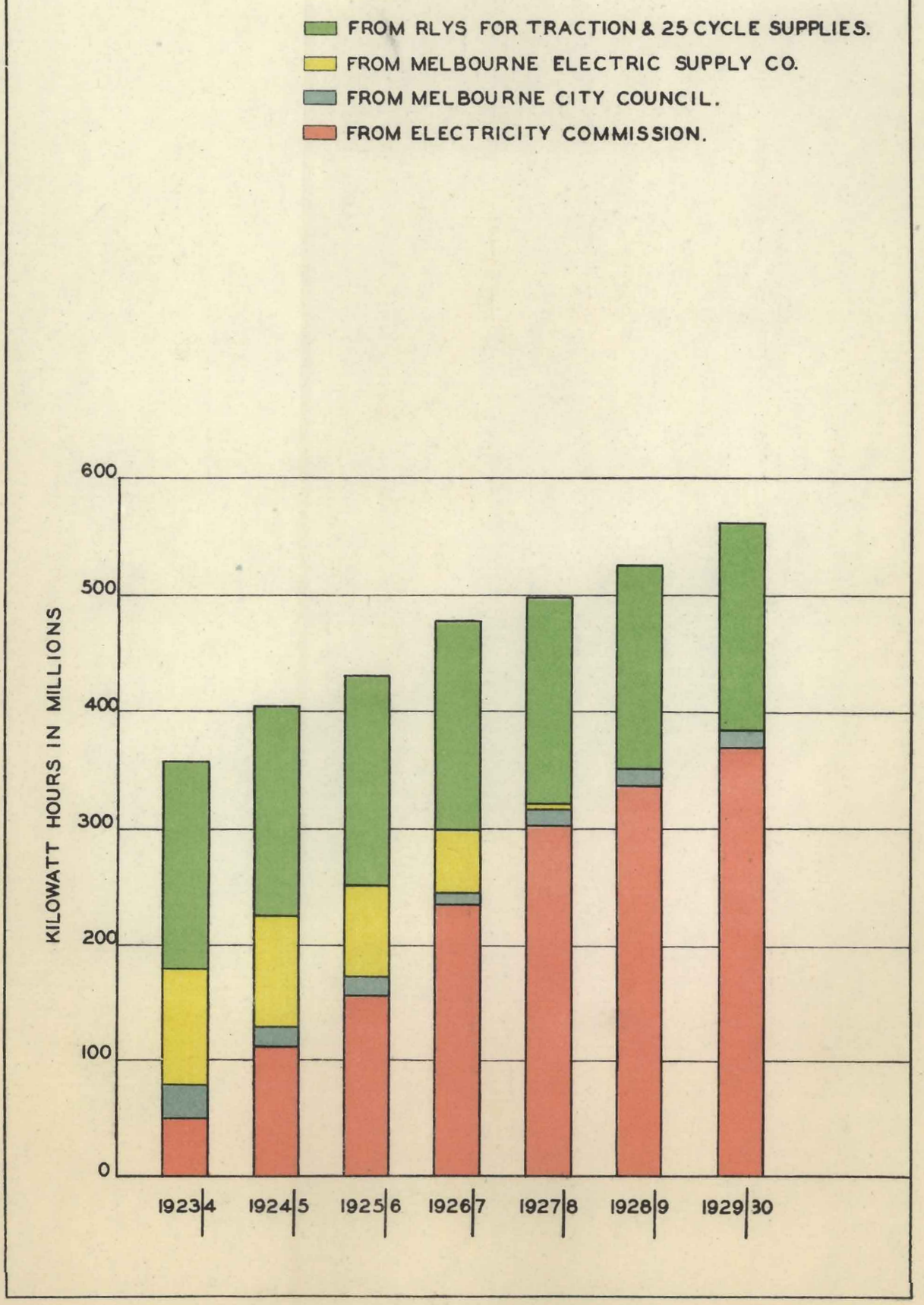
GRAPH No. 3.



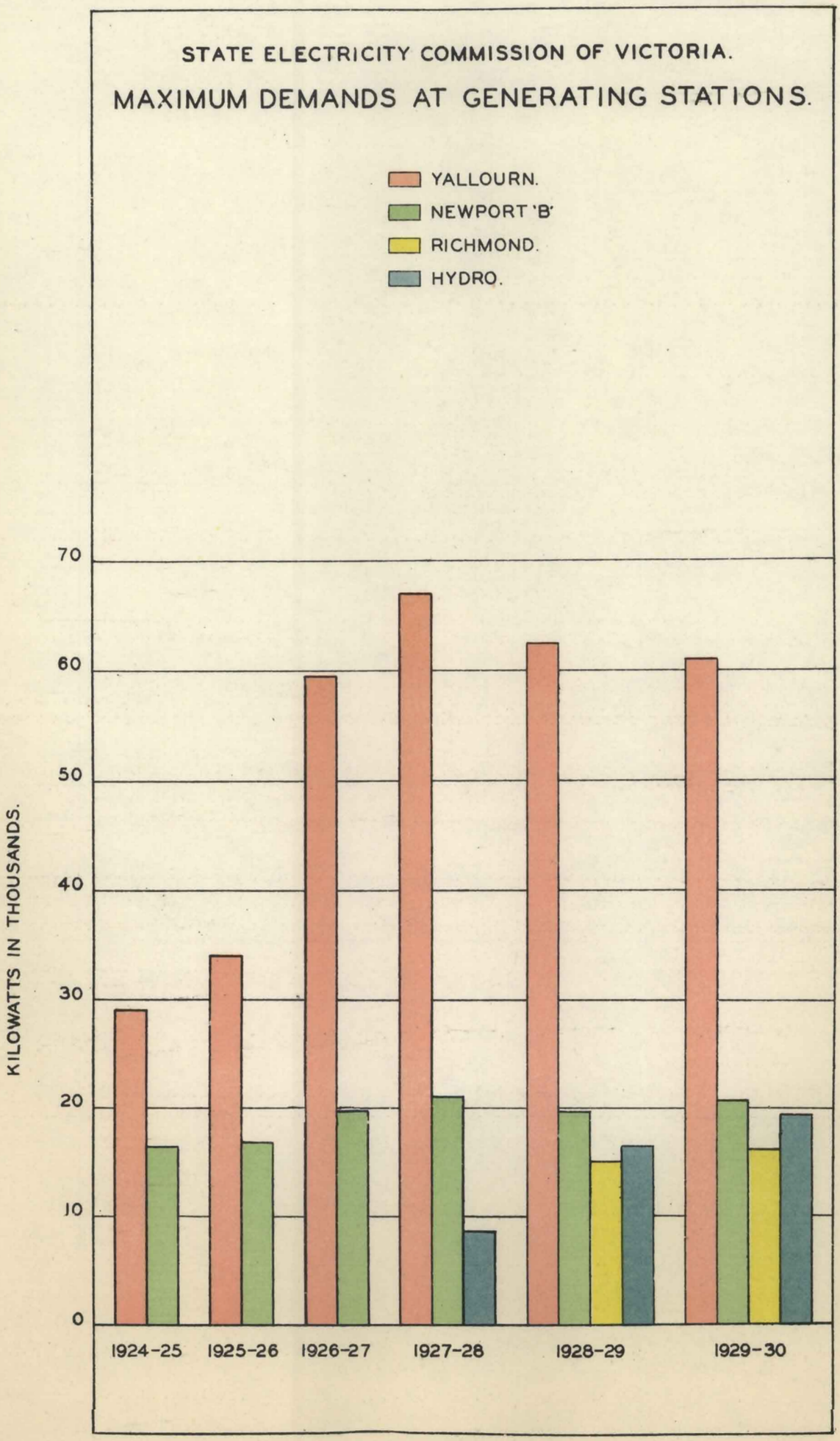
NOTE.—Newport A (Railways) Power Station receives energy only at times of emergency.

GRAPH No. 4.

ENERGY MADE AVAILABLE FROM ALL SOURCES FOR USE IN THE METROPOLITAN AREA FOR ALL PURPOSES



GRAPH No. 5.


STATE ELECTRICITY COMMISSION OF VICTORIA.
MAXIMUM DEMANDS AT GENERATING STATIONS.
YALLOURN.
NEWPORT 'B'
RICHMOND.
HYDRO.
KILOWATTS IN THOUSANDS.
70
60
50
40
30
20
10
0
1924-25
1925-26
1926-27
1927-28
1928-29
1929-30

TOWN OF YALLOURN.

Town Development.—As a result of financial stringency, building operations during the year were confined mainly to the provision of additional houses. These were erected principally in the south and south-west sections of the town, where the relatively level ground is eminently suitable to economical construction.

In all, 84 houses were completed and occupied in the period. With two exceptions, these are of the standard five-roomed type, in wood, with tiled roofs. At the close of the period, 27 houses were in course of erection ; these will make a total of 528 houses of all classes at Yallourn. Satisfactory contracts for both labour and materials were let for the whole of the 111 houses mentioned.

Notwithstanding the utmost provision that is being made, there remains a long waiting list of applicants for residences in the town, and the Commission is still faced with the necessity of budgeting for the greatest possible number of houses each year, while the need of boarding-houses to cater chiefly for single men has been evident for many years. Relief of this latter position will not be possible until loan moneys can be spared.

The population of the territory increased by 334 during the year, the figures at 30th June, 1930, being as follows :—

Yallourn Town	2,271
Western Camp	392
South Camp	218
Old Brown Coal Mine	749
Outlying Areas	31
	3,661

Accompanying the growth of the town is the steady improvement of its environs, as the various plantations, &c., develop towards maturity. The public gardens give a finish to the appearance of the town, and impart a touch of refinement which is reflected in the surroundings of many of the homes of the residents. The spirit of local pride and beautification is further evidenced by the fact that the tenants of new houses, generally speaking, lose no time in cultivating their allotments, and laying them out in lawns and flower beds, thus contributing in no small measure to the orderly and aesthetic aspect of the town as a whole.

The only public building erected during the year was a service station. This is leased to a private firm, and supplies a long-felt want, both by local motorists and by motorists passing through the town or visiting the works.

Hospital.—The number of patients admitted to the hospital during the year was 501, the daily average being 17·3, and the maximum number of cases in the institution at any one time (including babies born there) 33.

The Yallourn Medical and Hospital Society, which is responsible for the maintenance and management of the institution, and to the funds of which all employees in the territory contribute a fixed amount weekly, reports a very satisfactory year.

Local interest in the welfare of the institution continues to be a pleasing feature of its work. In this respect, extremely valuable services are rendered by the Ladies' Auxiliary, the members of which attend at the hospital regularly one day a week to assist in mending linen, &c. In addition, they have provided many comforts and conveniences for patients, and raised £20 towards the construction of a tennis court for the staff. The Society pays a high tribute of praise to the splendid band of ladies who compose the auxiliary, and who unselfishly devote so much of their time to caring for the sick in the community.

Considerable improvements have been effected at the site of the hospital, with the object of making the grounds a suitable setting for the splendid and up-to-date building. The practical consideration of making the hospital as self-contained as possible in the matter of fruit and vegetables has not been overlooked, and in the area set aside for the purpose 91 fruit trees have been planted.

Amongst the auxiliary services administered by the Medical and Hospital Society is the Health Centre (adjacent to the Town Square). The Health Centre consists of a dispensary, patients' consulting room, and a dental clinic. The dispensary and dental clinic are leased to a chemist and dentist respectively. The value of these auxiliary services was again fully demonstrated during the year.

Hotel.—The accommodation at the hotel is being heavily taxed by the increasing number of visitors to Yallourn.

Educational Facilities.—In the Tenth Annual Report, it was stated that the technical school classes at Yallourn were being carried on under increasing difficulties due to lack of accommodation and workshops. The same difficulties still exist, and the residents are anxiously awaiting the promised provision by the Education Department of adequate accommodation and facilities. All that the Department has been able to do up to the present is to make available a sum of £100 for the purchase of a second-hand shed, which has been erected at the rear of the cottage used for technical school purposes. The proper equipment of this shed is a matter that is under discussion with the Department, but has not yet been finalized.

During the year, the Department invited tenders for the erection of an infants' school, in order to relieve the congestion at the State school, and at the date of this Report a contract has been let.

It is sincerely hoped that the Department will soon be able to see its way to go ahead with all of its educational projects for Yallourn, as the absence of proper facilities there is hampering the classes and causing much concern to the residents.

Reserves and Gardens.—The Melbourne swamp, which disfigured the southern approach to the town from the Prince's Highway, was drained during the year, for the purpose of increasing the extent of level building ground available in the town and providing permanent recreation areas.

On part of the ground which has been drained, a main and other sporting ovals will be placed, and advantage will also be taken of the opportunity that exists to provide a swimming pool. Hitherto, the only ground available in the town for cricket, football, &c., has been the temporary unsuitable area adjacent to, and part of, the briquetting factory grounds. A board of trustees, representative of all sections in the town, has been appointed to manage the new area.

The well-established public gardens in Broadway have provided effective floral displays throughout the year. They combine with the improved open spaces, tree-planted streets, and well-kept private gardens, to present a uniform scheme of town beautification that becomes more pronounced and pleasing each year.

The nursery has again provided practically all trees, shrubs, and seedlings for street and garden requirements. In addition, 200 poplars were supplied to the Yallourn branch of the Australian Natives Association for planting as an avenue along the Prince's Highway between Yallourn and Morwell.

Community and Welfare.—The community spirit remains at a high level, and the various social, sporting, and educational organizations are in a flourishing condition.

The Bowling Club rinks were opened in October, 1929, and are the popular resort of a large number of members drawn from all sections of the community. During the year, the erection of a pavilion was begun, with the idea of having it ready for the opening of the 1930–31 season.

The Yallourn Tennis Club, which has extended its pavilion, is finding the present courts insufficient. As the popularity of this game shows no abatement, it is hoped that, at some future time, additional courts will be constructed on the new recreation area. At the Western Camp and Brown Coal Mine the courts, like those in the town proper, are electrically lighted, and taken full advantage of.

The Golf Club, which increased its membership by 50 per cent. during the year, has effected many improvements to the course. The access of members has led to some congestion at week-ends, and the club is considering the question of extending the course from nine holes to twelve.

The Rifle Range has been cleared, and the mounds, butts, and shelter sheds erected by voluntary labour. The club is one of the most enthusiastic bodies in the town.

The committee of management of the Boy Scouts has erected a fine hall on the area north-east of the Commission's store, in the Yallourn railway yard. Funds for the labour were subscribed voluntarily, while the Commission supplied the necessary materials. The lining of the interior of the building was done voluntarily by twelve carpenters, assisted by other local residents.

The Girl Guides, although not as strong numerically as the Boy Scouts, are just as enthusiastic. Both movements have sound support from the residents, and are capably led.

Although the Commission assists the residents to provide sporting and other amenities in the township, it should be noted that any contributions of the kind are made from revenues and not from loan funds. Furthermore, no communal recreation work in the town has been undertaken upon the basis of the Commission bearing the whole cost. The residents provide or pay for the labour involved, and the Commission supplies the necessary materials. It will thus be seen that the residents invariably bear the greater proportion of the total expenditure involved, and the facilities that now exist in the township afford evidence of a commendable spirit of self-help.

During the year a series of lectures were delivered under the auspices of the Workers' Educational Association, in conjunction with the University Extension Board. The various lectures were both interesting and instructive, and attracted large audiences.

The Yallourn Brass Band was equipped with uniforms and additional instruments during the year, at a cost of £478, most of which was raised by the residents. The band gives indoor recitals during the winter and outdoor recitals during the summer. At the Echuca competitions on Boxing Day the band won £28 in prize money.

The Fire Brigade competed at the annual Country Fire Brigades' Demonstration, and won the one-man Marshall event. At the Eastern District Demonstration, held subsequently, it also gained second place in the six-men reel event. The efficiency and enthusiasm of members are very marked. A motor fire-pump was added to the brigade's equipment during the year.

The Horticultural Society held a number of flower shows throughout the year. The exhibits were notable for both quantity and quality.

The Glee and Madrigal Society continues to provide excellent performances. It is at present raising funds for a piano for the Scouts' Hall.

General Store.—The general store and butchery both continue to transact a growing volume of business, and the year's transactions over all showed a small net profit.

Cost of Living.—For the first time for some years the Commonwealth Statistician's cost of living figures for Yallourn were higher than those for Melbourne; this reflected the general depression in the metropolis.

INDUSTRIAL.

The following table shows the disposition of the Commission's labour forces, as at 30th June, 1930, viz.:—

	1930. Operation.	1930. Construction.
Yallourn	827	447
Metropolitan area	180	305
Transmission lines	27	134
District undertakings	187	20
Sugarloaf-Rubicon hydro-electric scheme	12	2
	1,233	908

Arbitration.—Much of the arbitration proceedings throughout the year, as affecting the Commission, were again occupied by the Metal Trades, which include electricians, engineers, boiler-makers, unskilled ironworkers and moulders. A tentative award was issued in December, 1929, and the final award was promulgated in April, 1930.

The final award in the A.W.U. Construction Case was issued in October, 1929, the principal feature, insofar as the Commission is concerned, being that for the first time the cost of living figure was prescribed for Yallourn.

Industrial peace, which had prevailed for nearly three years at Yallourn, was interrupted on the 9th May, 1930, all members of the Amalgamated Engineering Union employed at Yallourn ceasing work as a protest against the new shift work provisions in the Metal Trades award and the discontinuance of the 6s. 6d. cost of living allowance prescribed by the Court in 1926. After several conferences between the Commission and the Disputes Committee of the Trades Hall and representatives of the men, work was resumed on the 7th July, 1930, on the basis of the literal interpretation of the award, the way being left open, however, for further conferences on the matter.

ELECTRIC LIGHT AND POWER ACT 1928.

Since the passing of the *Electric Light and Power Act* 1896, 210 Orders in Council have been granted. Of these, 121 have been issued to municipal councils and 89 to companies or persons. Seventy-seven Orders in Council have been revoked, including a number relating to undertakings which have passed to the control of the Commission.

The Orders in Council which have been recommended by the Commission during the year, and approved by the Governor in Council, authorizing the supply of electricity in the areas indicated, are the following :—

Supply Authority.	Area.	Maximum Prices Authorized.	
		Lighting per Unit.	Power per Unit.
		s. d.	*s. d.*
Shire of Phillip Island	Phillip Island	1 3	0 7
Borough of Portland	Borough of Portland	1 0	0 6
W.A. Bland	Township of Goroke	1 6	0 6

LICENSING OF ELECTRIC WIREMEN.

The following statement sets out the number of Licences issued to 30th June, 1930, and also the number issued during the previous twelve months :—

Grade.	Number issued to 30th June, 1929.	Number issued from 1st July, 1929, to 30th June, 1930.	Total.
" A "	1,496	51	1,547
" B1 "	149	16	165
" B "	1,016	76	1,092
" C "	1,414	68	1,482
Special Licences	53	3	56
Permits	3,044	162	3,206
Provisional " A "	8	..	8
" B1 " Provisional	1	..	1

During the year, two examinations in theory and practice were held, and the Board of Examiners reports that, although about the usual number of candidates presented themselves, the percentage of passes was slightly below the average.

ELECTROLYSIS RESEARCH—METROPOLITAN AREA.

The Electrolysis Committee, consisting of representatives of—

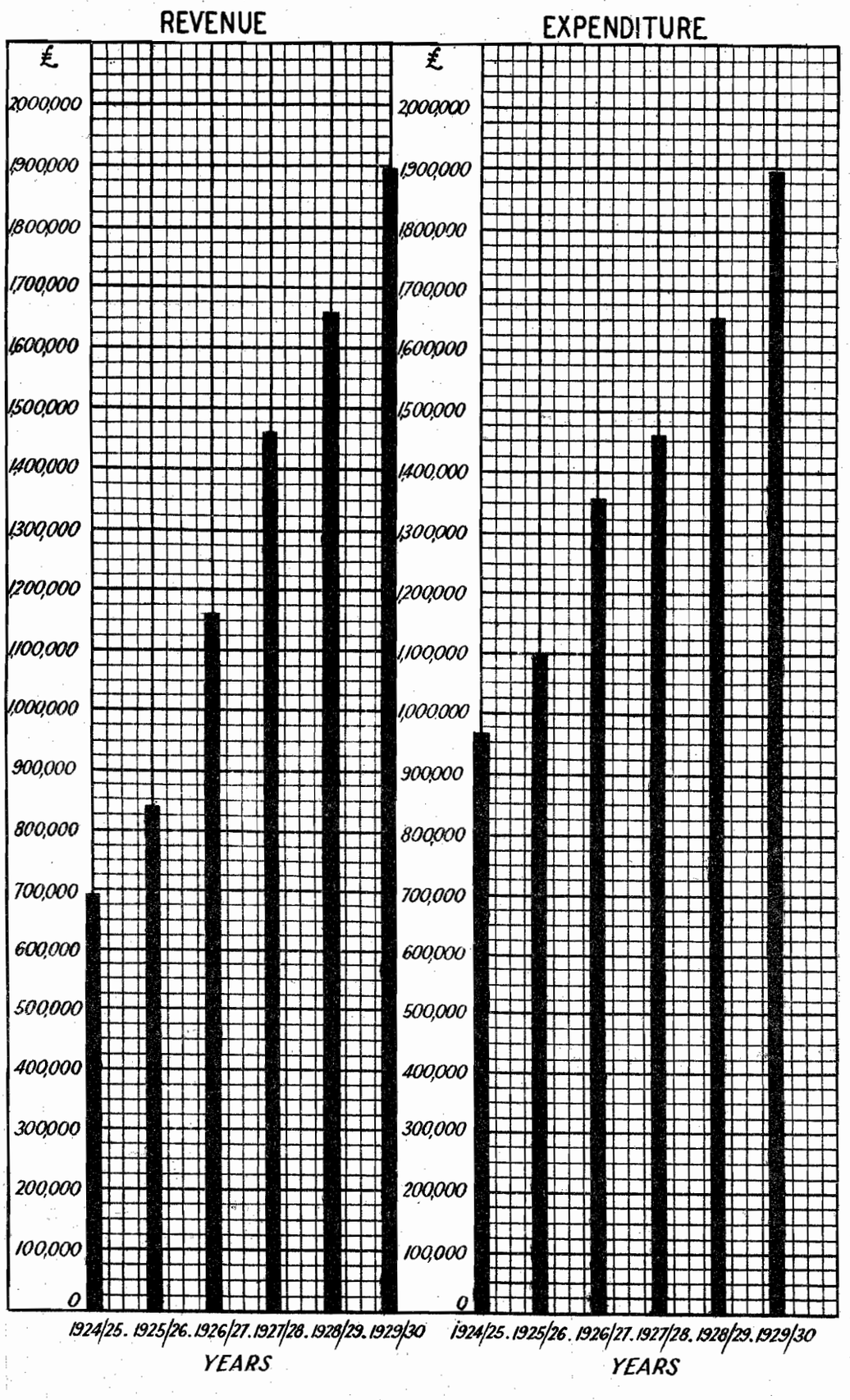
The Postmaster-General's Department,
The Victorian Railways Commissioners,
The Melbourne City Council,
The Melbourne and Metropolitan Board of Works,
The Melbourne and Metropolitan Tramways Board,
The Metropolitan Gas Company,
The State Electricity Commission.

has, in conjunction with its Technical Sub-Committee, operating through the Electrolysis Research Engineer, continued its inquiries into cases of electrolysis which have occurred during the year.

Excellent work has been done, and much still remains to be done, in tracing and ascertaining the causes of damage to subterranean metallic structures. However, the present financial stringency is to a considerable extent generally delaying such remedial measures as would appear to be indicated in certain specific cases.

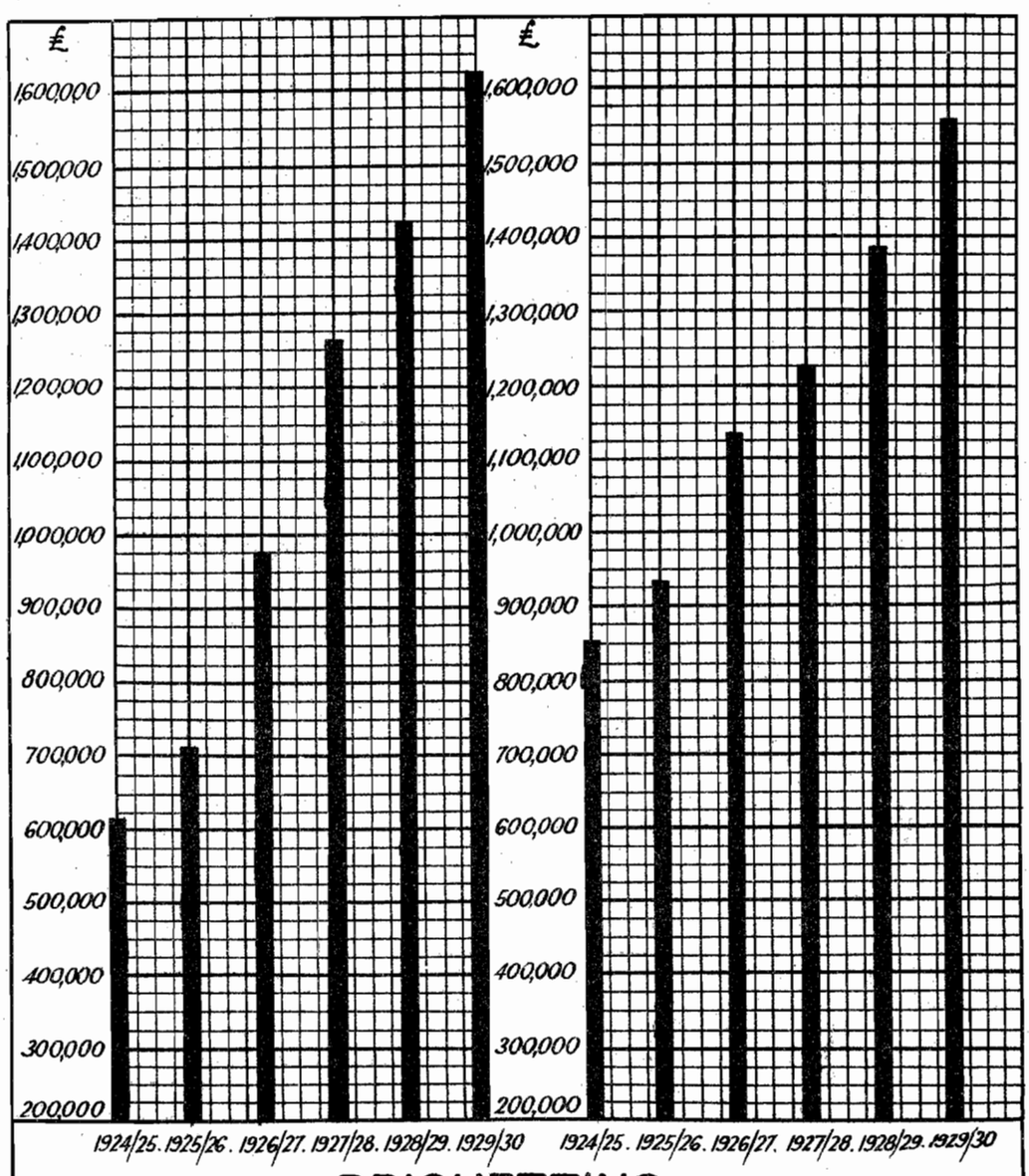
STATE ELECTRICITY COMMISSION.

FINANCIAL RESULTS OF ALL ACTIVITIES

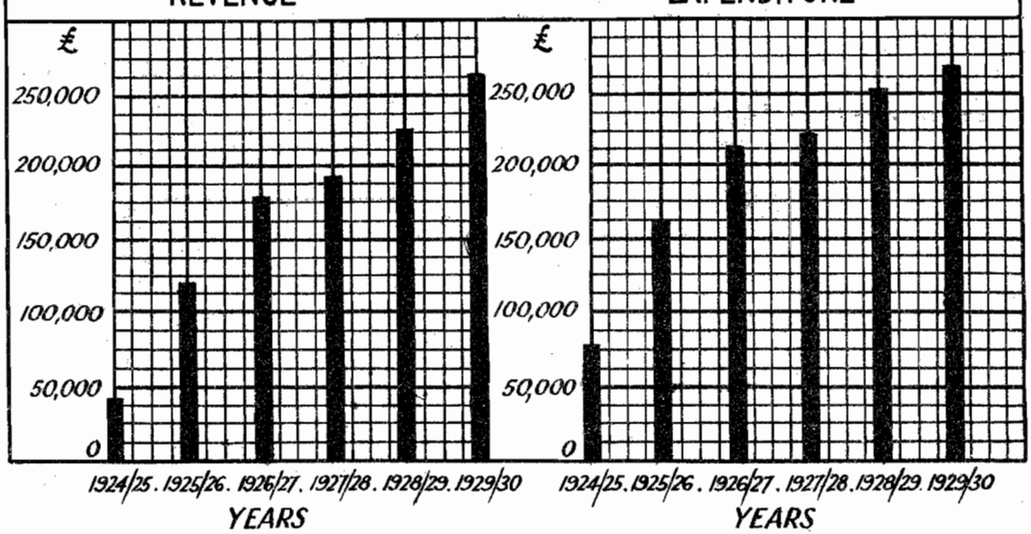


STATE ELECTRICITY COMMISSION.

ELECTRIC SUPPLY



BRIQUETTING



PART II.—FINANCIAL AND COMMERCIAL.

ANNUAL ACCOUNTS.

The General Profit and Loss Account and Balance-sheet, accompanied by summarized Profit and Loss Accounts and Balance-sheets of the District Undertakings of the Commission, are contained in Appendix No. 1.

CAPITAL EXPENDITURE.

The following tabulation shows the capital expenditure from the inception of the Commission to 30th June, 1930 :—

	£	s.	d.
1919–20	**1,980**	**8**	**11**
1920–21	**213,238**	**2**	**11**
1921–22	**1,645,790**	**12**	**3**
1922–23	**3,993,825**	**12**	**1**
1923–24	**6,036,422**	**15**	**11**
1924–25	**7,246,767**	**11**	**1**
1925–26	**8,347,818**	**3**	**0**
1926–27	**9,586,181**	**15**	**6**
1927–28	**11,147,771**	**18**	**10**
1928–29	**12,220,583**	**19**	**1**
1929–30	**13,891,711**	**17**	**6**

RESULTS OF OPERATIONS OF ALL ACTIVITIES FOR FINANCIAL YEAR ENDED 30TH JUNE, 1930.

	1929–30.
Operating Expenses	**£938,963**
Interest	**677,793**
Depreciation	**275,845**
Total Expenditure	**1,892,601**
Total Revenue	**1,897,867**
Net Profit	**£5,266**

In considering the foregoing statement, the following facts should be noted :—

(*a*) That the revenue increased during the year in greater ratio than the expenditure, and that, exclusive of depreciation, the actual betterment on the year's operations, as compared with 1928–29, was £15,293.

(*b*) That the output of energy increased by 41,000,000 kwh., and the output of briquettes by 20,644 tons.

(*c*) That full depreciation on the whole capital investment has been charged in the accounts for the year. The amount thus charged was £275,845, as against £261,204 provided last year. This provision includes contribution to the Sinking Fund created by the State of Victoria in accordance with its financial agreement with the Commonwealth of Australia, dated 12th December, 1927.

(*d*) That there was a surplus of £70,118 on electricity supply, but that this surplus was subject to special writings off amounting to £60,118 against Profit and Loss, bringing the net surplus to £10,000. Loss on operation at the Brown Coal Mine (now closed down) accounted for £820, and this, with the loss of £3,914 on Briquetting, leaves the net profit on all operations £5,266, compared with a profit of £4,614 in 1928–29 and £1,872 in 1927–28.

ELECTRICITY SUPPLY.

——	Financial Year 1929–30.	Financial Year 1928–29.	Financial Year 1927–28.	Financial Year 1926–27.
EXPENDITURE.	£	£	£	£
Metropolitan Supplies	**1,071,928**	**955,869**	**869,029**	**854,425**
District Undertakings	**482,210**	**426,305**	**360,035**	**284,244**
Total	**1,554,138**	**1,382,174**	**1,229,064**	**1,138,669**
REVENUE.				
Metropolitan Supplies	**1,116,856**	**988,126**	**884,243**	**672,689**
District Undertakings	**507,400**	**439,625**	**378,542**	**302,674**
Total	**1,624,256**	**1,427,751**	**1,262,785**	**975,363**
Loss for Year	..	..	..	**163,306**
Profit for Year	**70,118**	**45,577**	**33,721**	..
	Kwh.	Kwh.	Kwh.	Kwh.
Energy sold during Year ..	**394,754,454**	**358,089,467**	**319,282,728**	**245,752,546**

Metropolitan Supplies.—The appended table shows an increase in consumers' maximum demands in the metropolitan area of over 9 per cent., accompanied by an increase of 9·4 per cent. in the quantity of energy sold. As the period was one of severe industrial depression, during which no particularly large new blocks of power were connected, the figures emphasize the heavy and regular normal increment of yearly demand in the metropolitan area, which is almost entirely dependent upon the Commission's system for its supplies.

	1929–30.	1928–29.
Kwh. sold	**340,935,968** ..	**311,221,444**
Revenue	**£1,084,642** ..	**£955,351**
Revenue per kwh. sold	**·764d.** ..	**·736d.**
Expenditure	**£1,041,284** ..	**£924,923**
Expenditure per kwh. sold	**·733d.** ..	**·713d.**
Maximum demand in kw. (average) ..	**93,348** ..	**85,645**

The above comments and figures relate to the full financial year which closed on 30th June, 1930, and reveal a very satisfactory year, the results being, in fact, slightly better than the Commission's budget of its finances.

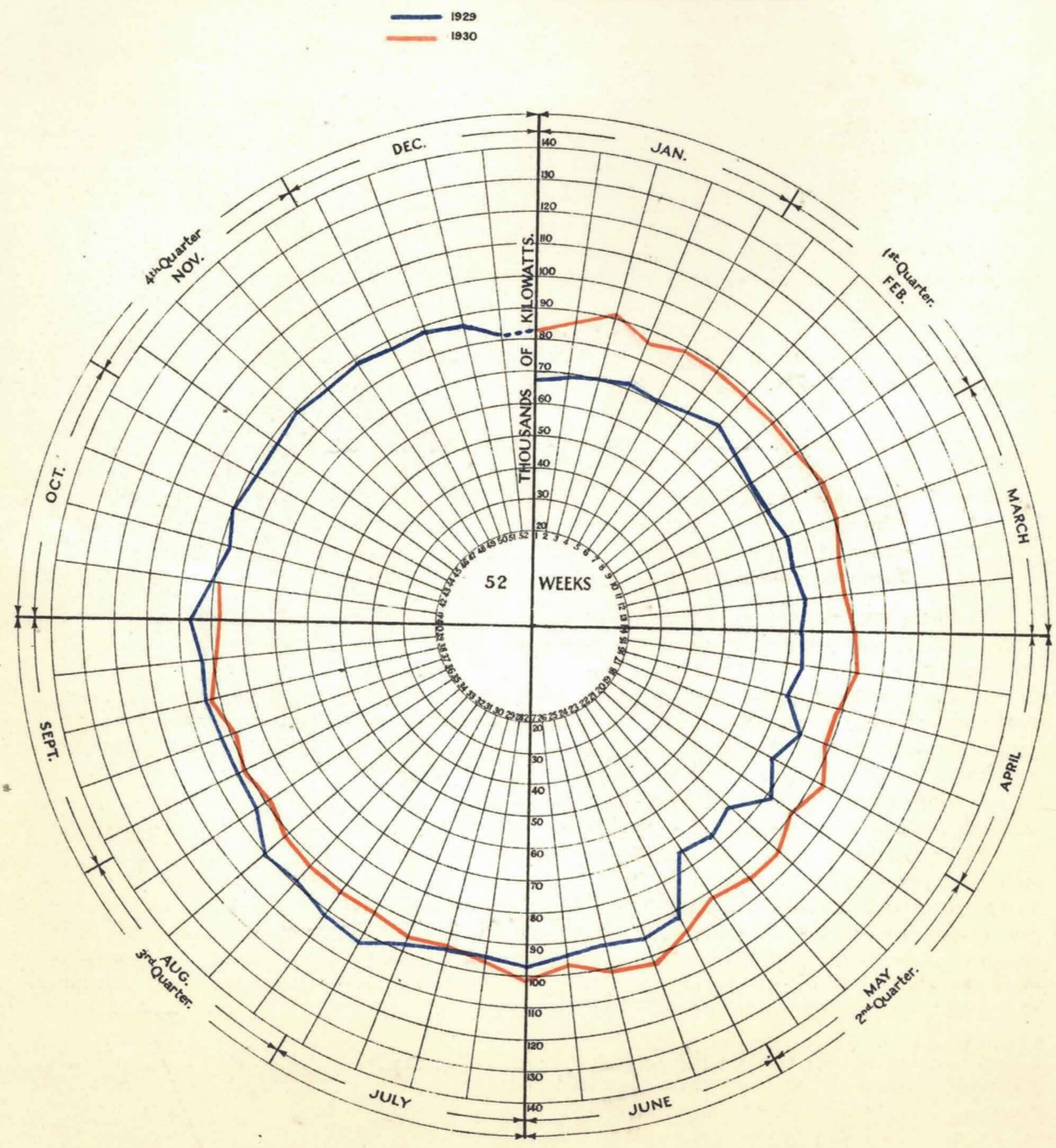
Nevertheless, about the end of May the electricity supply business began seriously to feel the effects of the financial and industrial stress, and this has continued up to the time of issue of this Report, although not in the same marked degree as in the earlier months.

The situation is best illustrated by the graph herewith, which compares the system demand in each month last year with the corresponding month this year. Broadly, the position is that to 30th September, 1930, the Commission can be said to be holding its business. Uncertainty as to the precise effect on the industrial, commercial, and domestic communities of the measures in course of being taken to restore the financial situation makes it almost impossible to forecast the system loading for the remainder of the financial year. On the assumption, however, that the position at September, 1930, will not be further impaired, the Commission has no reason to expect that the electricity supply undertaking will be unable to meet full interest and depreciation on the investment for the financial year 1930–31.

BRIQUETTE MANUFACTURE AND DISTRIBUTION.

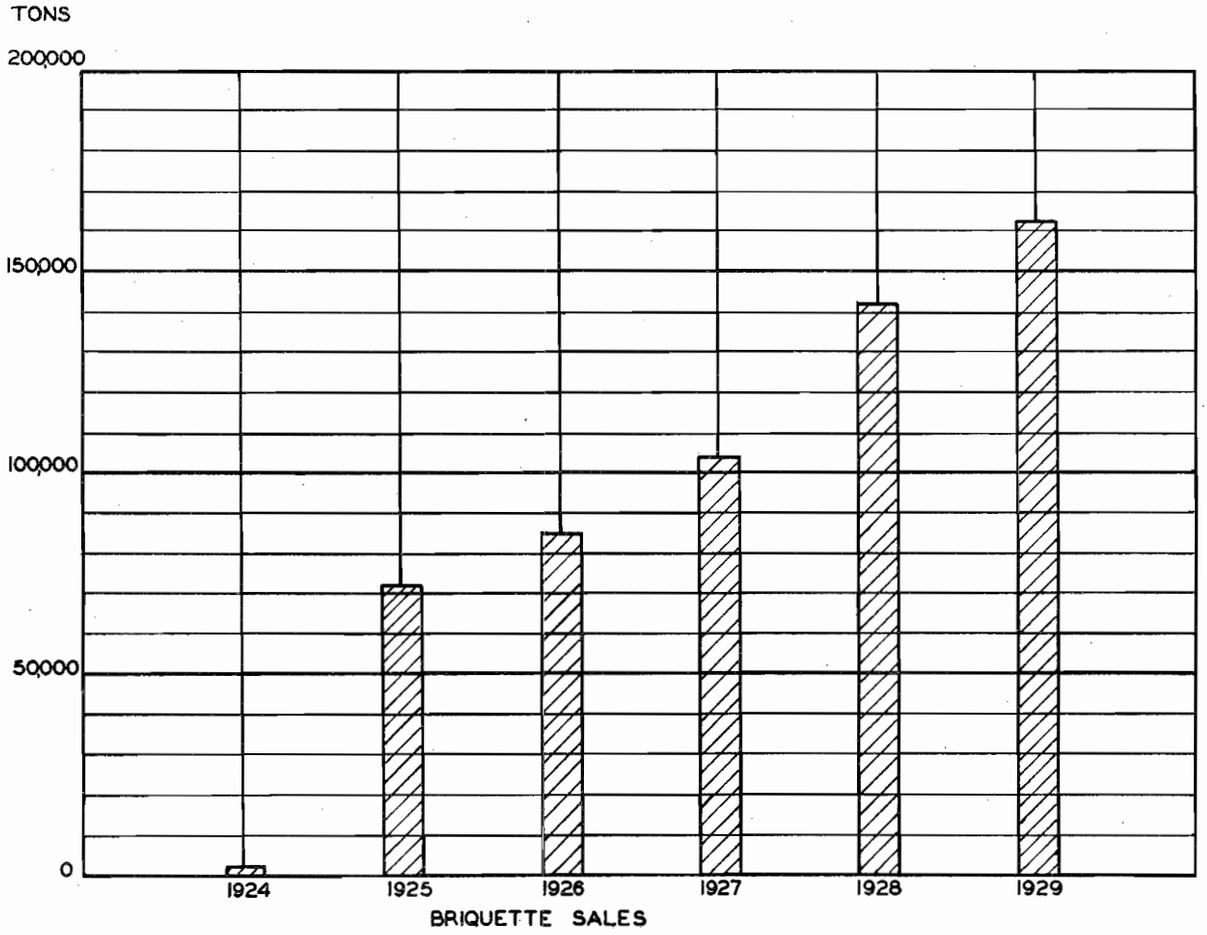
——	1929–30.	1928–29.	1927–28.	1926–27.
	£	£	£	£
Expenditure	**268,372**	**251,891**	**224,107**	**212,533**
Revenue	**264,458**	**226,186**	**192,257**	**179,184**
Loss	**3,914**	**25,705**	**31,850**	**33,349**

CURVE SHOWING MAXIMUM WEEKLY K.W. GENERATED ON S.E.C. SYSTEM.



The operating expenses and interest during the year totalled £241,174, leaving a surplus towards depreciation of £23,284, as compared with a surplus of £6,968 on the same basis in the preceding year. Depreciation amounted to £27,198, as compared with £32,673 in 1928–29, and the net loss for the year under review was £3,914, as compared with £25,705 in 1928–29.

Sales amounted to 165,514 tons, of which the household market absorbed 58,276 tons, and the industrial market 107,238 tons. As was the case in the previous year, when 154,753 tons were sold, the tonnage disposed of does not reflect the market for briquettes, as both the domestic and industrial demand exceeded the production, notwithstanding the efforts made to cope with the position and to minimize the effect of the shortage of supplies of black coal from New South Wales, due to the protracted industrial trouble on the coal fields of that State. Sunday work was instituted at the factory in July, 1929, and, by pushing ahead with the installation of driers for the extended factory, it was found possible to step-up production by about 100 tons a day in time for the winter of 1930. Thereafter, by working without intermission for the whole seven days, an output of about 4,000 tons a week was maintained. It became necessary, however, to ration the retailers of household supplies, and to turn away a considerable volume of industrial business. The extended factory, which will increase the production to 1,200 tons a day, will come into operation towards the end of 1930, and, in view of the growing industrial demand for briquettes, and their continued popularity as household fuel, a ready market should be found for the whole of the available output.



The favorable effect of greater production on unit costs was again illustrated during the year, the loss per ton showing a distinct decrease. The subjoined table shows the trend in this direction since the commencement of manufacture of briquettes :—

——	Production.	Loss.	Loss per Ton.	Loss per Ton, Excluding Depreciation.	Profit per Ton, Excluding Depreciation.
	Tons.	£	£ s. d.	£ s. d.	£ s. d.
1924–25 (six months only) ..	35,303	36,257	1 0 6	1 0 6	..
1925–26	85,576	39,925	0 9 3	0 9 3	..
1926–27	109,535	33,349	0 6 0	0 1 3	..
1927–28	121,828	31,850	0 5 3	0 0 6	..
1928–29	141,064	25,705	0 3 7	..	0 0 10¾
1929–30	161,708	3,914	0 0 6	..	0 2 10½

DISTRICT UNDERTAKINGS.

Statistical data relating to the main district undertakings appear in this section of the report. From these details the following summary is extracted :—

(*a*) The total number of consumers increased during the year from 39,496 to 42,801, or by 8·36 per cent.

(*b*) Eight new country and extra metropolitan centres of demand were served during the year, bringing the total number of towns and localities in which local reticulation is undertaken to 149 ; of these, 99 had no service until supplied by the State scheme.

(*c*) The total number of motors connected increased from 2,983 to 3,531, with a resultant increase in horse-power from 24,252 to 27,713.

(*d*) Sales of energy for all purposes within the districts amounted to 43,331,301 kwh., as compared with 38,559,061 kwh. during the previous year, an increase of 12·37 per cent.

(*e*) The revenue from sales of energy within the districts amounted to £505,533, as compared with £433,700 during the previous year, while the average price per kwh. increased from 2·699d. to 2·8d.

(*f*) The connected load within the districts increased from 67,024 kw. to 90,694 kw., or by 35.3 per cent.

Essendon–Flemington District.—Operations during the year gave a net profit of £20,491, after providing £5,113 for depreciation.

The number of consumers increased from 14,053 to 14,172, and sales of energy from 13,589,452 kwh. to 14,567,090 kwh. As from the 1st September, 1930, this district became merged into the Metropolitan Electricity Supply District, which embraces Sunshine and the areas taken over from the Melbourne Electric Supply Co. Ltd.

Eastern–Metropolitan District.—After providing £7,942 for depreciation, operations gave a net profit of £5,055 for the year. Consumers increased from 6,545 to 7,189, but sales of energy decreased from 6,220,007 kwh. to 5,939,032 kwh., due to cessation of supply to the Melbourne and Metropolitan Board of Works' pumps at Bundoora during September, March, and June quarters.

During the year supply was initiated in Crib Point and Dingley.

Western–Metropolitan District.—This district takes in Werribee, Point Cook, Altona, Deer Park, and (until 1st September, 1930), Sunshine. Operations showed a loss of £5,023, after providing £1,854 for depreciation. Consumers increased from 1,928 to 1,997, and sales of energy from 4,123,764 kwh. to 4,538,018 kwh.

This district was introduced primarily from an accounting and not a supply point of view, and it is not likely that favorable results will obtain therein while the present grouping prevails.

Castlemaine District.—This district, which was constituted during the last financial year, includes all centres served by the first section of the Ballarat–Bendigo ring main. In addition to the centres served, as mentioned in the last annual report, Castlemaine and St. Albans were added during the year, bringing the total number served to 13, of which 8 had no supply previously.

During the year the number of consumers in the district increased from 528 to 2,275, and the sales of energy from 320,765 kwh. to 855,582 kwh. After providing £706 for depreciation, there was a loss on operations of £463, as compared with £1,616 during the previous period.

South-Western District.—The loss on the year's operations was £830, after providing £8,152 for depreciation. The number of consumers increased from 5,485 to 5,741, and the sales of energy from 3,209,049 kwh. to 3,942,946 kwh. The normal increment of demand in the district was augmented during the year by the initiation of supply to the Warrnambool Woollen Mills.

Gippsland District.—This district continues to develop in a very satisfactory manner. One new centre (Garfield) was added during the year. The number of consumers increased from 5,180 to 5,382, and sales of energy from 3,692,877 kwh. to 4,389,198 kwh. Operations resulted in a loss of £1,270, after providing £7,381 for depreciation. The Tynong Quarries, which were supplied during the latter part of the previous year, contributed to the increment of demand during the period under review.

North-Eastern District.—Operations during the year showed a profit of £6,456, after providing £11,377 for depreciation. The result represents an improvement of £16,241 for the year. The number of consumers increased from 5,777 to 6,045, and sales of energy from 7,403,147 kwh. to 9,099,435 kwh. During the year two large consumers came on to the Commission's system, viz., the Wangaratta Water Trust and Dalley's Freezing Works at Shepparton, while the Wangaratta Woollen Mills increased their demand appreciably

COMMISSION'S ELECTRIC SUPPLY UNDERTAKINGS FOR LOCAL DISTRIBUTION.

ESSENDON AND FLEMINGTON DISTRICT.

	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
Population of Supply Area	58,000	60,500	63,000	65,500	65,500
Number of Consumers	11,212	12,332	13,250	14,053	14,172
Percentage of Consumers to Population	19·3 per cent.	20·4 per cent.	21·03 per cent.	21·45 per cent.	21·6 per cent.
Sales of Energy, in classes—					
Street Lighting	588,874 kw. hrs.	585,426 kw. hrs.	657,722 kw. hrs.	764,644 kw. hrs.	947,683 kw. hrs.
Domestic	1,784,529 ,,	2,172,786 ,,	2,883,443 ,,	3,498,117 ,,	4,105,864 ,,
Industrial— Large	7,779,024 ,,	8,397,222 ,,	8,855,316 ,,	7,153,026 ,,	7,422,608 ,,
Industrial— Small				743,020 ,,	745,894 ,,
Commercial				1,430,645 ,,	1,345,041 ,,
(Excluding adjustments for unread meters and service charges paid in advance at end of year)	10,152,427 ,,	11,155,434 ,,	12,396,481 ,,	13,589,452 ,,	14,567,090 ,,
Revenue	£93,116	£101,408	£107,498	£112,583	£121,757
Average Revenue per kw. hr. sold	2·201d.	2·181d.	2·082d.	1·988d.	2·006d.
Maximum Demand of Districts in kws.	2,635	3,339	3,690	4,097	4,149
Total Connexions in kws.	13,911	19,087	21,417	23,716	27,518
Number of Motors	552	574	617	659	704
Total h.p. of Motors	3,871	7,887	8,308	8,723	8,681

EASTERN METROPOLITAN DISTRICT.

	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
Population of Supply Area	15,200	16,918	25,753	25,943	26,200
Number of Consumers	2,898	3,519	5,800	6,545	7,189
Percentage of Consumers to Population	19·07 per cent.	20·8 per cent.	22·5 per cent.	25·22 per cent.	27·4 per cent.
Sales of Energy, in classes—					
Bulk Supplies	..	514,554 kw. hrs.	438,233 kw. hrs.	164,810 kw. hrs.	199,330 kw hrs.
Street Lighting	62,070 kw. hrs.	84,747 ,,	119,257 ,,	173,445 ,,	187,373 ,,
Domestic	263,665 ,,	541,319 ,,	1,011,195 ,,	1,726,876 ,,	2,331,636 ,,
Industrial— Large	869,410 ,,	1,140,795 ,,	2,093,786 ,,	2,610,613 ,,	1,396,087 ,,
Industrial— Small				754,357 ,,	772,412 ,,
Commercial				789,906 ,,	1,052,194 ,,
(Excluding adjustments for unread meters and service charges paid in advance at end of year)	1,195,145 ,,	2,281,415 ,,	3,662,471 ,,	6,220,007 ,,	5,939,032 ,,
Revenue	£23,893	£39,869	£58,999	£78,563	£88,046
Average Revenue per kw. hr. sold	5·65d.	5·4d.	3·87d.	3·03d.	3·558d.
Maximum Demand of District in kws.	520 (estd.)	634	1,230	1,778 (estd)	2,082
Total Connexions in kws. (Excluding Bulk Supplies)	3,293	4,755	8,000	11,732	16,626
Number of Motors (Excluding Bulk Supplies)	93	131	216	337	439
Total h.p. of Motors (Excluding Bulk Supplies)	936	1,566	1,835	3,544	3,979

WESTERN METROPOLITAN DISTRICT.

	1928–29.	1929–30.
Population of Supply Area	10,300	10,300
Number of Consumers	1,928	1,997
Percentage of Consumers to Population	18·718 per cent.	19·4 per cent.
Sales of Energy, in classes—		
Street Lighting	82,410 kw. hrs.	97,105 kw. hrs.
Domestic	433,157 ,,	517,811 ,,
Industrial— Large	3,113,383 ,,	3,431,601 ,,
Industrial— Small	342,283 ,,	326,983 ,,
Commercial	152,531 ,,	164,518 ,,
(Excluding adjustments for unread meters and service charges paid in advance at end of year)	4,123,764 ,,	4,538,018 ,,
Revenue	£27,749	£29,921
Average Revenue per kw. hr. sold	1·615d.	1.582d.
Maximum Demand of District in kws.	1,742	1,916
Total Connexions in kws.	6,726	7,886
Number of Motors	342	389
Total h.p. of Motors	4,604	5,136

Commission's Electric Supply Undertakings for Local Distribution—*continued.*

CASTLEMAINE DISTRICT.

	1928–29.	1929–30.
Population of Supply Area	5,470	13,550
Number of Consumers	528	2,275
Percentage of Consumers to Population	9·65 per cent.	16·8 per cent.
Sales of Energy, in classes—		
Street Lighting	15,694 kw. hrs.	76,450 kw. hrs.
Domestic	42,069 ,,	256,065 ,,
Industrial—		
Large	136,200 ,,	127,604 ,,
Small	..	34,384 ,,
Commercial	126,802 ,,	361,079 ,,
Excluding adjustments for unread meters and service charges paid in advance at end of year	320,765 ,,	855,582 ,,
Revenue	£6,601	£23,620
Average Revenue per kw. hr. sold	4·938d.	6·625d.
Maximum Demand of District in kws.	160	350
Total Connexions in kws.	820	4,000
Number of Motors	41	166
Total h.p. of Motors	330	683

GIPPSLAND DISTRICT.

	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
Population of Supply Area	18,700	23,825	25,230	26,670	26,870
Number of Consumers	3,307	4,209	4,637	5,180	5,382
Percentage of Consumers to Population	17·7 per cent.	17·67 per cent.	18·38 per cent.	19·4 per cent.	20 per cent.
Sales of Energy, in classes—					
Street Lighting	87,659 kw. hrs.	97,303 kw. hrs.	121,658 kw. hrs.	134,768 kw. hrs.	163,600 kw. hrs.
Domestic	262,215 ,,	483,730 ,,	822,916 ,,	1,007,627 ,,	1,257,630 ,,
Industrial—					
Large				122,468 ,,	288,840 ,,
Small	1,356,020 ,,	1,479,929 ,,	2,111,136 ,,	1,583,993 ,,	1,749,864 ,,
Commercial				844,021 ,,	929,264 ,,
Excluding adjustments for unread meters and service charges paid in advance at end of year	1,705,894 ,,	2,060,962 ,,	3,065,710 ,,	3,692,877 ,,	4,389,198 ,,
Revenue	£33,489	£39,545	£52,883	£60,384	£69,489
Average Revenue per kw. hr. sold	4·71d.	4·605d.	4·14d.	3·924d.	3·8d.
Maximum Demand of District in kws.	640	970	1,200	1,610	1,730
Total Connexions in kws.	3,896	5,708	7,249	8,484	12,127
Number of Motors	284	406	487	555	699
Total h.p. of Motors	1,551	1,910	2,365	2,710	3,260

SOUTH-WESTERN DISTRICT.

	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
Population of Supply Area	27,100	26,970	26,970	31,200	31,200
Number of Consumers	3,974	4,321	4,677	5,485	5,741
Percentage of Consumers to Population	14·7 per cent.	16·02 per cent.	17·34 per cent.	17·58 per cent.	18·4 per cent.
Sales of Energy, in classes—					
Street Lighting	118,861 kw. hrs	124,222 kw. hrs.	136,030 kw. hrs.	144,438 kw. hrs.	156,438 kw. hrs.
Domestic	462,994 ,,	660,227 ,,	739,519 ,,	937,125 ,,	1,202,741 ,,
Industrial—					
Large				496,110 ,,	807,520 ,,
Small	1,250,612 ,,	1,649,581 ,,	2,034,165 ,,	722,845 ,,	784,271 ,,
Commercial				908,531 ,,	991,976 ,,
Excluding adjustments for unread meters and service charges paid in advance at end of year	1,832,467 ,,	2,434,030 ,,	2,909,714 ,,	3,209,049 ,,	3,942,946 ,,
Revenue	£43,074	£49,747	£55,347	£62,236	£73,166
Average Revenue per kw. hr. sold	5·64d.	4·90d.	4·56d.	4·654d.	4·454d.
Maximum Demand of District in kws.	(*a*) 867 (*b*) 111	(*a*) 882 (*b*) 124·5	(*a*) 1,035 (*b*) 177	(*a*) 1,212 (*b*) 211	(*a*) 1,340 (*b*) 211
Total connexions in kws.	4,573	5,900	6,340	7,769	10,960
Number of Motors	348	443	479	578	597
Total h.p. of Motors	1,491	1,888	1,812	2,160	2,951

(*a*) Belmont Sub-station. (*b*) Supply to Bellarine Peninsula.

COMMISSION'S ELECTRIC SUPPLY UNDERTAKINGS FOR LOCAL DISTRIBUTION—*continued.*

NORTH-EASTERN DISTRICT

	1925–26.	1926–27.	1927–28.	1928–29.	1929–30.
Population of Supply Area	13,025	27,760	30,650	32,700	34,200
Number of Consumers	1,850	4,137	5,238	5,777	6,045
Percentage of Consumers to Population	14·2 per cent.	14·9 per cent.	17·09 per cent.	17·66 per cent.	17·7 per cent.
Sales of Energy, in classes—					
Bulk Supplies (Excluding adjustments for unread meters and service charges paid in advance at end of year)	371,767 kw. hrs.	2,939,350 kw. hrs.	3,414,580 kw. hrs.	4,014,310 kw. hrs.	4,396,140 kw. hrs.
Street Lighting	43,183 ,,	91,030 ,,	127,381 ,,	156,147 ,,	158,142 ,,
Domestic	97,413 ,,	273,173 ,,	598,412 ,,	874,619 ,,	1,102,004 ,,
Industrial—Large				208,898 ,,	881,210 ,,
Small	213,290 ,,	842,514 ,,	1,686,663 ,,	1,125,129 ,,	1,365,785 ,,
Commercial				1,024,044 ,,	1,196,154 ,,
	725,653 ,,	4,146,067 ,,	5,827,036 ,,	7,403,147 ,,	9,099,435
Revenue	£16,930	£51,660	£74,086	£85,585	£99,534
Average Revenue per kw. hr. sold ..	5·597d.	2·99d.	3·05d.	2·774d.	2·625d.
Maximum Demand of District in kws.	1,000 (estd.)	1,736 (approx.)	1,750 (approx.)	2,640	2,559
Total Connexions in kws. (Excluding Bulk Supplies)	Not available	4,937	6,192	7,777	11,607
Number of Motors (Excluding Bulk Supplies)	87	337	428	471	537
Total h.p. of Motors (Excluding Bulk Supplies)	300	1,430	1,763	2,181	3,023

LOAD DEVELOPMENT.

In order that the capital invested in the State scheme may be fully productive, the Commission has been active in developing to the greatest extent every means of increasing the loading on its system. In this connexion its Electricity Sales Branch has recently been organized on a sectional basis, enabling its officers to concentrate on specialized power applications, with a view of assisting the public to attain a greater and more profitable utilization of electrical energy.

Prevailing economic conditions have caused many overseas manufacturers to explore the advantages of establishing factories in Australia, and the Commission's interests in the matter are wide enough to warrant the establishment of a specialized service to assist visitors in the problem of plant location and so secure for the State a greater share of new industries than has hitherto been the case. To further assist this work, a publication, entitled " Industrial Victoria," has been prepared, setting out in attractive and convincing fashion the pre-eminent natural and economic advantages possessed by Victoria.

In the sphere of illumination, it was felt that much could be done in the way of providing an advisory service for the benefit of consumers, and with the object of attaining better lighting standards. This policy was given effect to, and the Commission is now in the position to advise on all illumination problems, however large or small.

In the Tenth Annual Report, reference was made to the pending establishment of a Rural Service Section. The fact need hardly be emphasized that the use of electrical service for all possible purposes is essential to secure a revenue commensurate with the cost of giving supply in sparsely populated districts where the capital and operating charges per consumer are necessarily high and the load per mile of distribution line invariably small. The problem is essentially economic, and the solution lies in the education of the farmer to the many uses to which electricity may be put to reduce his costs and increase his production, because it is to power service that the farmer looks for savings. The Commission has, therefore, constituted a Rural Service Section within its sales organization. This section is giving intensive study to the problem with a view (*inter alia*) of—

1. Increasing the load on farms already connected, to the advantage of consumers individually and generally.
2. Demonstrating the economic value of rural electrification, so as to increase the number of connexions to farms adjacent to existing lines.

The whole aim of these investigations is to increase the possibilities in the direction of rural extensions, and to bring as many farmers as possible within economic range of service.

Although work to date has been mainly of an investigatory nature, considerable progress has been made. It is hoped that before long the Commission will be able to meet the farmer's needs in all respects as effectively as it is able to supply those of the suburban householder. The national aspect of increasing primary production by supplementing human farm labour by electric energy is very important at the present juncture, and has not been overlooked.

Good progress has been made in connexion with the sale of domestic electrical appliances. In this regard the Commission's policy is dictated by its desire to cheapen the cost of electric energy—

(*a*) By increasing energy sales.

(*b*) By obtaining an improved load factor on its system and thus gain a more satisfactory return from invested capital.

(*c*) By providing on liberal terms, and at reasonable prices, labour-saving appliances which will enable the domestic community to take full advantage of the benefits of electricity.

During the year most of the country branch offices were turned into active showrooms, wherein a display of appliances was featured for the benefit of consumers throughout the State.

The year registered a large increase in the number of domestic appliances connected to the system, the increased figures being considerably higher than those recorded in any previous year :—

Appliances.	Total Connexions during the Years ended :—				Per cent. Increase for Year ending 30th June, 1930, on aggregate for previous Years.
	30th June, 1927.	30th June, 1928.	30th June, 1929.	30th June, 1930.	
Ranges	135	213	344	745	87.64
Fans	519	117	205	765	70.1
Grillers	219	191	225	1,466	139
Irons	4,123	2,287	2,747	9,294	57.95
Kettles	430	252	488	4,488	264.6
Radiators	1,521	1,268	1,479	2,246	30.3
Toasters	97	64	85	837	270.9
Vacuum cleaners	235	215	231	2,447	331.5

PART III.—DESIGN, CONSTRUCTION, AND OPERATION.

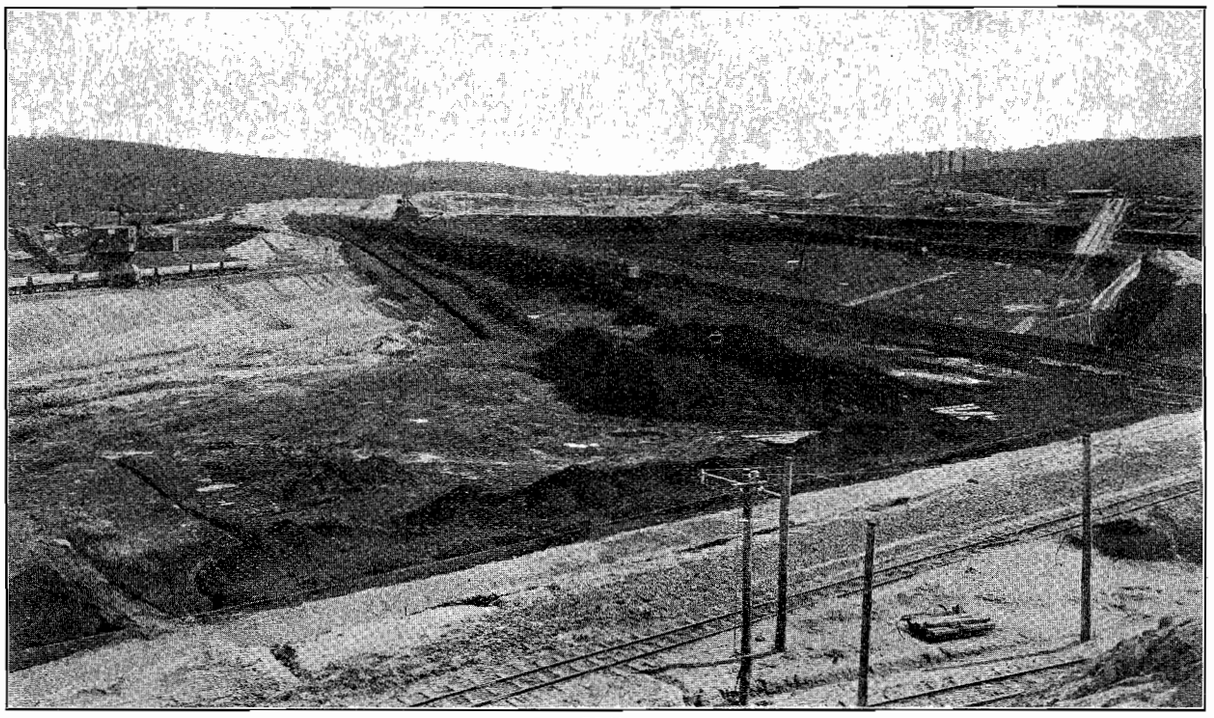
COAL SUPPLY.

Yallourn Open Cut.

Overburden Removal.—In view of the fact that the coal in the Yallourn Open Cut, as at present developed, is to be excavated to the bottom of the seam by a second deep dredge now being installed, it was not necessary during the year to maintain the former rate of overburden removal. Consequently, the 175-B power shovel was put on to other work during the year, while the operation of the dredge was reduced from three to two shifts a day. The quantity of overburden removed during the year was 969,800 cubic yards, compared with 1,432,450 cubic yards in the previous period. The total quantity of overburden removed since operations were commenced is 5,138,190 cubic yards. The area of the cut on the ground surface is now 108 acres, and on the coal surface 99 acres.

Coal Winning.—During the year 1,767,261 tons of coal were excavated, compared with 1,660,698 tons in the previous year, the increased consumption being due to the utilization of additional plant in the briquetting factory and to the fact that the factory has been operating seven days a week. The total quantity of coal excavated since the commencement of operations is 6,580,243 tons.

Most of the coal won came from No. 1 coal dredge, which commenced operations on the 22nd July, 1929. For a month it operated one shift a day, and thereafter two shifts a day. The whole of its output was sent to the power station. The 250 Ruston shovel, hitherto the principal coal-winning appliance at Yallourn, worked on a three-shift basis for the first month of the year, then for a month on a two-shift basis, and thereafter on one shift a day. It has been used in lowering the level of the cut to 100 feet. On this level the second deep dredge will be placed, to dig to the bottom of the coal. The Ruston shovel has supplied the requirements of the briquetting factory, the coal being conveyed from the cut to the transfer hoppers by No. 1 ropeway.



Open Cut, Yallourn, 1930.

During the year an order was placed for the supply of a steep haulage plant for conveying the coal to the power-house bunker direct from the present bottom of the workings. At the date of this Report the main items of plant had been delivered from Europe, while the manufacture of the auxiliary plant in Australia was well advanced. The works on the site were also well forward, and the haulage is expected to be in operation early in 1931.

Old Brown Coal Mine.

The output for the year was 43,361 tons, as against 41,072 tons in the previous year. The bulk of the coal won from this old cut was for private users. Overburden removal was discontinued about two years ago, as there is sufficient uncovered coal to meet the needs of private users and provide an adequate reserve. Since the close of the year, the winning of coal for private consumption has been discontinued, and the mine closed down.

BORING.

Boring operations were continued during the year, to further test the value of the deposits in the territory. In all, 24 bores, aggregating 6,331 feet, were put down, mainly in the area south of the town, and adjacent to the Prince's Highway and the branch railway line. The results were highly satisfactory, both with regard to the depth of overburden and coal and the quality and regularity of the deposit.

ELECTRICITY SUPPLY.

YALLOURN "A" POWER STATION.

Maximum load during year ended 30th June, 1930	**61,000 kw.**
Total units generated during year ended 30th June, 1930 ..	**301,806,830 kwh.**
Total units purchased from Briquetting Factory during year ended 30th June, 1930	**8,822,670 kwh.**
Total	**310,629,500 kwh.**

The total output, which is a little higher than that of the previous year, represents a load factor of 57 per cent., which is also a little higher than last year's figure. Two interruptions took place at the station during the year, one being due to the breakdown of a generator field winding and the other to a failure of a lead-covered cable connecting one of the generators to its appropriate switch. In each instance, supply was rapidly restored. Apart from these two mishaps, the year registered another period of excellent performance by the station.

Boiler Plant.—The development of firing equipment along the lines described in previous reports, and aiming mainly at increasing the output of the boilers when employing high-moisture coal, was actively continued during the year, when the following work was carried out :—

(1) Provision of mechanical step grate, with coal drying shaft and oil-pressure drive on No. 7 boiler.

(2) Provision of duplex air heaters and two new forced draught fans on No. 8 boiler.

(3) Completion of similar equipment on No. 9 boiler.

(4) Installation of large coal-drying shafts with improved runners on induced draught fans on Nos. 1, 4, and 11 boilers.

(5) Material made and delivered for the equipment of No. 5 boiler with duplex air heaters.

(6) Material made and delivered and the major part of erection done upon the installation of tubular air heater and oil pressure drive for grate operation of No. 6 boiler.

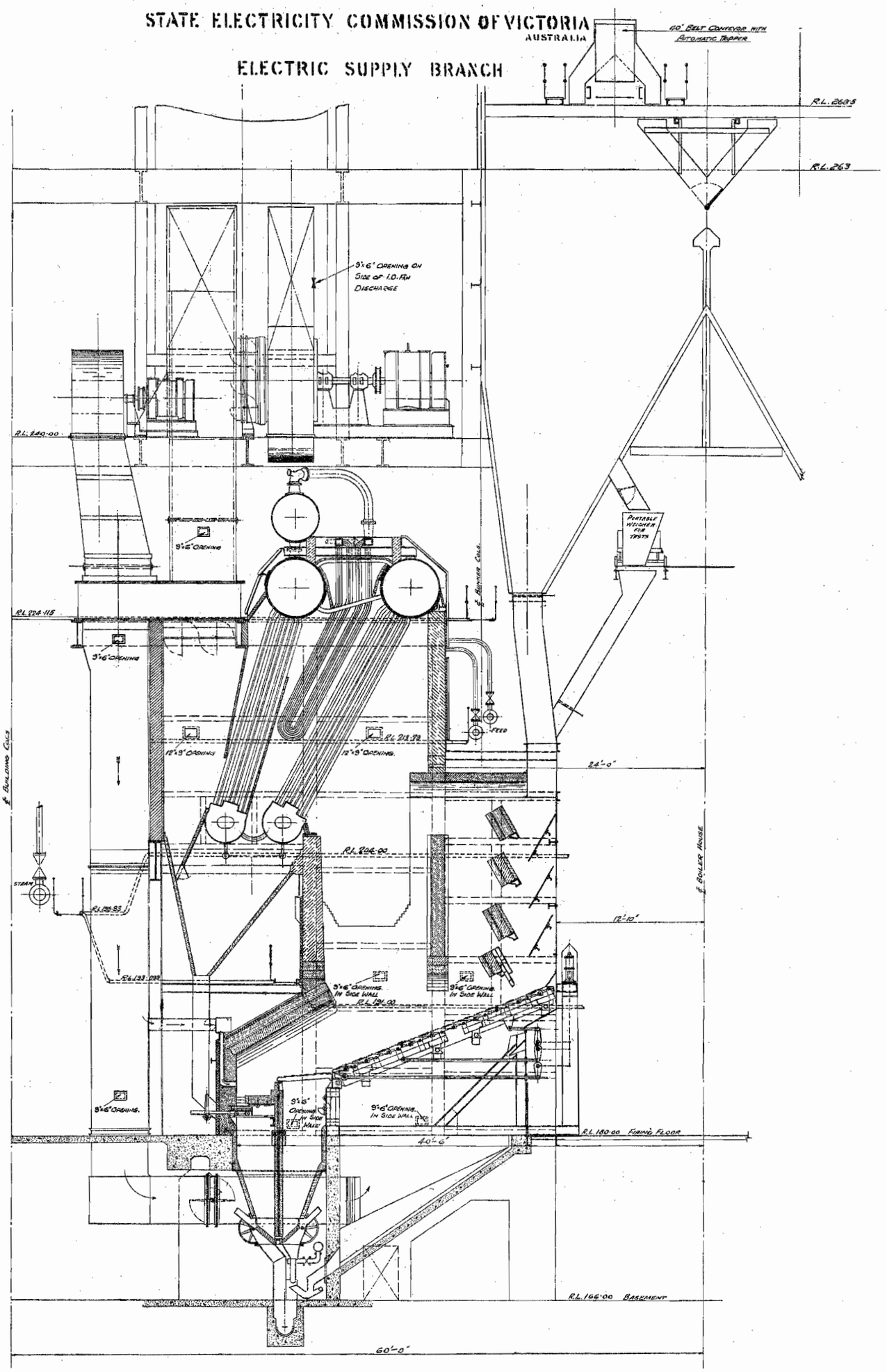
(7) Minor alterations in such matters as air distribution to grates, baffle arrangements, instrument panels, &c.

These adjustments to the equipment practically complete the programme of improvements in No. 1 boiler house, and plant is now such that the maximum output of any one boiler burning the Yallourn open-cut coal with 65 per cent. moisture is in excess of its rated capacity of 75,000 lbs. of steam based on coal with 45 per cent. moisture. In fact, the combustion rates attained in the case of No. 6 boiler are claimed to be a world's record, since 107 lbs. of coal per square foot of grate area, with a moisture content of 65·4 per cent., was burned to give an output of 96,097 lbs. of steam per hour. This result is all the more satisfactory, because it is entirely due to innovations in the combustion process originating from and designed by the Commission's own staff, and which are therefore peculiar to certain boiler units of the Yallourn power station. The boiler in question was provided with a Seyboth grate, small drying shaft, corrugated preheater and a combustion chamber designed so that forced draught can be efficiently applied under the grates. A hearth at the rear of the grates and devices for the provision of secondary air are important features of the improvements, and are instrumental in achieving the record combustion results referred to.

On No. 7 boiler (the inclined step grate of which was designed by the Commission's staff and manufactured locally), one of the major achievements has been the installation of a grate in a restricted space with only very minor alterations to the firing floor and without any excavations in the basement. The oil-pressure driving gear installed on this boiler has been an unqualified success ; consequently, at the present time the original mechanical gear-box drive on the grates of No. 6 boiler is being replaced by an oil-pressure drive designed by the Commission and manufactured locally. The results obtained since the improvements on No. 7 boiler were brought into operation have been extremely satisfactory, and have facilitated decisions on certain important matters held in abeyance when designing the firing equipment of the new boiler house for the extended station (Yallourn "B"). In the planning of the extension boiler plant several new avenues have been explored, and it is anticipated that the extension boilers will register an even better performance in the combustion of raw brown coal than those already recorded by the Commission.

STATE ELECTRICITY COMMISSION OF VICTORIA
AUSTRALIA

ELECTRIC SUPPLY BRANCH



YALLOURN POWER STATION (EXTENSIONS)

NO 2 BOILER HOUSE

SECTIONAL ELEVATION THROUGH BOILER

The sectional elevation of one of the units of the boiler house is illustrated on the opposite page. From this it will be apparent that the grate and combustion chamber are arranged so as to obtain the maximum amount of drying area, first in the vertical shaft and then on the inclined grate surface. The horizontal slagging grate at the lower end has been designed to burn an extremely large amount of dry coal per unit area, with a forced draught of 1½ in. W.G., under the grate, and a negative pressure of ½ in. over the grate. The high rate of combustion on the slagging grate necessitated a special study of methods for preventing an undue loss caused by flying particles lifted off the fuel-bed, and resulted in a unique design of hearth and secondary air ducts, the latter supplying preheated air at temperatures up to 600° F. It is anticipated that little improvement can be effected in the portion of the grates burning the dried coal, and that future developments will be mainly in the direction of improving the portion of the firing equipment devoted to drying the fuel after entering the furnace.

Newport "B" Power Station.

Maximum load during the year ended 30th June, 1930 ..	**21,000 kw.**
Total units generated during the year ended 30th June, 1930 ..	**50,841,271 kwh.**

The production from this peak-load station was slightly greater than during the previous year.

Richmond Power Station.

Maximum load during year ended 30th June, 1930	**16,200 kw.**
Total units generated during the year ended 30th June, 1930 ..	**21,904,000 kwh.**

This peak-load station operated as the load requirements demanded. The period under review constitutes its first full year of operation.

Sugarloaf–Rubicon Hydro Stations.

Maximum load during the year ended 30th June, 1930 ..	**19,300 kw.**
Total units generated during the year ended 30th June, 1930 ..	**77,922,300 kwh.**

This constitutes the first full year of operation of the Sugarloaf-Rubicon group of stations, but the conditions at the Sugarloaf station were not normal, by reason of the work carried out by the State Rivers and Water Supply Commission in restoring the dam to the desired degree of strength and safety. Of the total output from the group, the mountain streams stations contributed roundly 62,000,000 kwh., and the Sugarloaf station roundly 16,000,000 kwh. The favorable conditions as to water flow under which the mountain streams stations operated during the period somewhat counterbalanced the handicap at Sugarloaf, and the combined contribution to the total system demand was very substantial.

The whole plant operated very satisfactorily throughout the year, under the system of remote control, aided by continuous attention to details in maintenance and operation. An interruption occurred owing to the breakage of a section of the Upper Rubicon race. Repairs were quickly effected, and steps taken to avoid a recurrence.

Yallourn–Yarraville 132,000-Volt Transmission Line.

The high standard of reliability and security that has become characteristic of this line was well maintained during another year of operation. Every insulator was tested during the period with the aislometer, and any defective units replaced. The effectiveness of the vibration dampers fitted during previous years was further demonstrated by the operation of the line, and no development of the symptoms accompanying vibration occurred. A brief interruption took place during the period, owing to a flash-over of a string of insulators on No. 3 line at a time when No. 4 was out of service for maintenance purposes. This is the first failure of any kind during nearly five years of operation.

Yallourn–Richmond 132,000-Volt Transmission Line.

The construction of this line was carried out according to schedule, and was completed soon after the close of the period under review. The transmission of energy to the new terminal station at Richmond has been thus provided for as far as the initial block of power is concerned, and furthermore a very desirable addition and standby to the original 132,000-volt circuits has been made avalable.

Newport to Yarraville 22,000-Volt Cables.

The underground cables and overhead lines constituting this section again operated without interruption.

Thomastown–North-Eastern 66,000-Volt Transmission Line.

This line, which serves to transmit energy from Rubicon " A " sub-station and Sugarloaf station to Thomastown terminal station, as well as to the North-Eastern district, is second only in importance to the main 132,000-volt lines. It is subject to the same system of patrol and maintenance, and during the year no faults of any kind were recorded.

TERMINAL STATIONS.

Yarraville.—Excepting for a 120,000-volt bus fault in December, 1929, the continuous operation of this station was not interrupted during the year.

Thomastown.—This station also operated satisfactorily throughout the year.

Richmond.—Substantial progress was made with the construction of this station, and at the date of this report it was approaching completion.

METROPOLITAN DISTRIBUTION SYSTEM.

The work of augmenting the capacities of sub-station " J " (Spencer-street) and sub-station " B " (Collingwood), referred to in the Tenth Annual Report, was put in hand and practically completed during the year.

The work of connecting Richmond terminal station to the 22,000-volt distribution system proceeded steadily, and the laying of two 22,000-volt power and two pilot cables from that station to sub-station " B " was completed, while the erection of an additional 22,000-volt overhead line between Richmond terminal station and sub-station " K " was almost completed. Two 6,600-volt cables were laid from sub-station " B " to the Melbourne and Metropolitan Tramways Board's sub-station in Young-street, Fitzroy.

Plans for controlling the system from Richmond were furthered, and details of remote metering and load indication finalized.

Following upon a thorough investigation of the design and manufacture of 22,000-volt trifurcating boxes, an improved design was evolved. It is wholly of local manufacture, and will be used on all new works.

Regular testing and maintenance of cables, lines, switches, transformers, meters, relays, &c., which comprise the metropolitan distribution system were rigidly observed throughout the year. Breakdown of plant was thus reduced to a minimum, and on the few occasions when faults developed, the extent of the interruption to service and of the damage done to apparatus was limited by the successful functioning of the oil circuit-breakers and protective equipment.

MAIN DISTRIBUTION AND SUB-STATIONS.

South-Western District.—Material was ordered for the duplication of the Belmont-Colac section of the 44,000-volt main transmission line, and for increasing the capacity of the main step-up station at Belmont to 3,000 k.v.a. and the Terang sub-station to 750 k.v.a. Two partial interruptions of supply, owing to insulator failures, and one total interruption, due to a fault at the main step-up transformer at Belmont, occurred during the year. Generally, however, the performance of the line and sub-stations was very satisfactory.

Gippsland District.—In no instance during the year was there a total interruption of supply due to failure of any part of the Gippsland transmission lines or any of the sub-stations. Two or three partial interruptions were all that took place throughout the whole district.

North-Eastern District.—The total duration of interruptions during the period was 28 minutes, and they were all due to causes external to the line itself.

Castlemaine District.—The Kyneton–Castlemaine section of the 66,000-volt transmission line, which will ultimately serve the North-Central and North-Western areas of the State, was completed. It was put into commission at 22,000 volts. After some minor initial troubles, this line gave excellent performances.

MAIN AND BRANCH DISTRIBUTION SYSTEMS—DISTRICT UNDERTAKINGS.

Metropolitan and Extra-Metropolitan.

Essendon–Flemington.—The total capacity of distribution sub-stations in the Essendon–Flemington district has reached 8,000 k.v.a., and at the close of the year 43 sub-stations were in operation. Continuity of supply was further secured and operations facilitated by the provision of a tie feeder between North Essendon and Pascoe Vale, connecting two of the main radial feeders from sub-station " D " (Ascot Vale).

Melbourne and Extra-Metropolitan.—These areas are now catered for by a total of 24 sub-stations, aggregating 7,700 k.v.a.

Country Districts.

South-Western.—Six new sub-stations were installed during the year, bringing the total number to 76, aggregating 3,397 k.v.a.

Gippsland District.—Supply was given during the year to Garfield, Cloverlea, and the State Rivers and Water Supply Commission at Heyfield, while the supply at Ruby was converted from single to three-phase. Works were initiated for extending supply to Bena, Loch, Poowong, Jumbunna, Kongwak, Wiseleigh, Mossiface, Bruthen, and Swan Reach. At the date of this Report, these centres were all enjoying service. Seven sub-stations were erected during the year, bringing the total in the district to 85, representing 3,760 k.v.a.

North-Eastern.—Six new sub-stations, with a combined capacity of 840 k.v.a., were erected during the year. The district is now served by 53 sub-stations, with a total capacity of 4,105 k.v.a.

Eastern-Metropolitan.—Additional mains and sub-stations were erected during the year, bringing the total number of sub-stations in the district to 130, aggregating 5,367 k.v.a.

Castlemaine District.—During the year, Woodend, Kyneton, and Castlemaine were connected to the Commission's system. The conversion of the system at Castlemaine from D.C. to A.C., which was approaching completion at the close of the year, has since been finalized. The number of sub-stations increased during the year from 10 to 34, and their combined capacity from 325 k.v.a. to 1,315 k.v.a.

WATER POWER INVESTIGATIONS.

Investigations into the water power resources of the State were continued during the year, schemes offering favorable prospects for early development receiving special attention.

Work on the Kiewa scheme has been supplementary to previous investigations, and has included borings to test the rock formation at possible dam sites.

The possibilities of the Hume Reservoir, which is due for completion to the million and a quarter acre-feet capacity in 1932, were closely studied, in relation to the question of combining this source of power with developments on the Mitta River. The results were encouraging, and the investigations are to be continued.

An analysis of survey information previously obtained on the Snowy River has given sufficiently promising results to warrant a continuance of the investigations into this possible source of power. It will, however, be necessary to obtain much more complete records of stream flow before a reliable estimate of the possibilities can be arrived at.

The recording of flow on all streams under consideration was continued during the year, as such records are of supreme importance. The only really satisfactory method of securing such records is by means of a clock-operated recording gauge, and, as circumstances permit, such instruments are being installed on the more important streams. This type of gauge is now being manufactured locally, in collaboration with the Commission's staff.

At the end of the year, 21 regular gauging stations, including six of the automatic recording type, were being maintained by the Commission.

BRIQUETTING AND RESEARCH.

The Yallourn factory produced 161,708 tons of briquettes during the year, an increase of 20,664 tons on the output of 141,044 tons for the preceding year. The average output per working day was approximately 470 tons.

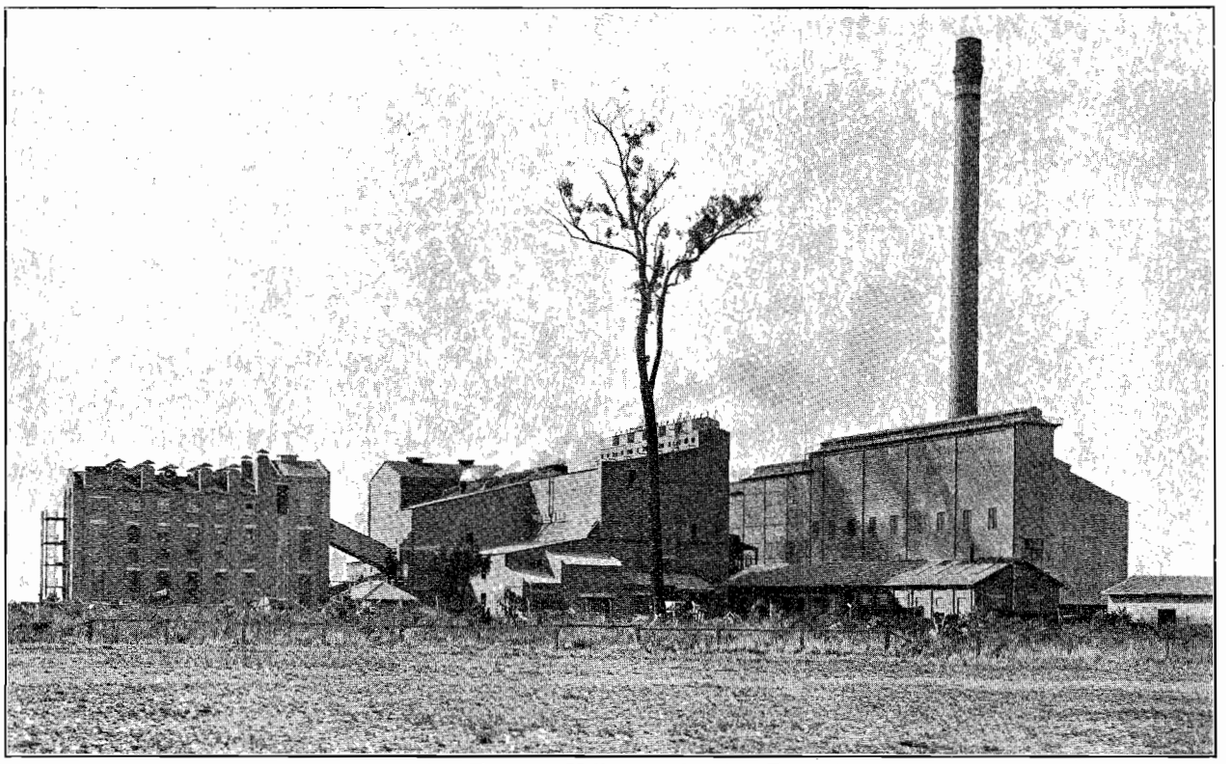
In order to help as far as possible to meet the shortage of briquettes, the factory operated continuously throughout the year, including Sundays, except for monthly stoppages of about eight hours each for inspection and minor repairs, for the annual shut-down at Christmas for general overhaul, and the usual Easter holidays.

The hope expressed in last year's report, that portion of the new factory extensions would be in operation before the winter of 1930, was realized. Two 1,600 sq.m. coal driers, with conveyors and accessories, were brought into operation on the 22nd April, 1930, enabling the output to be increased to approximately 600 tons per day. Except for some minor preliminary troubles, this plant functioned satisfactorily.

Considerable progress was made on the construction of the factory extensions. It is expected to have all the new plant in operation before the close of the calendar year.

Following is a brief description of the extensions and additions which have been or are to be made to the different sections of the factory :—

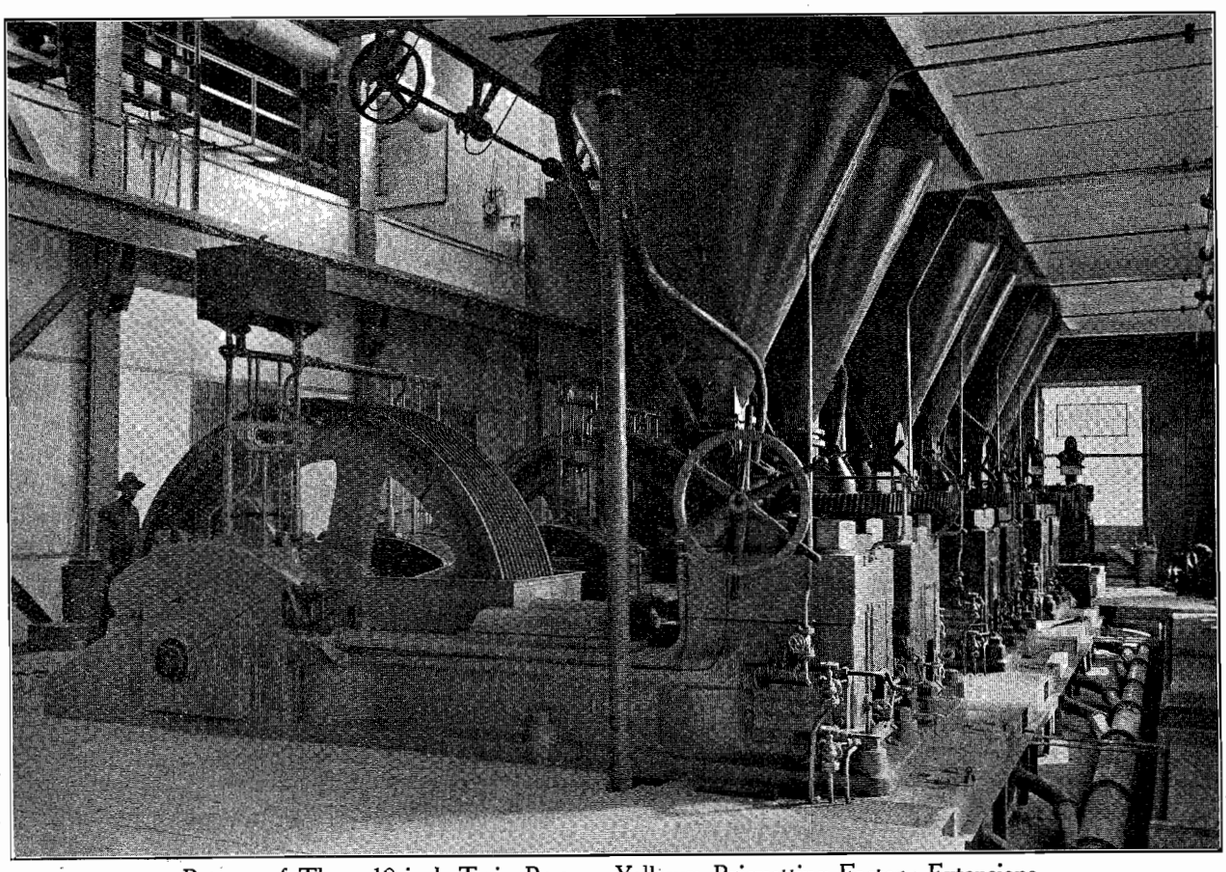
In the coal-handling section, additional belt conveyors have been provided and the existing belts speeded up to cope with the increased quantities of coal to be transported. A large magnetic pulley, 40 inches in diameter, has been installed as a head pulley on the main incoming conveyor, in order to protect the crushing and screening plant from tramp iron which may find its way into the coal.



Briquetting Factory, Yallourn, showing Extensions.

The wet preparation section will be equipped with two motor-driven hammer mills, each of 50 tons per hour capacity, to crush the oversize from the existing crushing and screening systems to briquette coal texture.

The drier house has been extended to twice its original length to accommodate six rotary steam coal driers (each of 17,100 square feet heating surface) and accessory plant. Each drier is nearly 12 feet in diameter, 26 feet long over the shell and weighs 83 tons. The bunkers above the driers hold seven hours' supply of moist fine coal. Each drier will evaporate about 17,000 lb. of water per hour. The dust contained in the flue gases of the six driers is recovered with electrical precipitation plant. The high voltage direct current required is obtained from a high tension room equipped with three-phase mechanical rectifiers, transformers, and switchgear. A secondary screen and roll crusher, capable of dealing with 1,000 tons of coal per 24 hours, receives the coal from the driers and screens out and crushes the oversize.



Battery of Three 10-inch Twin Presses, Yallourn Briquetting Factory Extensions.

The extended press house conforms to the new drier house in length. The new pressing plant comprises three 10-inch twin presses and two triple " dice " briquette presses, all rope-driven by electric motors. Each twin press weighs 96 tons and will produce up to 200 tons per day of household or large industrial briquettes; each triple press weighs 27 tons and will make up to 90 tons per day of small industrial briquettes.

The press motors are installed in the press house basement, which is supplied with clean air from a viscous oil filter, the pressure in the motor room being slightly positive to prevent the entrance of dust. The press motors are of the wound motor induction type, operating on the 6,600-volt, 3-phase, 50-cycle supply. The three motors driving the twin presses are each 320 horse-power; the two driving the triple presses 155 horse-power. The motors are remotely controlled from a control pillar at the press head. The speed of the motor can be reduced up to 25 per cent. by the insertion of rotor resistance.

The western half of the cooling house, built in 1924, at the same time as the first half of the factory, is being completely equipped with cooling plant consisting of 18 sets of cooling louvres, automatic coal feeders to regulate the flow of coal from the louvres to the delivery conveyor, forced and induced draught fans for the ventilation of the cooling louvres, overflow bunkers, and a system of screw conveyors for the transport of coal to and from the cooling house.

The factory will be equipped with a series of dust extraction systems for the recovery of dust from screw conveyors, drum screens, presses, hoppers, &c. These systems comprise fans, cyclone separators for the recovery of the bulk of the dust in a dry state, and spray towers for the removal of the remainder in the form of sludge.

The briquettes from the twin presses will be push-conveyed in steel launders a distance of 450 feet to two transverse belt conveyors, which will discharge to railway trucks under cover. The output of the triple presses will be transported to the same transverse belts by a series of belt conveyors travelling at slow speed to permit the briquettes to cool en route. Provision is made also for a storage shed of 4,000 tons capacity.

An additional four sets of railway sidings have been installed for the Commission by the Railways Construction Branch. These, together with two existing lines on the west side of the existing loading shed, will terminate at a motor-driven truck traverser, which is designed to move trucks from any one line to any other as required.

Steam required by the coal driers will be generated in four boilers, each of 7,180 square feet heating surface, operating at 600 lb. per square inch gauge pressure. These new boilers are housed in an extension to the existing boiler house. Each boiler has an economizer of the Foster gill-tube steaming type with a heating surface of 7,776 square feet, and will evaporate 51,500 lb. of steam per hour normally and 58,000 lb. maximum. Interdeck superheaters of the convection type are installed, giving an exit steam temperature at the boiler stop valve of 750° F. The boilers have stationary inclined step grates with vertical pre-drying shafts and are operated with mechanical draught induced by fans direct coupled to two-speed 400-volt induction motors of 100/70 h.p. output. The motors will be started direct on the line on the low-speed winding. The flue gases are discharged to two brick-lined steel stacks 113 feet high. Coal is delivered to the boiler bunkers by belt conveyor.

The pump house has been enlarged to take the auxiliaries required for the new boiler plant. From a large condensate drum receiving condensate from the driers, feed water is drawn to two six-stage high-pressure feed pumps, each of 350,000 lb. per hour capacity, direct coupled to 450 horse-power, 6,600 volt, 3,000 r.p.m. squirrel cage induction motors. A similar pump driven by a 450 horse-power steam turbine is also provided, as a standby. Make-up water will be drawn from a combined hotwell and feed water treatment tank. A motor-driven four-stage feed pump of 150,000 lb. per hour capacity will normally provide all feed for the original 260 lb. boiler plant.

Extensions have been made to the turbine house to take two 10,000 kw. back pressure turbo-generators and accessory plant, to which steam will be delivered at 550 lb. per square inch gauge and 725° F. The turbines are designed to exhaust at pressures from 30 lb. to 60 lb. gauge to accord with the varying requirements of the factory. A thermostatically controlled desuperheater will treat the turbine exhaust under special conditions of operation.

The new generating plant consists of two 11,000 volt, 3-phase, 50 cycle, 3,000 r.p.m. alternators, each rated at 10,000 kw. at 90 per cent. power factor. Each machine is provided with a voltage regulator and multipoint temperature indicator. A viscous oil filter is installed in the foundation of each alternator to provide clean cooling air.

As the factory will operate in parallel with the Yallourn power station—and in order to provide for future extensions—11,000 volt switchgear with a rupturing capacity of 750,000 k.v.a. has been installed, and is of the single busbar metalclad type, electrically operated. Provision has been made for the installation of a duplicate busbar at a future date.

The control panels for the 11,000 volt switchgear and the manually operated 6,600 volt and 400 volt switchgear are installed in the switch house at the end of the turbine house; the 11,000 volt switchgear is installed in the basement.

A 125 volt storage battery of 200 amp. hour capacity provides power for operating the switchgear and indicating lamps and also emergency lighting in the case of failure of the main power supply.

The factory power is supplied by two banks of transformers—

(*a*) Twc—3,300 k.v.a., 11,000–6,600 volt.
(*b*) Three—750 k.v.a., 6,600–415 volt.

All transformers are of the outdoor 3-phase self-cooled type.

The motors in the factory above 100 horse-power operate at 6,600 volts, all others being connected to the 400 volt supply.

The whole of the distribution is carried out in three core paper insulated lead covered steel tape armoured cables ; the cables are run in concrete ducts from the switch house to the various sections.

The distribution switchgear is of the metalclad flame-proof draw-out type ; the switches are interchangeable. The motors, in general, are totally enclosed or pipe ventilated machines. The motor control equipment is of the oil immersed ironclad dustproof type except in the cooling house, where flame-proof gear is installed. Owing to the dusty conditions inseparable from briquetting, dust-tight gear has been used generally.

The factory will be connected to the Yallourn power station by a double circuit overhead transmission line. It is anticipated that approximately 8,000 kw. will be available for delivery to the main system.

When the extensions come into full operation, four different shapes of briquettes will be manufactured to meet the varying requirements of customers, viz., the well-known two-piece " H " and four-piece " I " brands, a seven-piece briquette, also made on 10-in. presses, with the brand " N," and still smaller " dice " briquettes, to be made in the new triple presses, with the brand " D." The average output of the enlarged factory is expected to be about 1,200 tons per day.

STAFF.

The Commission has pleasure in once more placing on record its appreciation of the loyal and efficient services rendered during the year by its officers and employees.

(Sgd.) JOHN MONASH, Chairman.

THOMAS R. LYLE, Commissioner.

ROBERT GIBSON, Commissioner.

F. W. CLEMENTS, Commissioner.

(Sgd.) W. J. PRICE,
Secretary.

20th October, 1930.

APPENDIX No. 1.

AUDITOR-GENERAL.—VICTORIA.

Melbourne.

AUDITOR-GENERAL'S CERTIFICATE.

I certify that the accounts have been examined with the books and vouchers, and I am of opinion the Balance-sheet fairly exhibits a true and correct view of the undertaking at the 30th June, 1930. The values of the stores have been accepted on the certificates of the storekeepers.

J. A. NORRIS,
Auditor-General,
13th October, 1930.

STATE ELECTRICITY COMMISSION OF VICTORIA.

GENERAL BALANCE-SHEET AS AT 30TH JUNE, 1930.

LIABILITIES.

	£	s.	d.	£	s.	d.
CAPITAL EXPENDITURE AUTHORIZED BY PARLIAMENT UNDER—						
LOAN ACT No. 3029	355,000					
,, ,, 3101	1,430,000					
,, ,, 3160	2,006,000					
,, ,, 3234	1,576,000					
,, ,, 3306	1,447,000					
,, ,, 3381	1,569,500					
,, ,, 3433	1,841,000					
,, ,, 3478	1,918,334					
,, ,, 3565	1,750,000					
,, ,, 3606	2,050,000					
,, ,, 3831	1,874,000					
	17,816,834					
EXPENDITURE UNDER ABOVE ACTS				10,571,203	10	3
ADD EXPENDITURE UNDER TREASURY ACT 3274/3200				2,500,000	0	0
ADD EXPENDITURE UNDER TREASURY ACT 3345/3300				1,500,000	0	0
ADD EXPENDITURE UNDER TREASURY ACT 3598/3200				1,213,247	19	4
ADD EXPENDITURE UNDER TREASURY ACT 3825/3200				725,852	1	3
LIABILITY ON ACCOUNT OF LOAN FUNDS						16,510,303 10 10
ADVANCES BY TREASURY FROM PUBLIC ACCOUNT (SECTIONS 5 AND 6, ACT No. 3239)						142,942 10 4
OTHER ADVANCES						7,500 0 0
DEBENTURES GUARANTEED BY COMMISSION						117,666 14 10
SUNDRY CREDITORS AND ACCRUED CHARGES				135,483	1	10
INTEREST ACCRUED				200,391	17	7
						335,874 19 5
TRUST MONEYS						25,253 19 10
SERVICE CHARGES RECEIVED IN ADVANCE						18,959 10 10
RESERVE ACCOUNTS—						
Melbourne Electric Supply Company Reserve Account	1,487,540	14	3			
Add interest accrued on Investments to 30th June, 1930	27,165	13	2			
				1,514,706	7	5
Electric Supply Company of Victoria Limited Reserve Account	1,113	17	2			
Add Interest accrued on Investments to 30th June, 1930	5	5	6			
				1,119	2	8
Depreciation and Sinking Fund				1,149,250	5	3
Bad and Doubtful Debts				1,889	3	1
						2,666,964 18 5

ASSETS.

	£	s.	d.	£	s.	d.	£	s.	d.
YALLOURN WORKS—									
Power Station, Plant, and Equipment	2,919,477	5	6						
Coal Supply Plant and Equipment	1,876,615	12	5						
Briquetting Plant and Equipment	980,469	13	3						
Town of Yallourn	676,425	17	6						
Township Brown Coal Mine	9,298	3	0						
Lighting Undertakings—Yallourn and Brown Coal Mine	15,829	9	2						
General Plant, Buildings and Equipment—									
Permanent	502,086	9	7						
Temporary	50,798	3	5						
				7,031,000	13	10			
NEWPORT "B" WORKS—									
Power Station Plant and Equipment				774,932	16	10			
RICHMOND WORKS—									
Power Station Plant and Equipment				144,095	8	3			
TRANSMISSION SYSTEMS				928,693	4	1			
TERMINAL STATIONS				782,750	10	0			
TRANSMISSION AND TRANSFORMATION—CENTRAL SUPPLY SYSTEM				948,567	8	9			
SUGARLOAF WORKS—									
Power Station Plant and Equipment				871,005	5	10			
CASTLEMAINE DISTRICT—									
Transmission System	78,616	17	11						
Local Distributing Systems	117,042	9	9						
				195,659	7	8			
EASTERN METROPOLITAN DISTRICT—									
Transmission Systems	58,205	11	2						
Local Distributing Systems	303,681	5	10						
				361,886	17	0			
ESSENDON-FLEMINGTON DISTRICT—									
Local Distributing System				242,892	15	0			
GIPPSLAND DISTRICT—									
Transmission Systems	123,943	10	4						
Local Distributing Systems	205,500	7	2						
				329,443	17	6			
MELBOURNE DISTRICT—									
Distributing Systems				23,405	19	7			
NORTH-EASTERN DISTRICT—									
Transmission Systems	289,922	16	8						
Local Distributing Systems	231,026	5	6						
				520,949	2	2			
SOUTH-WESTERN DISTRICT—									
Transmission Systems	143,404	16	4						
Local Distributing Systems	244,475	10	8						
				387,880	7	0			
WESTERN METROPOLITAN DISTRICT—									
Transmission System	7,884	14	4						
Local Distributing Systems	72,690	13	5						
				80,575	7	9			
SERVICE BUILDINGS AND EQUIPMENT				245,191	3	2			
							13,868,930	4	5
MOTOR AND OTHER VEHICLES							22,707	15	5
ELECTRIC SUPPLY POWER SURVEYS							75	9	1
STORES ON HAND							354,796	15	7
COAL STOCKS ON HAND							2,622	13	10
BRIQUETTE STOCKS ON HAND							4,817	18	10

Sundry Debtors			315,707 11 10
Payments in Advance			465 12 9
Loan Flotation Expenses			195,162 0 3
Miscellaneous Suspense			11,650 4 4
Interest during Construction			641,232 5 1
Amount charged to Commission by Treasury in accordance with Decision of Cabinet, 22nd July, 1922			62,023 6 8
Advances to and Capital Expenditure on behalf of Melbourne Electric Supply Company			1,829,283 2 3
Advances to and Capital Expenditure on Behalf of Electric Supply Company of Victoria Limited			35,454 19 7
Other Advances			1,985 0 0
Melbourne Electric Supply Company Investment Account	1,487,535 0 5		
Add Interest accrued on Investments to 30th June, 1930	27,165 13 2		
		1,514,700 13 7	
Electric Supply Company of Victoria Limited Investment Account	1,107 19 6		
Add Interest accrued on Investments to 30th June, 1930	5 5 6		
		1,113 5 0	
Sinking Fund Investment			160,073 19 3
Victorian Government Stock			10,260 5 2
Cash at Bank and in Hand			14,787 15 3
Profit and Loss Account			777,615 6 4
		£19,825,466 4 6	£19,825,466 4 6

There is a contingent asset and liability in respect of securities lodged as bona fides under Contracts to the extent of £39,092 17s. 0d., and held by the Bank on the Commission's behalf.

R. LIDDELOW,
Commercial Manager.

STATE ELECTRICITY COMMISSION OF VICTORIA.

GENERAL PROFIT AND LOSS ACCOUNT FOR YEAR ENDED 30TH JUNE, 1930.

Dr.	£ s. d.	£ s. d.	*Cr.*	£ s. d.	£ s. d.
To *Expenditure*—			By *Revenue*—		
Electric Supply—			Electric Supply—		
Purchased Power	56,310 5 7		Bulk Supply	1,079,383 5 1	
Generation and Transmission Systems	1,233,918 8 0		Street Lighting	33,393 0 0	
Distribution Systems	274,132 12 6		Domestic	196,026 1 10	
Bulk Supply Expenses	2,156 5 1		Industrial Large	117,451 6 6	
	1,566,517 11 2		Industrial Small	45,149 13 6	
Deduct Cost of Power transferred to Works	12,379 17 5		Commercial	139,331 18 6	
		1,554,137 13 9	Miscellaneous	16,184 17 11	
Briquette Works—				1,626,920 3 4	
Manufacturing and Selling	269,764 2 4		*Add* Meters unread 30th June, 1930, and Service Charges received in advance 30th June, 1929	35,380 11 7	
Add Briquettes on hand 30th June, 1929	12,598 13 4			1,662,300 14 11	
	282,362 15 8		*Deduct* Meters unread 30th June, 1929, and Service Charges received in advance 30th June, 1930	38,044 19 6	
Deduct Cost of Briquettes transferred to Works	1,391 6 2				1,624,255 15 5
		280,971 9 6	Briquette Works—		
Brown Coal Mine—			Briquette Sales	272,239 11 3	
Winning and Selling	15,678 13 11		*Add* Briquettes on Hand 30th June, 1930	4,817 18 10	
Deduct Cost of Coal transferred to Works	5,706 6 5				277,057 10 1
		9,972 7 6	Brown Coal Mine		9,153 6 5
Sinking Fund Contributions		19,264 9 8			1,910,466 11 11
Loan Flotation Expenses		6,061 4 10			
Special Writings Off		34,793 6 8			
Profit carried down		5,266 0 0			
		1,910,466 11 11	By Balance Brought Down		5,266 0 0
To Balance as at 30th June, 1929		782,881 6 4	Balance 30th June, 1930, carried to Balance-sheet		777,615 6 4
		782,881 6 4			782,881 6 4

EXPENDITURE OUT OF CONSOLIDATED REVENUE 1ST JULY, 1929, TO 30TH JUNE, 1930.

	£ s. d.		£ s. d.
To Expenditure—		By Treasury Account—	
Salaries	1,560 0 0	Division 71/1	8,637 15 10
Power Investigations	3,899 15 3	Division 71/2	3,199 18 6
Licensing of Wiremen	820 2 8	Division 71/3	30 7 4
Electric Inspection	5,339 1 5		
Research Work	249 2 4		
	11,868 1 8		11,868 1 8

STATE ELECTRICITY COMMISSION OF VICTORIA.

DISTRICT UNDERTAKINGS.

PROFIT AND LOSS ACCOUNT FOR YEAR ENDED 30TH JUNE, 1930.

—	Castlemaine District.	Eastern Metropolitan District.	Essendon-Flemington District.	Gippsland District.	Melbourne District.	North-Eastern District.	South-Western District.	Western Metropolitan District.	Total.
EXPENDITURE.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
To Generation, Purchase of Energy and Distribution	15,944 13 5	54,982 3 3	83,507 19 1	46,477 10 6	70,247 10 2	54,353 16 0	45,611 0 2	28,795 5 7	399,919 18 2
,, Interest	7,644 1 1	18,561 7 9	11,803 17 2	16,378 18 8	2,035 11 0	26,832 14 3	19,915 15 7	4,310 7 5	107,482 12 11
,, Depreciation	706 10 6	7,942 2 6	5,112 19 1	7,380 17 8	596 0 0	11,377 4 2	8,151 19 3	1,853 19 10	43,121 13 0
,, Bad and Doubtful Debts	34 3 11	225 17 5	214 8 5	90 8 6	..	123 18 7	91 19 6	36 4 10	817 1 2
Total	24,329 8 11	81,711 10 11	100,639 3 9	70,327 15 4	72,879 1 2	92,687 13 0	73,770 14 6	34,995 17 8	551,341 5 3
INCOME.									
By Sales	23,866 11 9	86,766 16 8	121,130 14 3	69,057 16 6	57,921 18 7	99,143 13 7	72,940 19 7	29,972 9 9	560,801 0 8
Total	23,866 11 9	86,766 16 8	121,130 14 3	69,057 16 6	57,921 18 7	99,143 13 7	72,940 19 7	29,972 9 9	560,801 0 8
Profit Transferred to Head Office	..	5,055 5 9	20,491 10 6	..	..	6,456 0 7	..	..	32,002 16 10
Loss Transferred to Head Office	462 17 2	..	..	1,269 18 10	14,957 2 7	..	829 14 11	5,023 7 11	22,543 1 5

DISTRICT UNDERTAKINGS.

BALANCE-SHEET AS AT 30TH JUNE, 1930.

—	Castlemaine District.	Eastern Metropolitan District.	Essendon–Flemington District.	Gippsland District.	Melbourne District.	North-Eastern District.	South-Western District.	Western Metropolitan District.	Total.
ASSETS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Transmission Systems	78,616 17 11	58,205 11 2	..	123,943 10 4	..	289,922 16 8	143,404 16 4	7,884 14 4	701,978 6 9
Local Distributing Systems	117,042 9 9	303,681 5 10	242,892 15 0	205,500 7 2	23,405 19 7	231,026 5 6	244,475 10 8	72,690 13 5	1,440,715 6 11
Interest during Construction	1,544 16 5	981 5 4	..	2,233 10 11	347 13 0	6,425 6 5	4,796 3 6	201 15 8	16,530 11 3
Stores on Hand	4,641 15 11	10,627 7 0	4,037 16 1	10,130 8 3	..	12,702 17 10	9,132 11 11	1,497 15 3	52,770 12 3
Sundry Debtors	6,651 5 2	14,939 15 11	16,073 2 5	9,668 16 1	8,479 9 9	14,610 2 7	11,612 6 11	3,730 8 10	85,765 7 8
Payments in Advance	..	13 17 4	3 18 10	..	..	..	16 15 0	..	34 11 2
Victorian Government Stock	2,886 15 6	382 8 9	..	3,401 9 6	..	3,533 9 8	56 1 9	..	10,260 5 2
Cash at Bank and in Hand	137 1 0	289 16 6	305 3 1	99 9 7	..	318 13 9	836 10 10	75 12 8	2,062 7 5
	211,521 1 8	389,121 7 10	263,312 15 5	354,977 11 10	32,233 2 4	558,539 12 5	414,330 16 11	86,081 0 2	2,310,117 8 7
LIABILITIES.									
Sundry Creditors and Accrued Charges	21,186 14 9	38,681 8 4	1,168 0 0	12,012 18 4	48 15 0	41,492 9 3	10,183 4 11	2,676 11 0	127,450 1 7
Interest Accrued	2,466 9 0	4,413 8 2	2,552 3 2	3,816 1 8	513 2 6	6,199 6 2	4,656 5 6	1,039 13 11	25,656 10 1
Trust Moneys	305 12 9	6,036 0 8	3,218 16 6	1,124 1 8	..	1,441 9 9	1,615 16 2	499 5 8	14,241 3 2
Service Charges received in Advance	1,059 6 10	2,406 19 10	3,448 0 0	3,546 0 0	59 7 5	4,603 17 10	2,920 0 0	915 18 11	18,959 10 10
Reserves—									
Depreciation and Sinking Fund	1,715 16 4	20,478 15 3	35,375 5 7	23,049 11 5	2,646 7 9	30,898 13 9	33,151 2 0	5,863 12 1	153,179 4 2
Bad and Doubtful Debts	37 11 8	101 5 4	..	196 15 5	..	259 18 2	207 11 2	81 5 6	884 7 3
Balance carried to General Balance-sheet	184,749 10 4	317,003 10 3	217,550 10 2	311,232 3 4	28,965 9 8	473,643 17 6	361,596 17 2	75,004 13 1	1,969,746 11 6
	211,521 1 8	389,121 7 10	263,312 15 5	354,977 11 10	32,233 2 4	558,539 12 5	414,330 16 11	86,081 0 2	2,310,117 8 7

STATE ELECTRICITY COMMISSION OF VICTORIA.

STATEMENT OF CAPITAL EXPENDITURE.

—	Expended to 30th June, 1929.	Total at 30th June, 1929.	Additional for Year 1929-30.	Total for Year 1929-30.	Expended to 30th June, 1930.	Total at 30th June, 1930.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
YALLOURN WORKS—						
Power Station Plant and Equipment	2,582,454 12 2		337,022 13 4		2,919,477 5 6	
Coal Supply Plant and Equipment	1,676,360 17 8		200,254 14 9		1,876,615 12 5	
Briquetting Plant and Equipment	616,406 7 11		364,063 5 4		980,469 13 3	
Town of Yallourn	643,385 13 4		33,040 4 2		676,425 17 6	
Township, Brown Coal Mine	9,349 10 5		*Cr.* 51 7 5		9,298 3 0	
Lighting Undertakings—Yallourn and Brown Coal Mine	12,878 5 0		2,951 4 2		15,829 9 2	
General Plant, Buildings and Equipment—Permanent	440,830 3 11		61,256 5 8		502,086 9 7	
General Plant, Buildings and Equipment—Temporary	49,358 3 10		1,439 19 7		50,798 3 5	
		6,031,023 14 3		999,976 19 7		7,031,000 13 10
MAIN SUPPLY SYSTEM—						
Power Station Plant and Equipment—Newport "B"	769,308 2 11		5,624 13 11		774,932 16 10	
Power Station Plant and Equipment—Richmond	133,734 5 9		10,361 2 6		144,095 8 3	
Transmission Systems	729,939 19 4		198,753 4 9		928,693 4 1	
Terminal Stations	618,257 8 11		164,493 1 1		782,750 10 0	
		2,251,239 16 11		379,232 2 3		2,630,471 19 2
TRANSMISSION AND TRANSFORMATION—CENTRAL SUPPLY SYSTEM	856,343 16 8		92,223 12 1		948,567 8 9	
		856,343 16 8		92,223 12 1		948,567 8 9
SUGARLOAF WORKS—						
Power Station Plant and Equipment	866,142 0 4		4,863 5 6		871,005 5 10	
		866,142 0 4		4,863 5 6		871,005 5 10
CASTLEMAINE DISTRICT—						
Transmission System	58,057 9 11		20,559 8 0		78,616 17 11	
Local Distributing Systems	36,553 13 6		80,488 16 3		117,042 9 9	
		94,611 3 5		101,048 4 3		195,659 7 8
EASTERN METROPOLITAN DISTRICT—						
Transmission Systems	57,100 11 9		1,104 19 5		58,205 11 2	
Local Distributing Systems	277,334 15 11		26,346 9 11		303,681 5 10	
		334,435 7 8		27,451 9 4		361,886 17 0
ESSENDON-FLEMINGTON DISTRICT—						
Local Distributing System	227,807 9 4		15,085 5 8		242,892 15 0	
		227,807 9 4		15,085 5 8		242,892 15 0
GIPPSLAND DISTRICT—						
Transmission Systems	119,114 11 8		4,828 18 8		123,943 10 4	
Local Distributing Systems	187,389 0 10		18,111 6 4		205,500 7 2	
		306,503 12 6		22,940 5 0		329,443 17 6
MELBOURNE DISTRICT—						
Distributing System	25,373 17 5		*Cr.* 1,967 17 10		23,405 19 7	
		25,373 17 5		*Cr.* 1,967 17 10		23,405 19 7
NORTH-EASTERN DISTRICT—						
Transmission Systems	290,316 4 1		*Cr.* 393 7 5		289,922 16 8	
Local Distributing Systems	214,766 2 9		16,260 2 9		231,026 5 6	
		505,082 6 10		15,866 15 4		520,949 2 2
SOUTH-WESTERN DISTRICT—						
Transmission System	142,758 0 1		646 16 3		143,404 16 4	
Local Distributing Systems	236,680 15 5		7,794 15 3		244,475 10 8	
		379,438 15 6		8,441 11 6		387,880 7 0

STATE ELECTRICITY COMMISSION OF VICTORIA.—STATEMENT OF CAPITAL EXPENDITURE—*continued.*

—	Expended to 30th June, 1929.	Total at 30th June, 1929.	Additional for Year 1929-30	Total for Year 1929-30.	Expended to 30th June, 1930.	Total at 30th June, 1930.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
WESTERN METROPOLITAN DISTRICT—						
Transmission System	7,884 14 4		..		7,884 14 4	
Local Distributing Systems	69,459 5 10		3,231 7 7		72,690 13 5	
		77,344 0 2		3,231 7 7		80,575 7 9
SERVICE BUILDINGS AND EQUIPMENT—						
Head Office Building, Furniture and Fittings	125,838 15 4		3,048 17 11		128,887 13 3	
Footscray Store, Buildings and Workshop	46,627 11 7		*Cr.* 1,041 0 6		45,586 11 1	
Dandenong Store, Buildings and Workshop	8,580 15 6		*Cr.* 81 10 11		8,499 4 7	
Yarraville Workshops and Laboratory	22,687 9 2		931 0 3		23,618 9 5	
Briquette Depot Equipment	24,343 11 6		1,660 18 4		26,004 9 10	
General Construction Plant and Equipment	4,024 6 11		*Cr.* 130 14 7		3,893 12 4	
South Melbourne Garage and Equipment	8,178 11 9		522 10 11		8,701 2 8	
		240,281 1 9		4,910 1 5		245,191 3 2
MOTOR AND OTHER VEHICLES	23,965 3 0		*Cr.* 1,257 7 7		22,707 15 5	
		23,965 3 0		*Cr.* 1,257 7 7		22,707 15 5
ELECTRIC SUPPLY POWER SURVEYS	991 13 4		*Cr.* 916 4 3		75 9 1	
		991 13 4		*Cr.* 916 4 3		75 9 1
LOAN FLOTATION EXPENSES	187,898 9 4		7,263 10 11		195,162 0 3	
		187,898 9 4		7,263 10 11		195,162 0 3
INTEREST DURING CONSTRUCTION	609,852 1 0		31,380 4 1		641,232 5 1	
		609,852 1 0		31,380 4 1		641,232 5 1
UNALLOTTED EXPENDITURE	..	..	11,650 4 4		11,650 4 4	
				11,650 4 4		11,650 4 4
AMOUNT CHARGED TO COMMISSION BY TREASURY IN ACCORDANCE WITH DECISION OF CABINET, 22ND JULY, 1922	62,023 6 8		..		62,023 6 8	
		62,023 6 8		..		62,023 6 8
	13,080,357 16 1	13,080,357 16 1	1,721,423 9 2	1,721,423 9 2	14,801,781 5 3	14,801,781 5 3

APPENDIX No. 2.

ENERGY GENERATED AND SUPPLIED TO METROPOLITAN AREA 1918–1930.

Year.	Newport "A," Generated.	Melbourne City Council, Generated.	Melbourne Electric Supply Company, Generated.	Richmond Generated.	Newport "B," Generated.	Yallourn at Yarraville Terminal Station.	Hydro Generated.	Newport "A" to Yarraville Terminal Station (25 Cycle).	Newport "A" to Melbourne City Council (25 Cycle).	Newport "A" to Melbourne Electric Supply Company (25 Cycle).	Yarraville Terminal Station to Newport "A" (25 Cycle).	Yarraville Terminal Station to Melbourne City Council.	Yarraville Terminal Station to Melbourne Electric Supply Company.	Other Supplies from Terminal Stations, and Richmond Power Station and Losses (including N/E).
	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs	Kw. hrs.	Kw. hrs.
1918	293,400	38,002,182	45,209,890	..	..	..	..	..	..	..	..	..	..	..
1919	19,091,723	39,974,648	50,811,070	..	..	..	..	..	..	..	..	..	..	..
1920	47,868,179	50,673,371	53,869,324	..	..	..	..	..	..	..	..	..	..	..
1921	80,397,774	55,517,920	55,289,970	..	..	..	..	..	..	9,025,350	..	..	..	..
1922	188,910,649	36,898,790	47,543,348	..	..	..	..	..	30,577,273	35,749,700	..	..	..	..
1923	266,532,672	37,348,870	41,542,034	..	16,448,300	..	..	10,524,055	19,741,900	65,714,900	392,700	20,500,000	..	6,079,655
1924	265,472,939	19,993,000	32,310,586	..	61,329,200	20,912,300	..	7,898,800	88,943	80,719,800	4,636,600	58,683,857	4,954,600	26,501,843
1925	251,318,843	17,679,440	28,574,875	..	38,228,900	107,548,364	..	182,700	..	72,232,600	2,705,900	59,522,500	23,210,050	60,521,514
1926	223,421,572	14,638,690	39,412,944	..	44,656,600	164,461,110	..	4,682,500	..	42,344,965	58,800	65,374,300	49,805,677	98,561,433
1927	179,755,507	13,478,850	21,709,481	..	44,946,700	271,500,160	..	1,659,800	..	..	29,100	73,726,500	98,261,910	146,089,150
1928	176,911,804	16,000,960	..	..	50,143,150	279,396,155	36,305,379	3,483,600	..	..	118,100	80,790,500	112,037,068	176,382,616
1929	166,399,013	17,125,650	..	14,039,200	47,483,817	257,481,000	79,322,473	500,500	..	..	70,200	84,980,106	128,062,755	176,918,438
1930 (1st January to 30th June) ..	91,590,759	6,687,170	..	11,339,000	25,485,904	137,794,000	26,427,200	613,800	..	..	5,200	44,421,800	64,435,421	81,211,582

SUMMARY.

Year.	Total Units Generated and Supplied to Metropolitan Area.	Utilized for Railway Traction and Minor 25-cycle Supplies.	Utilized for General and Tramway Purposes.	Total Output from Newport "A" (Generated plus Supply from Yarraville Terminal Station).	Total Generated and Supplied to S.E.C. System (including N/E. System).	Total Output from Melbourne Electric Supply Company (including Supply from S.E.C.)	Total Output from Melbourne City Council.	Total Output from Melbourne Electric Supply Company.
	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs.	Kw. hrs	Kw. hrs.	Kw. hrs.
1918	83,505,472	293,400	83,212,072	293,400	..	45,209,890	38,002,182	45,209,890
1919	109,877,441	19,091,723	90,785,718	19,091,723	..	50,811,070	39,974,648	50,811,070
1920	152,410,874	47,868,179	104,542,695	47,868,179	..	53,869,324	50,673,371	53,869,324
1921	191,205,664	71,372,424	119,833,240	80,397,774	..	64,315,320	55,517,920	64,315,320
1922	273,352,787	122,583,676	150,769,111	188,910,649	..	83,293,048	67,476,063	83,293,048
1923	361,871,876	170,945,122	190,926,754	266,925,372	26,972,355	107,256,934	77,590,165	107,256,934
1924	400,018,025	180,801,996	219,216,029	269,509,539	90,140,300	113,030,386	78,765,800	117,984,986
1925	443,350,422	181,609,443	261,740,979	254,024,743	145,959,964	100,807,475	77,201,940	124,017,525
1926	486,590,916	176,452,907	310,138,009	223,480,372	213,800,210	81,757,909	80,012,990	131,563,586
1927	531,390,698	178,124,807	353,265,891	179,784,607	318,106,660	21,709,481	87,205,350	119,971,391
1928	558,757,448	173,546,304	385,211,144	177,029,904	369,328,284	..	96,791,460	112,037,068
1929	581,851,153	152,599,830	429,251,323	166,469,952	384,989,299	..	107,105,756	128,062,755
1930 (1st January to 30th June)	299,324,039	66,582,439	232,741,600	86,463,984	200,392,675	..	51,108,970	64,435,421

APPENDIX No. 3.

TRANSMISSION LINES—OVERHEAD.

District.	Erected prior to 30th June, 1929.		Erected during Year ended 30th June, 1930.		Total Erected.	
	Route Miles.	Miles of Cable.	Route Miles.	Miles of Cable.	Route Miles.	Miles of Cable.
132,000 Volt Lines	110	660	80	240	190	900
NORTH-EASTERN.						
66,000 Volt Lines	223·7	696·1	..	..	223·7	696·1
22,000 Volt Lines	106·8	447·5	1·5	4·5	108·3	452·0
6,600 Volt Lines	9·7	25·0	..	..	9·7	25·0
SOUTH-WESTERN.						
44,000 Volt Lines	116	348	0·1	0·3	116·1	348·3
22,000 Volt Lines	20·5	61·5	..	..	20·5	61·5
6,600 Volt Lines	135·4	356·1	2·9	7·5	138·3	363·6
GIPPSLAND.						
22,000 Volt Lines	230·6	671·1	1·1	2·2	231·7	673·2
6,600 Volt Lines	13·7	33·6	..	..	13·7	33·6
METROPOLITAN.						
22,000 Volt Lines	137·9	413·7	3·1	9·3	141·0	423·0
6,600 Volt Lines	28·2	84·6	..	..	28·2	84·6
EASTERN METROPOLITAN.						
22,000 Volt Lines	107·3	296·1	3·3	6·5	110·6	302·6
6,600 Volt Lines	67·2	189·8	4·4	10·1	71·6	199·9
WESTERN METROPOLITAN (including Essendon–Flemington).						
22,000 Volt Lines	29	87	..	..	29·0	87·0
6,600 Volt Lines	28·7	86·2	0·8	2·5	29·5	88·7
NORTH-WEST.						
66,000 Volt Lines	29	87	23·5	70·5	52·5	157·5
22,000 Volt Lines	26·1	78·3	11·1	29·4	37·2	107·7

SUMMARY OF OVERHEAD LINE CONSTRUCTION.

Voltage.	Erected prior to 30th June, 1929.		Erected during Year ended 30th June, 1930.		Total Erected.	
	Route Miles.	Miles of Cable.	Route Miles.	Miles of Cable.	Route Miles.	Miles of Cable.
132,000 V.	110	660	80	240	190	900
66,000 V.	252·7	783·1	23·5	70·5	276·2	853·6
44,000 V.	116	348	0·1	0·3	116·1	348·3
22,000 V.	658·2	2,055·2	20·1	51·9	678·3	2,107·1
6,600 V.	283	775·4	8·1	21·6	291·1	797·0
Total	1,419·9	4,621·7	131·8	384·3	1,551·7	5,006·0

UNDERGROUND CABLE OPERATIONS.

Class of Cable.	Route Miles Cable Laid prior to 30th June, 1929.	Route Miles Cable Laid during Year ended 30th June, 1930.	Total Route Miles Cable Laid at 30th June, 1930.
22,000 Volt	92·85	11·137	103·987
6,600 Volt	26·58	2·791	29·371
400 Volt	3·48	·4	3·88
Pilot and Telephone	48·87	7·7	56·57
Supervisory Control Cable	12·8	·064	12·864
Miscellaneous	12·397	·128	12·525
Total	196·977	22·22	219·197

APPENDIX No. 4.

TABLE SHOWING NUMBER AND CAPACITY OF SUB-STATIONS AS AT 30TH JUNE, 1930.

District and Stations.	*No.*		*Kva.*
Terminal Stations	3	..	111,900
Central Supply Transmission Sub-stations	16	..	146,250
Distribution Subs. at Line Voltage	16	..	23,440
Transformer Distribution Sub-stations—			
Melbourne	7	3,105	
Essendon–Flemington	43	8,000	
Extra Metropolitan	19	4,590	
Eastern „	130	5,367	
	—199	———	21,062
WESTERN DISTRICT.			
Transmission Sub-stations	5	..	3,150
Transformer Distribution Sub-stations	76	..	3,397
GIPPSLAND DISTRICT.			
Transmission Sub-stations	3	..	800
Transformer Distribution Sub-stations	85	..	3,760
NORTH-EASTERN DISTRICT.			
Transmission Sub-stations	7	..	9,650
Transformer Distribution Sub-stations	53	..	4,105
CASTLEMAINE DISTRICT.			
Transformer Distribution Sub-stations	34	..	1,315
SUGARLOAF–RUBICON AREA.			
Transformer Distribution Sub-stations	2	..	450
TOWN OF YALLOURN, ETC.			
Transformer Distribution Sub-stations	26	..	6,950
Total Installed	525	..	336,029

APPENDIX No. 5.

METROPOLITAN DISTRICTS SERVED BY STATE ELECTRICITY COMMISSION OF VICTORIA.

District.	Population.	System of Supply.	Number of Consumers.	Domestic Light and Power.		Other Tariffs
				Service Charge.	Energy Charge.	
Brighton	569,100	A.C., 1 ph., 200–400 v. ..	144,119	*s. d.*		See Standard Metropolitan Tariffs at foot of page-
Collingwood		A.C., 3 ph., 230–400 v. ..				
Camberwell		A.C., 1 ph., 200–400 v. ..				
Caulfield		,, ,, ..				
Cheltenham		,, ,, ..				
Essendon		A.C., 3 ph., 230–400 v. ..				
Flemington		,, ,, ..				
Fitzroy		,, ,, ..				
Hawthorn		A.C., 1 ph., 200–400 v. ..				
Kew		,, ,, ..		1 0	1¼d.	
Mentone		,, ,, ..				
Malvern		,, ,, ..				
Mordialloc		,, ,, ..				
Oakleigh		,, ,, ..				
Prahran		,, ,, ..				
Richmond		A.C., 3 ph., 230–400 v. ..				
St. Kilda		A.C., 1 ph., 200–400 v. ..				
Sandringham		,, ,, ..				
South Melbourne		A.C., 3 ph., 230–400 v. ..				
Sunshine		,, ,, ..				

METROPOLITAN DISTRICTS SERVED BY MUNICIPAL AND PRIVATE UNDERTAKERS AND TAKING BULK SUPPLY FROM COMMISSION.

District.	Population.	Supply Authority.	System of Supply.	Consumers.		Tariffs.
				Lighting.	Other Purposes.	
City of Melbourne	105,200	Melbourne City Council ..	D.C., 230–460 v. / A.C., 3 ph., 230–400 v.	22,411	(total)	The Commission's Standard Metropolitan Tariffs (see statement below) apply in all these centres. The Melbourne City Council has the Standard Two-part Domestic Tariff in operation, but its power tariffs are :—Block Rate : First 500 units in any one month, 1¾d. per unit; next 500 units in any one month, 1d.; all further consumption in any one month, 0·8d. per unit. Restricted Hour Flat Rate : Up to 500 units during any one month, 1¾d. per unit; for next 500 units in any one month, 1d. per unit; for next 9,000 units, 0.8d. per unit; all further consumption, 0·65d. per unit. Maximum Demand Rate : 2d. per unit for the quantity of energy equivalent to 90 hours' use per month of consumers' maximum demand, and 0·3d. per unit for all energy over that quantity.
Brunswick ..	47,000	Brunswick City Council ..	A.C., 3 ph., 230–400 v. ..	10,032	424	
Box Hill ..	15,800	Box Hill City Council ..	,, ,, ..	4,076	..	
Coburg ..	33,000	Coburg City Council ..	,, ,, ..	6,407	93	
Footscray ..	48,000	Footscray City Council ..	,, ,, ..	9,500	(total)	
Heidelberg ..	15,700	Heidelberg Shire Council	,, ,, ..	4,729	1,443	
Northcote ..	39,376	Northcote City Council ..	,, ,, ..	9,515	(total)	
Preston ..	22,000	Preston City Council ..	,, ,, ..	4,000	..	
Port Melbourne	12,000	Port Melbourne City Council	,, ,, ..	1,800	250	
Williamstown ..	20,000	Williamstown City Council	,, ,, ..	4,700	79	

STANDARD METROPOLITAN TARIFFS.

Commercial and Industrial Supplies—Lighting.—Tariff "A" Block Rate for energy consumed between two consecutive monthly meter readings :—

Up to and including 500 kilowatt-hours .. .. 5¾d. per kilowatt-hour.
For all further consumption in the same period .. .. 3d. ,,

Power and Heating.—Tariff "C" Block Rate for energy consumed between two consecutive monthly meter readings :—

Up to and including 500 kilowatt-hours .. .. 2d. per kilowatt-hour.
For the next 4,500 kilowatt-hours .. .. 1¼d. ,,
For the next 20,000 kilowatt-hours .. .. 0·9d. ,,
For all further consumption in the same period .. .. 0·8d. ,,

Tariff "D" Maximum Demand Rate—

Not applicable to any consumer whose monthly consumption is less than 5,000 kilowatt-hours.
For each kilowatt of Maximum Demand recorded during the month in respect of which the charge is made .. .. 17s. per month.
and for all energy consumed .. .. 0·3d. per kilowatt-hour.

Any consumer applying to be charged under this tariff shall be deemed to have agreed to his being charged accordingly for a period of not less than twelve consecutive calendar months.

In the event of the consumption in any one month being less than 5,000 kilowatt-hours, the Commission may thereupon discontinue the application of this Tariff "D."

Tariff "E"—Restricted Hour—Two Rate—

For energy consumed between 10 p.m. and 7 a.m. .. .. 0·5d. per kilowatt-hour.
For energy consumed during other periods of the day of 24 hours .. .. 2d. ,,

Tariff "F"—Commercial Cooking—

For energy consumed in connexion with the use of electric cooking ranges .. .. .. 1¼d. per kilowatt-hour.

Tariff "G"—Domestic.—For all purposes in dwellings, i.e., lighting, heating, cooking, power, &c. Service charge per room per month, payable quarterly in advance, 1s., and for all energy consumed, 1¼d. per kilowatt-hour. No meter rent. Passages, pantries, cupboards, bathrooms, lavatories, cellars, entrance halls, porches, cloak rooms, sculleries, workshops, motor garages and wash-houses, and also vestibules and verandahs (unless such vestibules and verandahs are used as living rooms), are not counted as rooms. Outside lighting is exempt from the service charge, excepting in the cases of lighting for tennis courts, bowling greens and croquet lawns, the service charge for which is 5s. per month for each electrically-lighted tennis court, bowling green and croquet lawn.

Appendix No. 5.—*continued.*

COUNTRY CENTRES SERVED BY STATE ELECTRICITY COMMISSION OF VICTORIA.

District.	Population.	System of Supply. Single-Ph. 230/460-V. Three-Ph. 230/400-V.	No. of Consumers.	Domestic Light and Power.		Commercial Light and Power. (c)		(a) Commercial Power Two-part Tariff. (b) Commercial Power, Restricted Hour Tariff. (See Notes.)				
				Service Charge per Room per Month.	Energy Charge per Unit.	Service Charge per Room per Month.	Energy Charge per Unit.	Service Charge per H.P. per Month.				Energy Charge per Unit.
								H.P., 1–50.	H.P., 51–100.	H.P., 101–200.	H.P., 201–500.	
				s. d.	*d.*	*s. d.*	*d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*d.*
Alexandra	850	A.C., 3 ph.	211	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Allansford	296	A.C., 1 ph.	32	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Altona	1,500	,,	215	1 4	1½	1 10	1½	5 6	5 0	4 6	4 0	1
Alvie, Cororooke, and Warrion	270	A.C., 3 ph. and 1 ph.	70	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Bairnsdale	4,000	A.C., 3 ph.	733	1 3	1½	1 9	1½	5 0	4 6	4 0	3 6	1
Bayswater	450	A.C., 1 ph.	69	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Barnawartha	240	,,	19	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Barwon Heads	600	,,	144	1 6	1½	2 0	1½	6 6	6 0	5 6	5 0	1¼
Beaconsfield	150	,,	11	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Beeac	300	,,	100	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Belgrave	800	A.C., 3 ph.	437	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Bena		,,	27	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Benalla	4,000	,,	567	1 3	1¾	1 9	1¾	5 0	4 6	4 0	3 9	1
Berwick	650	A.C., 1 ph.	203	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Birregurra	400	,,	89	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Boolarra	685	A.C., 3 ph.	48	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Bostock Creek	50	A.C., 1 ph.	18	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Boronia	700	,,	49	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Briar Hill	200	,,	44	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Bruthen	580	,,	..	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Bunyip	600	,,	54	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Camperdown	3,500	A.C., 3 ph.	592	1 3	1¾	1 9	1¾	6 0	5 6	5 0	4 9	1¼
Castlemaine	3,035	,, D.C., 3 wire	708	1 3	1¾	1 9	1¾	6 0	5 6	5 0	4 9	1¼
Chiltern	1,500	A.C., 3 ph.	110	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Clayton	250	A.C., 1 ph.	78	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Cobden	650	A.C., 3 ph.	118	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Cobram	850	D.C.	149	1 6	1¾	2 0	1¾	..	..	..	..	..
Colac	4,800	A.C., 3 ph.	1,092	1 3	1¾	1 9	1¾	6 0	5 6	5 0	4 9	1¼
Cororooke (see Alvie).												
Cowwarr	200	,,	68	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Cranbourne	300	A.C., 1 ph.	80	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Crib Point	150	,,	62	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Croydon	1,500	A.C., 3 ph. and 1 ph.	518	1 0	1¼	1 6	1¼	5 0	4 6	4 0	3 6	1
Dandenong	5,000	,, ,,	1,062	1 2	1¼	1 9	1½	5 0	4 6	4 0	3 6	1
Darnum	100	A.C., 3 ph.	27	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Deer Park	100	,,	13	1 4	1¾	1 10	1¾	6 6	6 0	5 6	5 0	1¼
Dennington	310	A.C., 1 ph.	..	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Diamond Creek	100	,,	..	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Diggers Rest	50	,,	10	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Dingley	100	,,	29	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Dromana	350	A.C., 3 ph.	75	1 6	1¾	1 6	1¾	7 0	6 6	6 0	5 6	1¼
Drouin	850	,,	159	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Drysdale	800	A.C., 1 ph.	67	1 6	1½	2 0	1½	6 6	6 0	5 6	5 0	1¼
Echuca	4,600	A.C., 3 ph.	714	1 3	1¾	1 9	1¾	5 0	4 6	4 0	3 9	1
Eltham	700	A.C., 1 ph.	106	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Evelyn (see Silvan).												
Euroa	2,000	D.C., 230 v	375	1 4	1¾	1 10	1¾	..	..	..	..	..
Ferntree Gully	1,200	A.C., 3 ph. and 1 ph.	160	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Ferny Creek	50	A.C., 1 ph.	16	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Frankston	3,000	A.C., 3 ph.	1,072	1 2	1¼	1 9	1½	5 0	4 6	4 0	3 6	1
Garfield	200	A.C., 1 ph.	48	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Geelong	29,689	A.C., 3 ph. D.C. 3 wire	9,624	1 3	1½	..	..	..	..	..	..	..
Gisborne	770	A.C. 3 ph.	126	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Glengarry	120	,,	18	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Greensborough	930	,,	449	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Hastings and Tyabb	550	A.C., 1 ph.	82	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Heyfield	700	A.C., 3 ph.	125	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Jumbunna	400	,,	..	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Kallista	150	A.C., 1 ph.	29	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Kilsyth	150	,,	32	1 0	1¼	1 6	1¼	5 0	4 6	4 0	3 6	1
Kolora and supply *en route*	..	,,	50	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Kongwak	..	,,	..	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Koroit	2,000	A.C., 3 ph.	201	1 4	1¾	1 10	1¾	6 6	6 0	5 6	5 0	1¼
Korumburra	2,500	,,	550	1 4	1½	1 10	1½	5 6	5 0	4 6	4 0	1
Kyabram	1,700	,,	384	1 4	1¾	1 10	1¾	5 6	5 0	4 6	4 0	1
Kyneton	3,195	,,	620	1 3	1¾	1 9	1¾	6 0	5 6	5 0	4 9	1¼
Lakes Entrance	900	A.C., 1 ph.	108	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Lancefield	600	A.C., 3 ph.	89	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Leongatha	1,700	,,	410	1 4	1½	1 10	1½	5 6	5 0	4 6	4 0	1
Lilydale	1,800	,,	260	1 4	1½	1 10	1½	5 6	5 0	4 6	4 0	1
Loch	130	A.C., 1 ph.	48	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Longwarry	300	A.C., 3 p.h.	36	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Lower Plenty	50	A.C., 1 p.h.	27	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Macedon	250	A.C., 3 ph.	152	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Maffra	2,000	,,	496	1 4	1½	1 10	1½	5 6	5 0	4 6	4 0	1
Mansfield	650	A.C., 1 ph.	208	1 6	1¾	2 0	1¾	6 0	5 6	5 6	4 6	1
Merrigum	200	A.C., 3 ph.	50	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Mirboo North	600	,,	110	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Moe	400	,,	140	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1

APPENDIX No. 5—*continued.*

COUNTRY CENTRES SERVED BY STATE ELECTRICITY COMMISSION OF VICTORIA—*continued.*

District.	Population.	System of Supply. Single-Ph. 230/460-V. Three-Ph. 230/400-V.	No. of Consumers.	Domestic Light and Power.		Commercial Light and Power. (c)		(a) Commercial Power Two-part Tariff. (b) Commercial Power, Restricted Hour Tariff. (See Notes.)				
				Service Charge per Room per Month.	Energy Charge per Unit.	Service Charge per Room per Month.	Energy Charge per Unit.	Service Charge per H.P. per Month.				Energy Charge per Unit.
								H.P., 1–50.	H.P., 51–100.	H.P., 101–200.	H.P., 201–500.	
				s. d.	d.	s. d.	d.	s. d.	s. d.	s. d.	s. d.	d.
Monegeetta	50	A.C., 1 ph.	13	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Montrose	100	,,	54	1 0	1¼	1 6	1¼	5 0	4 6	4 0	3 6	1
Mooroopna	1,500	A.C., 3 ph.	215	1 4	1¾	1 10	1¾	5 6	5 0	4 6	4 0	1
Montmorency	300	A.C., 1 ph.	41	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Mornington	3,230	A.C., 3 ph.	602	1 4	1⅓	1 10	1⅓	5 6	5 0	4 6	4 0	1
Mortlake	1,000	,,	199	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Morwell	1,370	,,	261	1 4	1⅓	1 10	1⅓	5 6	5 0	4 6	4 0	1
Mulgrave	350	,,	154	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Nalangil	50	,,	61	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Narre Warren	100	,,	..	1 6	1½	2 0	1⅓	6 0	5 6	5 0	4 6	1
Newry	300	A.C., 3 ph.	32	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Nilma	50	A.C., 1 ph.	19	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Noble Park	500	,,	95	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Noorat	120	A.C., 3 ph.	59	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Ocean Grove	50	A.C., 1 ph.	41	1 6	1½	2 0	1½	6 6	6 0	5 6	5 0	1¼
Officer	50	,,	2	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Olinda	250	,,	48	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Pakenham	400	,,	39	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Pomborneit	50	,,	17	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Poowong	..	,,	45	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Portarlington	600	,,	118	1 6	1½	2 0	1½	6 6	6 0	5 6	5 0	1¼
Port Fairy	2,000	A.C., 3 ph.	206	1 4	1¾	1 10	1½	6 6	6 0	5 6	5 0	1¼
Portsea (see Sorrento).												
Point Lonsdale	700	A.C., 1 ph.	97	1 6	1½	2 0	1½	6 6	6 0	5 6	5 0	1¼
Queenscliff	1,900	A.C., 3 ph.	395	1 4	1⅓	1 10	1⅓	6 0	5 6	5 0	4 9	1¼
Riddell	350	A.C., 1 ph.	17	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Ringwood	3,500	A.C., 3 ph.	610	1 0	1¼	1 6	1¼	5 0	4 6	4 0	3 6	1
Romsey	600	,,	86	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Rosebud	200	,,	79	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Rosedale	520	A.C., 1 ph.	67	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Rubicon	..	A.C., 3 ph.	2	..	..	..	..	..	..	..	..	..
Ruby	50	A.C., 1 ph.	8	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Rutherglen	1,100	A.C., 3 ph.	256	1 4	1¾	1 10	1¾	5 6	5 0	4 6	4 0	1
Rye	50	,,	11	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Sale	3,941	,,	738	1 3	1⅓	1 9	1⅓	5 0	4 6	4 0	3 6	1
Sassafras Area	500	A.C., 3 ph. and 1 ph.	269	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Shepparton	5,500	A.C., 3 ph.	1,036	1 3	1⅓	1 9	1⅓	5 0	4 6	4 0	3 9	1
Sherbrooke	..	A.C., 1 ph.	..	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Silvan Line and Evelyn	100	A.C., 3 ph. and 1 ph.	55	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Springhurst	100	A.C., 3 ph.	17	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Springvale	1,250	,,	286	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Somerville	200	,,	52	1 6	1⅓	2 0	1⅓	7 0	6 6	6 0	5 6	1¼
Sorrento and Portsea	650	,,	558	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Stratford	800	,,	96	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Sunbury	2,050	,,	187	1 4	1¾	1 10	1⅓	6 6	6 0	5 6	5 0	1¼
St. Albans	600	A.C., 2 ph. of 3 ph.	64	1 4	1¾	1 10	1¾	6 6	6 0	5 6	5 0	1¼
Swan Reach	..	..	..	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Tatura	1,350	A.C., 3 ph.	242	1 4	1¾	1 10	1¾	5 6	5 0	4 6	4 0	1
Terang	2,255	,,	439	1 4	1¾	1 10	1¾	7 0	6 6	6 0	5 6	1¼
Thornton	150	A.C., 1 ph.	37	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Tinamba	50	,,	18	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Tongala	250	A.C., 3 ph.	80	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Toongabbie	150	A.C., 1 ph.	15	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Traralgon	2,300	A.C., 3 ph.	469	1 4	1⅓	1 10	1⅓	5 6	5 0	4 6	4 0	1
Trafalgar	700	,,	215	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Tremont	200	A.C., 1 ph.	41	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1
Tyabb (see Hastings).												
Tyers	250	,,	46	1 9	1⅓	2 3	1½	6 0	5 6	5 0	4 6	1
Tynong	50	,,	15	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Upwey	200	A.C., 3 ph.	105	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Wahgunyah	500	,,	72	1 6	1¾	2 0	1¾	6 0	5 6	5 0	4 6	1
Wangaratta	4,000	,,	702	1 3	1¾	1 9	1¾	5 0	4 6	4 0	3 9	1
Warrion (see Alvie).												
Warrnambool	7,740	,,	1,158	1 3	1¾	1 9	1¾	6 0	5 6	5 0	4 9	1¼
Warragul	4,609	,,	8	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Werribee	2,600	,,	447	1 4	1⅓	1 10	1⅓	5 6	5 0	4 6	4 0	1
Winchelsea	700	A.C., 1 ph.	99	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Wiseleigh	..	..	..	..	..	..	..	..	..	..	..	..
Woodend	1,000	A.C., 3 ph.	225	1 6	1¾	2 0	1¾	7 0	6 6	6 0	5 6	1¼
Yarragon	400	,,	71	1 6	1⅓	2 0	1⅓	6 0	5 6	5 0	4 6	1
Yarrawonga	1,650	D.C., 230 v.	333	1 4	1¾	1 10	1¾	7 6	..	..	..	1¾
Yinnar	50	A.C., 1 ph.	26	1 6	1½	2 0	1½	6 0	5 6	5 0	4 6	1

NOTES.

(*a*) Service charge subject to discount of 5 per cent. if three motors, 10 per cent. if four motors, 15 per cent. if five motors, and 20 per cent. if six or more motors are installed.

Energy charge subject to discount of 5 per cent. if more than 5,000 units, 10 per cent. if more than 25,000 units, and 11 per cent. if more than 50,000 units be consumed per month.

(*b*) Supply between the hours of 10 p.m. and 7 a.m.—

Service charge subject to the same discounts as for Commercial Power Tariff and to special discount of 10 per cent.

(*c*) Applicable to licensed hotels and boarding-houses.

Appendix No 5—*continued.*

COUNTRY ELECTRIC SUPPLY UNDERTAKINGS OPERATED BY MUNICIPAL AND PRIVATE UNDERTAKERS.

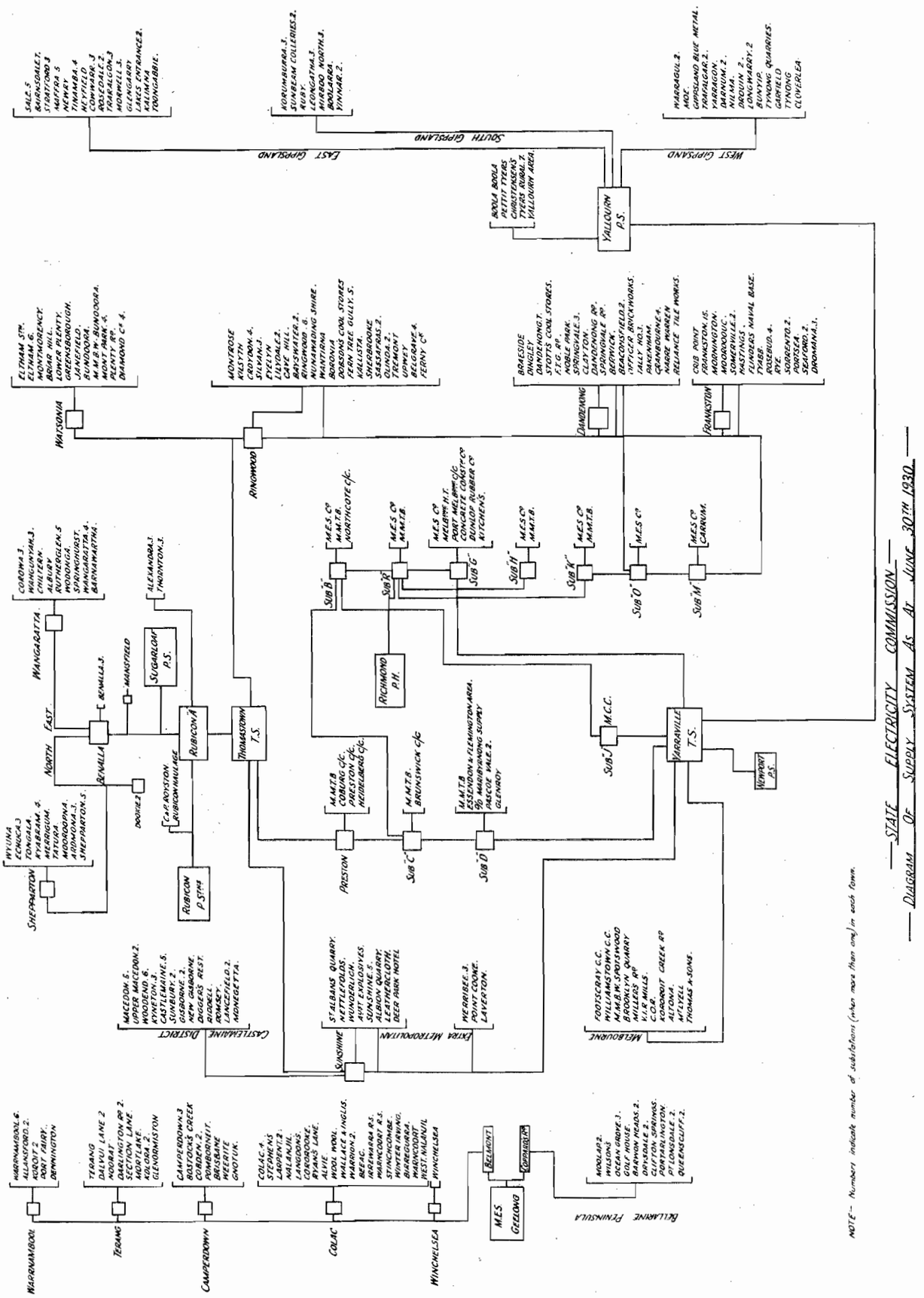
Locality.	Population.	Supply Authority.	System of Supply.	No. of Consumers.		Price per Unit.	
				Light.	Power.	Lighting.	Power.
Ararat ..	5,200	Ararat Borough Council	A.C., 230–400 v. ..	750	(total)	1s.	6d.
Aspendale, Chelsea, and Carrum	7,000	Carrum E.S. Co.	,, ..	1,600	..	8d.	4d.
Avoca ..	800	Avoca E.S. Co.	,, ..	130	40	1s.	6d.
Bacchus Marsh	1,450	Bacchus Marsh Shire Council ..	,, ..	343	(total)	1s.	6d.
Ballarat ..	40,000	Electric Supply Co. of Victoria Ltd.	,, ..	4,500	(total)	9d., and 9d. to 5d.	3½d. to 1½d., with fuel clause
Ballan ..	450	Ballan E.S. Co. Ltd.	,, ..	109	..	1s. 3d. ..	9d.
Beaufort ..	1,400	Ripon Shire Council	,, ..	200	..	1s. 6d. ..	9d.
Beechworth ..	2,600	Beechworth Borough Council ..	,, ..	300	..	1s.	6d. (maximum)
Bendigo ..	35,000	Electric Supply Co. of Victoria Ltd.	A.C., 230–400 v. and D.C., 220–440 v.	5,253	(total)	9d., and 9d. to 5d.	4d. and 1½d., with fuel clause
Beulah ..	550	Karkarooc Shire Council	D.C., 230–460 v. ..	129	25	1s. 6d. ..	9d.
Birchip ..	945	Birchip E.S. Co. Ltd.	D.C., 230 ..	220	..	1s. ..	6d.
Boort ..	750	Boort Co-op. Butter and Ice Co. ..	,, ..	175	56	1s. 3d. to 9d. ..	6d. to 4½d.
Broadford ..	800	Broadford Shire Council	,, ..	200	..	9d.	
Casterton ..	1,900	Casterton E.S. Co.	,, ..	250	15	1s.	7½d.
Charlton ..	1,200	Charlton E.L. Co.	D.C., 230 v. ..	350	(total)	1s. to 9d. ..	4½d.
Cohuna ..	..	Federal Milk Pty. Ltd.	,, ..	210	(total)	1s.	9d.
Coleraine .	900	Coleraine and W.D.B.F. Co. Ltd. ..	,, ..	161	13	1s. 2d.	
Daylesford ..	3,200	India Rubber G.P. and T.W. Co. ..	D.C., 230–460 v. ..	495	..	10d. ..	5d.
Dimboola ..	1,500	Dimboola Shire Council	,, ..	400	94	1s. 2d. ..	7d.
Donald ..	1,800	Donald Shire Council	D.C., 230 v. ..	400	..	1s.	6d.
Doncaster ..	2,000	Doncaster Shire Council	A.C. 1 ph., 200–400 v.	350	..	8d.	4d.
Eaglehawk ..	4,719	Eaglehawk Borough Council ..	D.C., 230–460 v. ..	630	..	9d.	5½d., and 4½d. to 1½d.
Elmore ..	700	Elmore Elec. Supply Co. ..	D.C., 230 v. ..	162	..	1s.	
Foster ..	650	Toora–Foster Elec. Co.	A.C., 230–400 v. ..	See Toora		1s. ..	4d. to 1d.
Goroke ..	200	W. A. Bland	D.C., 230 v. ..	..	..	1s. 6d. ..	6d.
Hamilton ..	5,400	Hamilton E.S. Co.	D.C., 230 v. ..	1,008	(total)	10d. to 8d. ..	7d. to 1½d.
Healesville ..	2,400	Healesville Shire Council ..	A.C., 230–400 v. ..	363	127	10d. to 6d. ..	4d. to 3d.
Heathcote ..	1,200	McIvor Shire Council	D.C., 230 v. ..	235	..	1s. 1d. ..	6d.
Hepburn ..	550	Hepburn Springs E.S. Co. ..	A.C., 230–400 v. ..	132	..	1s. 3d. ..	10d.
Hopetoun ..	800	Karkarooc Shire Council	D.C., 230 v. ..	94	41	1s. 6d. ..	9d.
Horsham ..	5,129	Horsham E.S. Co.	D.C. 230–460 v. ..	905	124	10d. ..	5d.
Inglewood ..	1,100	Inglewood Borough Council ..	D.C., 230 v. ..	180	..	1s.	
Jeparit ..	800	H. J. W. Block	,, ..	225	(total)	1s.	6d.
Kangaroo Flat	840	Marong Shire Council	A.C., 230–400 v. ..	60	..	1s.	6d.
Kaniva ..	550	Lawloit Shire Council	,, ..	130	6	1s. 3d. ..	6d.
Kerang ..	2,700	Kerang Shire Council	D.C., 230 v. ..	550	(total)	10d. ..	5d. to 4d.
Kilmore ..	900	Kilmore Shire Council	,, ..	180	(total)	1s. to 6d. ..	7d.
Koondrook ..	400	Koondrook Shire Council ..	A.C., 230–400 v. ..	60	..	1s. 3d. ..	9d.
Koo-wee-rup ..	500	Koo-wee-rup E. L. Co.	A.C. 1 ph., 230 v. ..	70	..	Domestic light, 2s. per room per month, and 2d. per unit	
Korong Vale ..	500	Korong Shire Council	A.C., 230–400 v. ..	182	4	1s.	6d.
Lorne ..	250	Winchelsea Shire Council ..	D.C., 230 v. ..	120	..	1s. 6d. to 1s.	
Maryborough ..	5,200	Maryborough Borough Council ..	A.C., 230–400 v. ..	1,130	(total)	1s.	5d.
Mildura ..	6,000	Mildura Town Council	D.C., 230–460 v. ..	1,200	(total)	11d. ..	2½d., and 6d. to 1.49d.
Minyip ..	700	Dunmunkle Shire Council ..	D.C., 230 v. ..	165	(total)	1s. 2d. ..	8d.
Murrayville ..	400	Walpeup Shire Council	A.C., 230–400 v. ..	80	..	1s. 6d. ..	1s.
Murchison ..	600	Waranga Shire Council	A.C., 230–400 v. ..	100	..	1s. 3d. ..	6d.
Nagambie ..	750	Goulburn Shire Council	D.C., 230 v. ..	150	..	10d. ..	6d. to 5d.
Nathalia ..	860	Numurkah Shire Council ..	D.C., 230–460 v. ..	200	..	1s. 4d. ..	8d.
Natimuk ..	559	H. C. Woolmer	A.C., 230–400 v. ..	105	..	1s. 6d ..	9d.
Nhill	1,700	Lowan Shire Council	D.C., 230–460 v. ..	400	..	1s. 3d. ..	9d. to 5d.
Numurkah ..	1,350	Numurkah Shire Council ..	D.C., 230 v. ..	300	..	9d.	5d. to 3½d.
Nyah ..	600	Swan Hill Shire Council	A.C., 230–400 v. ..	40	..	1s. 3d. ..	6d.
Orbost ..	2,000	Orbost Butter and Cheese Co. ..	D.C., 230 v. ..	300	20	10d. ..	6d.
Ouyen ..	950	Walpeup Shire Council	,, ..	160	..	1s.	
Pyramid ..	500	Gordon Shire Council	A.C., 230–400 v. ..	78	12	1s. 6d. ..	9d.
Phillip Island ..	1,000	Phillip Island Shire Council ..	A.C., 230–400 v. ..	50	..	1s. 3d. ..	7d.
Portland ..	2,700	Portland Borough Council ..	A.C., 230–400 v. ..	..	..	1s.	6d.
Quambatook ..	500	Kerang Shire Council	D.C., 230 v. ..	100	4	1s. 3d. ..	9d.
Rainbow ..	900	Rainbow E.L. Co.	,, ..	145	4	1s.	1s. to 8d.
Rochester ..	1,487	Commonwealth E.S. Co. ..	,, ..	360	12	1s. to 10d. ..	7d. to 6d.
Rupanyup ..	700	Dunmunkle Shire Council ..	,, ..	125	..	1s. 3d. ..	8d.
Rushworth ..	1,200	Waranga Shire Council	,, ..	275	(total)	11d. ..	6d. to 1½d.
Sea Lake ..	600	Wycheproof Shire Council ..	,, ..	175	(total)	1s. 4d. ..	6d. to 4½d.
Seymour ..	2,525	Seymour Shire Council	A.C., 230–400 v. ..	450	(total)	10d. to 6d. ..	5d. to 2d.
Stawell ..	5,000	Stawell Borough Council ..	A.C., 230–400 v. ..	510	85	10d. ..	5d.

Appendix No. 5—*continued.*

Country Electric Supply Undertakings Operated by Municipal and Private Undertakers—*continued.*

Locality.	Population.	Supply Authority.	System of Supply.	No. of Consumers.		Price per Unit.	
				Light.	Power.	Lighting.	Power.
St. Arnaud ..	3,500	St. Arnaud Borough Council ..	A.C., 230–400 v. ..	434	..	1s. and 11d. ..	6d. and 5d.
Swan Hill ..	3,031	Swan Hill Shire Council	,, ..	450	100	1s. to 3d. ..	5d. to 1d., and 3½d.
Toora ..	350	Toora Foster Elec. Co. Ltd. ..	,, ..	170	(total)	1s. ..	4d. to 1d.
Trentham ..	750	Kyneton Shire Council	,, ..	120	..	1s. 3d. ..	6d.
Ultimo ..	250	Swan Hill Shire Council	,, ..	30	..	1s. 3d. ..	6d.
Violet Town ..	600	Violet Town Shire Council ..	D.C., 400 v. ..	91	23	1s. 6d. ..	6d. and 3d.
Warburton ..	1,000	Yuthong Electric Coy.	D.C. 230 v. ..	140	..	1s. per month per 25 c.p. lamp	9d.
Warracknabeal	2,875	Warracknabeal E.L. Co. ..	A.C., 230-400 v. ..	350	..	1s.	6d.
Warragul ..	1,914	River Latrobe H.E. Co.	,, ..	450	(total)	1s. 3d. to 9d. ..	4d. to ½d.
Wedderburn ..	1,000	Korong Shire Council .. .	,, ..	182	4	1s.	6d.
Wodonga ..	2,300	Wodonga E.S. Co.	A.C., 230–400 v. ..	216	..	9d.	7d. to 6d.
Wycheproof ..	800	Wycheproof Shire Council ..	D.C., 230 v. ..	160	(total)	1s. 3d. ..	6d. to 4½d.
Yarram ..	1,200	Yarram H.E. Co.	A.C., 230-400 v. ..	250	..	11d. ..	5d. to 4d., and 2d.
Yea	950	Yea Shire Council	,, ..	70	..	1s. (maximum)	

APPENDIX No. 6.



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