1954–55

VICTORIA

STATE ELECTRICITY COMMISSION OF VICTORIA

THIRTY-FIFTH ANNUAL REPORT

FOR THE

FINANCIAL YEAR ENDED 30TH JUNE, 1954

TOGETHER WITH

APPENDICES

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

By Authority.
W. M. HOUSTON, GOVERNMENT PRINTER, MELBOURNE

STATE ELECTRICITY COMMISSION OF VICTORIA

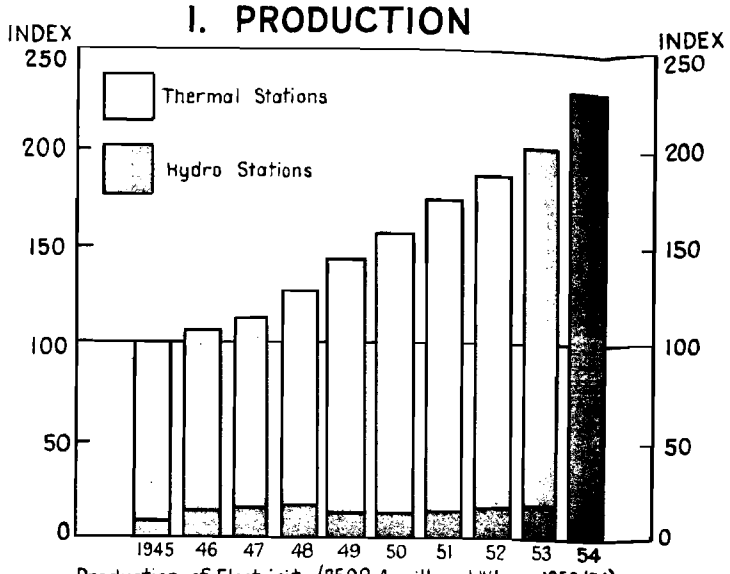
		1953–54	Increase or Decrease	Percentage
INCOME—				
Electricity Supply	£	22,117,381	+ 2,927,867	+ 15·3
Briquetting (after Stock Adjustment and less Sales to Works)	£	884,652	– 47,829	– 5·1
Brown Coal (less Sales to Works)	£	484,330	+ 62,299	+ 14·8
Tramways	£	184,756	+ 160	+ 0·1
Miscellaneous	£	9,860	+ 1,917	+ 24·1
TOTAL INCOME	£	23,680,979	+ 2,944,414	+ 14·2
EXPENDITURE (incl. Appropriations, Writings off etc.)	£	23,321,485	+ 2,928,071	+ 14·4
NET SURPLUS	£	359,494	+ 16,343	+ 4·8
CAPITAL EXPENDITURE—At end of Year	£	173,313,439	+ 22,927,408	+ 15·2
RESERVES—At end of Year	£	24,533,646	+ 2,012,556	+ 8·9
MAXIMUM COINCIDENT DEMAND ON POWER STATIONS (28th June, 1954)	kW	701,650	+ 99,340	+ 16·5
ELECTRICITY GENERATED—	kWh-millions	3,502·4	+ 482·0	+ 16·0
ELECTRICITY SALES—	kWh-millions	2,814.7	+ 394·9	+ 16·3
NUMBER OF CONSUMERS (excluding Bulk Supplies)		501,994	+ *33,033	+ 7·0
AVERAGE kWh SOLD PER CONSUMER—				
Domestic		1,770	+ 170	+ 10·6
Commercial		4,330	+ 354	+ 8·9
All Consumers (excluding Bulk Supplies)		4,037	+ 341	+ 9·2
Per Head of Population (Victoria)		1,095	+ 112	+ 11·4
AVERAGE PRICE PER kWh SOLD—				
Domestic	d.	2.297	– 0·046	– 2·0
Commercial	d.	3.120	+ 0·042	+ 1·4
Industrial	d.	1.685	– 0·012	– 0·7
All Consumers (excluding Bulk Supplies)	d.	2.106	– 0·023	– 1·1
MOTORS CONNECTED—				
Number		121,664	+ 9,491	+ 8·5
Horse-power		657,970	+ 44,115	+ 7·2
NUMBER OF FARMS SERVED		27,082	+ *4,756	+ 21·3
BRIQUETTES—				
Produced	tons	587,252	+ 42,279	+ 7·8
Sold and used at Power Stations	tons	612,394	+ 57,736	+ 10·4
BROWN COAL PRODUCED—				
Yallourn Open Cut	tons	6,718,750	+ 328,462	+ 5·1
Yallourn North Open Cut	tons	1,262,034	+ 80,442	+ 6·8
TRAMWAY PASSENGERS		12,716,816	+ 42,306	+ 0·3

* Includes 8,344 consumers (2219 farms) previously supplied by undertakings acquired during the year.

TEN YEAR STATISTICAL REVIEW

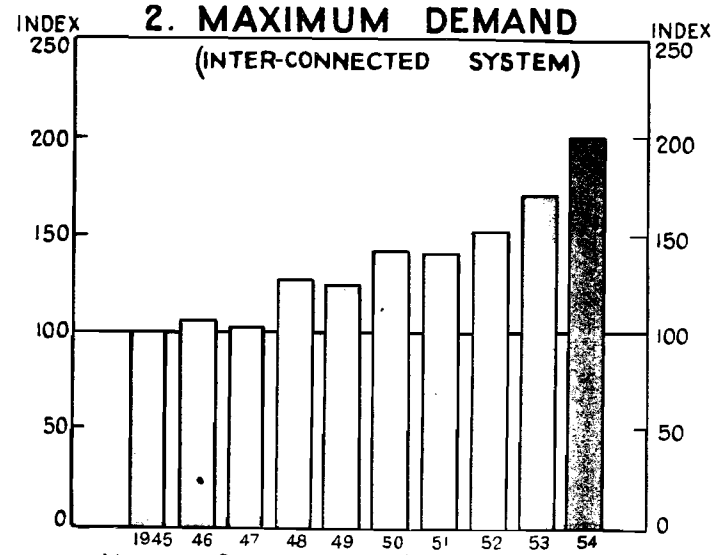
BASE YEAR 1944/45 = 100

1. PRODUCTION



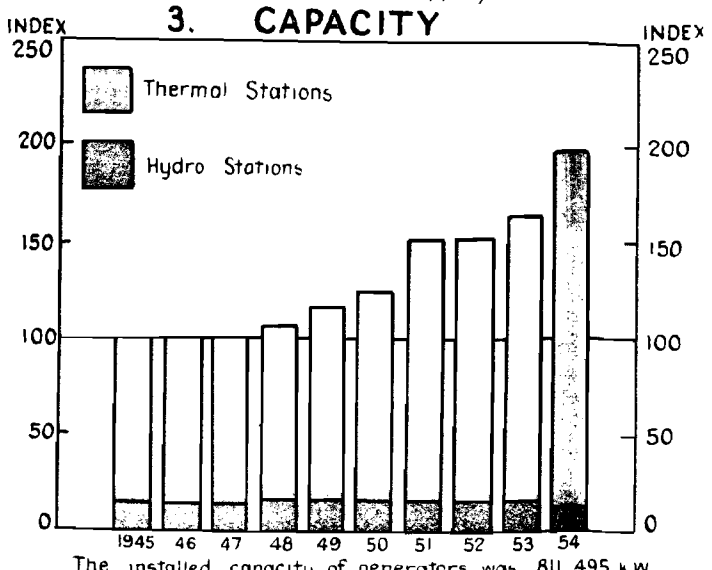
Production of Electricity (3502·4 million kWhs in 1953/54) has more than doubled over the decade (Statistics - App.7)

2. MAXIMUM DEMAND (INTER-CONNECTED SYSTEM)



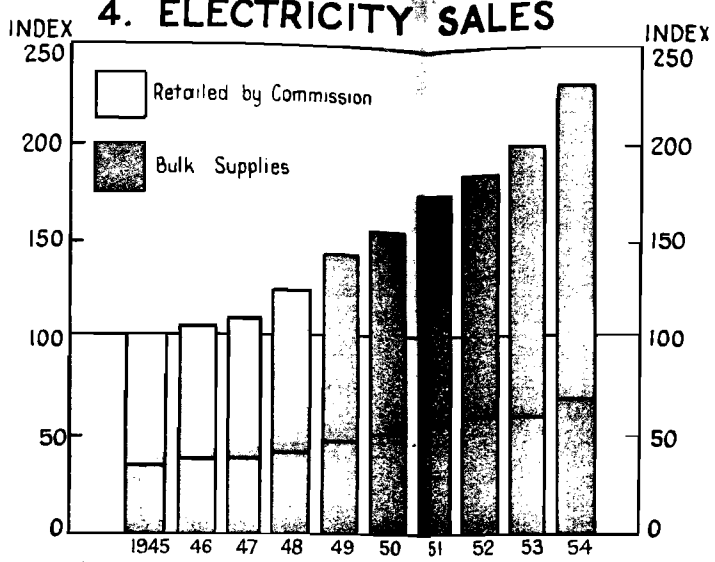
Maximum Demand for 1953/54 was 701,650 kW; an increase of 17 per cent for year. (Statistics - App 7)

3. CAPACITY



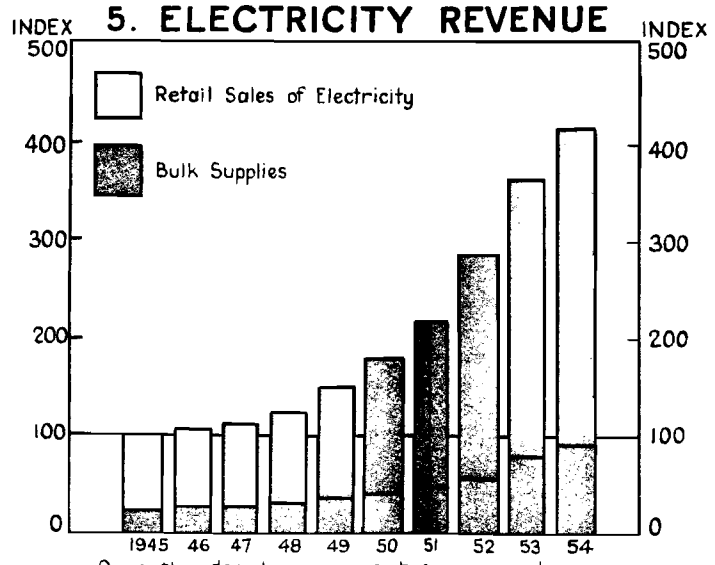
The installed capacity of generators was 811,495 kW at 30/6/54; an increase of 136,180 kW for year (Statistics - App 9)

4. ELECTRICITY SALES



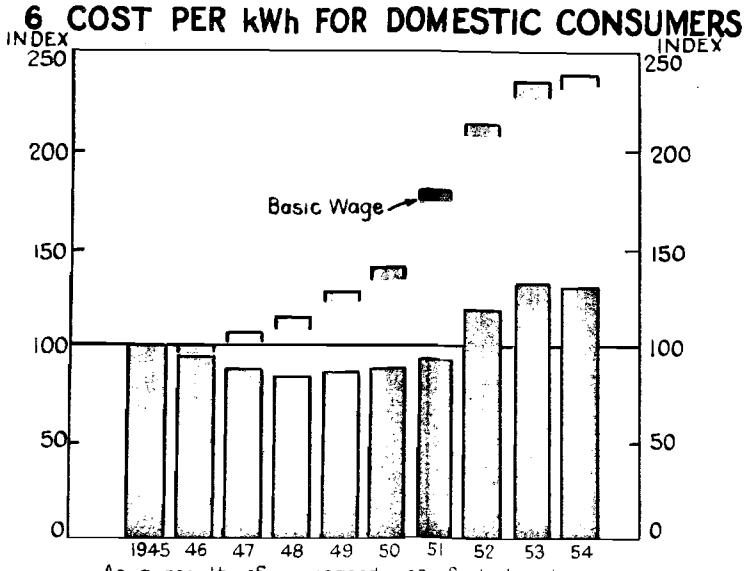
Sales for 1953/54 were 2814·7 million kWhs; an increase of 16·3 per cent over last year (Statistics - App. 12)

5. ELECTRICITY REVENUE



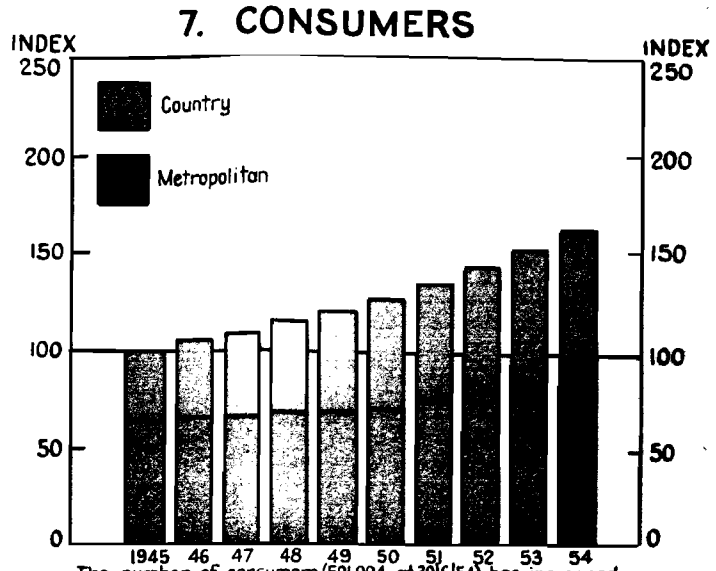
Over the decade revenue has increased fourfold (Statistics - App. 12)

6. COST PER kWh FOR DOMESTIC CONSUMERS



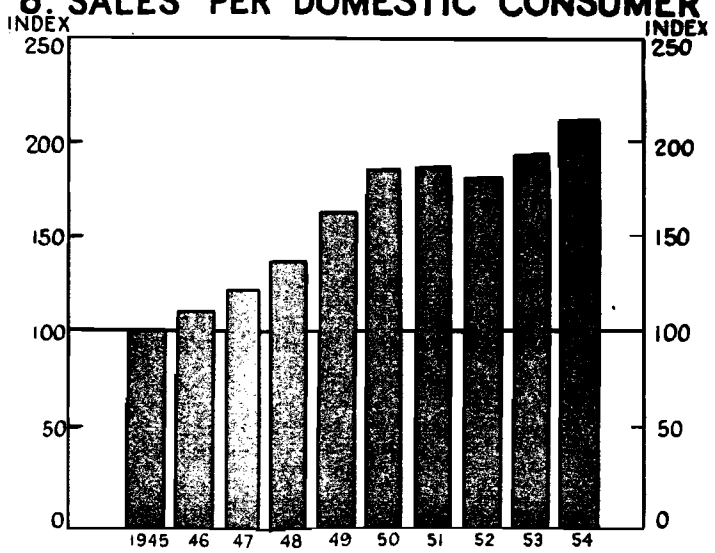
As a result of increased use of electricity, revenue per kWh is only 29 per cent higher than ten years ago notwithstanding that the basic wage has more than doubled (Statistics - App. 12).

7. CONSUMERS



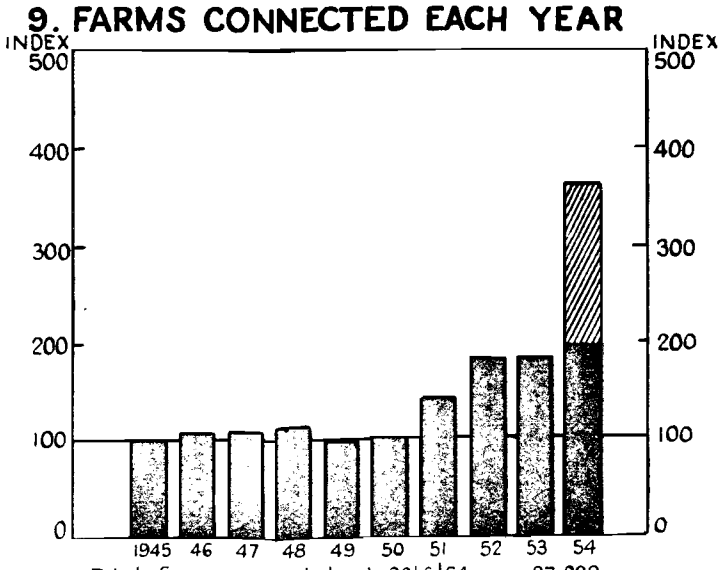
The number of consumers (501,994 at 30/6/54) has increased steadily over the decade. Country consumers have more than doubled (Statistics - App. 11).

8. SALES PER DOMESTIC CONSUMER



Since 1945, consumption per domestic consumer has increased from 838 to 1770 kWhs (Statistics - App.11)

9. FARMS CONNECTED EACH YEAR



Total farms connected at 30/6/54 was 27,082, an increase of 4756 for the year. Shaded portion of the graph represents 2219 farms previously supplied by undertakings acquired (Statistics - App. 11).

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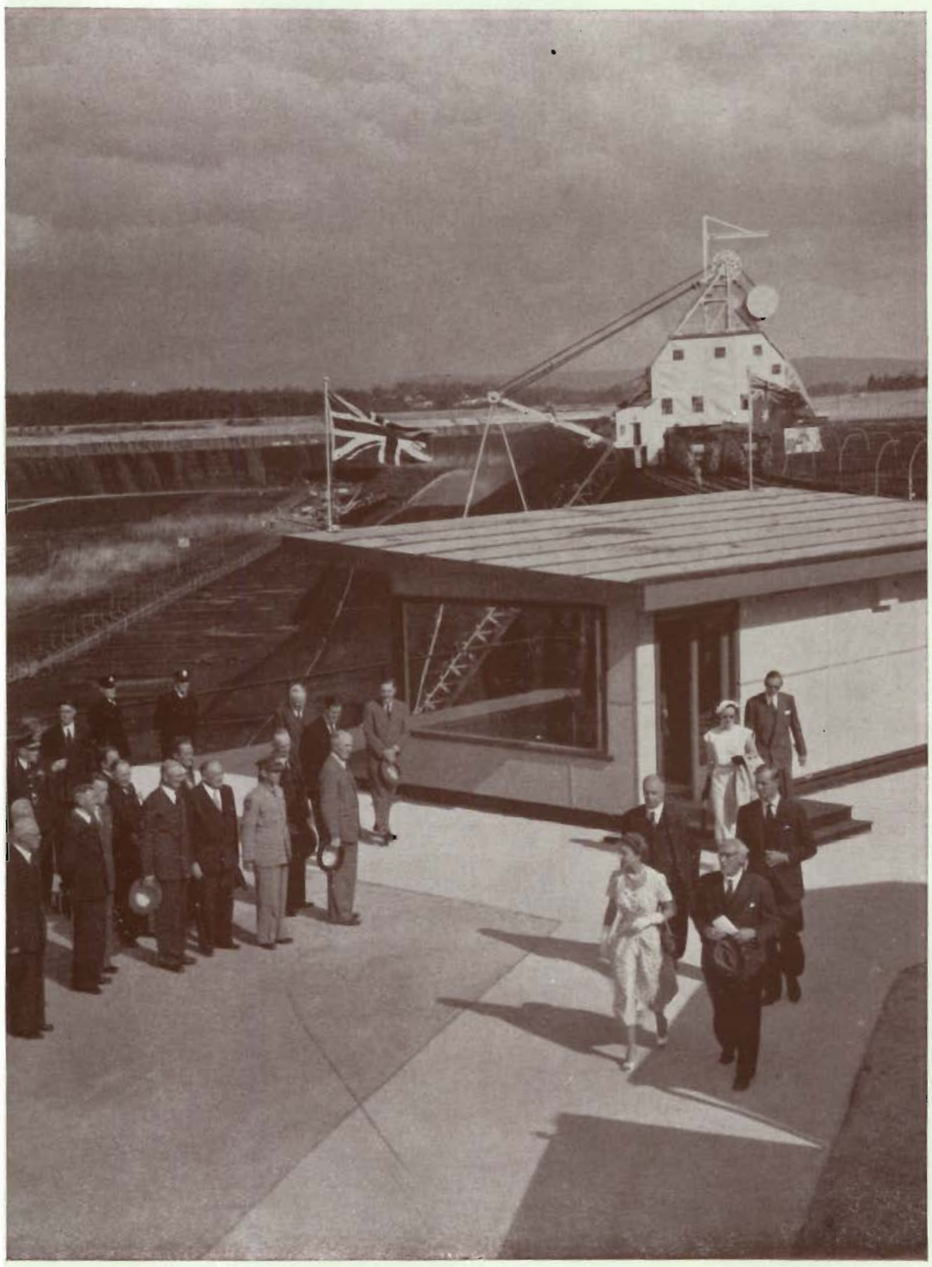
APPENDICES

NOTE: Information previously published in Annual Reports regarding electricity supply in Victorian centres served by the State Electricity Commission and Municipal and private undertakings is now published in a separate booklet, copies of which are obtainable on request.



Inspection of the Yallourn Open Cut by Her Majesty Queen Elizabeth II and H.R.H. the Duke of Edinburgh, 3rd March, 1954.

Honourable J. W. Galbally, M.L.C.,
Minister in Charge of Electrical Undertakings,
MELBOURNE.

Sir,

On the historic occasion of the visit to Australia by Her Majesty Queen Elizabeth II accompanied by His Royal Highness the Duke of Edinburgh, the opportunity was taken to affirm and place on record the continued loyalty and allegiance as subjects of Her Majesty of the Commission and of those engaged in the conduct of Her Majesty's electrical undertakings in this State. All experienced a deep pride and pleasure at the great honour bestowed by the inclusion of Yallourn in the Royal itinerary.

The visit to Yallourn on the 3rd March, 1954, by Her Majesty and His Royal Highness was a most memorable occasion. Following a civic welcome which enabled the Commission and the people of Yallourn to express their allegiance at the very heart of the Commission's operations, the Royal Couple spent some time inspecting with keen interest the Yallourn brown coal undertakings.

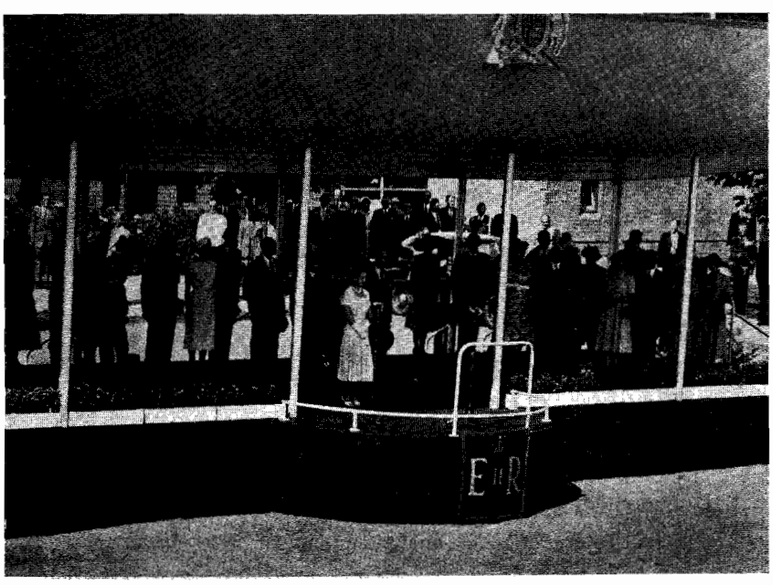
In conformity with the provisions of Section 35(b) of the State Electricity Commission Act No. 3776, we have the honour to present the Thirty-fifth Annual Report of the Commission covering the financial year ended 30th June, 1954, together with the Balance Sheet and Profit and Loss Account.

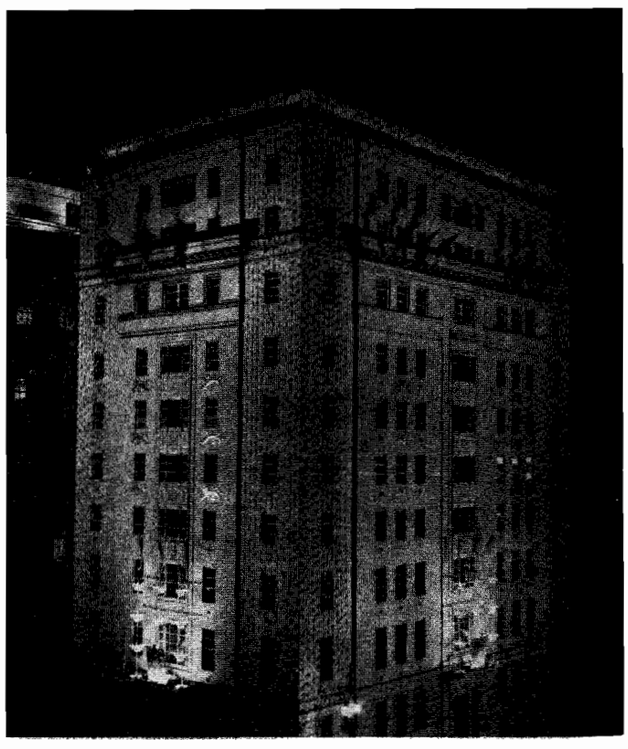
It is gratifying to Commissioners to report:—

- The year's financial results again were most successful.
- Electricity sales increased by 16 per cent. — the annual increment was almost twice the largest previously recorded.
- 33,000 new consumers were supplied by the Commission, including 4,800 farms.
- Brown coal production reached 8 million tons — the highest figure yet recorded.
- New plant increased the installed capacity of generators by 136,000 kW to 811,495 kW.
- Generating plant was adequate to meet the exceptionally large increase in the electricity requirements of consumers.
- Consumers will benefit by £333,500 per annum from reductions in electricity charges.

At right: Commission's Head Office, 22 William Street, Melbourne, decorated for the occasion of the Royal visit.

Below: Her Majesty Queen Elizabeth II and H.R.H. the Duke of Edinburgh at civic welcome, Yallourn, 3rd March, 1954.





The sound financial position of the Commission is reflected in the result of the year's operations. The surplus for the year was £359,494 (£343,151 last year) after providing full interest and depreciation, strengthening reserves to the extent of £250,000 and meeting £1,250,000 on account of interest and other expenditure arising directly from the need to defer certain capital works because of insufficient loan funds.

Income from all sources totalled £23,680,979 — an increase of £2,944,414 (14%). Expenditure was £2,992,715 (16%) higher.

The year's production results have been encouraging, despite a 2% increase in the basic wage since 1952/53. These results would have been better still were it not that high-priced solid fuel still has to be used for many thermal power stations other than Yallourn. The use of such fuel will diminish as plant extensions at Yallourn "C" and "D", and later the Morwell power and fuel project, permit the whole of the base load gradually to revert to Yallourn-Morwell and to be based on low cost raw brown coal. For example, the fuel cost today of Newport generation is three times that of Yallourn.

The continued successful financial result, coupled with the prospect of more stability in cost levels, enabled the Commission to reduce residential tariffs as from 1st July, 1954, and public lighting tariffs as from 1st October, 1954 (for further details see page 12).

Electricity sales totalled 2,815 million kilowatt-hours, an increase of 16 per cent. — compared with 8 per cent. in the previous year. 33,033 new consumers (4,756 farms) were supplied during the year, including 8,344 consumers (2,219 farms) previously supplied by undertakings acquired.

The Commission supplied (directly or indirectly) 98.5 per cent. of the electricity consumed in Victoria.

During the period under review, the construction of regional power stations at Geelong (30,000 kW), Ballarat (20,000 kW), Redcliffs (10,000 kW), Shepparton (10,530 kW) and Warrnambool (4,980 kW) was completed. In addition, the first set (50,000 kW) at the augmented Yallourn Power Station was placed in service, and at the Spencer Street Power Station (Melbourne City Council) a 30,000 kW set was completed.

An additional 136,000 kilowatts in the installed capacity of generators—the largest increase yet recorded—provided sufficient generating plant to meet the much higher electricity requirements of consumers (17 per cent. increase in maximum demand). Despite expenditures of large capital funds on this new plant, it has not been possible as yet to build up a reserve of generating capacity sufficient to safeguard against unexpected breakdowns or national and other emergencies.

The Commission again emphasises the need for a substantial plant reserve, the absence of which on many occasions caused it grave concern in maintaining a continuity of service to its consumers. At the present tempo of the construction programme, which is governed by the finance available, it is estimated — having regard for the probable increase in consumer demand — that it will be nearly 10 years before an appreciable reserve is available to the system.

The progress with extensions "C" and "D" at Yallourn Power Station and at the Kiewa Hydro-Electric Project is referred to on pages 13 & 14. Since the close of the year, work at the Morwell Project has been recommenced (references pages 10 & 14).

At the invitation of the Minister in Charge of Electrical Undertakings, an official inspection of the Commission's Yallourn and Morwell undertakings was made by Members of both Houses of Parliament on the 19th November, 1953. A similar inspection of the Kiewa Scheme was made during the period 6th to 8th April, 1954.

After making full provision for interest and depreciation, the income, expenditure and net surplus were as follows:—

	Year ended 30/6/54 £	£
ELECTRICITY SUPPLY		
Income	22,117,381	
Expenditure	20,105,436	
Profit		2,011,945
BRIQUETTING		
Income	884,652	
Expenditure	824,084	
Profit		60,568
BROWN COAL — YALLOURN NORTH		
Income	484,339	
Expenditure	381,072	
Profit		103,258
PROVINCIAL TRAMWAYS		
Income	184,756	
Expenditure	412,672	
Loss		227,916
Miscellaneous Income		9,860
Miscellaneous Expenditure		98,221
MAKING A TOTAL		
Income	23,680,979	
Expenditure	21,821,485	
Profit		1,859,494
Appropriations from the profit were:—		
Interest and other expenditure associated with deferment of construction works	1,250,000	
Contingency and Obsolescence Reserve	—	
Rate Stabilisation Reserve	250,000	
		1,500,000
Leaving a surplus of		*359,494

* Transferred to General Reserve

As compared with the previous year, the increases in Income and Expenditure were as follows:—

Total Income	£2,944,414 (14.2 per cent.)
Electricity Supply	£2,927,867 (15.3 per cent.)
Briquetting (Decrease related to transfer from stock	—£47,829 (5.1 per cent.)
Brown Coal	£62,299 (14.8 per cent.)
Total Expenditure	£2,992,715 (15.9 per cent.)

During the year Messrs. R. Liddelow (formerly the Commission's Manager), H. S. Kilfoyle, F.C.A.A. (formerly Chief Accountant of the Commission), and L. A. Schumer, B.Com., F.I.C.A. (a leading Melbourne Accountant), reviewed the Commission's depreciation practices, and its provisions for loan redemption. This expert group advised that the state of the Depreciation Reserve was satisfactory and endorsed the Commission's estimates of plant life expectancies and its method of providing for depreciation.

Capital expenditure at 30th June, 1954, was as under:—

	As at 30/6/54 £
Fixed Capital —	
Coal Production	10,906,720
Briquette Production and Distribution	19,353,031
Power Production	55,090,920
Transmission, Transformation and Distribution Systems	46,934,479
General (for details see Appendix No. 3)	41,028,289
	173,313,439
Current Assets in excess of Current Liabilities	7,591,359
Overburden Suspense (cost of uncovering coal yet to be won)	4,487,405
Other Suspense Expenditure (net)	4,927,770
	£190,319,973
The funds for this expenditure were obtained from'—	
Loans —	
Victorian Government Advances	40,044,041
S.E.C. Debentures and Inscribed Stock	123,583,991
Acquired Undertakings' Debentures and Inscribed Stock	458,395
	164,086,427
Depreciation and Sinking Fund Reserve	19,674,812
Other Reserves including Operating Surplus	4,363,283
Consumers' Advances for Construction	2,195,451
	£190,319,973

The General Profit and Loss Account, Balance Sheet, Schedules of Fixed Capital, Loans raised by the Commission and Debentures guaranteed by the Commission are shown in Appendices Nos. 1, 2, 3 and 5.

Reserves at 30th June, 1954, were:—

	£	
Depreciation and Sinking Fund Reserve	20,170,363	(Increase of £660,603)
Contingency and Obsolescence Reserve	1,598,979	(Increase of £598,979)
Rural Development Reserve	1,200,000	(Unchanged)
Rate Stabilisation Reserve	500,000	(Increase of £250,000)
General Reserve	1,064,304	(Increase of £502,974)
	£24,533,646	(Increase of £2,012,556)

The Contingency and Obsolescence Reserve increase represents the transfer of the accumulated surplus as at 30th June, 1953. The Rate Stabilisation Reserve was doubled by another appropriation of £250,000. The General Reserve was strengthened by the transfer of the year's surplus (£359,494) and the Sinking Fund equity of matured loans (£143,480).

The Depreciation and Sinking Fund Reserve is augmented by regular depreciation of fixed capital assets in service. Sinking Fund payments are met in full from the funds of this Reserve and the balance is invested in the business of the Commission.

The total loan liability at 30th June, 1954, was £164,086,427, the increase for the year (£24,958,502) being incurred as follows:—

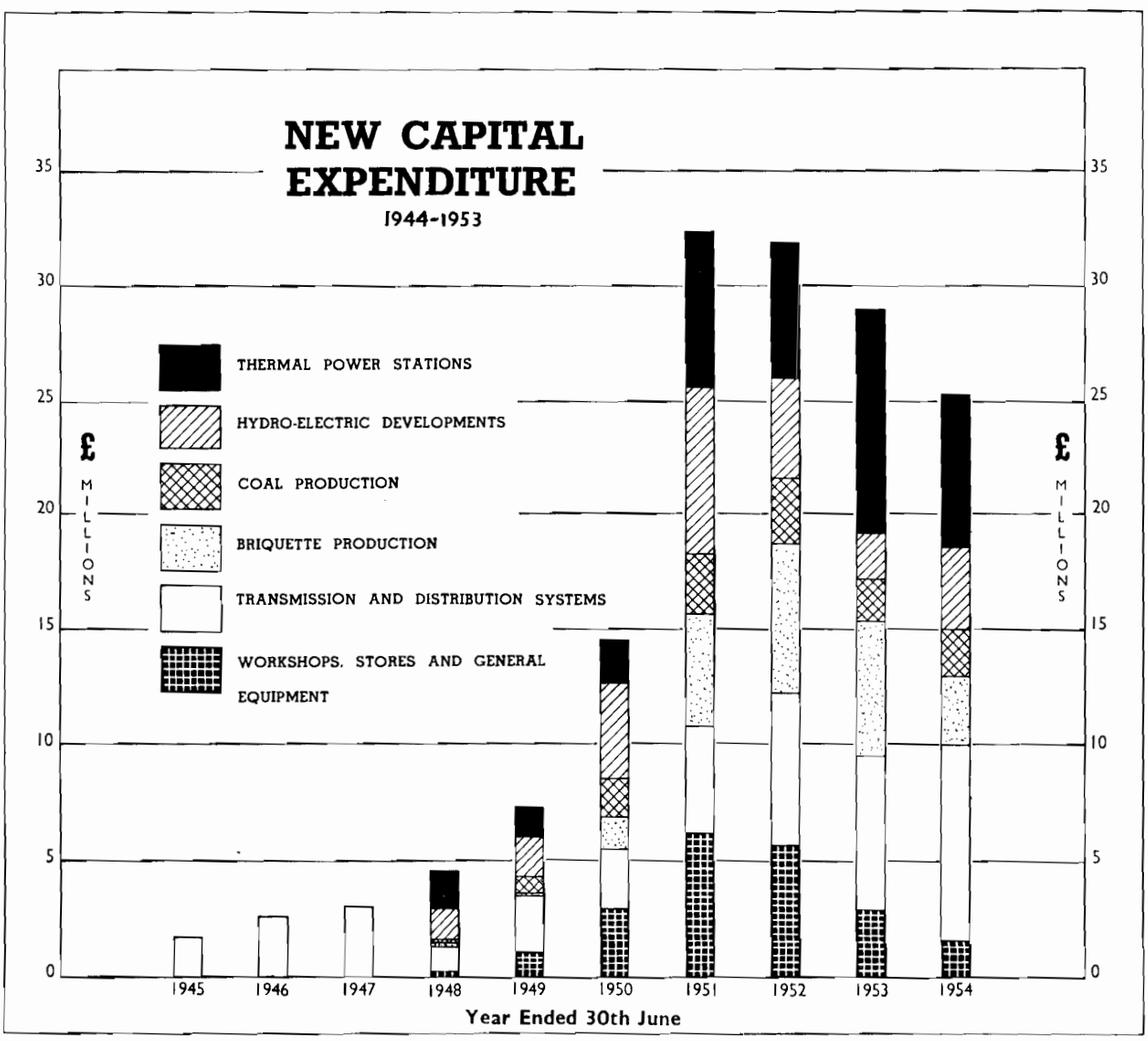
	New Indebtedness	Less Redemptions: Sinking Fund Contributions	Less Redemptions: Maturity Repayments	Net Increase
	£	£	£	£
State of Victoria	6,018,127	246,834		5,771,293
State Electricity Commission Loans	23,521,369	538,180	4,251,000	18,732,189
Municipalities (acquired undertakings)	477,993	22,973		455,020
	£30,017,489	£807,987	£4,251,000	£24,958,502

The following is a summary in round figures of the new loan moneys (apart from advances by the Victorian Government) received in each of the last six years — conversions and short-term loans redeemed within the year are excluded:—

Year ended 30th June	Public Loans	Private Loans	Total
	£	£	£
1949	1,300,000	5,700,000	7,000,000
1950	3,900,000	13,700,000	17,600,000
1951	9,100,000	22,500,000	31,600,000
1952	18,500,000	4,700,000	23,200,000
1953	9,100,000	8,100,000	17,200,000
1954	11,900,000	11,600,000	23,500,000

Total Capital Expenditure at 30th June, 1954, was £173,313,439, an increase of £22,927,408 for the year after deduction for retirements and the writing off of non-productive expenditure. The principal increases were in the following accounts:—

	£
Coal Production —	
Yallourn	2,247,117
Briquette Production —	
Morwell	2,744,805
Power Production —	
Thermal Stations — Ballarat "B"	609,483
" " — Geelong "B"	774,661
" " — Mildura (acquisition)	321,075
" " — Redcliffs	405,227
" " — Yallourn	4,379,135
Hydro Stations — Kiewa	2,242,689
" " — Eildon	1,270,169
Transmission System	2,852,000
Terminal Transformation System	1,379,322
Distribution System —	
Metropolitan	954,893
Provincial and Country Branches	3,243,665



This project, in the form authorised by Parliament, provided for a new open cut and four briquette factories having an ultimate production of 2,600,000 tons of briquettes per annum, and it also would provide — as a by-product of the briquette manufacturing process — surplus power totalling 72,000 kW for the State generating system. This second open cut in the Latrobe Valley will permit the supply of coal to the Yallourn undertaking and vice versa — a most desirable safeguard in view of the substantial degree to which the State's electricity supply depends on Yallourn.

Work at Morwell on this vital project came to a standstill consequent on reduction in loan funds in 1951. With the prospect of sufficient finance being available, the Government, in May, 1954, approved a modified plan recommended by the Commission, under which work at Morwell could be recommenced — although at a slower tempo than previously. This plan now gives priority for power production over briquette manufacture in the development of the project, and provides for the State generating plants based on brown coal to be augmented by 133,000 kW and later increasing to 171,000 kW. This re-arrangement of the project rests on the Commission's natural anxiety to put to use the boiler and generating plant already delivered and paid for — such forming a substantial part of the £27 million already invested in the project. However, to exploit this plant ahead of the specialised briquetting plant, it will be necessary to purchase immediately a 20,000 kW low pressure turbo-generator and associated condensing plant. This will permit new commitments for additional generating plant at Yallourn following the "D" extension to be deferred until early 1956.

The first three stages as noted hereunder provide 55,000 kW more than the original plan, for an additional outlay of £1.94 million. To obtain this same output at a new station at, say, Yallourn, would cost £9 million.

The intention is to erect each of the four briquette factories as capital funds permit; these should be completed about 12 months after each of the related power plants.

The project now will proceed according to the following programme:—

Stage 1 (to be completed by January, 1958):

Two boilers, one 30,000 kW high pressure turbo-generator and one 20,000 kW low pressure turbo-generator. (No briquette output at this stage.) Power output to system — 42,000 kW.

Stage 2 (to be completed by January, 1959):

Two additional boilers, one additional 30,000 kW high pressure turbo-generator, complete erection of first briquette factory. Power output to system — 66,000 kW; briquette production — 714,000 tons per annum.

Stage 3 (to be completed by January, 1960):

Two further boilers, one further 30,000 kW high pressure turbo-generator, complete erection of second briquette factory. Power output to system — 91,000 kW; briquette production — 1,564,000 tons per annum.

Stage 4 (to be completed by January, 1961):

Two further boilers, one further 30,000 kW high pressure turbo-generator and one additional 20,000 kW low pressure turbo-generator. Power output to system — 133,000 kW; briquette production — 1,564,000 tons per annum.

Development subsequent to Stage 3 is to be reviewed and made the subject of further report to the Government in about three years' time.

Since the close of the financial year, field work at Morwell has recommenced.

Reference has been made in earlier reports to the establishment by the Commonwealth Government in 1949 of the Snowy Mountains Hydro-Electric Authority. This body is to develop the the use of streams in the Australian Alps around the Mt. Kosciusko area for irrigation and power purposes. The Commonwealth Government has set up an "Interim Snowy Mountains Advisory Council" representative of the Commonwealth and the States of New South Wales and Victoria to study and advise on the development of the proposed works. (These two States are to share the output of electricity after the limited requirements of the Commonwealth have been met and will share the irrigation waters.)

A broad examination of the scheme is proceeding under the general direction of the Council. Meantime the Commonwealth Government is negotiating with the two State Governments regarding the terms and conditions upon which the States' water and electricity authorities are to participate in the output of water and power.

There were 33,033 new consumers, compared with 25,947 last year. Because of the shortage of capital funds, the Commission has continued to seek the assistance of prospective consumers under its "fifty-fifty" self-help plan, whereby extensions were undertaken on the basis of the prospective consumers agreeing to advance 50 per cent. of the capital cost of construction. Under this arrangement, quarterly accounts for electricity consumed are offset against each advance and any balance remaining after five years is refunded; interest is credited on advances.

Also, approval has been obtained to raise up to a total of £1,700,000 by community loans at current rates of interest from subscribers interested in any particular extension.

Year ended 30th June	New Consumers Connected			Farms Connected
	Total	Metropolitan area	Outside Metropolitan area	
1951	24,577	8,156 (33 per cent.)	16,521 (67 per cent.)	1,831
1952	27,332	8,518 (31 per cent.)	18,814 (69 per cent.)	2,381
1953	25,947	7,979 (31 per cent.)	17,968 (69 per cent.)	2,373
1954	*33,033	7,713 (23 per cent.)	*25,320 (77 per cent.)	*4,756
Total for 4 years	110,989	32,366 (29 per cent.)	78,623 (71 per cent.)	11,341

* Including 8,314 consumers (2,219 farms) from undertakings acquired during the year.

Extra-metropolitan consumers have more than doubled and the number of farms connected has almost quadrupled during the last decade. The extent of country electrical development is evident from the following statistics and the further information in the "Ten Year Statistical Review", Graphs 7 and 9, at the front of this report:—

Financial Year	Total Consumers served by Commission	Extra Metropolitan Consumers	Farms Supplied
1943-44	300,465	102,364	7,467
1948-49	372,135	153,741	14,419
1953-54	501,994	244,484	27,082

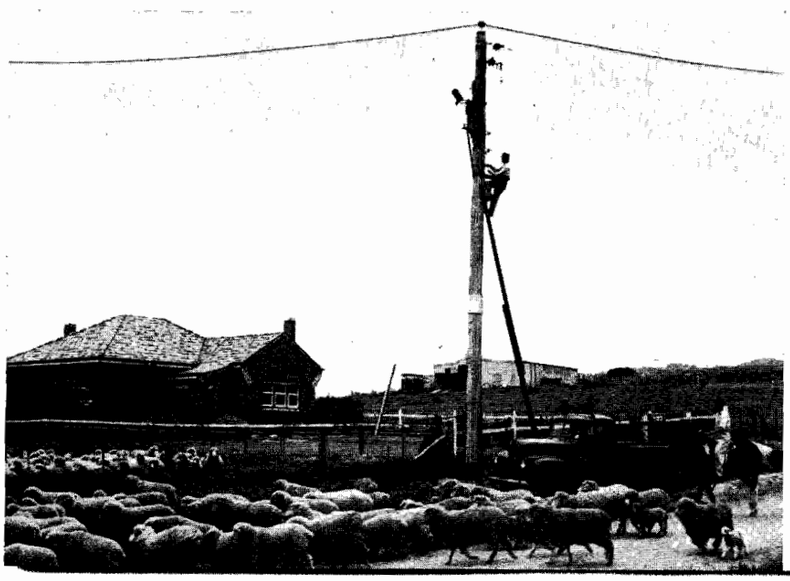
During 1953/54 more than three times as many consumers were added to the Commission's system in country areas as in the metropolis; the extent of work undertaken in country districts is emphasised by the following comparison:—

	Outside Metropolitan Area	Metropolitan Area
Poles erected	15,239	2,131
High voltage lines erected	894.5 miles	18.0 miles
Low voltage lines erected	642.7 ,,	64.4 ,,
Substations erected	1,284	69

EXTENSION OF ELECTRICITY SUPPLY TO RURAL AREAS.

At right: Rural type substation (Midland Branch). One substation and 14 poles were erected every 100 minutes of the year (working time).

Below: Extension by single wire earth return system under construction (cost of extension is reduced by this system which is used where conditions suitable).



In 1951 the Commission's Report on the Final Phase of the Rural Electrification of Victoria was presented to Parliament. The report provided for 178,000 consumers to be connected in areas outside the metropolis during the succeeding ten years leaving at the end of that period some 15,000 homes in the most isolated parts of the State without supply: every effort will be made to include as many of these as possible in the plan. During the three years which have elapsed, considerable progress has been made with rural electrical development: work is now ahead of schedule. Reference is made on page 11 to the number of consumers and farms already connected as part of this plan.

At 30th June, 1954, more than 581,000 dwellings were supplied with electricity in the State of Victoria leaving 71,000 as yet without supply. Of these 13,600 are within the area served by the Metropolitan Branch and 57,700 are outside the metropolis, including the 15,000 houses in the most isolated parts. In addition to those dwellings at present without supply, it is estimated that the Commission will be connecting dwellings yet to be erected at the rate of 10,000 per annum.

The first major post-war project approved for extension of the State supply system was the Murray Valley Scheme which provided for the construction of regional power stations and ultimately transmitted supply throughout the Murray Valley Region, including the far north-west.

The Governor in Council, since the close of the year, has approved a second major project — the extension of electricity supply throughout the Wimmera Region; this represents one of the few remaining large schemes necessary to complete the Commission's task of a State-wide electricity supply system in accordance with the 1951 report.

Under this Scheme the Commission will immediately negotiate with the City of Horsham for the acquisition of the local electricity supply undertaking: it will operate the power station until transmitted supply is available.

During the next six years the following main towns would be linked to Horsham:—

Murtoa (to which Rupanyup and Minyip are linked at present), Natimuk, Dimboola, Nhill, Warracknabeal, Kaniva, Brim, Beulah, Hopetoun, Jeparit, Rainbow and Goroke.

As the work proceeds, the Commission will investigate in detail the practicability of extending supply to small centres and rural communities. Transmitted supply would be available initially during 1955/56.

The capital cost of the Wimmera Scheme is £1,571,940 spread over the six-year period; the proposals are sufficiently flexible to allow for a variation in the tempo of expenditure from year to year in the light of the capital funds available. The plan is based on the expectation that all the new money required will be raised by area loans within the Wimmera Region.

From date of acquisition the tariffs will be more favourable than those now charged.

With the continued satisfactory financial result of operations, and prospects of greater stability in cost levels, the Commission reviewed its standard tariffs in accordance with its policy of passing on to consumers the maximum benefit possible.

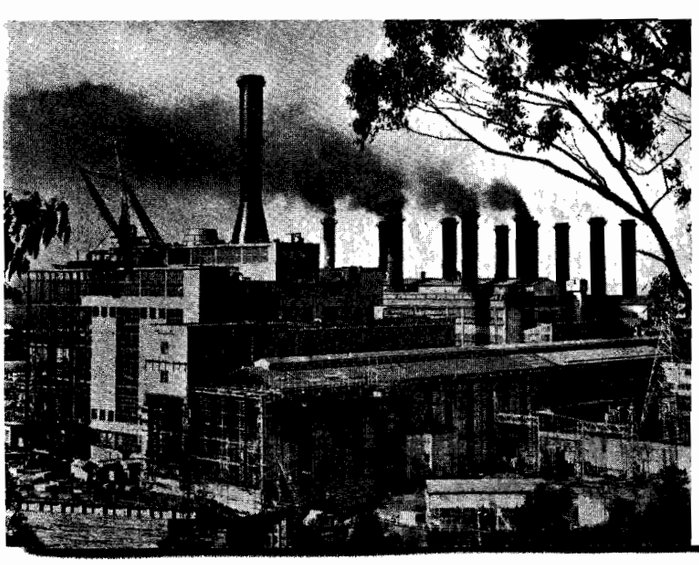
A reduction has been made of 2d. per room per month in the service charge for all consumers taking supply under the residential two-part tariff "G", with effect on bills rendered on and after 1st July, 1954. This will result in an overall benefit of £300,000 per annum which will be shared by 550,000 residential consumers (80 per cent. of the total consumers of electricity in Victoria).

Also Municipal Councils have been assisted in their efforts to improve street lighting facilities by a reduction of approximately 10 per cent. in public lighting tariffs with effect from the 1st October, 1954. As a result, municipalities served by the Commission throughout Victoria will benefit to the extent of £33,500 per annum.

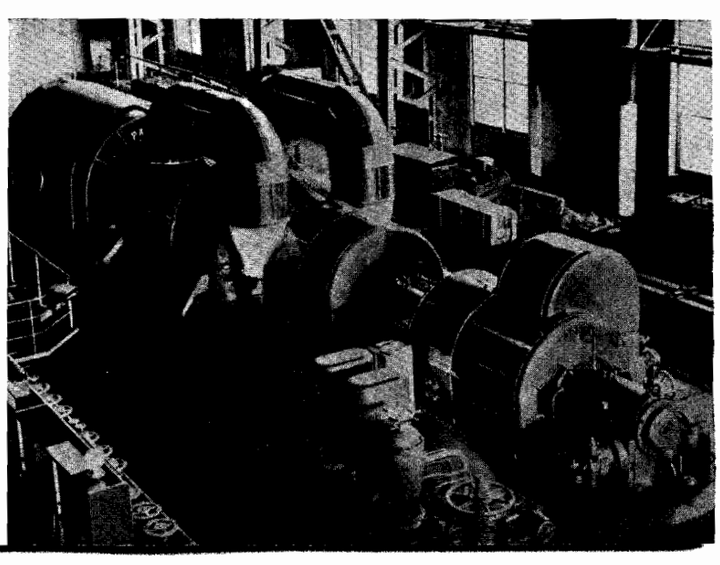
The Commission's ability to make further tariff decreases will be influenced by the outcome of claims for increased margins as well as the necessity to hold in the business moneys to aid the finance of capital works. This latter aspect is today of great significance to most public and private large scale enterprises.

EXTENSIONS TO YALLOURN POWER STATION.

New "C" Station nearing completion.



First of the two 50,000 kW turbo-generators now in operation; second set to be in service by winter, 1955.



Generating plant on order, including associated boiler plant as necessary, its location and planned dates for operation are as follows:—

Plant	Planned Date of Operation (as at 30/6/54)
Yallourn Power Station —	
Four 50,000 kW turbo-generator sets	
One set	In operation
One set	1955
Two sets	1957/58
One 6,000 kW turbo-generator	1956
Kiewa Hydro-Electric Project —	
Four 15,400 kW turbo-generators — No. 4 Power Station	1955
Four 16,000 kW „ „ — No. 1 „ „ (A fifth 16,000 kW set for this station approved.)	1957/58
Morwell Power and Fuel Project —	
To produce — First Stage — 42,000 kW	1958
Second Stage — 24,000 kW	1959
Third Stage — 25,000 kW	1960
Fourth Stage — 42,000 kW	1961
(Two 20,000 kW low pressure turbo-generators yet to be ordered.)	
Eildon Hydro-Electric Project —	
Two 60,000 kW turbo-generators	1956

In addition —

1. A 40,000 kW turbo-generator set is on order for the Newport Power Station, but its location, capacity and date of installation are under review.
2. Two 25,000 kW turbo-generators are to be installed at the Hume Weir by the Electricity Commission of New South Wales by 1957; the output is to be equally shared by New South Wales and Victoria.

(Approved Development — Four 50,000 kW Sets)

Yallourn "C"

This extension, comprising two 50,000 kW turbo-generators, a 6,000 kW back pressure set and six 200,000 lb./hr. boilers will soon be complete. The first turbo-generator was placed in service on the 22nd May, 1954, with two of the boilers, and the second turbo-generator and a further two boilers are to be ready by the winter of 1955; erection of the remaining two boilers is in progress.

Yallourn "D"

This extension is generally similar to the "C" plant; the two 50,000 kW turbo-generators and associated boiler plant were ordered in 1950.

Boiler-house foundations are nearing completion and steelwork erection is about to commence. Foundations for the turbine house are in progress. The inlet conduit and penstock pits for the circulating water system have been completed.

General

New coal handling plant for the "C" and "D" extensions will improve the fuel delivery to the present Station. The first section of this plant, comprising a 5,000 ton ditch bunker, a 3,000 ton slot bunker and connecting conveyors, crushing plant, etc., has been placed in service since the close of the year. Steelwork and dredgers for a second ditch bunker have been delivered.

Altogether over 1400 men are employed by the Commission and its contractors on these extensions.

FURTHER EXTENSION TO YALLOURN POWER STATION

Foundations for new "D" Station to house two 50,000 kW turbo-generator sets — planned for operation 1957/58.

Water Storages on the High Plains

Work on the large dams at Rocky Valley and Pretty Valley, on which the scheme is fundamentally based, has been in abeyance; however, a re-commencement has been made on the Rocky Valley Dam since the close of the year.

No. 1 (Upper) Development — Approved Capacity 80,000 kW.

The French firm of Societe Etudes et Entreprises, under contract, has excavated 13,035 feet (70%) of the headrace tunnel. The diversion tunnel at Rocky Valley has been lined and the Rocky Valley River diverted.

No. 1 Power Station has been re-located as a surface station and will comprise five 16,000 kW turbo-generators (instead of four planned for the previous location); provision will be made for the possible installation of a sixth machine. Site works for the power station building and pipeline have commenced.

No. 2 Development

A preliminary study of the various alternatives for this development has been completed — no work has been carried out on this section.

No. 3 Development (Bogong) — Installed Capacity 26,000 kW.

This power station has operated since 1944. Additional water is now supplied from the Bogong Creek raceline which was completed during the year.

No. 4 Development — Planned Capacity 61,600 kW.

Construction of the underground power station is almost completed and the erection of the four 15,400 kW turbo-generators is proceeding. The headrace tunnel was completed and the concrete lining of the tailrace tunnel was 90% complete.

Clover Dam has been completed since the close of the year, and the outlet regulating pondage is well advanced.

The first turbo-generator is expected to be in operation by January, 1955, and the remaining sets at intervals during 1955.

Work has commenced on a raceline and tunnel to divert water from the West Kiewa River to No. 4 Power Station. The discharge tunnel into No. 4 headrace tunnel was completed and the driving of the main tunnel for the diversion commenced.

• • •

Altogether 1,329 men were employed by the Commission and its contractors on the Kiewa Project at the 30th June, 1954.

Approved Capacity — 91,000 kW and 2,600,000 tons briquettes per annum (four factories)

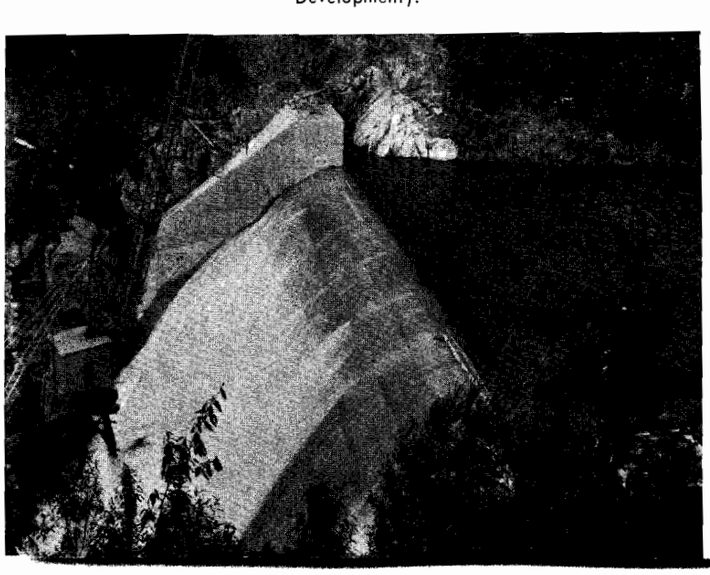
Construction work remained at a standstill during the year; the special measures for the care of steelwork, plant and equipment for the first two factories already on site, were maintained; 125 men were employed on the project at the 30th June, 1954.

With the prospect of a restart on this project early in the financial year 1954/55, referred to earlier in this report, preparatory work for steel and plant erection is in hand. (Foundations for the first two factories and power plant are completed.) The erection of a bucket wheel dredger has been completed, also the erection of a bucket chain deep coal dredger, a bucket chain overburden dredger and an overburden spreader is substantially completed.

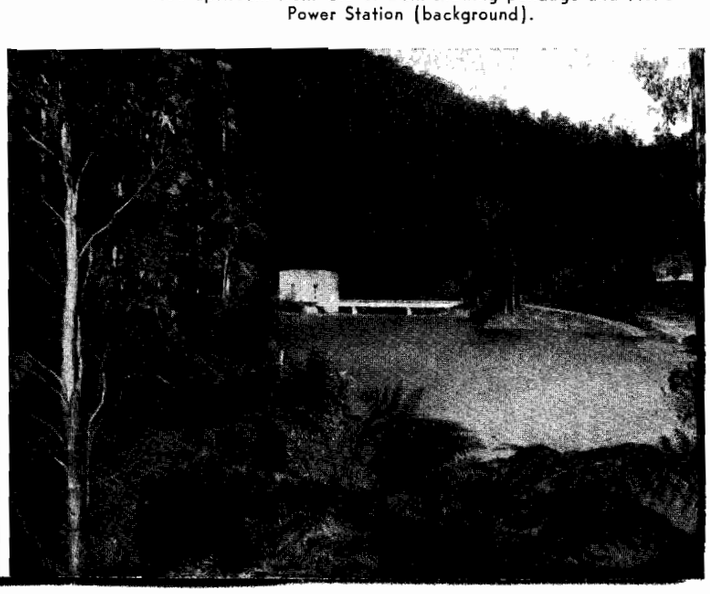
To date approximately 3,000,000 cubic yards of overburden have been removed — sufficient to enable future excavation by dredger.

KIEWA HYDRO-ELECTRIC PROJECT.

Recently completed Clover Dam (pondage for No. 4 Development).



View upstream from Clover Dam showing pondage and No. 3 Power Station (background).



(Geelong 30,000 kW: Ballarat 20,000 kW; Redcliffs 10,000 kW; Shepparton 10,530 kW; and Warrnambool 4,980 kW)

The new power plants at Geelong (three 10,000 kW sets), Ballarat (four 5,000 kW sets) and Redcliffs (two 5,000 kW sets) all comprise "packaged" steam-electric sets ordered from U.S.A. in 1951. Shepparton station comprises three 1,850 kW and six 830 kW diesel generating sets and Warrnambool six 830 kW diesel generating sets.

All these stations are complete and were brought fully into operation during the year.

Reference has been made in previous reports to the agreement with the State Rivers and Water Supply Commission concerning the installation of 120,000 kW of additional generating plant at the enlarged Eildon Reservoir. Under the agreement the reservoir is to be enlarged beyond the requirements of irrigation so that water will be available for emergency and peak winter electricity demands (normally water from irrigation storages is released during the summer period when the demand for electricity is lowest; thus, at that portion of the year when electricity demand is highest, storages are filling and there is no regular output of electricity).

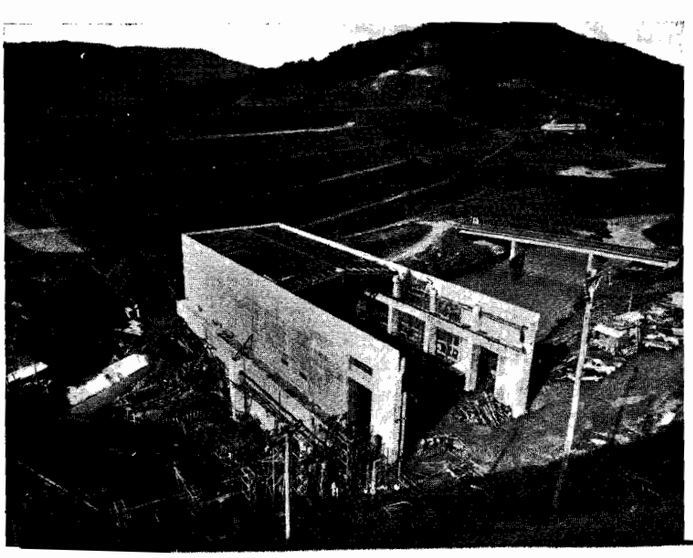
Two 60,000 kW turbo-generators now on order are planned to be in operation in 1956. They will be installed in a new building already well advanced. The two generators removed in August, 1953, from the old Sugarloaf power station at the site of the old Eildon Dam have been installed after reconditioning and will contribute 15,000 kW at times of peak demand during non-irrigation months.

The first circuit of the new Yallourn-Melbourne 220 kV transmission line (67 miles long) is now complete and is operating temporarily at 132 kV. The Kiewa-Melbourne 220 kV transmission line (153 miles long) will be in operation early in 1955.

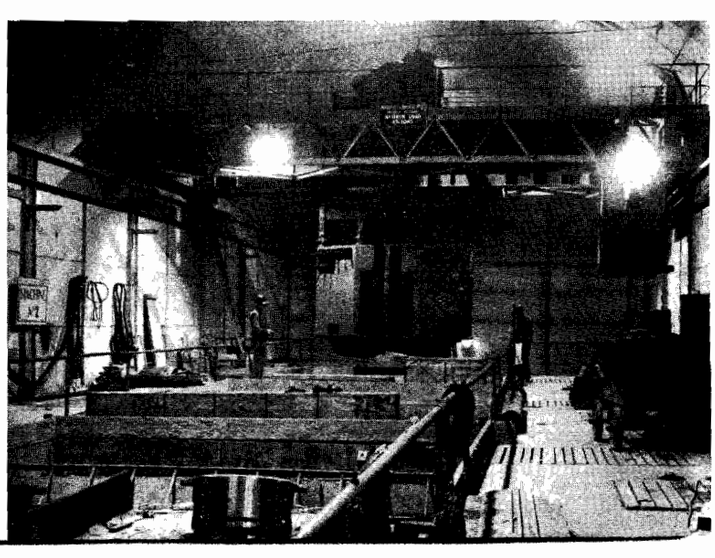
Feeders to link the new West Melbourne Terminal Station and the augmented Spencer Street, Melbourne, Power Station are complete. At Brunswick Terminal Station the second 40,000 kVA synchronous condenser and two 37,500 kVA transformers and associated switchgear were installed. The redesigned switchyard at Thomastown Terminal Station was nearly completed and two 10,000 kVA transformers installed. New main substations were established at Braybrook, Dandenong, Mordialloc and East Burwood.

HYDRO-ELECTRIC POWER STATIONS UNDER CONSTRUCTION.

Eildon (enlarged dam under construction by State Rivers and Water Supply Commission in background). Power Station when completed in 1956 will comprise two 60,000 kW turbo-generators and two 7,500 sets.



Kiewa No. 4 Power Station (450 feet underground) will house four 15,400 kW turbo-generators — to be completed in 1955.



The State generating system comprises interconnected power stations at Yallourn, Melbourne (Newport, Richmond and Spencer Street, City), Kiewa, Eildon-Rubicon, Geelong, Ballarat, Shepparton and Warrnambool. The Commission also operates regional stations at Mildura-Redcliffs and Hamilton.

Terminal Stations are located at Melbourne (Richmond, Yarraville, Brunswick, Thomastown, East Malvern, Sunshine, Clifton Hill and West Melbourne) and Geelong. The transmission system includes the lines from the interconnected power stations to the terminal stations and from the terminal stations to the main metropolitan substations, together with the lines linking the main substations. Electricity is transmitted to the Commission's various Electricity Supply Branches, Melbourne and country, and also to those Melbourne municipal undertakings which purchase in bulk.

The installed capacity of generating plant at 30th June, 1954:—

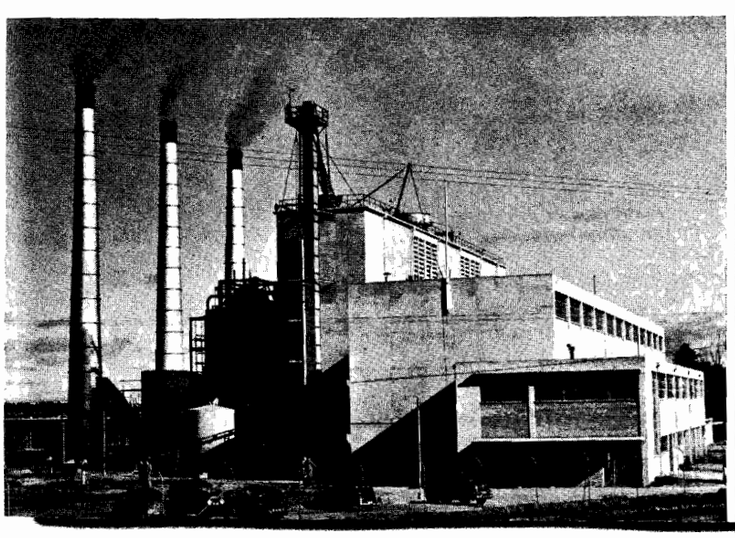
Thermal Stations —	kW
Yallourn (including allowance for Briquette Factory)	233,000
Melbourne —	
Newport	311,000
Spencer Street	73,650
Richmond	53,000
Geelong "A"	10,500
Geelong "B"	30,000
Ballarat "A"	5,900
Ballarat "B"	20,000
Shepparton	10,530
Warrnambool	4,980
Hydro Stations —	
Eildon-Rubicon	12,915
Kiewa	26,000
*Total	791,475

Thermal Stations —	kW	
Mildura	7,000	Inter-connected
Redcliffs	10,000	Inter-connected
Hamilton	3,020	
*Total	20,020	

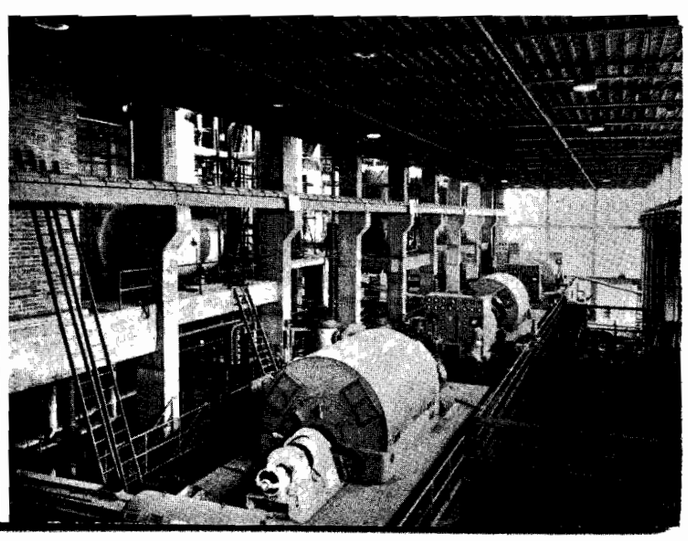
***Note:** At Yallourn, Newport, Spencer Street, Richmond, Ballarat "A" and Mildura stations, generators could not be used to full capacity because of limitations on boiler capacity.

NEW GEELONG POWER STATION.

Power Station buildings.



Interior showing three 10,000 kW turbo-generators now in service.



Power Stations	Maximum Demand 1953/54	kWh Generated (millions) 1953/54
Thermal Stations —		
Yallourn (including Briquette Factory)	243,000	1394.0
Melbourne —		
Newport	304,400	1322.7
Spencer Street	73,000	212.4
Richmond	51,900	202.0
Geelong "A" and "B"	47,400	103.6
Ballarat "A" and "B"	29,800	53.4
Shepparton	10,250	24.0
Warrnambool	4,980	6.2
Hamilton*	1,800	7.7
Mildura*	5,300	11.0
Redcliffs*	5,700	10.5
Hydro Stations —		
Eildon-Rubicon	26,950	92.6
Kiewa	28,000	62.3
	Maximum Co-incident Demand‡	Total kWh
	701,650	3502.4

* Not connected to State System.

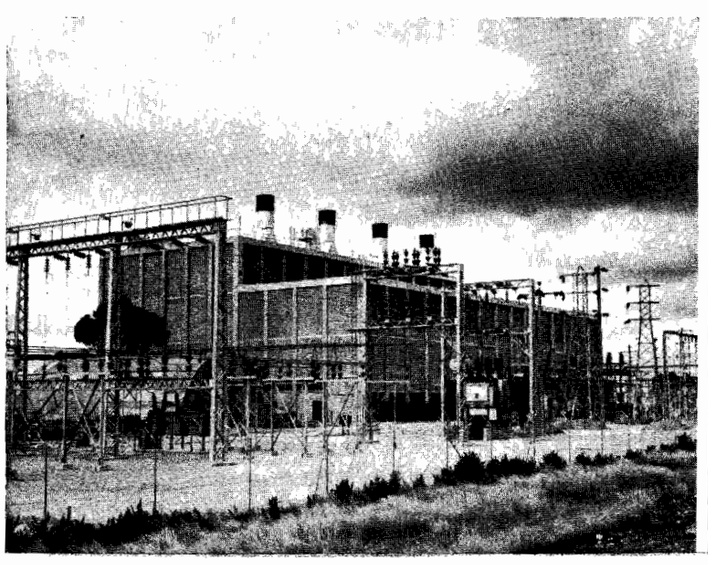
‡ Interconnected system only.

The decrease in the output from the Eildon-Rubicon hydro stations was due to the closing down of the Sugarloaf Power Station in August, 1953, to enable the plant to be transferred to the new Eildon Station.

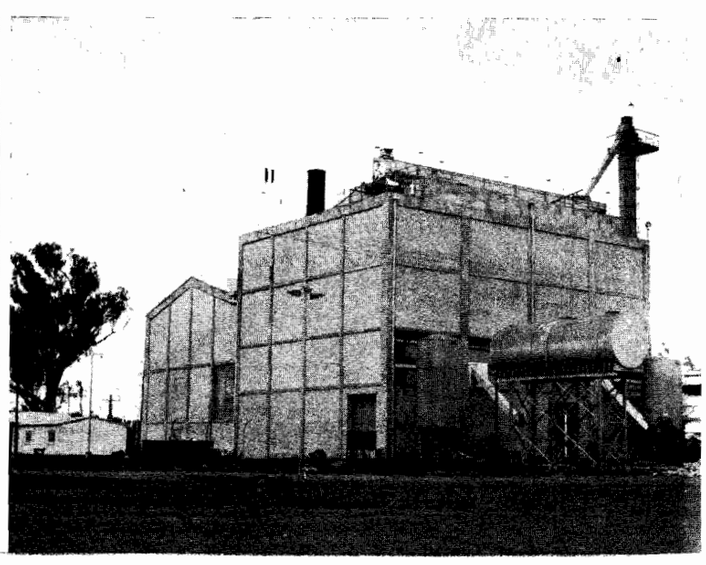
Details of loading, output, load factors and fuels used in respect of Power Stations throughout the State are contained in Appendices Nos. 6-8.

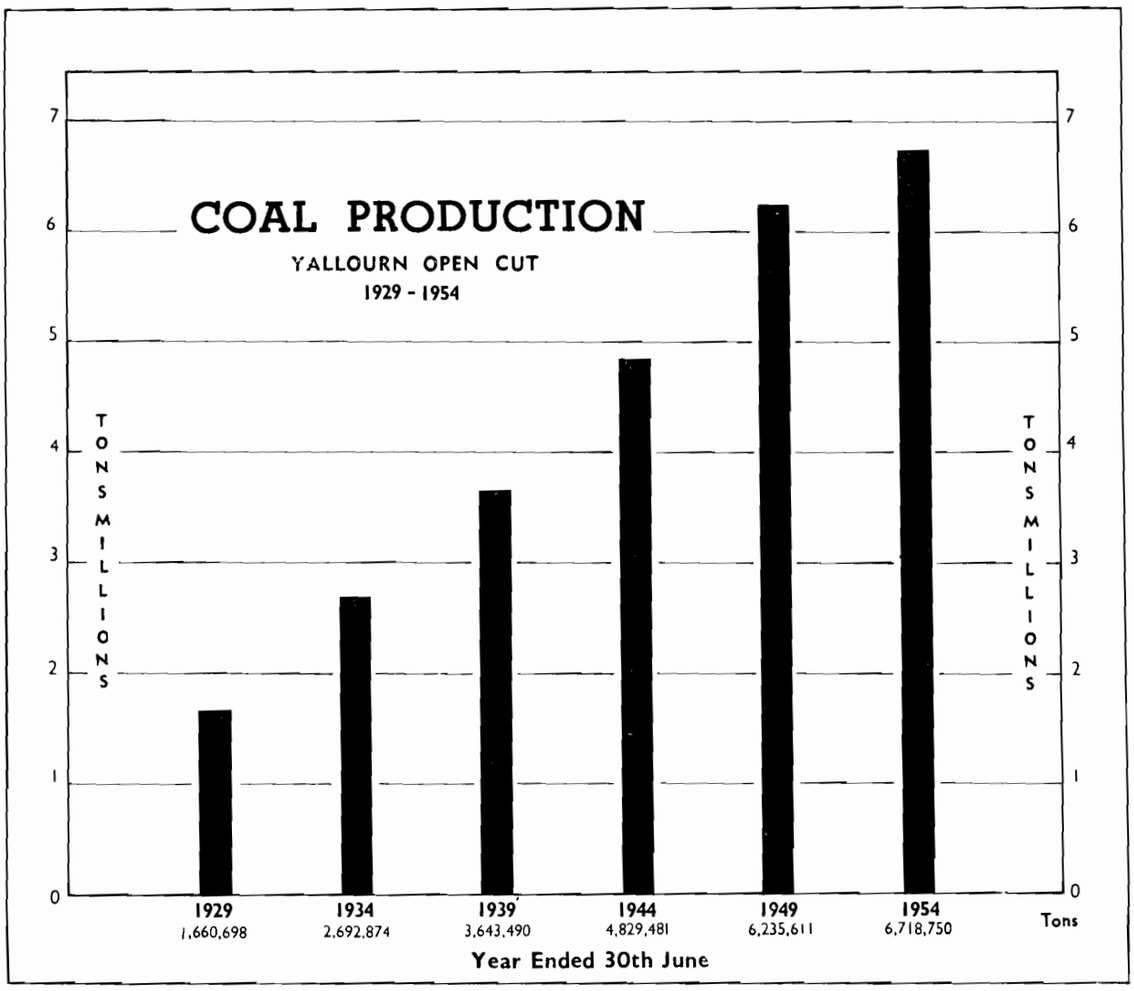
NEW REGIONAL POWER STATIONS.

Ballarat — four 5,000 kW packaged steam-electric sets now in service.



Redcliffs (near Mildura) — two 5,000 kW packaged steam-electric sets now in service.





Coal Winning

The year's operations bought the total coal excavated since the commencement of operations to 114.86 million tons. Of the coal won during the year, 4,379,280 tons were delivered to the Yallourn Power Station and 2,339,470 tons to the Briquette Factory. On the 9th June, 1954, 24,583 tons of coal were produced — the highest daily output yet achieved.

Overburden Removal

2,793,350 cubic yards of overburden were removed, compared with 2,693,550 cubic yards in the previous year, bringing the total removed to 30th June, 1954, to 42.28 million cubic yards.

The area of the Open Cut has increased from 772 to 816 acres at grass level and from 674 to 722 acres at the surface of the coal.

Plant

To provide fuel for planned extensions to the Yallourn Power Station, the annual output of coal will have to be increased progressively to some 10 million tons per annum—additional dredgers are required to cope with this increase and for the ultimate replacement of two of the older dredgers. Two bucket wheel dredgers (capacity of each 2,340 cubic yards per hour) are being erected; one was ordered in Germany in 1951 and will be used for coal winning, and the second machine (originally ordered for Morwell) will be used at Yallourn for overburden removal.

1,262,094 tons of coal were won during the year for power generation (Newport Power Station) and industry, compared with 1,181,652 tons last year; to date, the Commission has excavated 7,314,744 tons from this cut.

	Tons
1953-54	587,252

Production was 42,279 tons higher than last year (in that year, however, an unfortunate explosion and fire caused a loss in output of 16,700 tons).

By-product electricity amounted to 94.7 million kWh, of which 61.5 million kWh were delivered to the State system, the remainder being used at the factory. 1,880 tons of pulverised fuel were produced for use in Victorian Railways locomotives this year, compared with 1,655 tons last year.

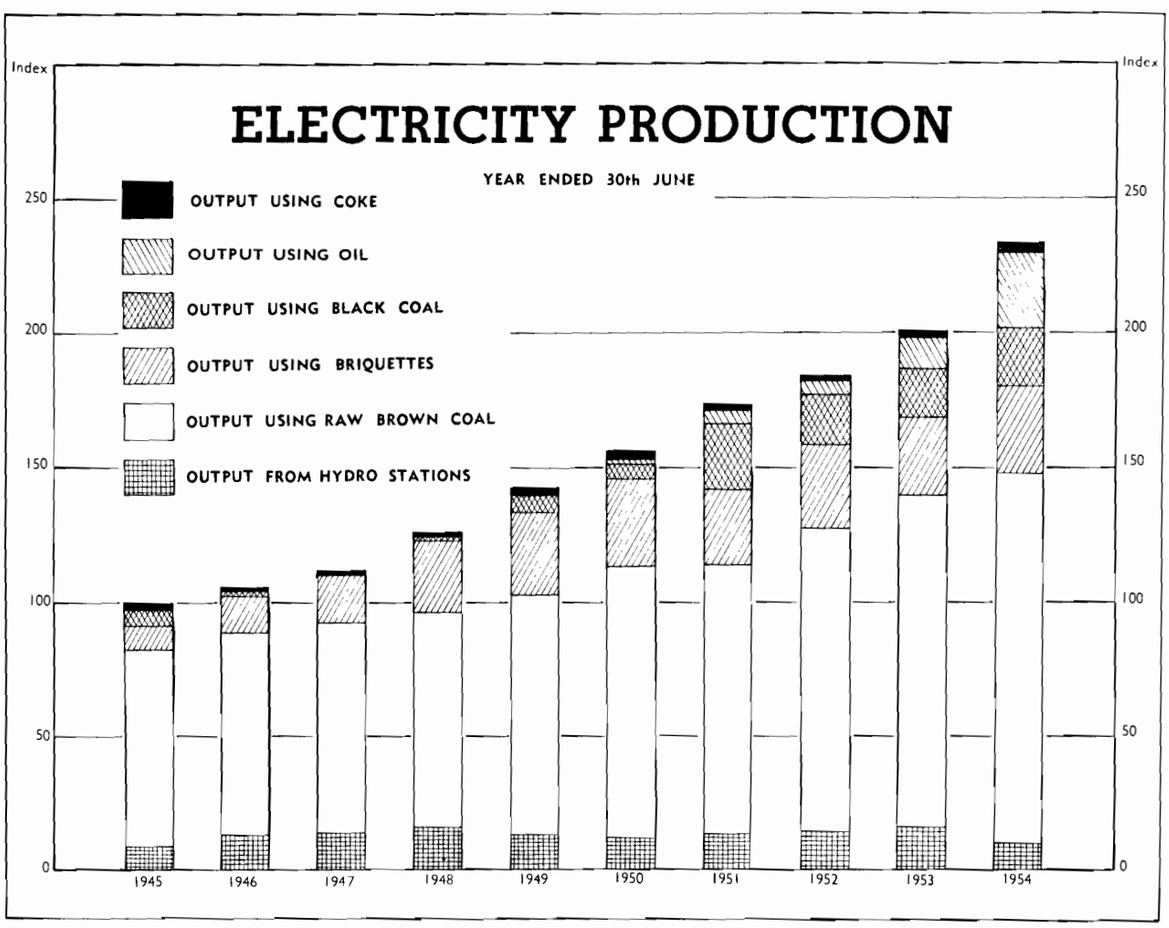
The replacement of drier stacks in the "A" Factory was continued. Work has commenced on the re-arrangement of the dried coal conveyors in Factory "B" and preliminary design has been completed for alterations to plant and buildings in Factories "A" and "B": both of these provisions will improve operating conditions. A new four-stamp press is being transferred from Morwell for installation at Yallourn.

Two taller chimneys with the latest equipment for the extraction of dust from flue gases are being installed at the boiler house ("B" and "C" Factories).

Sales	243,756 tons
(excluding Commission Power Stations — 368,638 tons)	
Revenue	£884,652
Expenditure	£824,084
Profit	£60,568

The profit on operations (£60,568) compared with a profit in the previous year of £13,241.

Over the last decade the output from the Commission's power stations has more than doubled. Most of the fuel needed for this increased production has been met from Victoria's own resources — brown coal or briquettes (see accompanying graph).

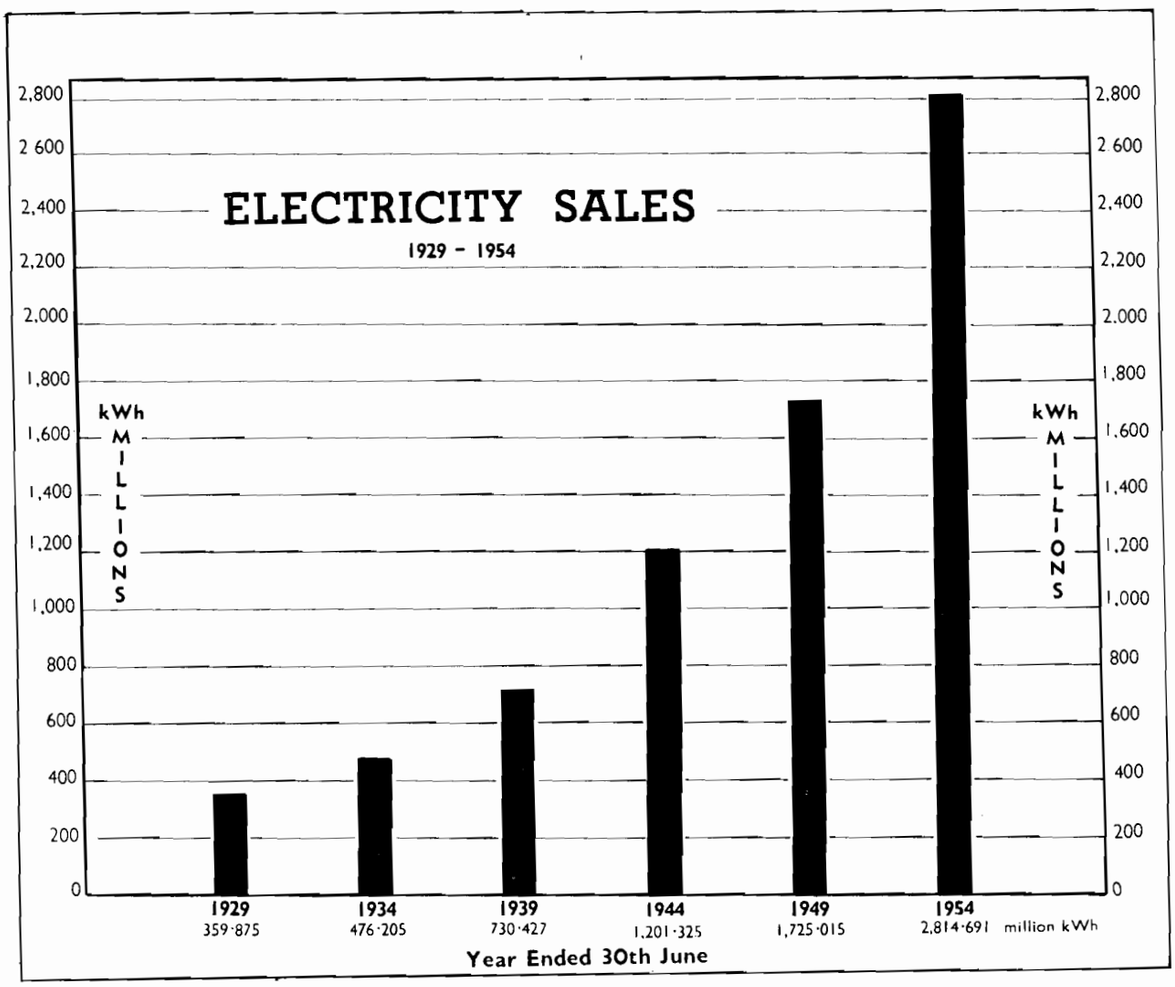


As previously reported, for many years the only practicable extension of the State generating system has been at stations designed originally for peak load operation. As these plants now operate at higher load factors, they require relatively greater quantities of fuel. During the year 926,745 tons of brown coal (principally from Yallourn North) and 199,736 tons of Callide (Queensland) coal were used at peak-load stations. Fuel supplies available were adequate for power station requirements throughout the period under review.

To 30th June, 1954, 451,000 tons of Callide coal had been delivered under the Government's contract for the purchase of 600,000 tons.

Electricity sold to all consumers — retail and bulk — totalled 2,815 million kilowatt-hours, an increase of 16 per cent. for the year compared with 8 per cent. during 1952/53.

The large increment this year — almost twice the highest previously recorded — is partly due to the 7 per cent. increase in the number of consumers. Also, there has been a substantial increase in consumption by existing consumers reflecting a greater application of electricity, particularly for power and heating in industry and commerce and for general purposes in the home and on the farm.



Sales by the Commission to domestic consumers increased by 17.8 per cent.; there were 27,290 new consumers in this class. The average consumption per domestic consumer for each of the last five years is as follows:—

	Average Consumption per Domestic Consumer kWh	Increase or Decrease kWh
1949-50	1,556	+186
1950-51	1,566	+ 10
1951-52	1,496	— 70
1952-53	1,600	+104
1953-54	1,770	+170

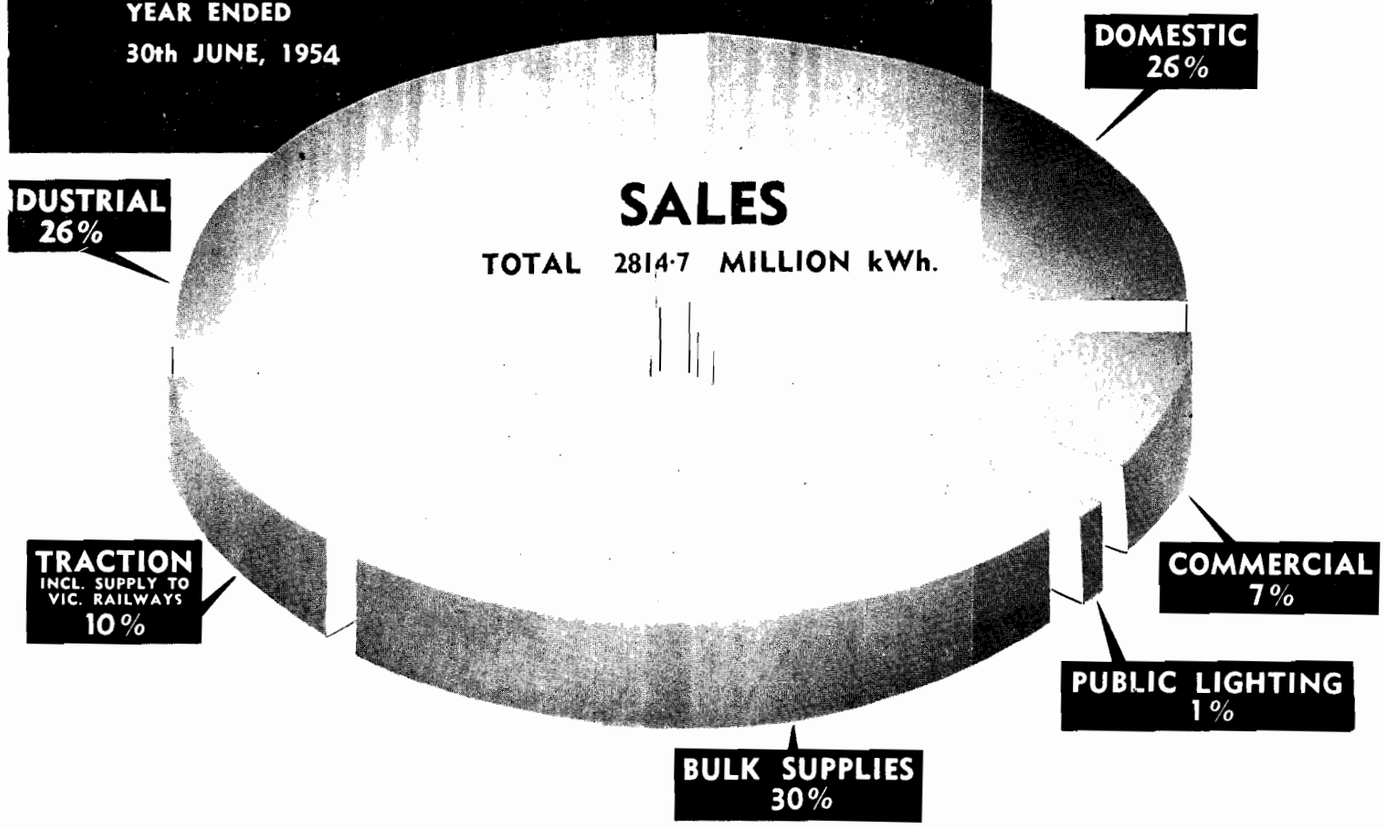
The average cost per kilowatt-hour sold to domestic consumers for all purposes is today lower than the pre-war period whereas since 1939 the basic wage has trebled. The trend over the last 10 years is shown in Graph No. 6 — "Ten Year Statistical Review"— at the front of this report.

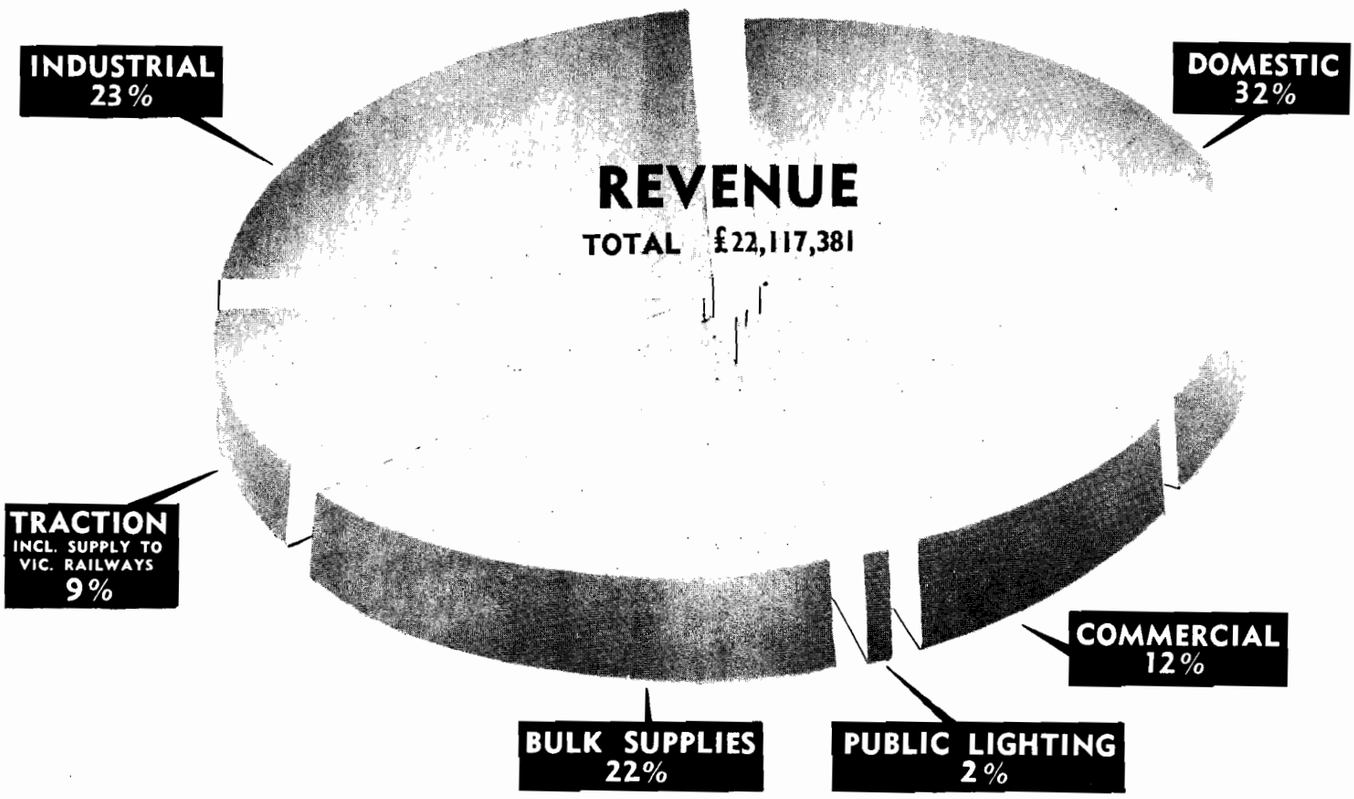
Sales to Commercial and Industrial consumers increased by 15.1 per cent. and 19.4 per cent. respectively; the number of consumers in these classes increased by 3,359 and an additional 44,115 h.p. of motors was connected.

ELECTRICITY SALES AND REVENUE

SUBDIVISIONS ACCORDING TO CLASSES OF CONSUMERS

YEAR ENDED
30th JUNE, 1954





The following summary of statistical data relating to the nine Branches of the Commission's Electricity Supply Department is compiled from information contained in this report:—

Revenue increased by £2,292,963 (15.3 per cent.) to £17,285,673.

Sales of Electricity increased by 279,552,884 (16.5 per cent.) to 1,969,942,143 kWh.

Consumers increased by 33,033 (7.0 per cent.) to 501,994.

Farms increased by 4,756 (21.3 per cent.) to 27,082.

Branch	Area of Supply (sq. miles)	No. of Consumers	Electricity sold kWh (millions)	Increase this year				No. of Farms Supplied
				Substations		Distribution Lines		
				No.	Capacity kVA	H.V. Route Miles	L.V. Route Miles	
Metropolitan	319.9	257,510	1,245.320	69	22,325	18.0	64.4	*1,150
Ballarat	376.4	19,445	51.189	56	2,220	53.5	14.7	1,125
Bendigo (including Mildura)	576.1	22,370	51.268	265	17,915	281.2	313.3	3,097
Geelong	242.8	25,483	101.438	50	6,935	29.1	27.8	1,025
East. Metropolitan	887.4	61,787	155.454	75	20,233	50.1	90.7	4,124
Gippsland (including Yallourn)	2,362.6	38,889	120.933	186	16,615	108.0	77.1	5,826
Midland	694.0	13,214	30.804	85	2,255	83.8	23.2	1,380
Nth. Eastern (including Kiewa)	2,058.7	38,335	150.364	298	16,965	151.0	54.6	5,090
South Western	1,722.0	24,961	63.172	269	14,767	137.8	41.3	4,265
Total	9,239.9	501,994	1,969.942	1,353	120,230	912.5	707.1	27,082

* Principally poultry farms and market gardens in the outer metropolitan area

Erection of 22 kV transmission lines for the electrification of the Gippsland railway between Dandenong and Warragul was completed.

Additional 22 kV switchgear is being installed at the Shepparton Main Substation and 22 kV and 66 kV oil circuit breakers at the Terang Main Substation.

In the year under review, the following country extensions were completed or were nearing completion at the 30th June, 1954:—

Bendigo Branch — Creek View; Hunter South; Myola East; Yarraberb.

Geelong Branch — St. Leonards-Red Bluff.

Eastern Metropolitan Branch — Wonga Park (south section); Warrandyte West.

Gippsland Branch — Blackwood Forest-Glen Alvie; Almurta Village; Kernot Village; Labertouche; Pheasant Creek-Poowong North; Bunyip River-Iona (Stage 2).

Midland Branch — Metcalfe; Sutton Grange.

North-Eastern Branch — Echuca North; Undera; Barwo Soldier Settlement; Warrenbayne; Wunghnu South; Gillieston.

South-Western Branch — Mt. Eccles; Modewarre; Port Campbell; North of Byaduk; Yambuk.

The following local electricity supply undertakings were acquired following the extension of transmitted supply:—Pyramid Hill, Wedderburn, Colbinabbin (Bendigo Branch); Cowes (Gippsland Branch) and Nagambie (North-Eastern Branch). The Mildura undertaking was acquired as part of a regional scheme based on the Mildura-Redcliffs Power Stations.

(Revenue £184,756. Loss £227,916)

During the year the Transport Regulation Board concluded its inquiry into passenger transport facilities at Geelong and has submitted its recommendations for Government consideration. The Commission trusts that as an outcome another form of street transport will be provided and thereby overcome a most unsatisfactory situation resulting from the fact that fixed rail or similar type systems have never been economically justified for street transport requirements in all three provincial cities.

Losses at Ballarat, Bendigo and Geelong were £74,369, £67,067 and £86,480 respectively.

Total revenue (£184,756) increased by £160 (0.1 per cent.) due to an increase of 0.3 per cent. in the number of passengers carried.

Total expenditure (£412,672) decreased by £8,212 (2.0 per cent.), due principally to the writing out of expenditure on tramways which resulted in lower interest charges.

Total Personnel

	30/6/54	
Staff	5,617	.....
Wages	11,730	.....
	17,347	.....

Wages employees at 30th June, 1954:—

Location	Operation	Construction
Power Generation	1,887	1,534
Main Transmission Lines, Terminal and Substations	307	639
Electricity Supply — Metropolitan Branch Distribution	319	147
Electricity Supply — Country Branch Distribution	573	664
Briquette Production and Distribution	443	88
Coal Winning — Yallourn	1,153	—
General Services, Town and Workshops, Yallourn	1,318	797
General Services, Workshops, elsewhere	1,482	98
Tramways — Ballarat, Bendigo, Geelong	281	—
	7,763	3,967
	11,730	

Difficulty has been experienced in obtaining sufficient skilled tradesmen, particularly those in the metal trades. In fact, at the close of the year the signs of labour shortage pointed so strongly to a return of 1949-51 conditions that the Commision found it necessary to again seek special aid from the Commonwealth migration authorities.

Education and Training

Seven Commission trainees were engaged on full-time studies at the University or Technical Colleges and 74 were pursuing part-time courses. A further scholarship (Engineering Diploma Course) was awarded.

Within the Commission, 4 graduates and 48 cadet engineers are receiving special training; 88 men completed the course at the Training School for Linesmen; there are 549 apprentices, principally in the engineering trades. Special training courses are being held for commercial executives, commercial cadets, draftsmen, power station personnel, survey assistants, junior commercial officers and meter testers.

Safety

Safety and accident prevention measures continued to be reviewed and additional employee safety groups have been formed.

The severity rate of accidents again declined, fatalities and permanent disabilities being lower than during the previous year.

At the close of the financial year, 61 electricity supply undertakings (38 municipal and 23 owned by companies or persons) were operating in Victoria under the provisions of this Act.

The Governor in Council approved the following Orders in Council authorising supply of electricity:—

Order No.	Area of Supply	Undertakers
281	The Gunbower Co-operative Butter Factory & Trading Co. Ltd.	Township of Gunbower (renewal)
282	Balmoral Electricity Supply Co. Pty. Ltd.	Township of Balmoral
284	P. R. Schulze	Township of Edenhope (renewal)

The following Orders in Council for the supply of electricity by local authorities were revoked following the transfer of the respective undertakings to State ownership:—Mildura, Wedderburn-Korong Vale, Port Campbell, Pyramid Hill, Phillip Island and Nagambie.

Extensions (totalling 780 kW) to generating plants at Casterton, Edenhope, Kaniva and Robinvale were approved.

Inspections were made of 27 electricity supply undertakings in addition to newly installed generating plants and high voltage systems; complaints of unsatisfactory services also were investigated.

Licensing of Electrical Mechanics

Licences in force as at 30th June, 1954:—Grade "A" — 3,987; Grade "B1" — 143; Grade "B" — 1,101; Grade "C" — 1,280. Two licensing examinations (including theory and practice) were held.

Special conditional permits were issued — 783 for periods not exceeding six months and 575 for periods not exceeding twelve months.

Registration of Electrical Contractors

At 30th June, 1954, 1,329 registrations were in force — 71 more than the previous year.

Electrical Approvals Board

Under the Board's constitution, two of its members retire each year. Mr. W. H. Stock and Mr. C. F. Baker were re-appointed as members of the Board for the ensuing three years as representing the interests of the fire underwriters and the workers in the electrical trade, respectively.

The Electrical Approvals Board since its inception in 1935 has made an outstanding contribution to electrical safety in this State, and to that body can be given much of the credit for the fact that in Victoria electrical fatalities have been low compared with other States and overseas. During this period, 4,111 articles have been tested and approval given to 3,113; in addition, approximately 4,000 articles were voluntarily submitted for test.

During the year there were 16 electrical fatalities; 10 of these were caused by incorrect or careless connection of flexible cords to plugs, extension sockets, etc., use of defective extension leads, or unauthorised alterations to fixed wiring. Five (including one Commission employee) were killed through contacting overhead mains, and there was one case of suicide.

Electrolysis Mitigation

The Electrolysis Committee invited representatives of users or potential users of cathodic protective equipment, consultants and suppliers to meet and arrange for co-operation in reducing damage to underground metallic structures caused by stray current electrolysis. All agreed to advise the Committee of any cathodic protection schemes in operation or proposed.

DEATH OF MR. G. G. JOBBINS — CHAIRMAN, 1937-1949

It is with profound sorrow and regret that the Commission records the death on the 9th October, 1954, of Mr. G. G. Jobbins, M.I.E.E., M.I.E.Aust., who retired on the 30th June, 1949, after being Chairman of the Commission for a period of nearly 12 years.

An appreciation of his distinguished work as an engineer and administrator in matters of electricity supply over a period of more than fifty years was recorded in the Commission's Thirtieth Annual Report. By his leadership and ability, Mr. Jobbins made an outstanding contribution to the establishment of electricity supply in Victoria, and to its development into an interconnected State-wide system.

The Commission records with a deep sense of loss the death of four of its valued senior officers:

Mr. H. F. Speakman, Chief Paymaster, died on the 6th December, 1953; Mr. Speakman joined the Commission in 1926.

Mr. E. Woodrow, A.M.I.E.Aust., Underground Mains Engineer, died on the 31st December, 1953; Mr. Woodrow joined the Commission in 1922.

Mr. F. I. Griffiths, B.E., A.M.I.E.Aust., died in London on the 30th January, 1954; Mr. Griffiths joined the Commission's staff in 1935 and at the time of his death was in charge of its London Office.

Mr. J. A. Slatter, B.C.E., A.M.I.E.Aust., A.M.Am.Soc.C.E., Assistant Civil Engineer, died as the result of an accident on the 25th September, 1954; Mr. Slatter joined the Commission's service in 1950.

Retirements

The Commission records its high appreciation of the services rendered over long periods by the following senior officers:—

Mr. H. S. Kilfoyle, F.C.A.A., Chief Accountant, retired on the 8th December, 1953, after 34 years' service with the Commission as head of its accounting organisation. He was appointed Accountant in November, 1919; this was one of the first appointments to the Commission's staff. Besides occupying the post of Chief Accountant, to which he was appointed in July, 1930, Mr. Kilfoyle also served as Chairman of the Provident Fund Advisory Committee and Chairman of the Appointments Board dealing with senior commercial positions.

Mr. H. A. L. Binder, Chairman, Staff Boards, retired because of ill-health on the 30th April, 1954, after 33 years' service; his duties embraced personnel relationships in their widest field. Mr. Binder was appointed to the post of Industrial Officer in May, 1921, and in 1946 became Assistant Manager, Personnel Division; in January, 1951, he was appointed to the post he held upon retirement.

Principal Appointments

Mr. J. F. Breen, M.Aust.I.M.M., was appointed Manager, General Services, as from the 23rd November, 1953. Mr. Breen's duties are the general correlation of all Commission workshops including transport and the control of forestry services; he was previously Assistant General Superintendent, Yallourn.

Mr. A. R. Shepley, B.C.E., B.Sc., M.I.E.Aust., was appointed Assistant General Superintendent, Yallourn, as from 23rd November, 1953. Mr. Shepley previously had been General Superintendent, Morwell.

Mr. J. F. Rigby, A.A.S.A., was appointed Chairman, Staff Boards, as from 1st May, 1954. Mr. Rigby has served as Commercial Member of the Staff Board and previously as Staff Officer.

• • •

The Commission again has real pleasure in placing on record its appreciation of the splendid service being rendered to the community by the efficiency and loyalty of the personnel engaged throughout the many phases of its activities. The vast programme of new works and the planning, development and operation of the power and fuel projects referred to in this report indicate the magnitude of the task so willingly accepted by all.

• • •

We have the honour to be, Sir, your obedient servants —

R. A. HUNT, Chairman.

ANDREW W. FAIRLEY, Commissioner.

W. D. CHAPMAN, Commissioner.

A. W. HENDERSON, Commissioner.

D. H. MUNRO,
Secretary.

18th November, 1954.

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERAL PROFIT AND LOSS ACCOUNT — FOR YEAR ENDED 30th JUNE, 1954

(Adjusted to the nearest £)

EXPENDITURE—	£	£
Electricity Supply—		
Purchased Electricity	1,139,764	
Generation, Transmission, Transformation and Distribution	14,167,263	
Interest	2,416,789	
Depreciation and Sinking Fund	838,966	
Administration and General Expenses	1,026,820	
Employees' Facilities and Welfare Expense	364,913	
Loan Flotation Expense	108,735	
Accommodation and Miscellaneous Services	191,621	
	20,254,871	
Deduct—Electricity transferred to Works	149,435	
		20,105,436
Briquetting—		
Manufacture and Distribution	2,383,576	
Interest	101,469	
Depreciation and Sinking Fund	39,907	
Administration and General Expenses	60,711	
Employees' Facilities and Welfare Expense	34,562	
Loan Flotation Expense	3,583	
Accommodation and Miscellaneous Services	76,607	
	2,700,415	
Deduct—Briquettes transferred to Works	1,876,331	
		824,084
Brown Coal—		
Winning and Distribution	1,738,292	
Interest	48,792	
Depreciation and Sinking Fund	16,262	
Administration and General Expenses	30,236	
Employees' Facilities and Welfare Expense	16,549	
Loan Flotation Expense	601	
Accommodation and Miscellaneous Services	43,698	
	1,894,430	
Deduct—Brown Coal transferred to Works	1,513,358	
		381,072
Tramways—		
Power and Traffic Expenses	362,168	
Interest	383	
Depreciation	2,012	
Administration and General Expenses	38,859	
Employees' Facilities and Welfare Expense	9,250	
		412,672
General—		
Miscellaneous Expenses		98,221
Profit—Carried down		1,859,494
		23,680,979
Interest and Other Expenditure associated with Deferment of Works		1,250,000
Contingency and Obsolescence Reserve		705,885
Rate Stabilisation Reserve		250,000
Surplus for year transferred to General Reserve		359,494
Accumulated surplus—30th June		—
		2,565,379

INCOME—	£	£
Electricity Supply—		
Domestic—General	6,487,545	
Domestic—Farms	539,799	
Commercial	2,705,241	
Industrial—General	4,578,069	
Industrial—Mining	107,397	
Industrial—Farms	506,881	
Traction	2,016,357	
Public Lighting	337,774	
Bulk Supplies	4,831,708	
Miscellaneous	6,610	
		22,117,381
Briquetting—		
Briquette Sales	999,962	
Add—Briquettes on hand at end of year	167,711	
	1,167,673	
Deduct—Briquettes on hand at beginning of year	283,021	
		884,652
Brown Coal—		
Brown Coal Sales	484,330	
		484,330
Tramways—		
Traffic Receipts	184,323	
Advertising, etc.	433	
		184,756
General—		
Miscellaneous Income	9,860	9,860
		23,680,979
Profit—Brought down		1,859,494
Accumulated surplus—beginning of year		705,885
		2,565,379

The following amounts have been included in the Depreciation provision for Sinking Fund Contributions:—

	1952–53	1953–54
Electricity Supply	£640,329	£833,040
Briquetting	25,584	29,100
Brown Coal	5,458	4,877

Sale of Electrical Appliances.—The operating accounts include in respect of this function

	Revenue	Expenditure
1952–53	£524,153	£528,422
1953–54	£589,270	£582,918

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERAL BALANCE SHEET AS AT 30th JUNE, 1954

(Adjusted to the nearest £)

LIABILITIES

	£	£
Capital Liabilities—		
Victorian Government Advances	43,620,642	
Deduct—Redeemed or Cancelled Securities	3,576,601	
	40,044,041*	
Debentures and Inscribed Stock	£	
Issued by Commission (See Schedule)	125,311,865	
Deduct—Redeemed or Cancelled Securities	1,727,874	
	123,583,991†	
Issued by Undertakings acquired by Commission (See Schedule)	458,395	
		164,086,427
Current and Accrued Liabilities—		
Bank Overdraft	—	
Accounts Payable	1,936,504	
Consumers' Deposits	41,297	
Service Charges received in Advance	296,368	
Unclaimed Salaries, Wages and Interest	43,772	
Other Deposits and Trust Moneys	105,650	
Interest Accrued	1,305,233	
Salaries and Wages Accrued	248,440	
Pay Roll Tax Accrued	43,365	
Workers' Compensation Insurance Accrued	50,877	
Freight Accrued	102,892	
Miscellaneous	121,159	
		4,295,557
Suspense Credits—		
Consumers' Advances for Construction	2,195,451	
Miscellaneous	104,418	
		2,299,869
Reserves—		
Depreciation and Sinking Fund	20,170,363	
Contingency and Obsolescence	1,598,979	
Rate Stabilisation	500,000	
Rural Development	1,200,000	
General	1,064,304	
		24,533,646
Profit and Loss—Accumulated Surplus	—	
		195,215,499

* Of these totals the undermentioned amounts are deemed to have been raised overseas and to be repayable in Sterling—
30th June, 1954 ... £6,590,083
30th June, 1953 ... £6,613,940

† These totals include the undermentioned amounts raised in London and repayable in Sterling—
30th June, 1954 ... £795,420
30th June, 1953 ... £805,455

ASSETS

	£	£
Fixed Capital—		
Coal Production	10,906,720	
Briquette Production	19,127,427	
Briquette Storage and Distribution	225,604	
Power Production—Thermal Stations (Steam)	39,009,946	
" " Thermal Stations (Internal Combustion)	1,769,289	
" " Hydro Stations	14,311,685	
Transmission System	11,262,316	
Terminal Transformation System	9,022,657	
Distribution System	26,929,960	
Tramways	7,854	
General	41,020,435	
	173,593,893	
Deduct—Proportion of cost of extensions payable by consumers	280,454	
		173,313,439
Current and Accrued Assets—		
Cash	161,964	
Accounts Receivable	2,338,045	
Materials and Supplies (Construction and Operation)	7,962,159	
Working Fund Advances	54,633	
Accounts in hands of Agent-General, London	71,707	
Investments	634	
Prepayments	28,959	
Accrued Revenues	1,213,079	
Miscellaneous	55,736	
		11,886,916
Suspense Debits—		
Overburden Removal and Disposal	4,487,405	
Preliminary Investigations	269,183	
Acquisitions	56,529	
Unamortised Loan Flotation Expense	842,153	
Work in Progress	279,569	
Unallocated Contract Expenditure	480,823	
Deferred Works	2,971,854	
Miscellaneous	132,077	
		9,519,593
Reserve Funds—		
Sinking Funds	495,551	
		495,551
		195,215,499

Contingent Assets and Liabilities in respect of securities lodged with the Commission and the Agent-General for Victoria in London as bona fides under Commission contracts were as follows:—

	30th June, 1953	30th June, 1954
Pounds (Australian)	2,414,296	2,325,305
Pounds (Sterling)	2,222,695	1,173,724
American Dollars	4,996,676	4,966,676
German Deutschmarks	5,611	5,611

EDWIN TUCK, Chief Accountant

W. J. PRICE, Commercial Manager
8th November, 1954

AUDITOR-GENERAL'S CERTIFICATE

The Accounts of the State Electricity Commission of Victoria have been audited for the year ended 30th June, 1954. In my opinion the above Balance Sheet presents a correct view of the affairs of the undertaking at the 30th June, 1954, and the Profit and Loss Account properly summarizes the operations of the Commission for the year.

E. A. PEVERILL, Auditor-General
15th November, 1954

STATE ELECTRICITY COMMISSION OF VICTORIA

SCHEDULE OF FIXED CAPITAL EXPENDITURE AS AT 30th JUNE, 1954

(Adjusted to nearest £)

	YALLOURN		MORWELL		ELECTRICITY SUPPLY DEPARTMENT		KIEWA		OTHER AREAS & GENERAL		TOTAL	
	1953/54 New Expenditure	As at 30/6/54	1953/54 New Expenditure	As at 30/6/54	1953/54 New Expenditure	As at 30/6/54	1953/54 New Expenditure	As at 30/6/54	1953/54 New Expenditure	As at 30/6/54	1953/54 New Expenditure	As at 30/6/54
	£	£	£	£	£	£	£	£	£	£	£	£
Coal Production	1,736,382	**8,267,478**	362,595	**2,639,242**							2,098,977	**10,906,720**
Briquette Production	143,752	**2,599,990**	2,758,037	**16,527,437**							2,901,789	**19,127,427**
Briquette Storage and Distribution	169	**53,551**								**172,053**	169	**225,604**
Steam Power Stations												
Ballarat "B"									605,946	**2,809,777**		
Geelong "A"									14	**293,458**		
Geelong "B"									772,633	**3,548,249**		
Mildura									333,257	**321,075**		
Newport									254,580	**9,973,752**		
Redcliffs									368,573	**1,351,367**		
Richmond									152,269	**3,374,093**		
Yallourn	4,072,179	**17,328,873**										
Miscellaneous									3,005	**9,302**	6,562,456	**39,009,946**
Internal Combustion Power Stations												
Hamilton									729	**162,019**		
Shepparton									34,141	**1,020,097**		
Warrnambool									115,275	**587,173**	150,145	**1,769,289**
Hydro Power Stations												
Eildon-Rubicon									1,422,585	**2,084,738**		
Kiewa							2,121,165	**12,226,947**			3,543,750	**14,311,685**
Transmission System	572,619	**1,690,095**					125,115	**863,871**	2,159,153	**8,708,350**	2,856,887	**11,262,316**
Terminal Transformation System									1,165,385	**9,022,657**	1,165,385	**9,022,657**
Distribution System												
Metropolitan Branch					970,933	**8,880,737**						
Provincial & Country Branches					3,158,520	**17,970,039**						
Yallourn	928	**79,184**									4,130,381	**26,929,960**
Tramways					56	**7,854**					56	**7,854**
General												
Offices, Stores, Workshops, etc.	374,264	**2,829,601**	5,289	**367,303**	155,668	**1,785,851**	14,044	**1,586,129**	169,208	**2,530,290**	718,473	**9,099,174**
Plant and Equipment	51,015	**1,824,519**	13,883	**725,844**	195,050	**670,468**	2,114	**1,368,214**	418,270	**6,251,515**	680,332	**10,840,560**
Accommodation — Townships, Hostels, etc.	165,491	**5,843,896**	1,240	**1,086,749**			474	**3,969,472**	33,050	**550,434**	200,255	**11,450,551**
Miscellaneous Services (Roads, Railways, Sewerage, Electricity, Telephones, Fire Services, etc.)	136,515	**2,037,763**	28,797	**2,569,383**	23,095	**365,154**	44,961	**3,429,362**	211,634	**1,228,488**	445,002	**9,630,150**
	7,253,314	**42,554,950**	3,169,841	**23,915,958**	4,503,322	**29,680,103**	2,307,873	**23,443,995**	8,219,707	**53,998,887**	25,454,057	**173,593,893**
Deduct proportion of cost of extensions payable by consumers					41,063	**257,323**				**23,131**	41,063	**280,454**
	7,253,314	**42,554,950**	3,169,841	**23,915,958**	4,462,259	**29,422,780**	2,307,873	**23,443,995**	8,219,707	**53,975,756**	25,412,994	**173,313,439**

STATE ELECTRICITY COMMISSION OF VICTORIA

ABSTRACT OF CAPITAL, REVENUE AND OPERATING ACCOUNTS

Year ended 30th June	Capital			Revenue						Operating Expenditure including Writings Off, etc.	+ Surplus. − Deficit.
	Capital Expenditure	Loan Liability	Reserves	Electricity Supply	Briquetting	Brown Coal	Tramways	Miscellaneous	Total		
	£	£	£	£	£	£	£	£	£	£	£
1925	**7,759,825**	**8,293,765**	**43,936**	**617,286**	**40,468**	**41,602**	...	...	**699,356**	**963,638**	− **264,282**
1926	9,032,464	10,120,794	67,616	713,252	122,379	19,476	...	...	855,107	1,125,077	− 269,970
1927	**10,742,104**	**11,849,698**	**262,942**	**975,362**	**179,184**	**16,124**	...	...	**1,170,670**	**1,367,324**	− **196,654**
1928	12,762,939	13,567,546	493,935	1,262,787	192,256	10,698	...	...	1,465,741	1,463,868	+ 1,873
1929	14,530,684	15,126,107	833,618	1,427,751	226,186	7,858	...	...	1,661,795	1,657,181	+ 4,614
1930	**16,397,608**	**16,778,413**	**1,151,139**	**1,624,255**	**264,459**	**9,153**	...	...	**1,897,867**	**1,892,601**	+ **5,266**
1931	18,553,592	19,286,428	1,593,462	2,234,756	276,930	1,116	30,971	1,120	2,544,893	2,562,846	− 17,953
1932	19,337,273	19,735,177	2,135,205	2,456,696	357,056	...	35,450	717	2,849,919	2,846,888	+ 3,031
1933	**19,667,259**	**19,668,146**	**2,823,912**	**2,577,547**	**313,435**	...	**34,180**	**97**	**2,925,259**	**2,921,830**	+ **3,429**
1934	19,748,318	19,109,659	3,332,096	2,717,992	309,936	...	33,510	74	3,061,512	3,028,393	+ 33,119
1935	20,305,078	19,527,309	3,757,812	2,995,707	297,858	...	77,121	10,098	3,380,784	3,374,306	+ 6,478
1936	**20,866,242**	**18,806,748**	**4,380,047**	**3,164,703**	**348,650**	...	**78,207**	**8,180**	**3,599,740**	**3,572,012**	+ **27,728**
1937	21,638,314	18,682,415	5,008,027	3,339,560	337,227	...	76,142	7,500	3,760,429	3,721,528	+ 38,901
1938	22,698,893	19,242,265	5,672,343	3,539,974	394,634	...	75,567	1,008	4,011,183	3,957,354	+ 53,829
1939	**24,268,880**	**19,422,927**	**6,449,707**	**3,685,107**	**377,022**	...	**78,664**	**1,099**	**4,141,892**	**4,020,992**	+ **120,900**
1940	25,369,679	20,524,010	7,300,198	3,894,893	400,125	...	78,211	3,700	4,376,929	4,250,416	+ 126,513
1941	26,116,795	20,678,339	8,218,078	4,241,264	379,847	...	89,571	13,374	4,724,056	4,563,376	+ 160,680
1942	**26,955,737**	**20,523,266**	**9,256,460**	**4,657,450**	**330,756**	**12,594**	**109,955**	**42,894**	**5,153,649**	**5,069,227**	+ **84,422**
1943	28,345,527	20,348,116	10,460,227	4,935,602	341,631	20,542	135,900	56,413	5,490,088	5,348,695	+ 141,393
1944	29,695,740	20,164,482	11,547,016	5,101,631	316,847	21,263	143,086	45,953	5,628,780	5,503,908	+ 124,872
1945	**31,297,130**	**20,997,826**	**12,902,334**	**5,259,881**	**329,428**	**24,443**	**146,605**	**38,804**	**5,799,161**	**5,739,953**	+ **59,208**
1946	33,622,088	20,927,313	14,448,315	5,605,333	341,761	25,702	146,503	40,886	6,160,185	6,096,722	+ 63,463
1947	36,460,148	23,220,783	15,686,004	5,835,194	321,711	67,767	142,281	32,561	6,399,514	6,310,109	+ 89,405
1948	**40,523,149**	**26,990,075**	**16,566,022**	**6,543,089**	**325,181**	**102,003**	**143,878**	**33,338**	**7,147,489**	**7,360,561**	+ **29,928***
1949	47,327,034	33,829,561	17,448,526	8,129,973	300,277	194,995	147,797	32,776	8,805,818	8,879,517	+ 29,301†
1950	61,358,803	51,270,067	18,200,424	9,446,008	436,862	244,100	171,504	40,183	10,338,657	10,688,025	− 249,368‡
1951	**93,096,608**	**83,647,043**	**19,308,612**	**11,524,389**	**520,052**	**203,418**	**175,063**	**31,576**	**12,454,498**	**12,452,638**	+ **1,860**
1952	124,010,685	117,048,987	20,595,756	15,099,864	751,676	295,434	180,697	5,992	16,333,663	16,124,453	+ 209,210
1953	150,386,031	139,127,925	22,521,090	19,189,514	932,481	422,031	184,596	7,943	20,736,565	20,393,414	+ 343,151
1954	**173,313,439**	**164,086,427**	**24,533,646**	**22,117,381**	**884,652**	**484,330**	**184,756**	**9,860**	**23,680,979**	**23,321,485**	+ **359,494**

*After transfers of £243,000 from Reserves. †After transfers of £103,000 from Reserves. ‡After transfer of £100,000 from Reserves.

APPENDIX No. 5

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1954

Loans Raised under the Authority of the State Electricity Commission Act No. 4512 and Amendments

Loan No.	Amount Authorised	Amount Subscribed and Received	Rate	Term	Due	Sinking Fund	Amount Redeemed	Outstanding as at 30th June
	£	£	%	Years		%	£ s. d.	£ s. d.
Loan No. 7	150,000	150,000	4·25	15	1955	1	...	150,000 0 0
Loan No. 9	300,000	300,000	3·4375	16	1957	1	9,000 0 0	291,000 0 0
Loan No. 10	1,000,000	1,000,000	3·375	10	1955	1	103,156 18 7	896,843 1 5
Loan No. 11	150,000	150,000	3·3125	10	1956	1	11,602 19 9	138,397 0 3
Loan No. 12	1,350,000	1,350,000	3·3125	10	1956	1	104,426 18 1	1,245,573 1 11
Loan No. 13	500,000	500,000	3·3125	10	1957	1	38,676 12 8	461,323 7 4
Loan No. 14	500,000	500,000	3·25	10	1957	1	38,603 9 5	461,396 10 7
Loan No. 15	1,000,000	1,000,000	3·25	15	1962	1	65,091 9 3	934,908 10 9
Loan No. 16	500,000	500,000	3·25	15	1962	1	32,545 14 9	467,454 5 3
Loan No. 17	500,000	500,000	3·25	15	1963	1	32,545 14 9	467,454 5 3
Loan No. 18	1,000,000	1,000,000	3·1875	10	1958	1	64,989 7 5	935,010 12 7
Loan No. 19	720,000	720,000	3·1875	10	1958	1	46,792 7 0	673,207 13 0
Loan No. 20	1,000,000	1,000,000	3·1875	10	1958	1	64,989 7 5	935,010 12 7
Loan No. 21	1,000,000	1,000,000	3·1875	10	1958	1	53,290 14 7	946,709 5 5
Loan No. 22	1,000,000	1,000,000	3·1875	10	1958	1	53,290 14 7	946,709 5 5
Loan No. 23	1,000,000	1,000,000	3·1875	10	1958	1	53,290 14 7	946,709 5 5
Loan No. 24	500,000	500,000	3·1875	10	1958	1	26,645 7 4	473,354 12 8
Loan No. 25	1,340,300	1,340,300	3·1875	12	1961	1	30,450 0 0	1,309,850 0 0
Loan No. 26	1,500,000	1,500,000	3·1875	10	1959	1	79,936 1 11	1,420,063 18 1
Loan No. 27	300,000	300,000	3·1875	12	1961	1	15,987 4 5	284,012 15 7
Loan No. 28	360,000	360,000	3·1875	12	1961	1	...	360,000 0 0
Loan No. 29	2,334,000	2,334,000	3·1875	12	1961	1	71,050 0 0	2,262,950 0 0
Loan No. 30	2,000,000	2,000,000	3·1875	10	1959	1	83,906 18 6	1,916,093 1 6
Loan No. 31	500,000	500,000	3·1875	10	1959	1	20,976 14 8	479,023 5 4
Loan No. 32	1,000,000	1,000,000	3·1875	10	1959	1	41,953 9 3	958,046 10 9
Loan No. 33	1,250,000	1,250,000	3·25	12	1961	0·5	...	1,250,000 0 0
Loan No. 34	1,000,000	1,000,000	3·25	10	1959	0·5	...	1,000,000 0 0
Loan No. 35	1,000,000	1,000,000	3·1875	10	1959	0·5	20,976 14 8	979,023 5 4
Loan No. 36	400,000	400,000	3·25	15	1964	0·5	8,398 10 4	391,601 9 8
Loan No. 37	100,000	100,000	3·25	15	1964	0·5	...	100,000 0 0
Loan No. 38	1,000,000	1,000,000	3·1875	10	1959	0·5	20,976 14 8	979,023 5 4
Loan No. 39	1,000,000	1,000,000	3·1875	10	1960	0·5	20,976 14 8	979,023 5 4
Loan No. 40	2,488,800	2,488,800	3·25	15	1965	0·5	36,550 0 0	2,452,250 0 0
Loan No. 41	1,000,000	1,000,000	3·1875	10	1960	0·5	20,976 14 8	979,023 5 4
Loan No. 42	1,500,000	1,500,000	3·3125	12	1962	0·5	...	1,500,000 0 0
Loan No. 43	1,000,000	1,000,000	3·3125	15	1965	0·5	...	1,000,000 0 0
Loan No. 44	193,000	193,000	3·3125	15	1965	0·5	...	193,000 0 0
Loan No. 45	220,000	220,000	3·1875	10	1960	0·5	4,614 17 8	215,385 2 4
Loan No. 47	550,000	550,000	3·3125	12	1962	0·5	...	550,000 0 0
Loan No. 48	500,000	500,000	3·3125	12	1962	0·5	...	500,000 0 0
Loan No. 49	500,000	500,000	3·1875	10	1960	0·5	10,488 7 4	489,511 12 8
Loan No. 50	3,106,050	3,106,050	3·25	15	1965	0·5	44,000 0 0	3,062,050 0 0
Loan No. 51	500,000	500,000	3·1875	10	1960	0·5	7,741 12 0	492,258 8 0
Loan No. 52	500,000	500,000	3·3125	15	1965	0·5	7,751 3 7	492,248 16 5
Loan No. 53	500,000	500,000	3·375	15	1965	0·5	...	500,000 0 0
Loan No. 54	1,800,000	1,800,000	3·375	15	1965	0·5	...	1,800,000 0 0
Loan No. 55	500,000	500,000	3·375	12	1962	0·5	...	500,000 0 0
Loan No. 56	250,000	250,000	3·375	19/20	1969/70	0·5	...	250,000 0 0
Loan No. 57	500,000	500,000	3·375	14	1964	0·5	...	500,000 0 0
Loan No. 58	1,300,000	1,300,000	3·375	12	1962	0·5	...	1,300,000 0 0
Loan No. 59	500,000	500,000	3·375	14	1964	0·5	...	500,000 0 0
Loan No. 60	1,000,000	1,000,000	3·375	12	1962	0·5	...	1,000,000 0 0
Loan No. 61	1,000,000	1,000,000	3·375	12	1962	0·5	...	1,000,000 0 0
Loan No. 62	500,000	500,000	3·375	12	1962	0·5	...	500,000 0 0
Loan No. 64	500,000	500,000	3·375	12	1962	0·5	...	500,000 0 0
Loan No. 65	800,000	800,000	3·325	12	1962	0·5	...	800,000 0 0
Loan No. 67	250,000	250,000	3·375	12	1962	0·5	...	250,000 0 0
Loan No. 68	6,000,000	5,998,450	3·375	12	1963	0·5	70,300 0 0	5,928,150 0 0
Loan No. 70	250,000	250,000	3·375	12	1962	0·5	...	250,000 0 0
Loan No. 71	500,000	500,000	3·375	12	1962	0·5	...	500,000 0 0
Loan No. 72	250,000	250,000	3·375	12	1962	0·5	...	250,000 0 0
Loan No. 73	500,000	500,000	3·5	12	1963	0·5	...	500,000 0 0
Loan No. 74	2,000,000	2,000,000	3·5	10	1961	0·5	...	2,000,000 0 0
Loan No. 75	500,000	500,000	3·5	12	1963	0·5	...	500,000 0 0
Loan No. 76	1,000,000	1,000,000	3·375	10	1961	0·5	15,511 18 10	984,488 1 2
Loan No. 77	100,000	100,000	3·5	12	1963	0·5	1,553 2 3	98,446 17 9
Loan No. 78	350,000	350,000	3·5	10	1961	0·5	5,435 17 11	344,564 2 1
Loan No. 79	200,000	200,000	3·5	10	1961	0·5	...	200,000 0 0
Loan No. 81	100,000	100,000	3·5	10	1961	0·5	...	100,000 0 0
Loan No. 82	200,000	200,000	3·5	10	1961	0·5	...	200,000 0 0
Loan No. 83	1,500,000	1,500,000	3·5	10	1961	0·5	23,296 13 8	1,476,703 6 4
Loan No. 84	150,000	150,000	3·5	10	1961	0·5	...	150,000 0 0
Loan No. 85	6,000,000	5,993,700	3·5	10	1961	0·5	56,850 0 0	5,936,850 0 0
Loan No. 86	25,000	25,000	3·5	10	1961	0·5	388 5 7	24,611 14 5
Loan No. 87	118,850	118,850	3·5	12	1963	0·5	1,845 17 6	117,004 2 6
Loan No. 88	2,000,000	2,000,000	3·5	5	1956	0·5	25,890 9 0	1,974,109 11 0
Loan No. 89	100,000	100,000	4·125	12	1963	0·5	1,020 12 6	98,979 7 6
Loan No. 90	100,000	100,000	4·125	12	1963	0·5	1,020 12 6	98,979 7 6
Loan No. 91	1,000,000	1,000,000	4·0	10	1961	0·5	10,200 0 0	989,800 0 0
Loan No. 92	4,930,000	4,929,800	4·125	10	1961	0·5	39,250 0 0	4,890,550 0 0
Loan No. 93	1,000,000	1,000,000	4·125	10	1962	0·5	10,206 5 0	989,793 15 0
Loan No. 94	4,212,050	4,211,150	4·125	10	1962	0·5	32,650 0 0	4,178,500 0 0
Loan No. 95	250,000	250,000	4·125	10	1962	0·5	2,551 11 3	247,448 8 9
Loan No. 96	1,000,000	1,000,000	4·125	10	1962	0·5	10,206 5 0	989,793 15 0
Loan No. 97	1,000,000	1,000,000	4·125	10	1962	0·5	10,313 13 0	989,686 7 0
Loan No. 98	150,000	150,000	3·625	10	1962	0·5	...	150,000 0 0
Loan No. 99	3,500,000	3,500,000	4·125	10	1962	0·5	20,900 0 0	3,479,100 0 0
Loan No. 102 ...	2,403,450	2,401,250	4·5	10	1962	0·5	9,300 0 0	2,391,950 0 0
Loan No. 104 ...	2,250,000	2,249,700	4·75	10.5	1963	0·5	6,500 0 0	2,243,200 0 0
Loan No. 111 ...	2,250,000	2,249,850	4·75	7/12	1960/65	0·5	5,850 0 0	2,244,000 0 0
Loan No. 116 ...	75,000	75,000	3.5	2	1955	...	...	75,000 0 0
Loan No. 117 ...	100,000	100,000	4·875	25	1978	0·5	...	100,000 0 0
Loan No. 118 ...	1,000,000	1,000,000	4·75	7	1960	0·5	5,000 0 0	995,000 0 0
Loan No. 119 ...	100,000	100,000	4·75	11	1964	0·5	...	100,000 0 0
Loan No. 120 ...	2,119,200	2,119,200	4·75	7/12	1960/65	0·5	...	2,119,200 0 0
Loan No. 122 ...	500,000	500,000	4·875	10	1963	0·5	...	500,000 0 0
Loan No. 124 ...	100,000	100,000	4·875	12	1965	0·5	...	100,000 0 0
Loan No. 126 ...	3,000,000	3,000,000	4·875	15	1968	0·5	15,182 16 3	2,984,817 3 9
Loan No. 127 ...	2,000,000	2,000,000	4·75	7	1960	0·5	...	2,000,000 0 0
Loan No. 128 ...	50,000	50,000	4·875	25	1978	0·5	...	50,000 0 0
Loan No. 130 ...	2,600,000	2,599,805	4·75	7/15/25	1960/68/78	0·5	...	2,599,805 0 0
Loan No. 131 ...	100,000	100,000	4·875	11	1964	0·5	...	100,000 0 0
Loan No. 132 ...	250,000	250,000	4·875	25	1978	0·5	...	250,000 0 0
Loan No. 133 ...	1,000,000	1,000,000	4·75	7	1960	0·5	...	1,000,000 0 0
Loan No. 134 ...	4,250,000	4,246,150	4·75	10/15	1963/68	0·5	...	4,246,150 0 0
Carried Forward	111,845,700	111,830,055					1,727,874 8 9	110,102,180 11 3

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1954

Loan No.	Amount Authorised	Amount Subscribed and Received	Rate	Term	Due	Sinking Fund	Amount Redeemed	Outstanding as at 30th June
	£	£	%	Years		%	£ s. d.	£ s. d.
Brought Forward—	111,845,700	111,830,055					1,727 874 8 9	110,102,180 11 3
Loan No. 135 ...	1,000,000	999,995	4·5/4·75	5/7/12	1958/66	0·5	...	999,995 0 0
Loan No. 136 ...	1,000,000	1,000,000	4·875	15	1969	0·5	...	1,000,000 0 0
Loan No 137 ...	100,000	100,000	4·875	15	1968	0·5	...	100,000 0 0
Loan No. 138 ...	250,000	250,000	4·875	10	1963	0·5	...	250,000 0 0
Loan No. 139 ...	75,000	75,000	4·875	25	1979	0·5	...	75,000 0 0
Loan No. 141 ...	1,000,000	1,000,000	4·75	7	1961	0·5	...	1,000,000 0 0
Loan No. 142 ...	5,000,000	4,996,395	4·75	10/20	1964/74	0·5	...	4,996,395 0 0
Loan No. 143 ...	500,000	500,000	4·875	10	1964	0·5	...	500,000 0 0
Loan No. 144 ...	1,000,000	1,000,000	4·875	15	1969	0·5	...	1,000,000 0 0
Loan No. 146 ...	50,000	50,000	4·875	25	1979	0·5	...	50,000 0 0
Loan No. 147 ...	250,000	250,000	4·875	10	1964	0·5	...	250,000 0 0
Loan No. 148 ...	150,000	150,000	4·875	25	1979	0·5	...	150,000 0 0
Loan No. 149 ...	100,000	100,000	4·875	25	1979	0·5	...	100,000 0 0
Loan No. 150 ...	1,000,000	1,000,000	4·75	7	1961	0·5	...	1,000,000 0 0
Loan No. 151 ...	100,000	100,000	4·875	20	1974	0·5	...	100,000 0 0
Loan No. 152 ...	75,000	25,000	4·875	10	1964	0·5	...	25,000 0 0
Loan No. 153 ...	250,000	250,000	4·875	10	1964	0·5	...	250,000 0 0
Loan No. 154 ...	795,420	795,420	4·375	12	1966	0·5	...	795,420 0 0
Loan No 155 ...	500,000	500,000	4·875	25	1979	0·5	...	500,000 0 0
Loan No. 156 ...	500,000	90,000	4·875	25	1979	0·5	...	90,000 0 0
Loan No. 158 ...	250,000	250,000	4·875	10	1964	0·5	...	250,000 0 0
	125,791,120	125,311,865					1,727,874 8 9	123,583,990 11 3

Issued by Undertakings Acquired by the State Electricity Commission of Victoria

Original Issues	£642,400 0 0
Outstanding at Dates of Acquisitions	£491,178 13 4
Outstanding at 30th June, 1954	£458,394 19 3

GENERATION OF ELECTRICITY

State of Victoria

All Supply Authorities

Authority	State Electricity Commission	Melbourne City Council	Victorian State Railways			Melbourne Electric Supply Co. Ltd.		Electric Supply Co. of Victoria Ltd.		Local Authorities	Total kWh Generated State of Victoria (millions)
Stations	See Appendix No. 7	Spencer-street, Melbourne	Newport "A"			Richmond	Geelong	Ballarat	Bendigo	Country Centres not Served by State Generating System kWh (millions)	
Year	kWh (millions)	kWh (millions)	kWh (millions) (1)	kWh (millions) (2)	kWh (millions) Total	kWh (millions)	kWh (millions)	kWh (millions)	kWh (millions)		
1924–25 ...	101·8	20·0	108·0	152·7	260·7	25·3	18·0	4·0	3·5	14·0	447·3
1925–26 ...	188·7	17·7	74·8	163·7	238·5	34·9	21·1	4·1	3·5	14·0	522·5
1926–27 ...	**284·2**	**14·6**	**27·0**	**169·1**	**196·1**	**38·1**	**30·3**	**4·4**	**3·6**	**15·0**	**586·3**
1927–28 ...	378·8	13·5	12·9	166·2	179·1	4·2	30·3	5·0	4·2	16·0	631·1
1928–29 ...	422·3	16·0	12·0	162·5	174·5	...	32·2	5·3	4·5	16·0	670·8
1929–30 ...	**461·2**	**17·1**	**11·3**	**164·7**	**176·0**	...	**27·3**	**5·1**	**4·5**	**15·0**	**706·2**
1930–31 ...	458·3	12·1	15·5	154·1	169·6	...	4·7	4·9	4·8	15·0	669·4
1931–32 ...	504·9	12·3	9·7	146·8	156·5	...	...	4·9	5·0	16·0	699·6
1932–33 ...	**549·7**	**10·0**	**10·4**	**150·2**	**160·6**	...	...	**5·2**	**5·1**	**17·0**	**747·6**
1933–34 ...	590·0	14·7	10·5	151·9	162·4	...	...	5·8	5·3	18·0	796·2
1934–35 ...	620·1	23·9	35·2	156·2	191·4	Stations acquired by State Electricity Commission				20·0	855·4
1935–36 ...	**716·1**	**35·6**	**12·2**	**159·1**	**171·3**	...	...	...	...	**22·0**	**945·0**
1936–37 ...	769·7	33·9	14·1	162·9	177·0	...	...	...	...	23·0	1,003·6
1937–38 ...	836·1	34·7	14·5	165·2	179·7	...	...	...	...	26·0	1,076·5
1938–39 ...	**897·8**	**29·5**	**13·8**	**168·9**	**182·7**	...	...	...	...	**28·0**	**1,138·0**
1939–40 ...	1,024·2	33·3	14·5	153·7	168·2	...	...	...	...	26·0	1,251·7
1940–41 ...	1,155·1	16·9	17·2	167·4	184·6	...	...	...	...	21·0	1,377·6
1941–42 ...	**1,330·5**	Station now	**17·9**	**163·4**	**181·3**	...	...	...	...	**21·0**	**1,532·8**
1942–43 ...	1,455·4	operated as part of	14·6	151·5	166·1	...	...	...	...	22·0	1,643·5
1943–44 ...	1,475·6	State system	15·2	153·8	169·0	...	...	...	...	24·0	1,668·6
1944–45 ...	**1,502·3**	...	**14·7**	**168·7**	**183·4**	...	...	...	...	**24·0**	**1,709·7**
1945–46 ...	1,594·6	...	13·0	162·8	175·8	...	...	...	...	27·0	1,797·4
1946–47 ...	1,690·7	...	15·5	164·4	179·9	...	...	...	...	29·0	1,899·6
1947–48 ...	**1,904·4**	...	**18·3**	**200·0**	**218·3**	...	...	...	...	**34·0**	**2,156·7**
1948–49 ...	2,148·0	...	23·0	195·6	218·6	...	...	...	...	36·0	2,402·6
1949–50 ...	2,362·8	...	27·4	189·1	216·5	...	...	...	...	44·0	2,623·3
1950–51 ...	**2,605·5**	...	**18·9**	**87·3**	**106·2**	...	...	...	...	**52·0**	**2,763·7**
1951–52 ...	2,791·7	...	Station acquired by State Electricity Commission 21/1/51			...	...	...	...	59·0	2,850·7
1952–53 ...	3,020·4	...				...	...	...	...	64·5	3,084·9
1953–54 ...	**3,502·4**	...	...	...	...	...	...	...	...	**50·3**	**3,552·7**

(1) 25 cycle supplied to other authorities. (2) 25 Cycle Railway purposes.

NOTE.—Electricity purchased by S.E.C. 1953/54—3.1 million kWh

GENERATION OF ELECTRICITY

State Electricity Commission of Victoria

Station	Interconnected System																				Other Stations		
	Yallourn*		Newport		Richmond		Spencer Street (Melbourne City Council)		Regional Stations						Eildon-Rubicon		Kiewa		Total Interconnected System		Hamilton, Mildura and Redcliffs		Total
									Geelong "A" & "B"		Ballarat "A" & "B"†		Shepparton and Warrnambool										
Year	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW summated	kWh (millions)	M.D.kW summated	kWh (millions)	M.D.kW summated	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW	kWh (millions)	M.D.kW Coincident	kWh (millions)	M.D.kW summated	kWh (millions)
	Operation commenced 15.6.24		Operation commenced 12.10.23 Newport "A" acquired 21.1.51		Station acquired and reconditioned. Restarted 6.5.29		Station operated as part of State system from 1.1.41		'A' Station acquired 1.9.30		'A' Station acquired 1.7.34		Operation commenced Shepparton 7.3.51 Warrnambool 7.4.52		Operation commenced 14.3.28		Operation commenced 1.9.44				Hamilton acquired 1.7.46 Mildura acquired 1.10.53 Redcliffs commenced operation 16.1.54		
1924–25	48·4	29,000	53·4	15,800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	101·8	40,500	...	...	101·8
1925–26	142·7	37,500	46·0	16,800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	188·7	50,000	...	...	188·7
1926–27	**238·8**	**61,000**	**45·4**	**19,800**	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**284·2**	**76,000**	...	...	**284·2**
1927–28	319·7	68,500	54·3	20,800	...	...	...	...	...	...	...	...	...	...	4·8	11,500	...	...	378·8	87,500	...	...	378·8
1928–29	304·5	64,000	49·0	20,000	3·5	15,000	...	...	...	...	...	...	...	...	65·3	16,310	...	...	422·3	95,500	...	...	422·3
1929–30	**310·6**	**62,500**	**50·8**	**21,000**	**21·9**	**16,200**	...	...	...	...	...	...	...	...	**77·9**	**19,300**	...	...	**461·2**	**103,160**	...	...	**461·2**
1930–31	251·9	63,000	38·4	19,800	26·6	15,520	...	...	20·5	5,570	...	...	...	...	120·9	23,100	...	...	458·3	109,013	...	...	458·3
1931–32	320·1	80,000	9·8	18,800	25·7	15,000	...	...	26·9	**6,510**	...	...	...	...	122·4	23,400	...	...	504·9	116,959	...	...	504·9
1932–33	**386·2**	**88,500**	**2·8**	**14,400**	**22·5**	**15,360**	...	...	27·1	**6,560**	...	...	...	...	**111·1**	**23,400**	...	...	**549·7**	**123,404**	...	...	**549·7**
1933–34	429·3	95,000	7·6	18,500	22·6	15,120	...	...	29·5	6,690	...	...	...	...	101·0	22,800	...	...	590·0	127,621	...	...	590·0
1934–35	310·8	94,000	54·0	18,200	56·5	15,500	...	...	30·8	6,980	12·7	3,711	...	...	155·3	25,300	...	...	620·1	141,993	...	...	620·1
1935–36	**487·6**	**107,500**	**16·7**	**19,300**	**29·8**	**15,100**	...	...	**34·1**	**7,930**	**13·2**	**3,825**	...	...	**134·7**	**25,400**	...	...	**716·1**	**158,862**	...	...	**716·1**
1936–37	531·2	122,500	27·2	19,000	25·3	15,400	...	...	32·1	7,930	12·5	3,750	...	...	141·4	25,490	...	...	769·7	173,300	...	...	769·7
1937–38	654·8	140,500	27·1	18,600	24·2	15,300	...	...	34·4	8,620	10·0	3,797	...	...	85·6	25,090	...	...	836·1	181,847	...	...	836·1
1938–39	**696·6**	**136,500**	**23·9**	**19,600**	**26·7**	**15,200**	...	...	**38·0**	**9,230**	**9·4**	**2,716**	...	...	**103·2**	**24,300**	...	...	**897·8**	**198,000**	...	...	**897·8**
1939–40	776·1	168,000	39·3	35,000	16·2	15,400	...	...	31·5	7,710	11·6	2,988	...	...	149·5	25,400	...	...	1,024·2	218,600	...	...	1024·2
1940–41	939·5	171,500	44·6	45,300	21·2	15,360	16·0	26,000	21·7	10,050	14·3	3,820	...	...	97·8	20,800	...	...	1,155·1	261,820	...	...	1155·1
1941–42	**1,027·3**	**187,500**	**45·2**	**54,800**	**35·2**	**15,540**	**44·1**	**35,000**	**30·7**	**10,600**	**14·6**	**4,140**	...	...	**133·4**	**25,600**	...	...	**1,330·5**	**297,696**	...	...	**1330·5**
1942–43	1,110·1	186,000	45·8	63,000	38·6	15,600	55·4	33,000	34·3	11,800	15·0	5,960	...	...	156·2	26,100	...	...	1,455·4	319,300	...	...	1455·4
1943–44	1,088·0	188,000	83·3	71,600	44·5	15,600	63·8	40,650	44·8	12,200	20·8	5,400	...	...	130·4	25,700	...	...	1,475·6	328,000	...	...	1475·6
1944–45	**1,133·2**	**187,000**	**92·1**	**89,500**	**40·2**	**15,530**	**59·3**	**35,070**	**38·8**	**11,200**	**18·9**	**5,000**	...	...	**101·1**	**25,500**	**18·7**	**24,000**	**1,502·3**	**351,600**	...	...	**1502·3**
1945–46	1,136·7	190,500	136·9	93,500	33·1	15,600	55·0	34,200	31·2	11,900	16·0	5,350	...	...	134·3	25,650	51·4	26,000	1,594·6	377,100	...	...	1594·6
1946–47	1,180·6	185,000	181·6	88,000	23·5	15,520	51·1	29,820	26·9	11,800	18·0	5,150	...	...	144·7	25,850	61·5	26,700	1,687·9	364,750	2·8	1,000	1690·7
1947–48	**1,223·9**	**195,500**	**299·0**	**134,000**	**29·6**	**15,400**	**66·3**	**34,500**	**33·1**	**11,750**	**18·8**	**5,650**	...	...	**161·8**	**25,850**	**68·3**	**26,400**	**1,900·8**	**449,500**	**3·6**	**1,140**	**1904·4**
1948–49	1,291·6	194,000	513·6	138,000	26·1	15,600	77·0	35,220	32·9	11,800	18·8	5,850	...	...	139·1	25,550	44·4	28,000	2,143·5	436,930	4·5	1,290	2148·0
1949–50	1,287·6	186,500	717·8	175,000	26·6	15,600	105·4	41,910	28·6	11,950	15·6	6,000	...	...	129·2	26,050	46·8	28,500	2,357·6	504,090	5·2	1,382	2362·8
1950–51	**1,241·8**	**187,000**	**990·5**	**242,800**	**19·5**	**15,000**	**105·6**	**38,700**	**30·6**	**11,400**	**16·7**	**6,100**	**0·8**	**1,663**	**146·0**	**26,050**	**48·2**	**28,000**	**2,599·7**	**497,370**	**5·8**	**1,488**	**2605·5**
1951–52	1,282·4	196,000	1,085·5	249,400	28·7	14,800	94·2	39,450	45·8	12,100	16·7	5,900	5·4	4,083	160·6	26,150	65·8	28,000	2,785·1	533,370	6·6	1,580	2791·7
1952–53	1,326·6	202,500	1,205·2	305,000	72·2	52,000	93·6	35,400	46·1	12,000	22·5	6,000	12.3	12,000	168·2	25,950	66·7	28,000	3,013·4	602,310	7·0	1,800	3020·4
1953–54	**1,394·0**	**243,000**	**1,322·7**	**304,400**	**202·0**	**51,900**	**212·4**	**73,000**	**103·6**	**47,400**	**53·4**	**29,800**	**30·2**	**15,230**	**92·6**	**26,950**	**62·3**	**28,000**	**3,473·2**	**701,650**	**29·2**	**12,800**	**3502·4**

*Including electricity transferred from Briquette Factory. †Including Bendigo, acquired 1/7/34, closed down 31/12/37

STATE ELECTRICITY COMMISSION OF VICTORIA

(a) LOAD FACTORS AT POWER STATIONS

Based on Appendix No. 7

Year Ended 30th June	Interconnected System										Other Stations
	Yallourn (including electricity from Briquette Factory)	Newport	Richmond	Spencer St. (Melbourne City Council)	Regional Stations: Geelong "A" and "B"	Regional Stations: Ballarat "A" and "B"	Regional Stations: Shepparton and Warrnamb'l	Eildon-Rubicon	Kiewa	Total Interconnected System	Hamilton, Mildura and Redcliffs
	%	%	%	%	%	%	%	%	%	%	%
1929	54·3	28·0	2·7	...	...	...	...	45·7	...	50·5	...
1934	51·6	4·7	17·1	...	50·3	...	...	50·6	...	52·8	...
1939	58·3	13·9	20·1	...	47·0	39·5	...	48·5	...	51·8	...
1944	65·9	13·2	32·5	17·9	41·8	43·9	...	57·8	...	51·2	...
1949	76·0	42·5	19·1	25·0	31·8	36·7	...	62·2	18·1	56.0	39·8
1950	78·8	46·8	19·5	28·7	27·3	29·7	...	56·6	18·7	53.4	43·0
1951	75·8	46·6	14·8	31·2	30·6	31·3	5·5	64·0	19·7	59.7	44·5
1952	74·5	49·6	22·1	27·2	43·1	32·2	15·1	69·9	26·8	59.4	47·6
1953	74·8	45·1	15·9	30·2	43·9	42·8	11·7	74·0	27·2	57.1	44·4
1954	65·5	49·6	44·4	33·2	24·9	20·5	22.6	39·2	25·4	56.5	26·0

(b) FUEL USED AT POWER STATIONS (TONS)

Station	Type of Fuel	1953-54	1952-53	1951-52	1950-51	1949-50	1948-49	1947-48	1946-47	1945-46	1944-45
Yallourn	Brown Coal	4,380,080	4,203,197	4,164,702	3,968,509	4,075,675	4,035,535	3,766,828	3,666,105	3,517,235	3,530,260
	Briquettes ...	13,061	10,265	18,698	15,408	10,416	6,421	6,155	6,944	2,784	2,307
	Oil	397	...	...	...	...	...	...	...	...	...
Newport*	Brown Coal	742,472	722,884	562,198	358,148	332,676	94,155	315	290	...	...
	Briquettes ...	253,352	217,028	244,083	222,066	273,034	279,956	232,439	153,882	103,981	23,049
	Black Coal ...	259,640	220,935	241,733	263,001	46,173	62,569	5,669	736	17,497	44,588
	Oil	26,303	38,498	26,332	25,359	18,551	2,266	9	10	...	...
	Coke ...	...	...	...	...	...	...	...	...	440	4,028
Richmond	Briquettes ...	29,662	25,103	32,695	23,180	30,564	29,783	32,313	27,248	36,169	42,212
	Oil	51,740	15,739	...	...	...	...	...	...	...	...
	Coke ...	...	154	...	...	...	...	...	...	...	...
Spencer Street ...	Brown Coal	...	...	...	...	...	...	41	113	564	371
(Melbourne City Council)	Briquettes ...	41,547	60,364	65,935	69,261	71,610	49,475	41,411	34,069	12,770	11,537
	Black Coal ...	8,706	1,223	15	6,008	221	276	1,142	1,125	14,940	25,039
	Oil	37,017	19	22	23	18	17	...	...	...	...
	Coke ...	52,113	40,088	35,903	37,828	42,014	41,403	34,542	23,817	35,138	26,886
Geelong "A" and "B"	Brown Coal	106,955	7,378	66,906	11,356	...	...	...	...	...	...
	Briquettes ...	26,431	43,036	10,544	26,012	31,093	35,407	35,321	30,169	33,828	40,542
Ballarat "A" and "B"	Brown Coal	77,318	...	...	...	...	...	...	...	...	...
	Briquettes ...	18,531	25,144	19,628	19,747	18,135	22,772	22,845	21,791	19,577	22,371
	Oil	1,386	...	...	...	...	...	...	...	...	...
Shepparton	Oil	5,975	2,099	1,173	177	...	...	...	...	...	...
Warrnambool	Oil	1,448	829	100	...	...	...	...	...	...	...
Hamilton†	Oil	1,799	1,650	1,565	1,317	1,132	975	812	623	...	...
	Wood ...	...	...	697	1,277	1,352	1,311	1,289	1,033	...	...
Mildura ‡	Briquettes ...	14,284	...	...	...	...	...	...	...	...	...
Redcliffs + ...	Briquettes ...	8,434	...	...	...	...	...	...	...	...	...
	Oil	9	...	...	...	...	...	...	...	...	...

*Includes Newport "A" from 21/1/51. †Acquired 1/7/46. ‡Acquired 1/10/53. +Commenced operation 16/1/54.

STATE GENERATING SYSTEM

(a) TOTAL INSTALLED PLANT CAPACITY

kW

(i) Interconnected System

Maximum Continuous rating of plant installed at 30/6/54	783,475
Add—Available from Yallourn Briquette Factory	8,000
Total	791,475

(ii) Not connected to state system

Maximum continuous rating of plant installed at 30/6/54	20,020

Note—At Yallourn, Newport, Spencer Street, Richmond, Ballarat 'A' and Mildura Stations, generators could not be used to full capacity because of limitations on boiler capacity.

(b) GENERATORS INSTALLED AT POWER STATIONS

(i) Interconnected System

Power Station	Set No.	Make	Maximum Continuous Rating	Voltage	R.P.M.	Year Installed
			kW			
Yallourn	1	Metropolitan Vickers ...	12,500	11,000	3,000	1924
	2	" " ...	12,500	11,000	3,000	1924
	3	" " ...	12,500	11,000	3,000	1924
	4	" " ...	12,500	11,000	3,000	1924
	5	" " ...	12,500	11,000	3,000	1925
	6	" " ...	12,500	11,000	3,000	1928
	7	" " ...	25,000	11,000	3,000	1932
	8	" " ...	25,000	11,000	3,000	1935
	9	" " ...	25,000	11,000	3,000	1938
	10	" " ...	25,000	11,000	3,000	1938
	C2	Parsons	50,000	11,000	3,000	1954
Newport	A1*	Parsons	12,500	3,300	1,500	1918
	A2*	"	30,000	20,000	1,500	1951
	A3*	"	14,000	3,300	1,500	1922
	A4*	"	30,000	20,000	1,500	1943
	A5*	"	12,500	3,300	1,500	1921
	A6*	"	14,000	3,300	1,500	1923
	1	"	15,000	6,600	3,000	1923
	2	"	15,000	6,600	3,000	1923
	3	Brown Boveri	30,000	22,000	3,000	1939
	4	Parsons	30,000	22,000	3,000	1945
	5	"	30,000	11,000	3,000	1946
	6	"	30,000	11,000	3,000	1948
	7	"	30,000	11,000	3,000	1950
	8	Brush Ljungstrom ...	18,000	6,600	3,000	1944
Richmond	1	Metropolitan Vickers ...	15,000	6,600	3,000	1929
	2	Brown Boveri	38,000	11,000	3,000	1952
Geelong	1	Brush Ljungstrom ...	1,500	6,600	3,000	1921
	2	Metropolitan Vickers ...	3,000	6,600	3,000	1922
	3	" " ...	3,000	6,600	3,000	1923
	4	" " ...	3,000	6,600	3,000	1925
	B1	Westinghouse Rosebery ...	10,000	11,500	3,000	1953
	B2	" " ...	10,000	11,500	3,000	1954
	B3	" " ...	10,000	11,500	3,000	1954
Ballarat	1	Brush Ljungstrom ...	1,400	6,600	3,000	1925
	2	" "	1,400	6,600	3,000	1925
	3	" "	1,400	6,600	3,000	1937
	4	" "	1,400	6,600	3,000	1940
	5*	Brush Electrical ...	300	500	2,400	1912
	B1	Westinghouse Rosebery ...	5,000	6,900	3,000	1954
	B2	" " ...	5,000	6,900	3,000	1954
	B3	" " ...	5,000	6,900	3,000	1953
	B4	" " ...	5,000	6,900	3,000	1953
Spencer St. (Melbourne City Council)	1	English Electric	5,500	6,600	3,000	1927
	5	Bellis & Morcom	3,900	6,600	3,000	1913
	6	Parsons	5,500	6,600	3,000	1935
	7	A.S.E.A.	6,875	6,600	3,000	1939
	8	"	6,875	6,600	3,000	1939
	9	Parsons	15,000	6,600	3,000	1949
	11	"	30,000	22,000	3,000	1953
Shepparton	1	Mirrlees	830	6,600	375	1951
	2	"	830	6,600	375	1951
	3	"	830	6,600	375	1951
	4	"	830	6,600	375	1952
	5	"	830	6,600	375	1952
	6	"	830	6,600	375	1952
	7	Sulzer	1,850	6,600	250	1953
	8	"	1,850	6,600	250	1953
	9	"	1,850	6,600	250	1953
Warrnambool	1	Mirrlees	830	6,600	375	1952
	2	"	830	6,600	375	1952
	3	"	830	6,600	375	1953
	4	"	830	6,600	375	1953
	5	"	830	6,600	375	1953
	6	"	830	6,600	375	1953
Rubicon Falls	1	Boving	275	6,600	500	1926
Lower Rubicon	1	"	2,700	6,600	750	1928
Royston	1	"	840	6,600	1,000	1928
Rubicon	1	"	4,550	6,600	500	1928
	2	"	4,550	6,600	500	1928
Kiewa	1	English Electric	13,000	11,000	428	1944
	2	" "	13,000	11,000	428	1945
			783,475			

*Newport Nos. A1 to A6 inclusive-25 cycle; Ballarat No. 5-D.C.; all others A.C., 3 phase, 50 cycle.

(ii) Not connected to State System

Hamilton	2	Crossley	550	415	375	1947
	4	"	200	415	230	1946
	5	Mirrlees	310	415	300	1937
	6	"	420	415	300	1937
	7	"	770	415	375	1950
	8	"	770	415	375	1951
Mildura	1	Metropolitan Vickers ..	1,000	6,600	1,000	1932
	2	" " ...	1 000	6,600	1,000	1934
	3	Stal.	2,500	6,600	3,000	1940
	4	Metropolitan Vickers ...	2,500	6,600	1,500	1950
Redcliffs	1	Westinghouse Rosebery ...	5,000	6,900	3,000	1954
	2	" " ...	5,000	6,900	3,000	1954
			20,020			

Appendix No. 9 — *continued*

(c) BOILERS INSTALLED AT POWER STATIONS

(i) Interconnected System

Power Station	Boiler No.	Make	Rated Evaporative Capacity of each Boiler lb./per hour	Working Pressure of each Boiler lb. (gauge) per sq. in.	Total Steam Temperature including Superheat Deg. F.	Year Installed
Yallourn	1	John Thompson	68,600	270	650	1924
	2		68,600	270	650	1924
	3		68,600	270	650	1924
	4		68,600	270	650	1925
	5		98,000	270	650	1925
	6		98,660	270	650	1928
	7		78,800	270	650	1927
	8		98,000	270	650	1925
	9		98,000	270	650	1925
	10		77,400	270	650	1925
	11		68,600	270	650	1924
	12		68,600	270	650	1924
	13		75,000	270	750	1931
	14		75,000	270	750	1931
	15		75,000	270	750	1937
	16		75,000	270	750	1937
	17		75,000	270	750	1938
	18		75,000	270	750	1938
	19		75,000	270	750	1937
	20		75,000	270	750	1937
	21		75,000	270	750	1932
	22		75,000	270	750	1932
	C1		200,000	645	840	1954
	C6		200,000	645	840	1954
Newport	A1		30,000	200	600	1918
	A2		30,000	200	600	1918
	A3		30,000	200	600	1918
	A10		30,000	200	600	1918
	A11		30,000	200	600	1918
	A12		30,000	200	600	1918
	A13	Babcock & Wilcox	30,000	200	600	1918
	A14		30,000	200	600	1918
	A15		30,000	200	600	1918
	A16		30,000	200	600	1918
	A17		30,000	200	600	1918
	A18		30,000	200	600	1918
	A19	International Combustion	54,000	200	600	Reconstd. 1927
	A20		30,000	200	600	1918
	A21		30,000	200	600	1918
	A22	Babcock & Wilcox	30,000	200	600	1918
	A23		30,000	200	600	1918
	A24		30,000	200	600	1918
	A1M		187,500	400	780	1952
	A2M		187,500	400	780	1951
	A3M	nternational Combustion	187,500	400	780	1943
	A4M		187,500	400	780	1943
	1		43,000	270	650	1923
	2		43,000	270	650	1923
	3	Babcock & Wilcox	43,000	270	650	1923
	4		43,000	270	650	1923
	5		43,000	270	650	1923
	6		60,000	270	750	1939
	7		60,000	270	750	1939
	8		60,000	270	750	1939
	9		60,000	270	750	1939
	10		60,000	270	750	1939
	11		160,000	620	820	1945
	12	John Thompson	160,000	620	820	1945
	13		160,000	620	820	1947
	14		160,000	620	820	1948
	15		160,000	620	820	1950
	16		160,000	620	820	1950
	17		160,000	620	820	1950
	18		160,000	620	820	1949
Richmond	1		20,000	160	570	1917
	2		20,000	160	570	1919
	15	Babcock & Wilcox	20,000	160	570	1921
	16		20,000	160	570	1920
	17		20,000	160	570	1921
	18		20,000	160	570	1920
	Velox No. 1	Brown Boveri	165,500	650	850	1953
	Velox No. 2	" "	165,500	650	850	1952
Geelong	1		27,000	200	588	1921
	2		27,000	200	588	1921
	3		27,000	200	588	1922
	4	John Thompson	27,000	200	588	1922
	5		27,000	200	588	1924
	6		27,000	200	588	1924
	B1		110,000	625	825	1953
	B2	Westinghouse Rosebery	110,000	625	825	1954
	B3		110,000	625	825	1954
Ballarat	1		11,000	160	600	1906
	2		11,000	160	600	1906
	3	Stirling	11,000	160	600	1906
	4		11,000	160	600	1913
	5		11,000	160	600	1937
	B1		70,000	430	760	1954
	B2	Westinghouse Rosebery	70,000	430	760	1954
	B3		70,000	430	760	1953
	B4		70,000	430	760	1953
Spencer Street (Melbourne City Council)	1		25,000	160	570	Reconstd. 1925
	2	Babcock & Wilcox	25,000	160	570	1925
	3		25,000	160	570	1925
	4		25,000	160	570	1925
	6	John Thompson	55,000	160	570	1938
	8	Babcock & Wilcox	55,000	160	570	1934
	10		55,000	160	570	1937
	12		55,000	160	570	1939
	14	John Thompson	55,000	160	570	1940
	16		55,000	160	570	1936
	22		60,000	165	620	1941
	24		60,000	165	620	1941
	C1		300,000	620	820	1953

(ii) Not connected to State System

Mildura	1	Babcock & Wilcox	14,000	260	650	1939
	2		14,000	260	650	1939
	3		14,000	260	650	1940
	4		30,000	260	700	1951
Redcliffs	1	Westinghouse Rosebery	70,000	430	760	1954
	2		70,000	430	760	1954

APPENDIX No. 10

ELECTRICITY SUPPLY UNDERTAKINGS — STATE OF VICTORIA

STATISTICAL SUMMARY AT 30th JUNE, 1954 — CONSUMERS AND SALES

—	Population Area Served	Consumers		Retail Sales	
		Number	Percentage of Grand Total	kWh	Percentage of Grand Total
State Electricity Commission of Victoria—					
Metropolitan } excl. adjacent rural areas	973,880	257,259	37·61	1,235,836,611	46·09
Provincial Cities }	151,290	47,268	6·91	166,097,752	6·19
Country	627,872	197,467	28·87	568,007,780	21·18
Total	1,753,042	501,994	73·39	1,969,942,143	73·46
Other Undertakings—					
Metropolitan (receiving Bulk Supply from State Electricity Commission of Victoria)	512,649	155,310	22·70	670,553,841	25·01
Country (Local Undertakings)	92,600	26,722	3·91	41,046,793	1·53
Total	605,249	182,032	26·61	711,600,634	26·54
Grand Total	2,358,291*	684,026	100·00	2,681,542,777†	100·00

* Total population of Victoria—2,448,697.

† Electricity sales per head of population—1095 kwh.

APPENDIX No. 11

STATE ELECTRICITY COMMISSION OF VICTORIA

CONSUMER STATISTICS

(a) AGGREGATES FOR ALL BRANCHES 1935 - 1954

Year Ended 30th June	Population of Area of Supply	Number of Consumers				Percentage of Consumers to Population	kWh Sold per Consumer (Average)			Motors Connected		Number of Farms Supplied
		Domestic	Industrial	Commercial	Total (all classes except Bulk)		Domestic	Industrial	Commercial	Number	H.P.	
1935	972,000	178,389	3,366	31,619	213,669	22·0	466	47,903	1,257	24,260	191,550	2,025
1936	972,000	188,957	3,669	32,571	225,534	23·2	487	48,300	1,377	26,608	204,503	2,540
1937	984,000	198,587	4,099	32,984	235,942	24·0	520	47,970	1,509	29,063	213,667	3,200
1938	1,018,000	210,209	4,710	34,185	249,244	24·5	540	45,286	1,611	32,386	227,903	4,030
1939	**1,050,000**	**220,419**	**5,386**	**34,781**	**260,733**	**24·8**	**566**	**42,158**	**1,734**	**36,282**	**245,697**	**4,985**
1940	1,080,000	230,312	6,101	35,178	271,749	25·2	626	43,483	1,917	41,530	275,458	5,785
1941	1,104,000	242,035	6,746	35,428	284,373	25·8	658	47,604	2,081	46,114	299,988	6,410
1942	1,123,000	251,185	7,169	33,840	292,341	26·0	703	53,236	2,245	50,465	322,283	6,785
1943	1,141,000	255,701	7,457	33,408	296,717	26·0	756	56,911	2,626	54,285	345,924	7,032
1944	**1,149,000**	**258,447**	**8,073**	**33,781**	**300,465**	**26·1**	**793**	**51,656**	**2,769**	**59,483**	**365,746**	**7,467**
1945	1,193,000	266,463	9,594	34,944	311,172	26·1	838	43,189	2,934	65,983	401,085	8,772
1946	1,200,000	273,382	11,542	36,529	321,631	26·8	928	35,663	3,104	71,796	430,452	10,209
1947	1,253,000	287,188	13,416	38,496	339,286	27·1	1,015	33,209	2,769	77,735	454,901	11,680
1948	1,300,000	300,671	14,845	39,544	355,258	27·3	1,151	32,813	3,132	84,361	481,408	13,181
1949	**1,353,000**	**315,191**	**16,200**	**40,539**	**372,135**	**27·5**	**1,370**	**33,061**	**3,400**	**90,896**	**505,877**	**14,419**
1950	1,414,000	331,506	17,476	41,813	391,005	27·7	1,556	32,301	3,555	96,150	528,618	15,741
1951	1,496,000	353,239	19,160	43,066	415,682	27·8	1,566	32,171	3,817	101,988	565,298	17,572
1952	1,574,000	376,977	21,285	44,527	443,014	28·1	1,496	29,025	3,736	107,234	590,164	19,953
1953	1,651,000	399,171	23,228	46,334	468,961	28·4	1,600	27,601	3,976	112,173	613,855	22,326
1954	**1,753,000**	**426,461**	**25,882**	**49,410**	**501,994**	**28·6**	**1,770**	**29,844**	**4,330**	**121,664**	**657,970**	**27,082**

(b) ELECTRICITY SUPPLY BRANCHES — 1953 AND 1954

Branch		Population of Area of Supply	Number of Consumers				Percentage of Consumers to Population	kWh Sold per Consumer (Average)			Motors Connected		Number of Farms Supplied
			Domestic	Industrial	Commercial	Total (all classes except Bulk)		Domestic	Industrial	Commercial	Number	H.P.	
Metropolitan	1954	981,127	229,725	5,940	21,803	257,510	26·25	1,871	74,199	4,852	64,119	334,230	1,150
	1953	950,279	222,746	5,825	21,185	249,797	26·29	1,647	64,520	4,329	61,026	320,136	1,166
Ballarat ...	1954	62,775	16,067	971	2,391	19,445	30·98	1,093	26,018	3,727	5,455	27,513	1,125
	1953	60,779	15,449	909	2,351	18,725	30·81	998	23,723	3,502	5,179	26,701	1,020
Bendigo*...	1954	72,640	18,542	1,252	2,547	22,370	30·80	1,333	20,171	3,320	6,045	36,886	3,097
	1953	43,620	11,406	614	1,725	13,766	31·56	1,200	22,815	2,402	3,017	20,642	696
Geelong ...	1954	79,160	21,759	853	2,857	25,483	32·19	1,302	76,283	3,904	6,971	50,048	1,025
	1953	77,030	19,998	775	2,694	23,481	30·48	1,177	69,235	3,522	6,591	48,214	938
Eastern Metropolitan	1954	189,089	53,696	2,856	5,205	61,787	32·68	1,977	10,325	4,413	6,566	43,847	4,124
	1953	171,944	48,966	2,617	4,722	56,335	32·76	1,848	9,090	4,171	5,874	41,412	3,804
Gippsland (incl. Yallourn)	1954	127,251	29,244	5,182	4,436	38,889	30·56	1,867	10,484	3,389	10,274	55,131	5,826
	1953	126,361	27,457	4,789	4,092	36,364	28·78	1,795	9,206	3,193	9,743	51,709	5,278
Midland ...	1954	46,900	10,298	1,042	1,854	13,214	28·17	1,144	14,144	2,641	2,843	16,744	1,380
	1953	44,770	9,733	927	1,773	12,452	27·81	1,070	15,435	2,515	2,711	15,891	1,176
North Eastern (incl. Kiewa)	1954	116,928	28,821	4,326	5,151	38,335	32·79	1,694	18,413	5,638	13,416	73,739	5,090
	1953	102,384	26,388	3,748	4,801	34,973	34·16	1,587	16,895	5,653	12,469	70,070	4,530
South Western	1954	77,172	18,309	3,460	3,166	24,961	32·34	1,758	7,487	2,336	5,975	19,832	4,265
	1953	73,487	17,028	3,024	2,991	23,068	31·39	1,609	7,607	2,118	5,563	19,080	3,718
Total	1954	1,753,042	426,461	25,882	49,410	501,994	28·6	1,770	29,844	4,330	121,664	657,970	27,082
	1953	1,650,654	399,171	23,228	46,334	468,961	28·4	1,600	27,601	3,976	112,173	613,855	22,326

*Including Mildura acquired 1/10/53.

STATE ELECTRICITY COMMISSION OF VICTORIA

ELECTRICITY SALES AND REVENUE

(a) AGGREGATES FOR ALL BRANCHES, 1935 - 1954

Year Ended 30th June	Sales—kWh (Millions)							Revenue			
	Bulk Supplies	Public Lighting	Domestic	Industrial	Traction	Commercial	Total	Total	Per kWh Sold		
									Domestic	Industrial	Commercial
								£	d.	d.	d.
1935	181·900	11·681	81·367	156·789	46·325	39·437	517·499	2,995,962	3·008	0·978	3·353
1936	211·004	11·975	89·630	170·453	49·543	44·231	576·836	3,164,629	2·789	0·969	3·134
1937	220·031	12·408	100·994	186·415	54·136	49·372	623·356	3,331,561	2·635	0·943	2·915
1938	241·988	12·950	110·597	202·249	56·025	54·080	677·889	3,528,396	2·559	0·929	2·714
1939	**257·394**	**14·282**	**122·134**	**215·175**	**58·197**	**59·915**	**727·097**	**3,685,538**	**2·420**	**0·922**	**2·567**
1940	285·031	16·804	141·172	252·072	59·844	67·224	822·147	3,881,022	2·165	0·883	2·338
1941	311·546	16·516	155·726	307·239	60·199	73·547	924·773	4,241,264	2·059	0·842	2·262
1942	369·236	10·509	173·951	377·439	64·295	78·168	1,073·598	4,657,452	1·973	**0·817**	2·112
1943	404·121	11·694	192·067	417·220	66·085	87·821	1,179·008	4,935,602	1·869	0·799	1·908
1944	**422·287**	**15·984**	**203·979**	**400·129**	**66·008**	**92·938**	**1,201·325**	**5,101,631**	**1·822**	**0·830**	**1·835**
1945	417·193	16·782	220·247	387·365	65·299	100·790	1,207·676	5,259,890	1·783	0·852	1·781
1946	447·005	17·255	250·245	383·018	66·605	110·413	1,274·541	5,605,333	1·700	0·883	1·814
1947	449·380	17·614	285·596	421·887	65·107	104·539	1,344·123	5,835,194	1·606	0·868	1·900
1948	506·780	18·106	339·025	468·238	66·900	122·448	1,521·497	6,543,089	1·506	0·874	1·905
1949	**563·296**	**18·607**	**422·681**	**516·071**	**68·181**	**136·179**	**1,725·015**	**8,129,973**	**1·517**	**0·977**	**2·070**
1950	613·552	14·253	504·311	546·607	54·998	146·450	1,880·171	9,446,008	1·554	1·057	2·148
1951	656·488	17·982	536·844	592·261	135·548	162·219	2,101·342	11,524,389	1·679	1·141	2·178
1952	679·665	20·451	547·213	590·871	236·265	163·636	2,238·101	15,099,864	2·063	1·415	2·639
1953	729·369	21·228	623·067	617·150	248·115	180·830	2,419·759	19,189,514	2·343	1·697	3·078
1954	**844·749**	**22·508**	**734·281**	**739·596**	**265·443**	**208·114**	**2,814·691**	**22,117,381**	**2·297**	**1·685**	**3·120**

Note.—Above figures do not include allowances for unread meters prior to 1941.

(b) ELECTRICITY SUPPLY BRANCHES — 1953 AND 1954

Year Ended 30th June		Sales—kWh (Millions)							Revenue			
		Bulk Supplies	Public Lighting	Domestic	Industrial	Traction	Commercial	Total	Total	Per kWh Sold		
										Domestic	Industrial	Commercial
									£	d.	d.	d.
Metropolitan (Incl. Metropolitan Bulk Supplies)	1954	803·686	16·472	423·685	437·035	263·715	104·413	2,049·006	14,684,757	2·050	1·651	2·972
	1953	695·313	15·855	361·198	371·378	247·338	90·774	1,781·856	12,964,748	2·107	1·667	2·981
Ballarat	1954	...	0·489	17·272	24·587	...	8·841	51·189	522,151	2·996	1·672	3·368
	1953	...	0·476	15·137	20·758	...	8·152	44·523	463,042	3·070	1·687	3·324
Bendigo †	1954	2·957	0·533	21·911	21·260	...	7·564	54·225	617,121	2·978	2·000	4·015
	1953	...	0·371	13·364	13·415	...	4·107	31·257	336,122	2·892	1·782	3·938
Geelong	1954	...	0·675	27·310	62·552	...	10·901	101·438	904,551	2·937	1·511	3·574
	1953	...	0·633	22·643	51·511	...	9·223	84·010	764,375	2·996	1·533	3·642
Eastern Metropolitan	1954	...	1·448	101·881	28·352	1·728	22·045	155·454	1,608,307	2·442	2·019	3·165
	1953	...	1·264	86·277	23·025	0·777	18·906	130·249	1,362,670	2·477	2·059	3·105
Gippsland (Incl. Yallourn)	1954	...	1·085	52·887	52·547	...	14·414	120·933	1,153,922	2·476	1·804	3·188
	1953	...	0·940	47·562	42·669	...	12·714	103·885	1,014,072	2·540	1·844	3·074
Midland	1954	...	0·376	11·536	14·101	...	4·791	30·804	334,878	3·116	1·790	3·580
	1953	...	0·363	10·178	13·598	...	4·407	28·546	307,928	3·165	1·781	3·537
North Eastern (Incl. N.S.W. Bulk Supplies and Kiewa)	1954	38·106	0·946	46·703	74·777	...	27·938	188·470	1,625,718	2·664	1·631	2·788
	1953	34·056	0·872	40·134	59·131	...	26·339	160·532	1,388,453	2·688	1·661	2·681
South Western	1954	...	0·484	31·096	24·385	...	7·207	63·172	665,976	2·593	1·940	4·034
	1953	...	0·454	26·574	21·665	...	6·208	54·901	588,104	2·678	1·949	4·060
Total	1954	844·749	22·508	734·281	739·596	265·443	208·114	2,814·691	22,117,381	2·297	1·685	3·120
	1953	729·369	21·228	623·067	617·150	248·115	180·830	2,419·759	19,189,514	2·343	1·697	3·078

† Including Mildura acquired 1/10/53.

STATE ELECTRICITY COMMISSION OF VICTORIA
STANDARD TARIFFS AS AT 1st JULY, 1954

	Tariffs	Residential and Commercial — Metropolitan	Residential and Commercial — Provincial City and Town. (Ballarat, Bendigo, Geelong and Large Towns)	Residential and Commercial — Country (Smaller Towns and Rural Areas)	Farming — Farming Operations Only — All Extra-Metropolitan Areas	Industrial — Factories and Other Industrial Establishments — All Supply Areas	Miscellaneous
		1	2	3	4	5	6
	Residential Tariff (Domestic and Commercial Residential Premises)—						Tariffs for the following centres are the same as shown in Columns 2, 4 and 5, except the Residential Tariff within certain areas:— Croydon, Heathmont, Kilsyth, Montrose, Ringwood. Details of Residential tariffs for the areas concerned and those in the Mildura area will be supplied on request.
	Service Charge a month for each assessable room	1s. 3d.	1s. 8d.	1s. 10d.			
	Rate a kWh	1.85d.	2.35d.	2.5d.			
	Maximum overall rate a kWh	8.0d.	8.0d.	8.0d.			
TARIFFS FOR NON-RESIDENTIAL PREMISES	**Lighting**— Block Tariff—rates a kWh (based on monthly consumption)	First 20 at 6.5d. Balance at 5.25d.	First 100 at 8.25d. Balance at 6.0d.	First 100 at 9.25d. Next 200 at 7.5d. Balance at 6.0d.		First 20 at 6.5d. Balance at 5.25d.	
	Power and Heating— Block Tariff—rates a kWh (based on monthly consumption)	First 200 at 3.5d. Next 4,800 at 2.0d. „ 20,000 at 1.7d. Balance at 1.65d.	First 200 at 4.0d. Next 4,800 at 2.6d. „ 20,000 at 1.85d. Balance at 1.8d.	First 50 at 4.4d. Next 150 at 4.0d. „ 4,800 at 2.6d. „ 20,000 at 1.85d. Balance at 1.8d.		First 200 at 3.5d. Next 4,800 at 2.0d. „ 20,000 at 1.7d. Balance at 1.65d.	
		11 p.m.–7 a.m.—0.825d.	10.30 p.m.–6.30 a.m.*—0.9d.	10 p.m.–6 a.m.—0.9d.		11 p.m.–7 a.m.*—0.825d.	
	Rental a month for each two-rate meter	5s. 0d.	5s. 0d.	5s. 0d.		5s. 0d.	
	Power, Heating and Lighting— Block Tariff—rates a kWh (based on monthly consumption)	**Commercial General Service** First 20 at 6.5d. Next 980 at 5.25d. „ 1,000 at 3.5d. „ 3,000 at 3.0d. „ 20,000 at 1.7d. Balance at 1.65d. 11 p.m.–7 a.m.—0.825d.	**Commercial General Service** First 100 at 8.25d. Next 900 at 6.0d. „ 4,000 at 4.0d. „ 20,000 at 1.85d. Balance at 1.8d. 10.30 p.m.–6.30 a.m.*—0.9d.	**Commercial General Service** First 100 at 9.25d. Next 200 at 7.5d. „ 700 at 6.0d. „ 4,000 at 4.0d. „ 20,000 at 1.85d. Balance at 1.8d. 10 p.m.–6 a.m.—0.9d.	**Farming General Service** First 4 at 9.0d. Next 196 at 4.2d. „ 4,800 at 2.6d. Balance at 1.85d. 10 p.m.–6 a.m.*—0.9d.	**Industrial All-Purposes** First 20 at 6.5d. Next 480 at 5.25d. „ 4,500 at 3.2d. „ 20,000 at 1.7d. „ 100,000 at 1.65d. Balance at 1.6d. 11 p.m.–7 a.m.—0.825d.	
	Rental a month for each two-rate meter	(Power and Heating only) 5s. 0d.	(Power and Heating only) 5s. 0d.	(Power and Heating only) 5s. 0d.	5s. 0d.	(See Note 2 below) 5s. 0d.	
	Industrial Maximum Demand (See Note 3 below) **Power, Heating and Lighting**					£1 6s. 8d. a month for each kW of maximum demand plus 0.7d. a kWh (500 kW Minimum demand charge). Reset monthly.	
	Commercial Range (Electric Cooking)—Rate a kWh	1.85d.	2.35d.	2.5d.			
	Water Heating—Night Rate Tariff a kWh (See Note 4 below)	0.875d.	0.975d.	0.975d.	0.975d.	0.875d.	
	Intermediate Rate Tariff a kWh (See Note 4 below)	1.35d.	1.475d.	1.475d.	1.475d.	1.35d.	
	Minimum Charge—a month	3s. 6d.	4s. 0d.	4s. 6d.	4s. 0d.	3s. 6d.	

*Prescribed hours for these tariffs are 10.30 p.m.–6.30 a.m. in Ballarat, Bendigo and Geelong. In other extra-metropolitan areas the hours are 10 p.m.–6 a.m.

Notes.—1. Details regarding the application of the above tariffs are shown in the Commission's published tariff schedules, which are available on request. 2. A consumer adopting the Industrial All-Purposes Tariff must agree to pay a special minimum charge of £17 14s. 2d. per month. 3. The Industrial Maximum Demand Tariff is available only to consumers entering into a five-year agreement providing for high tension supply and for monthly payments based on the minimum demand indicated or half the stipulated rate of supply, whichever is the greater. 4. The night rate water heating tariff was temporarily withdrawn in November, 1952 in respect of additional hot water systems (except dairy water-heaters). At the same time the intermediate rate water heating tariff was introduced for additional systems - consumers taking supply under this tariff are transferred in rotation ro the lower night-rate tariff as additional generating plant at Yallourn is brought into operation.

STATE ELECTRICITY COMMISSION OF VICTORIA
TRANSMISSION AND DISTRIBUTION SYSTEMS

Description	Increase during Year ended 30th June, 1954		Total at 30th June, 1954	
	Route Miles	Cable Miles	Route Miles	Cable Miles
OVERHEAD LINES				
Yallourn to Yarraville ... ... 132 kV.	...	...	110·0	660·0
Yallourn to Richmond ... ... 132 kV.	...	...	80·5	483·0
Yallourn to Warragul ... ... 66 kV.	...	...	24·8	74·4
Newport to Geelong Area ... ... 66 kV.	...	...	80·6	256·2
Sugarloaf to Thomastown ... ... 66 kV.	...	...	62·0	372·0
Eildon Area ... ... 66 kV.	...	...	2·5	9·3
Thomastown to Bendigo ... ... 66 kV.	...	...	93·4	560·7
Newport to Ballarat ... ... 66 kV.	...	...	78·0	234·0
Maindample to Wangaratta ... ... 66 kV.	...	...	58·0	174·0
Kiewa No. 3 P.S. to Sugarloaf ... ... 66 kV.	...	...	137·0	411·0
Kiewa No. 3 P.S. to Howman's Gap ... 66 kV.	...	...	4·0	12·0
Malvern Terminal Station to Dandenong ... 66 kV.	13·0	39·0	13·0	39·0
Kiewa Area ... ... 22 kV.	...	...	7·8	23·4
Sugarloaf P.S. to Eildon ... ... 6.6 kV	...	...	0·6	3·6
Main Metro. Transmission Lines ... ... 66 kV.	...	...	36·7	66·1
Main Metro. Transmission Lines ... ... 22 kV.	0·8	2·4	245·0	831·7
Main Metro. Transmission Lines ... ... 6.6 kV.	...	...	5·9	19·5
Branches—				
Metropolitan ... ... 22 kV.	3·7	11·0	121·4	356·7
7.2, 6.6, 4.0 kV.	14·3	43·0	382·7	1,143·4
Low tension ...	64·4	253·0	2,199·6	8,434·5
Ballarat ... ... 22 kV.	53·2	127·4	397·0	1,007·1
6.6 kV.	0·3	1·3	19·8	55·9
Low tension ...	14·7	57·9	420·1	1,427·7
*Bendigo ... ... 22 kV.	171·2	505·8	511·6	1,363·7
11 kV.	79·4	79·4	114·1	114·1
6.6 kV.	30·6	83·1	30·6	83·1
Low tension ...	313·3	890·4	578·3	1,776·3
Geelong ... ... 22 kV.	26·7	60·3	236·5	580·1
6.6 kV.	2·4	10·6	72·7	254·4
Low tension ...	27·8	105·1	367·6	1,290·4
Eastern Metropolitan ... ... 66 kV.	...	...	22·0	66·1
22 kV.	50·1	132·9	805·7	2,085·1
6.6 kV.	...	...	59·8	151·7
Low tension ...	90·7	363·5	1,388·8	4,957·2
Gippsland ... ... 66 kV.	...	...	98·2	294·6
22 kV.	108·1	236·0	1,494·3	3,583·4
6.6 kV.	...	...	0·8	1·6
Low tension ...	77·0	260·1	1,386·9	4,590·4
Midland ... ... 22 kV.	82·0	183·1	610·9	1,666·7
6.6 kV.	1·8	3·8	7·5	16·6
Low tension ...	23·2	70·4	400·6	1,264·6
North-Eastern ... ... 66 kV.	...	...	173·9	633·8
22 kV.	151·0	324·6	1,861·7	4,690·3
Low tension ...	54·6	223·5	1,001·9	3,484·7
South-Western ... ... 66 kV.	−39·2	−47·8	119·4	628·5
22 kV.	13·3	2·8	1,542·6	3,299·5
6.6 kV.	163·7	350·6	212·3	492·7
Low tension ...	41·3	121·9	644·0	1,747·0
Yallourn ... ... 6.6 kV.	−0·1	−0·2	13·1	39·4
Low tension ...	0·1	0·4	25·5	86·4
Kiewa ... ... 22 kV.	...	...	2·4	7·2
Low tension ...	...	...	8·8	43·0
Summary ... ... 132 kV.	...	...	190·5	1,143·0
66 kV.	−26·2	−8·8	1,003·5	3,831·7
22 kV.	660·1	1,586·3	7,836·9	19,494·9
11 kV.	79·4	79·4	114·1	114·1
7.2, 6.6, 4.0 kV.	213·0	492·2	805·8	2,261·9
Low tension ...	707·1	2,346·2	8,422·1	29,102·2
	1,633·4	4,495·3	18,372·9	55,947·8

UNDERGROUND CABLES.	Cable Miles	Cable Miles
60 kV.	0·02	0·62
22 and 20 kV.	−9·91	162·99
11, 7.2, 6.6, 4.0, 3.3 and 2.2 kV.	3·38	360·14
Pilot, telephone, and supervisory	−5·82	224·68
Low tension	2·58	78·88
	−9·75	827·31

SUB-STATIONS.	Number	Capacity kVA	Number	Capacity kVA
Terminal Stations	— 1	19,250	9	739,000
Switching Stations	...	...	2	18,000
Main Metropolitan Transmission Sub-stations	3	86,750	48	665,500
Branches—				
Metropolitan	69	22,325	1,176	353,365
Ballarat	56	2,220	420	22,770
*Bendigo	265	17,915	630	58,835
Geelong	50	6,935	392	53,612
Eastern Metropolitan	75	20,233	1,143	112,214
Gippsland	187	16,815	1,453	82,990
Midland	85	2,255	606	34,330
North-Eastern	298	16,965	2,093	122,772
South-Western	269	14,767	1,976	72,570
Yallourn	— 1	— 200	22	4,155
Kiewa	...	...	10	2,100
	1,355	226,230	9,980	2,342,213

* Includes Mildura, acquired 1/10/53

STATE ELECTRICITY COMMISSION OF VICTORIA

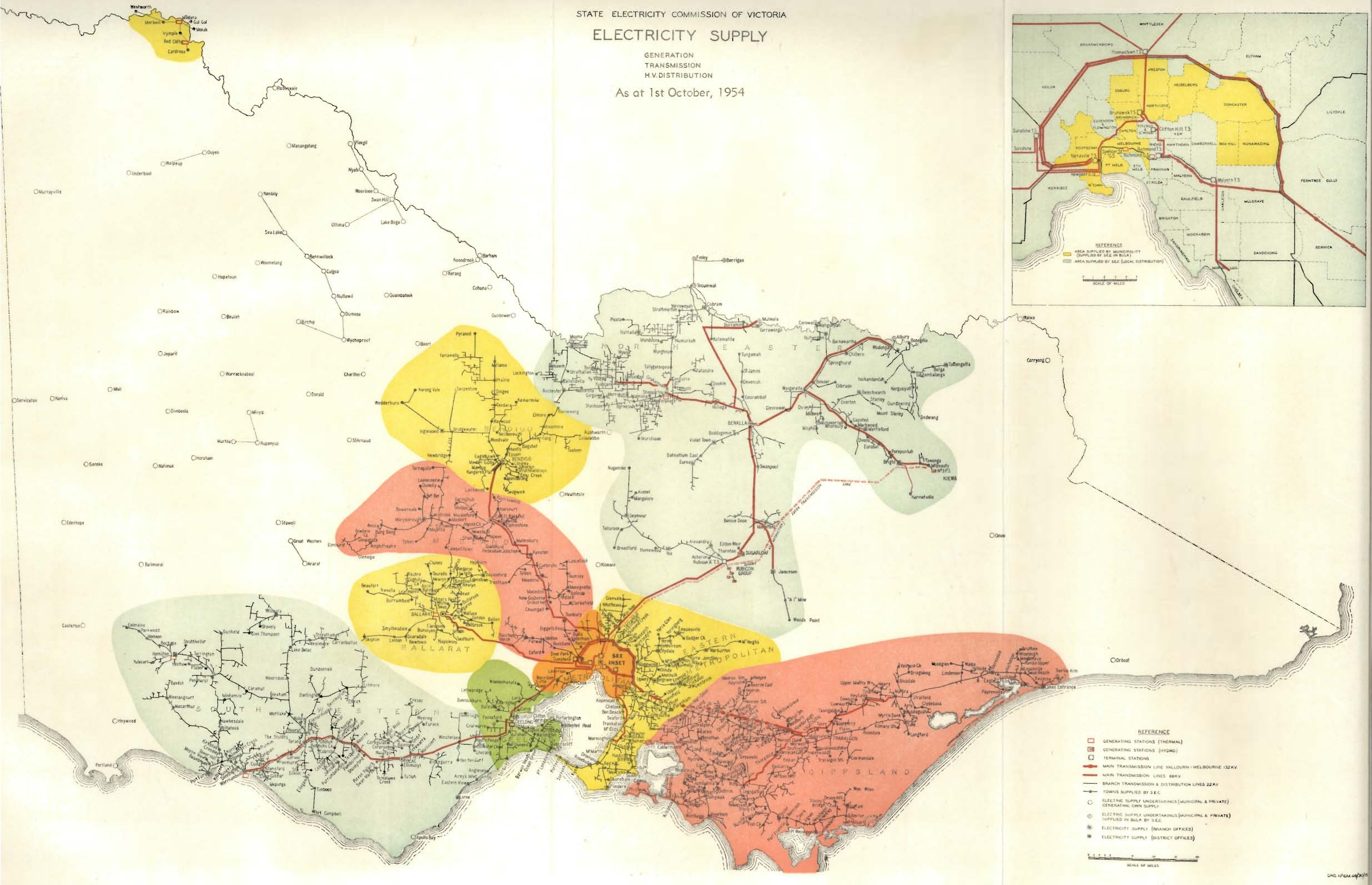
COUNTRY UNDERTAKINGS ACQUIRED (85) — INCREASED DEVELOPMENT SINCE ACQUISITION

Location	Acquisition Date	After Acquisition Year Ended 30.6.54		Prior to Acquisition			Average Revenue per kWh Sold	
		kWh. Sold	Revenue	kWh. Sold	Revenue	For Year Ended	1953–54	Prior to Acquisition
			£		£		d.	d.
Metropolitan Branch								
Werribee	10.4.24	10,058,738	102,377	61,190	2,575	30.9.23	2.44	10.10
Ballarat Branch								
Ballan	1.3.40	256,120	4,084	13,261	964	30.6.39	3.83	17.45
Daylesford	31.10.40	1,914,306	22,502	184,853	5,091	31.10.40	2.82	6.61
Hepburn Springs	1.10.40	430,399	6,062	46,002	1,701	30.6.40	3.38	8.87
Wallace	17.5.40	107,886	1,232	1,320	90	30.6.39	2.74	16.36
Bendigo Branch								
Colbinabbin...	17 6.54	—	—	8,590	621	30.9.53	—	17.35
Eaglehawk	1.2.36	1,866,032	24,785	198,580	4,472	30.9.35	3.19	5.40
Elmore	2.9.47	634,242	7,707	60,000	2,188	30.6.46	2.92	8.75
Inglewood	3.12.46	315,674	5,272	89,400	2,614	30.9.46	4.01	7.02
Mildura	1.10.53	—	—	19,385,280	265,024	30·9.53	—	3.28
Mitiamo	19.3.51	111,908	1,470	8,728	391	30.6.50	3.15	10.75
Pyramid Hill	21.4.54	—	—	191,345	6,204	30.9 53	—	7.78
Wedderburn-Korong Vale ...	16.12·53	—	—	345,129	10,577	30.9.53	—	7.36
Eastern Metropolitan Branch								
Dandenong...	1.10.23	13,413,696	124,659	77,300	4,006	30.9.23	2.23	12.44
Frankston	21.2.28	13,503,959	143,828	293,000	8,859	30.9.27	2.56	7.25
Healesville	1.4.33	2,626,308	32,144	108,910	4,196	30.9.31	2.94	9.24
Lilydale	1.4.25	3,283,266	30,069	39,950	1,816	30.9.24	2.20	10.91
Mornington	1.8.30	6,606,805	69,856	120,000	4,634	30.9.28	2.54	9.26
Ringwood and Croydon	1.4.25	18,954,615	182,971	181,600	4,393	30.9.24	2.32	5.81
Sorrento and Portsea	1.10.27	2,973,912	33,648	47,500*	2,440	30.9.27	2.72	12.33*
Warburton	1.7.44	1,232,107	13,709	112,555	3,485	30.6.44	2.67	7.43
Gippsland Branch								
Bairnsdale	1.4.27	4,323,948	49,139	100,272	2,948	30.6.23	2.73	7.06
Cowes	31.3.54	—	—	280,601	8,736	30.9.53	—	7.47
Drouin	3.10.24	2,701,426	25,360	19,500	743	30.9.21	2.25	9.15
Garfield	1.8.29	344,933	4,286	8,864	465	30.12.27	2.98	12.59
Heyfield	15.9.24	1,895,540	19,318	20,000*	950*	30.6.24	2.45	11.40*
Inverloch	1.10.34	340,018	4,903	4,000*	200	30.6.34	3.46	12.00*
Koo-wee-rup	1.8.35	931,778	9,450	17,481	686	9.8.33	2.43	9.42
Korumburra	1.12.24	3,461,734	30,196	85,000	3,427	30.9.23	2.09	9.68
Leongatha	15.2.24	2,842,696	26,471	50,640	2,012	30.6.23	2.23	9.53
Maffra	1.9.24	6,103,713	45,937	62,000	2,651	30.9.22	1.81	10.26
Morwell	1.4.26	18,202,630	137,113	52,062	1,772	30.9.25	1.81	8.17
Neerim South—Noojee	15.1.35	1,594,479	14,981	59,550	1,193	30.6.33	2.25	4.81
Sale	1.7.24	6,090,028	64,880	114,155	3,687	30.6.24	2.56	7.75
Toora—Foster	1.5.38	1,709,092	16,885	116,330	2,348	30.6.36	2.37	4.84
Thorpdale	23.12.37	194,432	2,150	5,000*	312*	23.12.37	2.65	14.98*
Warragul	1.12.30	6,358,643	67,283	150,000*	4,830	30.11.30	2.54	7.73*
Welshpool	13.8.38	169,914	2,103	5,280*	172*	13.8.38	2.97	7.82*
Yarram	31.7.46	1,741,870	18,463	264,000*	6,422	31.1.46	2.54	5.84*
Midland Branch								
Avoca	1.8.40	581,761	7,504	46,410	1,922	30.6.40	3.10	9.94
Bacchus Marsh	2.6.41	2,343,930	26,807	253,913	4,225	30.9.40	2.74	3.99
Castlemaine	31.12.29	4,845,835	54,336	175,904	7,130	31.12.28	2.69	9.73
Dunolly	1.4.38	321,768	4,922	32,667	1,188	30.9.37	3.67	8.73
Gisborne	1.10.28	477,812	5,942	17,000	1,074	30.9.27	2.98	15.16
Kyneton	1.10.29	1,796,431	22,057	143,340	5,433	30.9.27	2.95	9.09
Maryborough	1.10.37	4,832,437	54,681	421,013	10,215	30.9.37	2.72	5.82
Sunbury	1.5.26	972,515	12,703	58,501	2,490	30.9.24	3.13	10.21
Trentham	8.5.39	289,614	3,777	21,000*	989	30.9.38	3.13	11.30*
Woodend	1.8.29	851,196	10,738	51,000	2,555	30.9.27	3.03	12.02
North Eastern Branch								
Alexandra	11.4.27	1,331,931	15,765	64,000*	1,875	30.9.26	2.84	7.00*
Beechworth	2.9.46	1,555,803	18,568	182,661	6,982	30.9.46	2.86	9.17
Benalla	1.5.26	4,758,004	53,532	70,800	3,373	30.9.24	2.70	11.43
Bright	1.12.41	757,086	8,283	49,200	1,801	13.10.41	2.63	8.79
Broadford	31.8.48	5,473,790	35,181	75,089	2,678	31.8.48	1.54	8.56
Chiltern	1.9.26	240,449	3,751	13,475	730	31.8.26	3.74	13.00
Cobram	1.10.28	1,663,052	17,782	19,500	1,416	30.9.27	2.57	17.43
Euroa	20.3.28	1,378,865	17,376	46,618	1,782	30.9.25	3.02	9.17
Kyabram	1.12.26	3,476,089	32,016	92,312	3,462	4.7.25	2.21	9.00
Mansfield	1.6.28	1,717,550	20,020	25,000	1,341	30.9.27	2.80	12.88
Mooroopna	1.10.26	2,721,613	24,372	40,000	1,457	30.9.25	2.15	8.74
Murchison	30.11.45	368,177	5,014	114,080	2,547	30.9.45	3.27	5.36
Myrtleford	1.12.40	1,143,715	13,622	59,260	2,089	30.6.40	2.86	8.46
Nagambie	17.5.54	—	—	169,213	4,836	30.9.53	—	6.86
Nathalia and Numurkah	1.10.31	2,390,847	28,090	96,763	3,619	30.9.31	2.82	8.97
Rochester	1.8.35	1,587,395	17,722	191,310	4,223	31.7.35	2.68	5.30
Rutherglen	15.10.26	990,668	12,556	28,392	1,377	30.9.24	3.04	11.64
Seymour	2.10.44	6,613,526	69,382	1,004,623	14,019	30.9.44	2.52	3.35
Shepparton	1.1.25	9,655,530	104,978	163,400	4,625	30.6.24	2.61	6.79
Stanhope	14.6.38	1,731,475	16,642	5,150*	341	14.6.38	2.31	15.89*
Tallangatta	1.11.40	717,104	8,122	118,033	3,119	30.9.40	2.72	6.34
Tatura	1.11.26	1,621,139	17,796	40,000	1,710	30.6.25	2.63	10.26
Violet Town	1.3.36	223,661	3,344	14,650*	1,160	30.9.35	3.59	19.00*
Wahgunyah	1.2.26	194,745	2,361	7,233	263	30.9.22	2.91	8.73
Wangaratta	12.3.27	11,775,345	111,801	151,600	4,788	30.9.25	2.28	7.58
Wodonga	1.11.33	2,555,943	29,185	64,500*	3,000*	30.6.33	2.74	11.16*
Yarrawonga	1.8.25	15,687,618	97,768	47,000	2,149	30.9.24	1.50	10.97
Yea	1.5.45	656,805	8,174	163,550	3,134	30.9.44	2.99	4.60
South Western Branch								
Camperdown	1.1.24	2,643,584	28,503	97,664	4,122	30.9.23	2.59	10.13
Colac	1.9.23	6,273,973	68,956	99,000	2,673	30.9.23	2.64	6.48
Coleraine	1.7.46	603,085	8,409	100,216	2,435	31.12.44	3.35	5.83
Hamilton	1.7.46	5,517,786	67,523	1,440,664	19,422	31.12.44	2.94	3.24
Koroit	1.12.28	606,280	7,591	50,000	2,319	30.9.28	3.00	11.13
Lorne	15.12.36	1,473,850	16,802	24,000	1,658	30.9.36	2.74	16.58
Mortlake	16.5.24	662,052	8,349	35,306	1,626	30.9.23	3.03	11.05
Terang	4.3.24	1,910,626	21,499	78,839	3,439	30.9.23	2.70	10.47
Total ...		257,289,307	£2,569,595	29,253,077	£538,706		2.40	4.42

*Approximate only.

COMPARISON OF TOTAL FIGURES

	kWh. Sold	Revenue £	Average Revenue per kWh Sold
After Acquisition	257,289,307	2,569,595	2.40d.
Prior to Acquisition	29,253,077	538,706	4.42d.
Increase in Sales and Revenue	228,036,230	2,030,889	Decrease 2.02d.=45.7%


STATE ELECTRICITY COMMISSION OF VICTORIA
ELECTRICITY SUPPLY
GENERATION
TRANSMISSION
H.V. DISTRIBUTION
As at 1st October, 1954
NORTH EASTERN
BENDIGO
MIDLAND
BALLARAT
EASTERN METROPOLITAN
METROPOLITAN
GEELONG
GIPPSLAND
SOUTH WESTERN
SEE INSET
REFERENCE
GENERATING STATIONS (THERMAL)
GENERATING STATIONS (HYDRO)
TERMINAL STATIONS
MAIN TRANSMISSION LINE YALLOURN - MELBOURNE 132 KV
MAIN TRANSMISSION LINES 66 KV
BRANCH TRANSMISSION & DISTRIBUTION LINES 22 KV
TOWNS SUPPLIED BY S.E.C.
ELECTRIC SUPPLY UNDERTAKINGS (MUNICIPAL & PRIVATE) GENERATING OWN SUPPLY
ELECTRIC SUPPLY UNDERTAKINGS (MUNICIPAL & PRIVATE) SUPPLIED IN BULK BY S.E.C.
ELECTRICITY SUPPLY (BRANCH OFFICES)
ELECTRICITY SUPPLY (DISTRICT OFFICES)
SCALE OF MILES
REFERENCE
AREA SUPPLIED BY MUNICIPALITY (SUPPLIED BY S.E.C. IN BULK)
AREA SUPPLIED BY S.E.C. (LOCAL DISTRIBUTION)
SCALE OF MILES