1955–56

VICTORIA

STATE ELECTRICITY COMMISSION OF VICTORIA

THIRTY-SIXTH ANNUAL REPORT

FOR THE

FINANCIAL YEAR ENDED 30TH JUNE, 1955

TOGETHER WITH

APPENDICES

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

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STATE ELECTRICITY COMMISSION OF VICTORIA

FEATURES OF 1954-55 OPERATIONS

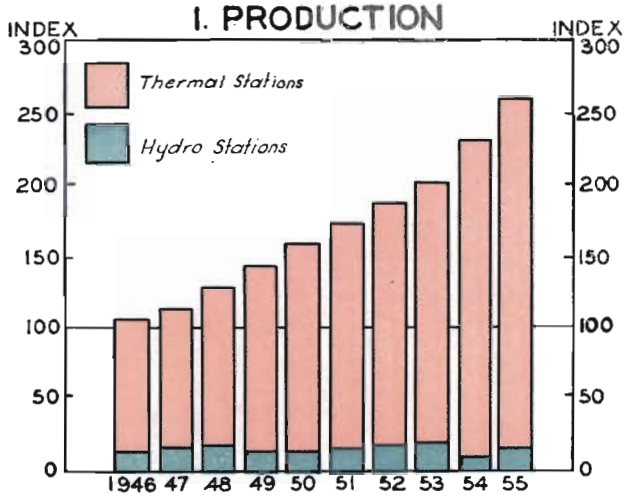
		1954 - 55	1953-54	Increase or Decrease	Percentage
FINANCIAL					
INCOME—					
Electricity Supply	£	24,838,401	22,117,381	+ 2,721,020	+ 12·3
Briquetting (after Stock Adjustment and less Transfers to Works)	£	1,195,111	884,652	+ 310,459	+ 35·1
Brown Coal (less Transfers to Works)	£	551,162	484,330	+ 66,832	+ 13·8
Tramways	£	181,727	184,756	− 3,029	− 1·6
Miscellaneous	£	15,425	9,860	+ 5,565	+ 56·4
TOTAL INCOME	£	26,781,826	23,680,979	+ 3,100,847	+ 13·1
EXPENDITURE (incl. Appropriations, Writings off etc.)	£	26,422,258	23,321,485	+ 3,100,773	+ 13·3
NET SURPLUS	£	359,568	359,494	+ 74	—
CAPITAL EXPENDITURE—At end of Year	£	192,325,336	173,313,439	+ 19,011,897	+ 11·0
RESERVES—At end of Year	£	26,571,499	24,533,646	+ 2,037,853	+ 8·3
ELECTRICITY PRODUCTION AND SALES					
MAXIMUM COINCIDENT DEMAND ON POWER STATIONS (21st June, 1955)	kW	836,020	701,650	+ 134,370	+ 19·2
ELECTRICITY GENERATED—	kWh-millions	3,970·4	3,502·4	+ 468·0	+ 13·4
ELECTRICITY SALES—	kWh-millions	3,183·5	2,814·7	+ 368·8	+ 13·1
NUMBER OF CONSUMERS (excluding Bulk Supplies)		532,277	501,994	+ 30,283	+ 6·0
AVERAGE kWh SOLD PER CONSUMER—					
Domestic		1,921	1,770	+ 151	+ 8·5
Commercial		4,654	4,330	+ 324	+ 7·5
All Consumers (excluding Bulk Supplies)		4,307	4,037	+ 270	+ 6·7
Per Head of Population (Victoria)		1,203	1,095	+ 108	+ 9·9
AVERAGE PRICE PER kWh SOLD—					
Domestic	d.	2·214	2·297	− 0·083	− 3·6
Commercial	d.	3·114	3·120	− 0·006	− 0·2
Industrial	d.	1·679	1·685	− 0·006	− 0·4
All Consumers (excluding Bulk Supplies)	d.	2·076	2·106	− 0·030	− 1·4
MOTORS CONNECTED—					
Number		129,136	121,664	+ 7,472	+ 6·1
Horse-power		702,898	657,970	+ 44,928	+ 6·8
NUMBER OF FARMS SERVED		30,131	27,082	+ 3,049	+ 11·3
BRIQUETTES—					
Produced	tons	630,579	587,252	+ 43,327	+ 7·4
Sold and used at Power Stations	tons	581,594	612,394	− 30,800	− 5·0
BROWN COAL PRODUCED—					
Yallourn Open Cut	tons	7,371,144	6,718,750	+ 652,394	+ 9·7
Yallcurn North Open Cut	tons	1,391,031	1,262,094	+ 128,937	+ 10·2
TRAMWAY PASSENGERS		12,637,464	12,716,816	− 79,352	− 0·6

TEN YEAR STATISTICAL REVIEW
BASE YEAR 1944/45 = 100

MAIN FEATURES OVER THE DECADE:-

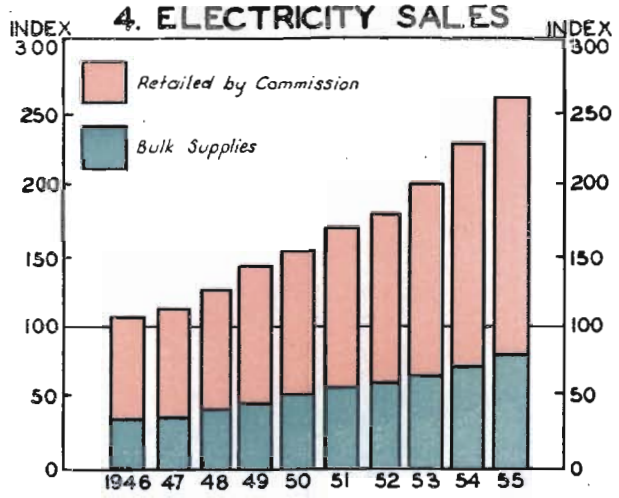
1. Electricity production and sales have almost trebled.
2. New generators installed have no more than kept pace with demand.
3. Despite major increases in cost levels, the cost per kWh of domestic electricity is only 24% higher than 10 years ago, largely because of the substantial increase in the use of electricity per consumer.
4. Active rural electrical development has doubled country consumers (farms supplied have more than trebled).

1. PRODUCTION



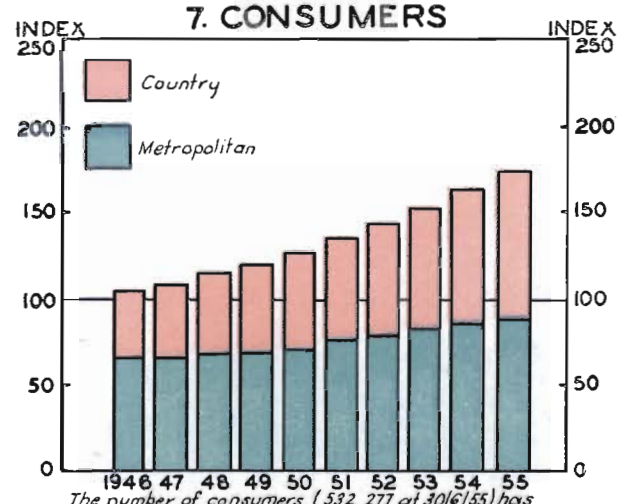
Production of electricity (3970·4 million kWhs in 1954/55) has almost trebled over the decade (Statistics-App6)

4. ELECTRICITY SALES



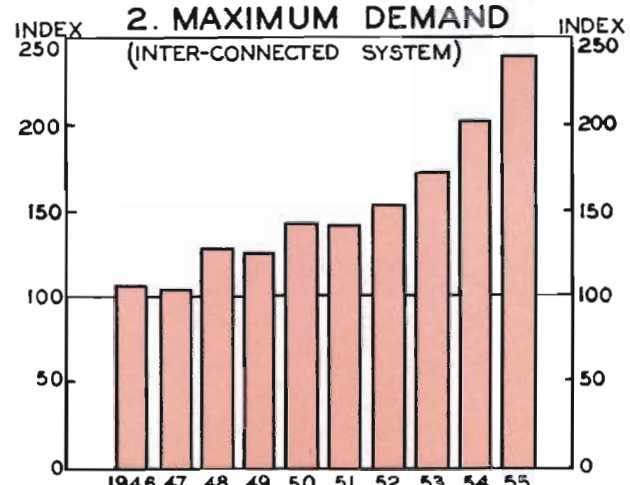
Sales for 1954/55 were 8183·5 million kWhs; an increase of 13·1 per cent over last year (Statistics-App.11)

7. CONSUMERS



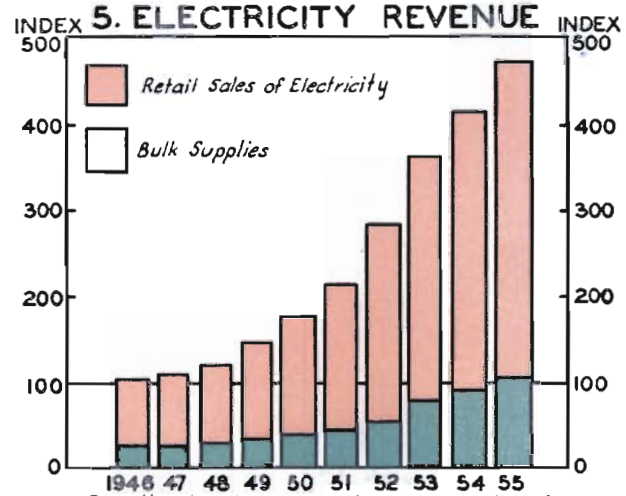
The number of consumers (532,277 at 30/6/55) has increased steadily over the decade. Country consumers have more than doubled. (Statistics-App.10)

2. MAXIMUM DEMAND
(INTER-CONNECTED SYSTEM)



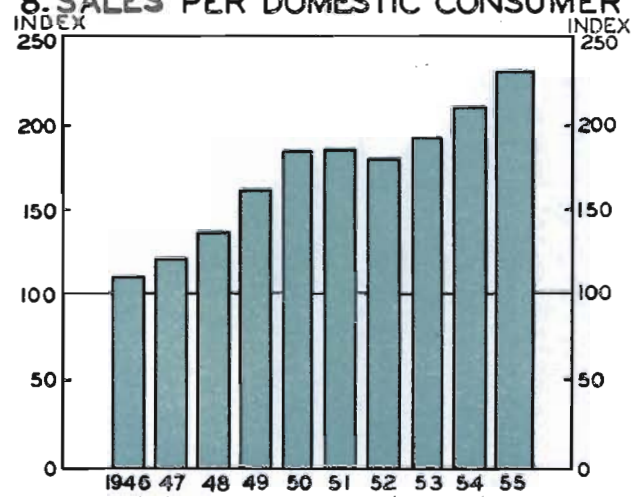
Maximum Demand for 1954/55 was 836,020 kW, an increase of 19 per cent for year (Statistics-App.6)

5. ELECTRICITY REVENUE



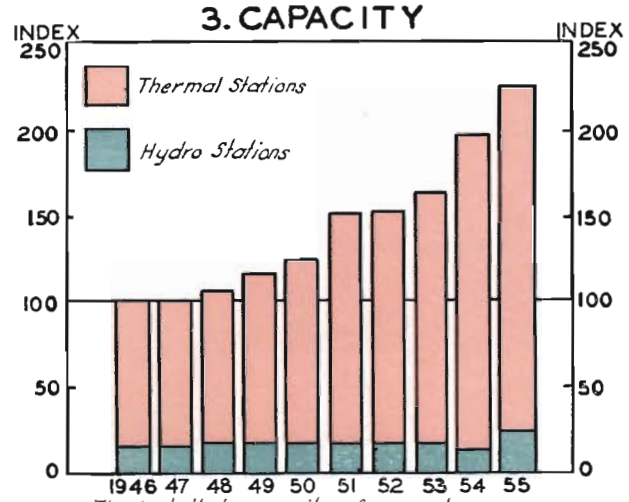
Over the decade revenue has increased nearly fivefold (Statistics-App.11)

8. SALES PER DOMESTIC CONSUMER



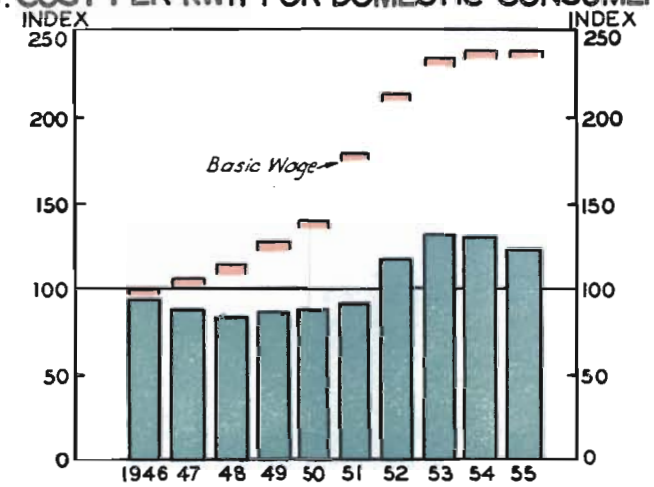
Over the last 10 years consumption per domestic consumer has increased from 838 to 1921 kWhs (Statistics-App.10)

3. CAPACITY



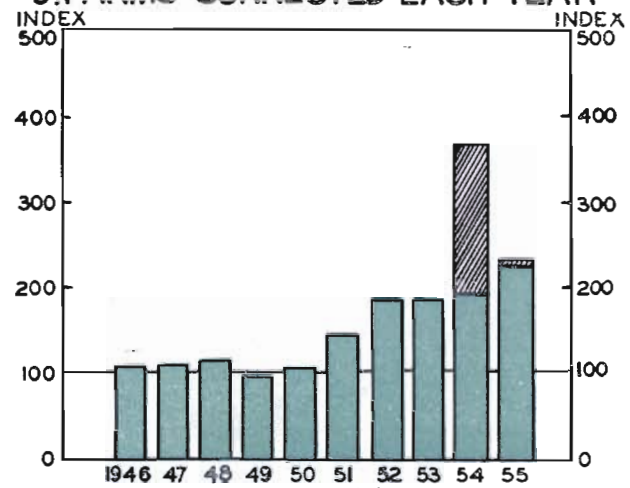
The installed capacity of generators was 925,559 kW at 30/6/55; an increase of 114,064 kW for year (Statistics-App.8)

6. COST PER kWh FOR DOMESTIC CONSUMERS



As a result of increased use of electricity, revenue per kWh is only 24 per cent higher than ten years ago notwithstanding that the basic wage has more than doubled (Statistics-App.11)

9. FARMS CONNECTED EACH YEAR



Total farms connected at 30/6/55 was 30,131 an increase of 3049 for the year. Shaded portion of the graphs represents farms previously supplied by undertakings acquired (Statistics-App10)

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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.

DR. W. D. CHAPMAN, M.C.E., D.Eng., M.I.E.Aust., M.I.C.E., who died on the 6th May, 1955, served as a Commissioner since 1944 and was Acting Chairman, April-August, 1949. (See further reference, Page 28.)

THIRTY-SIXTH ANNUAL REPORT

Honourable J. S. Bloomfield, M.L.A.,
Minister of Electrical Undertakings,
MELBOURNE.

Sir,

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-sixth Annual Report of the Commission, covering the financial year ended 30th June, 1955, together with the Balance Sheet and Profit and Loss Account.

It is gratifying to Commissioners to report:—

- The year's operating results again were financially satisfactory.
- Electricity sales increased by 13 per cent. — this increment was almost as large as for the previous year (16%), which was a record.
- 30,300 new consumers were supplied by the Commission, including 3,050 farms.
- Brown coal production was 8.8 million tons — the highest figure yet recorded.
- Briquette production (630,000 tons) was also the highest yet recorded.
- New plant increased the installed capacity of generators by 114,000 kW to 925,559 kW.
- Despite the absence of reserve capacity, generating plant was just able to cope with the exceptionally large increase in the electricity requirements of consumers.

FINANCIAL

The surplus for the year was £359,568 (£359,494 last year) after providing full interest and depreciation on assets in service, strengthening reserves to the extent of £400,000, and writing off £380,822 on account of interest and other expenditure on works under construction.

Income from all sources totalled £26,781,826 — an increase of £3,100,847 (13.1%). Expenditure was £3,819,951 (17.5%) higher.

Last year's results have been encouraging, despite the use of large quantities of high-priced fuel at thermal stations other than Yallourn — at Newport the fuel cost per kilowatt-hour generated is three times that of Yallourn. There is scope for further improvement in overall fuel costs as further generating plant at Yallourn "C" and "D," and later at the Morwell power and fuel project, permits the whole of the base load gradually to revert to Yallourn-Morwell and to be based on the use of brown coal.

Costs generally were increased by the higher margins awarded by the Arbitration Court. The Commission faces the new financial year with the prospect of an increase in general wage rates and of having to bear additional interest and other charges in respect of capital works under construction. Reference is made elsewhere in this report to the prolonged period of construction of major projects because of the difficulties in recent years of obtaining the requisite finance. Also, there is the need to hold in the business funds to assist in providing finance for capital works vital to the continuity of service. This latter aspect is today of great significance to most public and private large-scale enterprises.

The Commission's electricity tariffs have not increased since 1952, and it is not to be expected that electricity charges can escape the effects of existing and prospective increases in costs such as those mentioned. Rather it is a question of how long can an increase in tariffs be deferred. The decision made 18 months ago — and announced in the last report — to reduce residential tariffs, as then stated, was based on the assumption that by now there would have been "more stability in cost levels." But unfortunately, at this date, the prospects of increase in cost levels are very real.

ELECTRICITY SUPPLY

Electricity sales totalled 3,184 million kilowatt-hours — an increase of 369 million kilowatt-hours, or 13 per cent. — compared with the record increment of 395 million kilowatt-hours last year. 30,283 new consumers (3,049 farms) were supplied during the year, including 3,459 consumers previously supplied by undertakings acquired.

The Commission supplied (directly or indirectly) 99 per cent. of the electricity consumed in Victoria.

MAJOR WORKS PROGRAMME — POWER AND FUEL

During the year 114,000 kW were added to the installed capacity of generators as compared with 136,000 kW last year. Supplemented by private plants (approx. 10,000 kW) this additional capacity enabled the Commission to meet the much higher electricity requirements of consumers.

The Commission again emphasises the need to build up a substantial reserve of generating plant to provide a safeguard against unexpected breakdowns or national or other emergencies. The absence of such a reserve, on many occasions, has caused grave concern in maintaining continuity of supply to consumers.

At the present rate of construction, it will be several years before any appreciable reserve will be available. The dominant factor governing the rate of progress of installing new plant is the extent of the financial resources available.

The principal additions to generating plant were the second 50,000 kW turbo-generator at the augmented Yallourn Power Station, 30,800 kW (first two generators) at Kiewa No. 4 Power Station, the installation after reconditioning of two sets at Eildon Power Station (total capacity 16,000 kW) and 15,000 kW at the Spencer Street Power Station (Melbourne City Council).

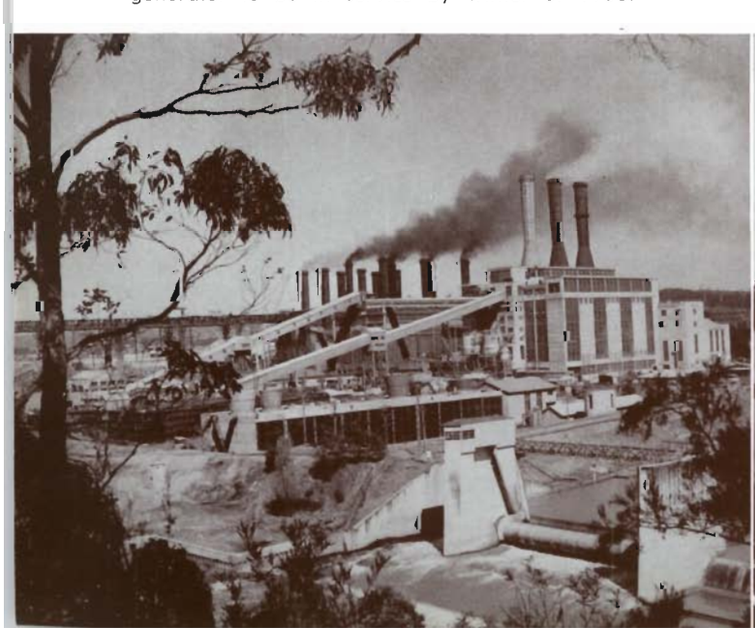
Progress with extensions to the Yallourn Power Station, the Morwell Power and Fuel Project, and at the Kiewa Hydro-Electric Scheme, is referred to later in this report.

PARLIAMENTARY VISIT TO YALLOURN AND MORWELL

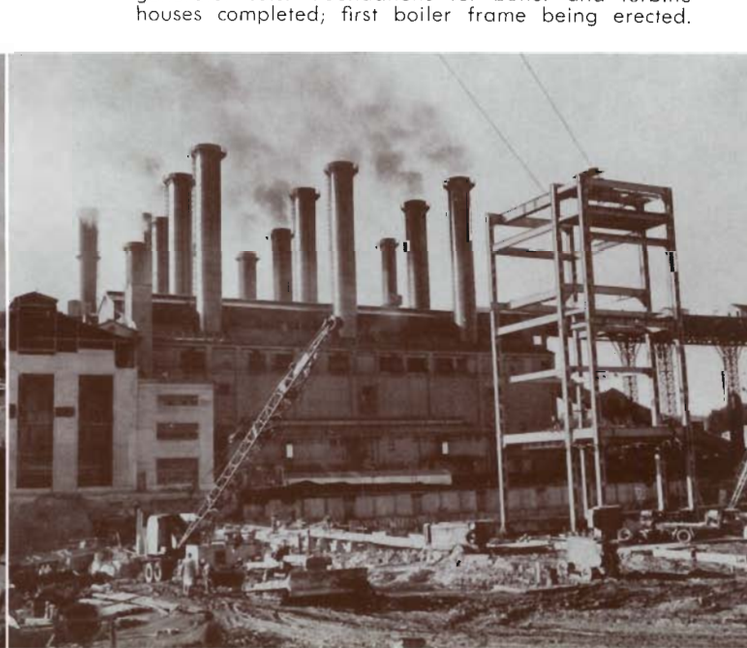
At the invitation of the Minister of Electrical Undertakings, an official inspection of the Commission's Yallourn and Morwell undertakings was made by Members of both Houses of Parliament on the 1st September, 1955.

EXTENSIONS TO YALLOURN POWER STATION.

New "C" Station almost complete. Two 50,000 kW turbo-generators in operation with four boilers — remaining two boilers and a 6,000 kW turbo-generator to be in service by winter of 1956.



New "D" Station to house two 50,000 kW turbo-generator sets. Foundations for boiler and turbine houses completed; first boiler frame being erected.



ANNUAL ACCOUNTS

SUMMARY OF INCOME AND EXPENDITURE

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

Year ended 30/6/54			Year ended 30/6/55	
£	£		£	£
		ELECTRICITY SUPPLY		
22,117,381		Income	24,838,401	
20,105,436		Expenditure	23,583,769	
	2,011,945	*Profit*		1,254,632
		BRIQUETTING		
884,652		Income	1,195,111	
824,084		Expenditure	1,175,176	
	60,568	*Profit*		19,935
		BROWN COAL — YALLOURN NORTH		
484,330		Income	551,162	
381,072		Expenditure	384,115	
	103,258	*Profit*		167,047
		PROVINCIAL TRAMWAYS		
184,756		Income	181,727	
412,672		Expenditure	415,325	
	227,916	*Loss*		233,598
	9,860	Miscellaneous Income		15,425
	98,221	Miscellaneous Expenditure		83,051
		MAKING A TOTAL		
23,680,979		Income	26,781,826	
21,821,485		Expenditure	25,641,436	
	1,859,494	*Profit*		1,140,390
		Appropriations from the profit were:—		
		Proportion of interest and other expenditure on works under construction temporarily capitalised now written out	380,822	
1,250,000		Contingency and Obsolescence Reserve	400,000	
250,000		Rate Stabilisation Reserve	—	
	1,500,000			780,822
	£359,494	Leaving a surplus which was transferred to General Reserve		£359,568

As compared with the previous year, the variations in the respective financial results were:—

Electricity Supply	Profit down £757,313
Briquetting	Profit down £40,633
Brown Coal	Profit up £63,789
Tramways	Loss up £5,682

Wages and salaries margins introduced during 1954/55 will cost the Commission approximately £1.1 million per annum, of which £750,000 is chargeable to operations (£450,000 in 1954/55). This factor and the long-term increase in average interest rates (£200,000 in 1954/55), combined with the following, account for the above variations:—

ELECTRICITY SUPPLY — Residential and public lighting tariff reductions in 1954.

BRIQUETTING — Non-recurring revenue in 1953/54 due to stock adjustments, and special "writings out" against operations in 1954/55.

BROWN COAL — Sales increased by 75,773 tons (14.6%). More economical production resulting from new conveyor system partially offset the general cost increases.

ASSETS AND LIABILITIES

Capital expenditure at 30th June, 1955, was as under:—

As at 30/6/54 £		As at 30/6/55 £
	Fixed Capital —	
16,936,720	Coal Production	12,029,681
19,353,031	Briquette Production and Distribution (£3,860,668 transferred to Power Production)	16,477,926
55,090,920	Power Production	68,065,981
46,934,479	Transmission, Transformation and Distribution Systems	55,183,168
41,028,289	General (for details see Appendix No. 3)	40,568,580
£173,343,439		£192,325,336
7,591,359	*Current Assets in excess of Current Liabilities*	6,959,854
4,487,405	*Overburden Suspense* (cost of uncovering coal yet to be won)	4,830,130
4,927,770	*Other Suspense Expenditure* (net)	7,387,471
£190,349,973		£211,502,791
	The funds for this expenditure were obtained from:—	
	Loans —	
40,044,941	Victorian Government Advances	41,744,195
123,583,991	S.E.C. Debentures and Inscribed Stock	141,081,404
458,395	Acquired Undertakings' Debentures and Inscribed Stock	571,982
£164,086,427		£183,397,581
19,674,812	°*Depreciation and Sinking Fund Reserve*	20,993,929
4,363,283	°*Other Reserves*	3,845,755
2,195,451	*Consumers' Advances for Construction*	3,265,526
£190,319,973		£211,502,791

°Excluding the external investment of reserves.

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

Reserves at 30th June, 1955, were:—

Depreciation and Sinking Fund Reserve	£21,608,869	(Increase of £1,438,506)
Contingency and Obsolescence Reserve	£1,982,032	(Increase of £383,053)
Rural Development Reserve	£993,737	(Decrease of £206,263)
Rate Stabilisation Reserve	£500,000	(Unchanged)
General Reserve	£1,486,861	(Increase of £422,557)

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

The Contingency and Obsolescence Reserve was strengthened by the appropriation from the year's profit and the General Reserve by transfer of the year's surplus and the Sinking Fund equity in matured loans.

LOAN LIABILITY

The total loan liability at 30th June, 1955, was £183,397,581, the increase for the year (£19,311,154) being incurred as follows:—

		Less Redemptions		
	New Indebtedness £	Sinking Fund Contributions £	Maturity Repayments £	Net Increase £
State of Victoria	2,019,136	318,983		1,700,153
State Electricity Commission Loans	18,313,489	591,075	225,000	17,497,414
Municipalities (acquired undertakings)	148,111	34,524		113,587
	£20,480,736	£944,582	£225,000	£19,311,154

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:—

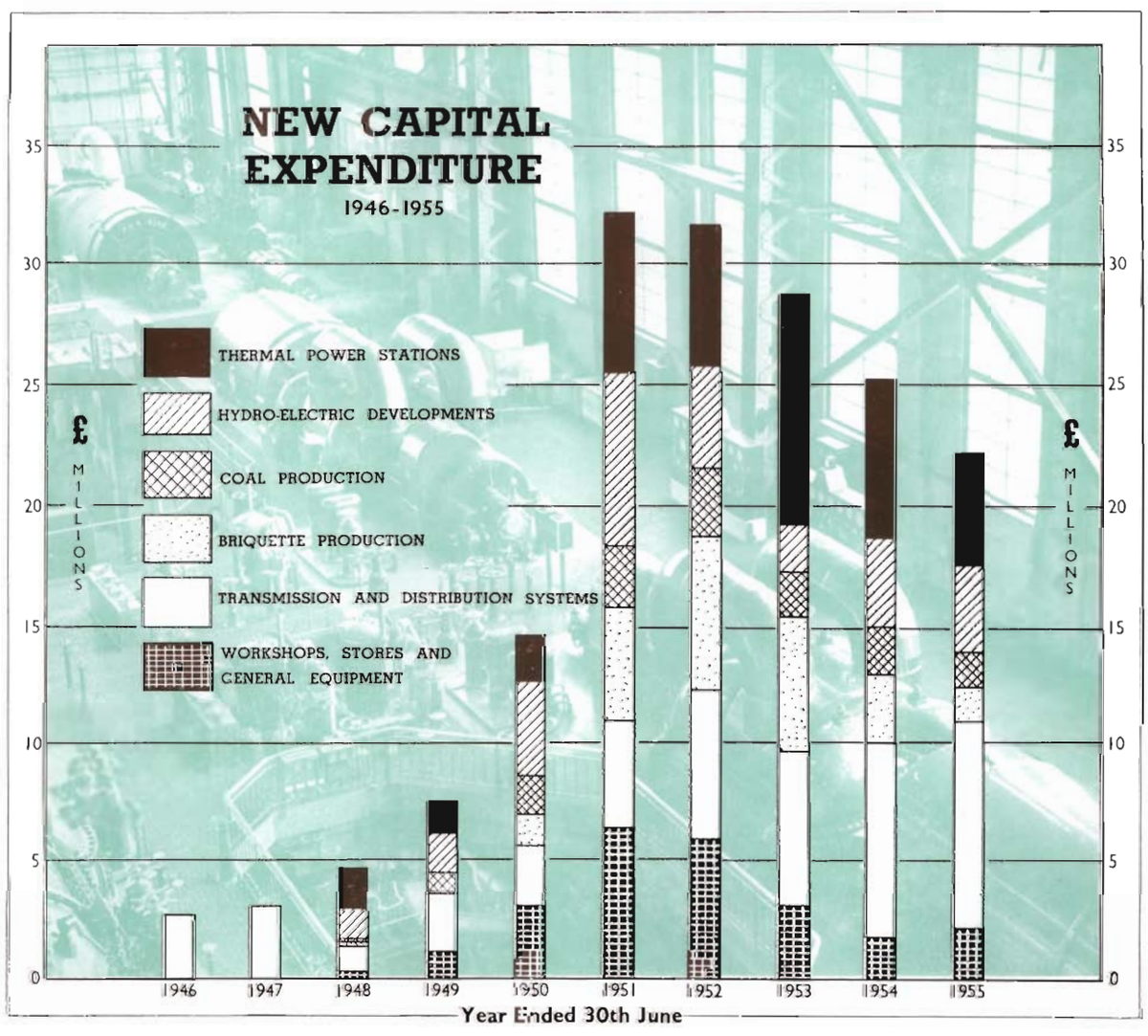
Year ended 30th June	Public Loans	Private Loans	Total
	£	£	£
1950	3,900,000	13,700,000	17,600,000
1951	9,100,000	22,500,000	31,600,000
1952	18,500,000	4,700,000	23,200,000
1953	9,100,000	8,100,000	17,200,000
1954	11,900,000	11,600,000	23,500,000
1955	11,000,000	7,300,000	18,300,000

In December, 1954, legislation was passed increasing the Commission's borrowing powers by £50 million to £215,500,000 — State Electricity Commission (Borrowing) Act 1954 No. 5827.

CAPITAL EXPENDITURE

Total Capital Expenditure at 30th June, 1955, was £192,325,336, an increase of £19,011,897 for the year, after deduction for retirements and the writing off of non-productive expenditure. Details of increases are set out in Appendix No. 3.

This year's accounts provide for interest during construction since July, 1954, on the Morwell project to be treated as an item of capital suspense, with the intention that it be liquidated over a period of years. This financial treatment was part of the Commission's recommendation for a modified form of development of the project described in our last report and adopted by the Government in May, 1954. Similar financial treatment, but of more limited application, has been accorded to certain Kiewa works already much delayed by financial restrictions.



FUTURE DEVELOPMENT OF STATE GENERATING SYSTEM

The maximum demand upon the interconnected system this year was approximately 840,000 kW, and the Commission estimates that by 1964 — that is, nine years hence — the demand will have reached at least 1,600,000 kW.

Large plant installations at the several major power generating projects referred to later in this report, and at a planned new power station in the Latrobe Valley, must be brought to completion during the next decade to cope with the rapid growth in Victoria's electricity requirements. This doubling of generating capacity will impose an extremely heavy task on Commission personnel. However, while the physical works and related contracts can be planned and undertaken on a long-term basis, today the most important consideration affecting long-term planning of large scale power and fuel projects is the inability to ensure that sufficient funds will be available for their uninterrupted manufacture and erection. Finance in present circumstances cannot be planned for even as long as a year in advance — a situation which seriously concerns all large instrumentalities of the Crown throughout Australia, and particularly those whose finance for new projects rests solely or mainly upon their own borrowing authority.

To keep pace with the ever-increasing demands for power and fuel, the Commission estimates that it should be adding to its plant at an annual expenditure rate of not less than £30 million. The Commission's grave anxiety for the future will be understood if this estimate is compared with the actual loan raisings in recent years (see page 9).

The major power projects approved or under study for planning in detail are as follows:—

Yallourn Power Station — The "C," "D" and "E" extensions will bring the capacity of this station to 531,000 kW.

Morwell Power and Fuel Project — Developments authorised to date will provide 91,000 kW by 1960.

New Latrobe Valley Power Station — A new power station with an installed capacity of 300,000 kW by 1964 — ultimate capacity of possibly 600,000 kW.

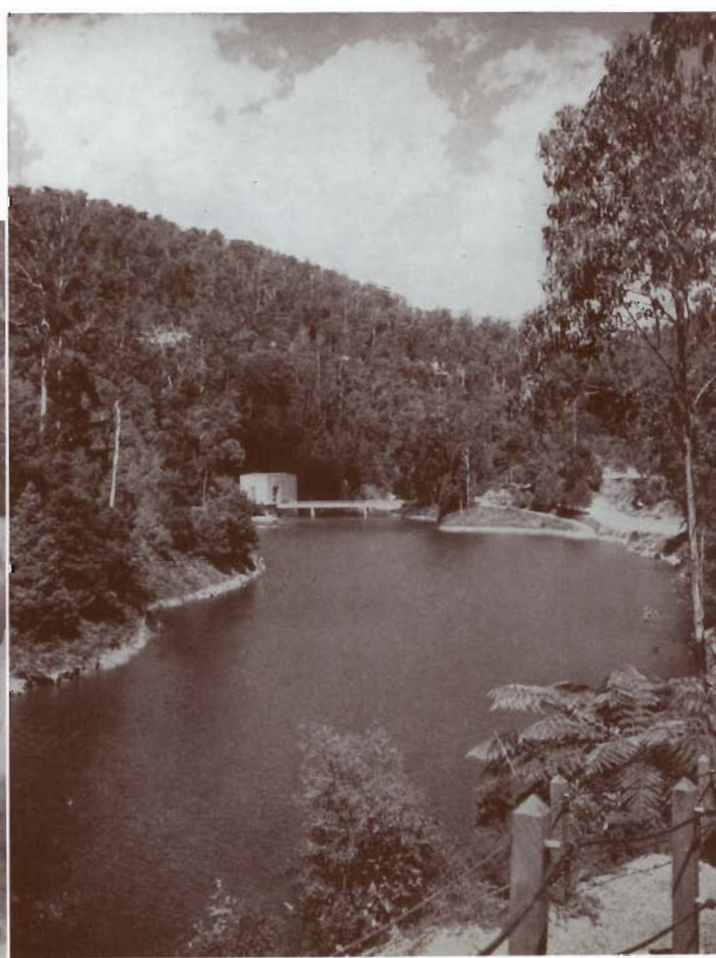
Kiewa Hydro-Electric Scheme — Capacity will probably be progressively increased to 330,000 kW.

Snowy Mountains Hydro-Electric Scheme — Sharing of output of this scheme is expected to commence early in 1959. By 1964, when the Commission's generating system would have attained 1,800,000 kW, the Snowy Scheme is likely to add 200,000 kW of low load factor power.

KIEWA HYDRO-ELECTRIC SCHEME

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

Below: Headrace Tunnel — gravel trap in foreground — serving No. 4 Power Station where three of four 15,400 kW turbo-generators are in operation. Fourth set to be in service for winter of 1956.



SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME

The Commonwealth Government in 1949 established the Snowy Mountains Hydro-Electric Authority to develop the use of streams in the Australian Alps, around the Mt. Kosciusko area, for irrigation and power purposes. A broad outline of the scheme was contained in the Commission's 30th Annual Report (1949): ultimately, by 1985, when Victoria's demand would have reached over 5,000,000 kW, about 1,000,000 kW of low load factor power would be available from the scheme to this State (this would provide about 8 per cent. of the energy requirements at that date).

Negotiations have continued between the Commonwealth and the States of New South Wales and Victoria regarding the terms and conditions upon which the State water and electricity authorities will participate in the scheme, and considerable progress has been made.

Subject to the conclusion of a satisfactory agreement, it is expected that Victoria will be receiving power (initially 25,000 kW) from the scheme by early in 1959, and preparations are being made by the Commission for building the transmission line between the Snowy area and the State interconnected system at Kiewa.

Progress has been made by the Snowy Mountains Authority in constructing the scheme, and the Guthega Power Station — which supplies its output to New South Wales — came into operation in February, 1955. Work is proceeding on the T.1 and T.2 Power Developments (Tumut Section) — total capacity 600,000 kW — from which the Commission expects to receive a one-third share of the outputs commencing in 1959 with 25,000 kW and increasing progressively.

A broad examination of the scheme, particularly in relation to the integration of Snowy power with the New South Wales and Victorian State systems, is being undertaken by Ebasco Services Incorporated, of New York, for the Governments of the Commonwealth, New South Wales and Victoria.

USE OF ATOMIC ENERGY FOR POWER GENERATION

Experimental power stations using atomic energy for the generation of electricity are being constructed or are planned in Great Britain and the United States of America, and the operating experience of these will be followed with great interest. At these stations, atomic energy will provide a new method of producing heat for boilers, but apart from this at present the remainder of the power station plant would be along substantially conventional lines.

Thus atomic power stations will be of most value where solid fuel supplies or water power resources are inadequate. This State is singularly fortunate in having enormous deposits of easily accessible brown coal which today provide one of the cheapest means of providing heat energy continuously in great volume.

Advice from overseas sources is that the estimated cost of generating electricity at power stations using present known methods of harnessing atomic energy would be substantially greater than at Victorian power stations using brown coal.

The Commission will be represented on the Commonwealth-State body now being formed for the purpose of exchanging information and keeping the States informed of developments in the industrial application of atomic energy.

CONNECTION OF NEW CONSUMERS

FINAL PHASE OF ELECTRIFICATION OF THE STATE

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.

At 30th June, 1955, approximately 615,000 dwellings were supplied with electricity in the State of Victoria, leaving 51,000 homes outside of the metropolis without supply, including 15,000 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.

During the four years which have elapsed, considerable progress has been made with rural electrical development, and work is ahead of schedule.

Because of the continued shortage of capital funds, the Commission again has had 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. Much of the success in maintaining progress under the rural development plan can be attributed to this co-operative effort by consumers.

SUMMARY OF PROGRESS—116,600 NEW CONSUMERS IN FOUR YEARS

Year ended 30th June	Total	Metropolitan area	Outside Metropolitan area	Farms Connected
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
1955	†30,283	8,539 (28 per cent.)	†21,744 (72 per cent.)	†3,049
Total for 4 years	116,595	32,749 (28 per cent.)	83,846 (72 per cent.)	12,559

* Including 8,344 consumers (2,219 farms) from undertakings acquired during the year.
† Including 3,459 consumers (45 farms) from undertakings acquired during the year.

The number of extra-metropolitan consumers has more than doubled and the number of farms connected has more than trebled 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
1944-45	311,172	111,751	8,772
1949-50	391,005	166,231	15,741
1954-55	532,277	266,228	30,131

During 1954/55 nearly 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	19,062	2,645
High voltage lines erected	1,003.8 miles	33.4 miles
Low voltage lines erected	447.0 ,,	58.6 ,,
Substations erected	1,361	79

MAJOR EXTENSIONS PROGRAMME

SYSTEM GENERATING CAPACITY

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 30/6/55)
Yallourn Power Station —	
Four 50,000 kW turbo-generator sets —	
Two sets	In operaton
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 —	
Two sets	In operaton
Two sets	1955/56
Six 16,000 kW turbo-generators — No. 1 Power Station	1958/59
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
(A 20,000 kW low pressure turbo-generator is yet to be ordered.)	
Eildon Hydro-Electric Project	
Two 60,000 kW turbo-generators	1956
Spencer Street Power Station (Melbourne City Council)	
One 30,000 kW turbo-generator set	1959

In addition —

1. A 40,000 kW set was ordered for Newport Power Station, and 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 shared equally by New South Wales and Victoria.

YALLOURN POWER STATION

(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, is almost complete. The first turbo-generator was placed in service on 22nd May, 1954, and the second on 30th April, 1955; four of the associated boilers are in operation and the remaining two are nearing completion. The 6,000 kW back-pressure turbo-generator is being erected.

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.

The main boiler and turbine house foundations and the first boiler frame are completed; erection of building steelwork has commenced. The base for the first turbo-generator is being constructed.

Yallourn "E"

Offers are being sought for the supply and erection of two 75,000 kW turbo-generators, associated plant and buildings, as a further extension to the power station.

General

New coal handling plant for the "C" and "D" extensions will also improve the fuel delivery to the present "A" and "B" stations. 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., is in operation and excavations for the further ditch and slot bunkers were almost completed.

Altogether some 1,400 men are employed by the Commission and its contractors on these extensions.

KIEWA HYDRO-ELECTRIC PROJECT

Water Storages on the High Plains

Work was recommenced on the Rocky Valley Dam (capacity 23,600 acre feet). The cut-off wall is 25 per cent. complete and the placing of selected earth fill proceeded throughout the summer period.

No. 1 (Upper) Development — Approved Capacity 96,000 kW

Excavation of the headrace tunnel was completed: work on sections requiring concrete lining is in progress. Two contracts have been let for the upper and lower sections respectively of the pressure pipeline to No. 1 Power Station. Work at the power station site has commenced.

No. 1 Power Station will comprise six 16,000 kW turbo-generators and is planned for operation during 1958/59.

No. 2 Development

No field work has been carried out on this section; preliminary designs were commenced during the year.

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

This power station has operated since 1944; the development was completed with the bringing into operation of the Bogong Creek raceline in 1953.

No. 4 Development — Planned Capacity 61,600 kW

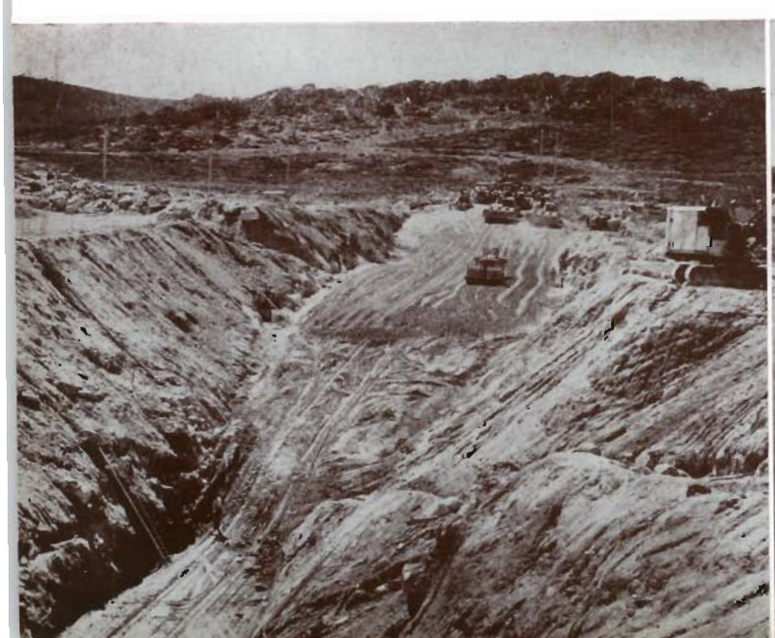
Civil works are largely complete. Two of the four 15,400 kW turbo-generators were placed in service during the period under review (on 28th February, 1955, and 2nd June, 1955, respectively) and the third since the close of the year. The fourth set is to be in operation before the winter of 1956.

Work is proceeding on a tunnel to divert water from the West Kiewa River to No. 4 Power Station; the diversion is 30 per cent. complete.

Altogether 1,330 men were employed by the Commission and its contractors on the Kiewa Project at the 30th June, 1955.

ROCKY VALLEY DAM (CAPACITY 23,600 ACRE FEET) BOGONG HIGH PLAINS.

Placing and compacting selected earth fill in dam excavation (over cut-off wall).



Excavation to bed rock and cut-off wall being erected.

MORWELL POWER AND FUEL PROJECT

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

Construction work at Morwell was recommenced late in 1954 and there are now some 750 men employed by the Commission and its contractors. Much work has been done on the restoration and completion of accommodation, stores and workshops.

The erection of plant and steelwork has commenced and an order has been placed for the erection of six boilers, ash handling plant and chimneys. Foundations for the first two factories and power plant were completed before work came to a standstill following the substantial reductions in loan funds in 1951. Delivery of steelwork for the first five boilers is now substantially complete — most of the steelwork for the first two briquette factories had been delivered.

Erection of a bucket wheel overburden dredger (output 780 cubic yards per hour) was completed; a bucket chain overburden dredger (output 1,100 cubic yards per hour) and an overburden spreader (output 1,170 cubic yards per hour) were substantially complete. Work on the railway interconnecting the Morwell and Yallourn undertakings has been completed since the close of the year.

Removal of overburden by dredger commenced in October, 1955; during preliminary excavations at the open cut, 3,000,000 cubic yards of overburden were removed.

• • •

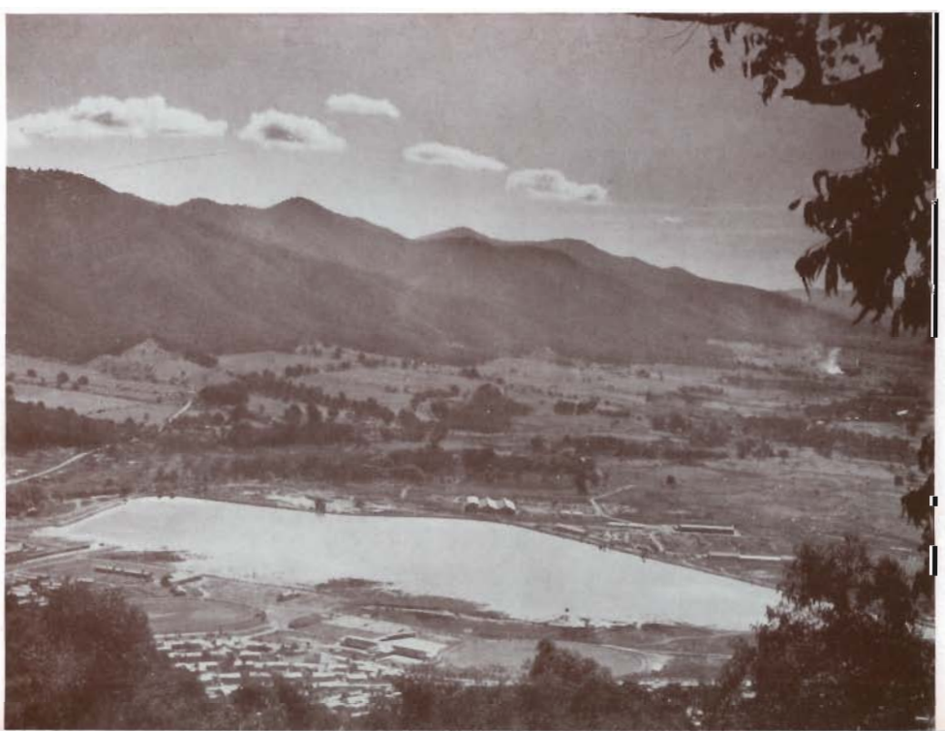
EILDON HYDRO-ELECTRIC PROJECT

Reference has been made in previous reports to the agreement with the State Rivers & Water Supply Commission concerning the installation of 120,000 kW of additional generating plant at the enlarged Eildon Reservoir. Under this agreement the reservoir has been enlarged slightly beyond the requirements of irrigation so that some water will be available for emergency and peak winter electricity demands; generally, however, storages will be filling during the winter and thus only a limited output of electricity will be generated when demand is highest.

Installation of two 60,000 kW turbo-generators to be in operation in 1956 has commenced in the new power station building which is almost completed. The two generators removed from the old Sugarloaf Power Station were installed after reconditioning in the new building during August, 1954. They will contribute 16,000 kW at times of peak demand when the water level in the reservoir is low.

MT. BEAUTY TOWNSHIP (KIEWA HYDRO-ELECTRIC SCHEME).

Outlet regulating pondage now in operation (regulates the outflow of water from the scheme back into the Kiewa River).



MAIN TRANSMISSION AND DISTRIBUTION

The first circuit of the new Yallourn-Melbourne 220 kV transmission line (74 miles) was placed in service temporarily at 132 kV on 28th August, 1954; the second circuit is 80 per cent. complete. The first circuit of the Kiewa-Melbourne 220 kV transmission line (153 miles) was placed in service on 17th January, 1955. Work commenced on a 220 kV transmission line to link Thomastown Terminal Station to a new terminal station which is being constructed at Rowville (near Dandenong). Preliminary work has commenced for the new 220 kV line from Kiewa to Shepparton and to Bendigo.

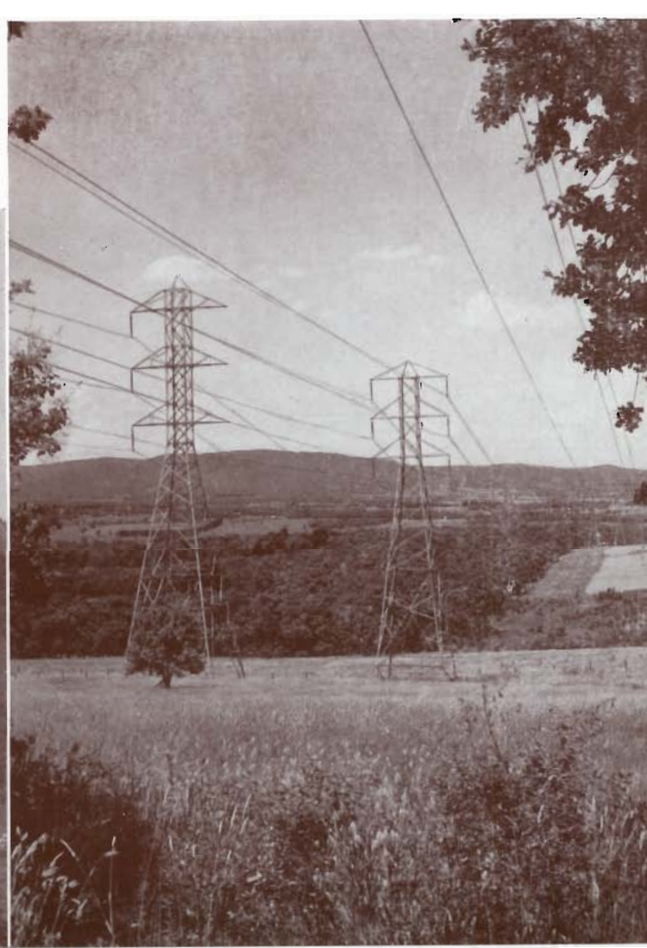
At Brunswick Terminal Station the second bank, comprising two 37,500 kVA transformers, is being installed. The redesigned switchyard at Thomastown Terminal Station was completed and new 220 kV switchgear placed in service.

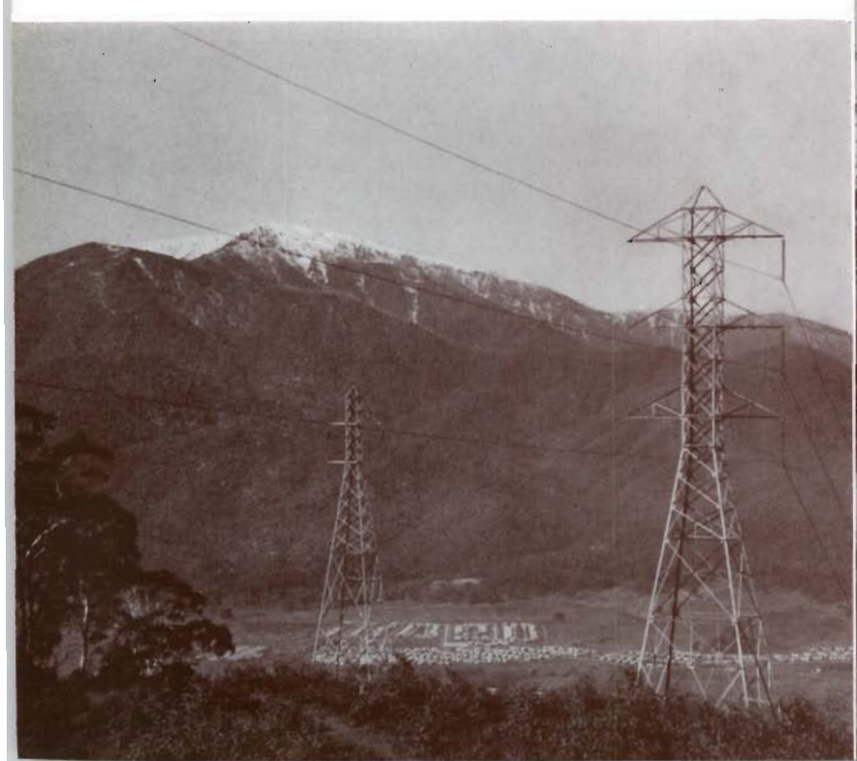
At Malvern Terminal Station a new 40,000 kVA synchronous condenser and associated switchgear have been installed. New main substations have been established at Broadmeadows and Cheltenham.

NEW 220,000 VOLT MAIN TRANSMISSION LINES

At right: Yallourn-Melbourne (74 miles long) — section at Wheeler's Hill, east of Oakleigh. New 220 kV line at left — 132 kV line at right.

Below: Kiewa-Melbourne (153 miles long) — first circuit now in service. Mt. Beauty township at foot of Mt. Bogong at centre. 66,000 volt Kiewa-Wangaratta transmission line at left.





POWER PRODUCTION

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

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.

STATE GENERATING SYSTEM

INSTALLED CAPACITY AND LOADING AT COMMISSION POWER STATIONS

Power Station	Installed Capacity of Generators — 30/6/55	Maximum Demand		kWh Generated (Millions)	
		1954/55	1953/54	1954/55	1953/54
(i) *Interconnected State System*					
(a) *Thermal Stations*					
Yallourn (including allowance for briquette factory)	283,000	260,000	243,000	1,668.1	1,394.0
Melbourne —					
Newport	311,000	303,000	304,400	1,249.9	1,322.7
Spencer Street	88,650	83,000	73,000	306.6	212.4
Richmond	53,000	52,000	51,900	175.2	202.0
Geelong "A"	10,500	11,800	11,900	21.6	34.1
Geelong "B"	30,000	35,400	35,500	160.4	69.5
Ballarat "A"	5,900	6,050	6,000	8.2	13.8
Ballarat "B"	20,000	25,800	23,800	91.0	39.6
Shepparton	10,530	10,300	10,250	19.7	24.0
Warrnambool	4,980	4,980	4,980	7.5	6.2
Hamilton	3,020	1,960	1,800	7.4	7.7
(b) *Hydro Stations*					
Eildon-Rubicon	28,915	31,250	26,950	141.5	92.6
Kiewa	56,800	61,000	28,000	77.8	62.3
Total Interconnected System	906,295§	836,020°	701,650°	3,934.9	3,480.9
(ii) *Not connected to State System*					
Redcliffs†	10,000	8,650	5,700	32.7	10.5
Mildura†	7,000	3,800	5,300	2.4	11.0
Horsham‡	2,264	1,270	—	0.4	—
Sub-Total	19,264	—	—	35.5	21.5
TOTAL	925,559	—	—	3,970.4	3,502.4

° Maximum coincident demand.

§ The effective capacity of generators is reduced because, at Yallourn, generators have been completed ahead of their related boilers, and at Richmond, Spencer Street and Newport there were some limitations on boiler capacity.

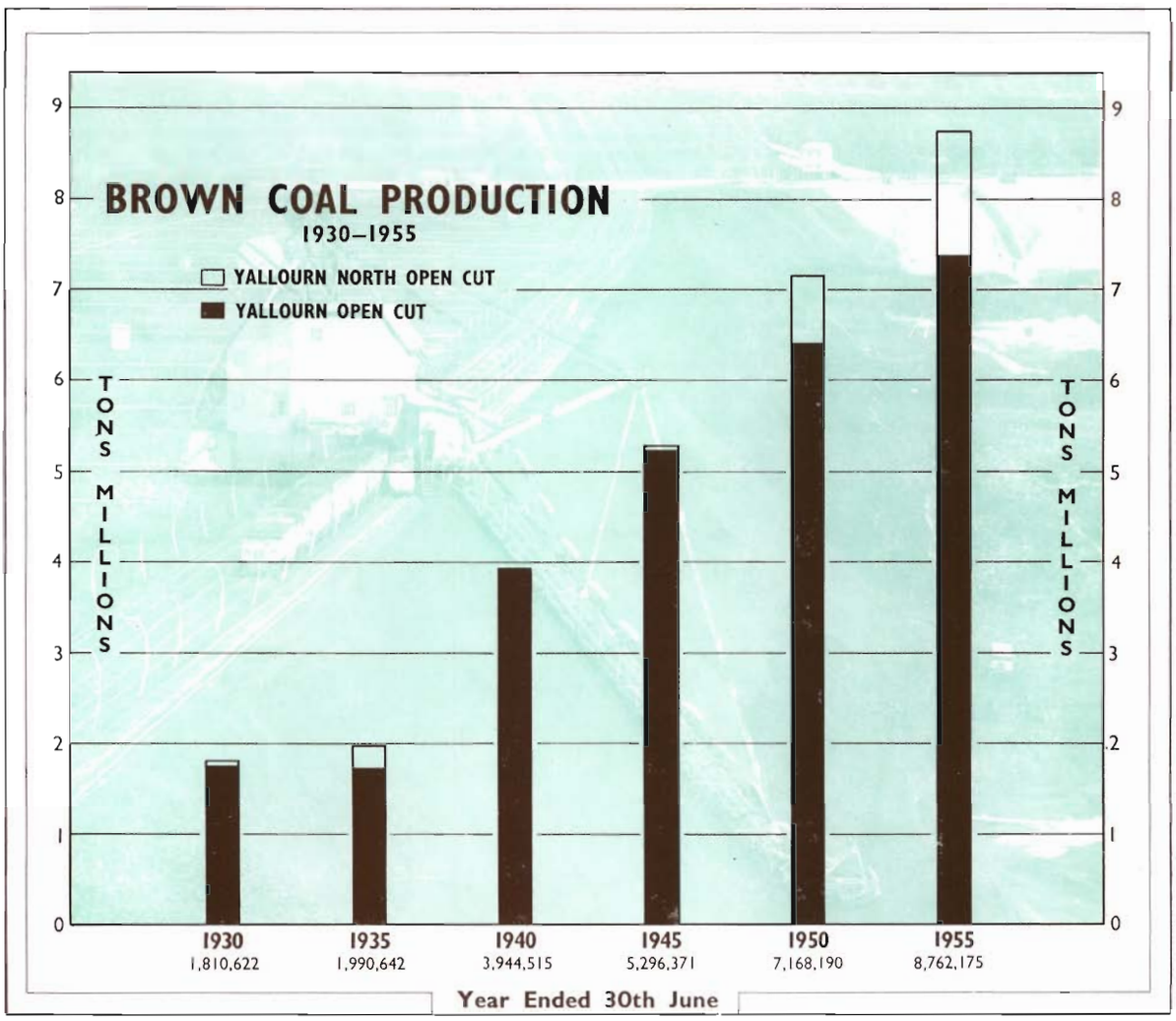
† Interconnected.

‡ Taken over by S.E.C. 1st June, 1955.

The increased output was met principally by the Yallourn, Spencer Street, Geelong "B," Ballarat "B" and Redcliffs power stations, where new plant has been installed. The two small generators withdrawn from service at the old Sugarloaf station in August, 1953, were installed at the new Eildon station for use under low heads.

Details of loading, output, load factors and fuels used in respect of power stations throughout the State are contained in Appendices Nos. 6 and 7.

COAL PRODUCTION



YALLOURN OPEN CUT

Coal Winning

The year's operations brought the total coal excavated since the commencement of operations to over 122 million tons. Of the 7,371,144 tons of coal won during the year, 4,845,476 tons were delivered to the Yallourn Power Station and 2,525,668 tons to the Briquette Factory. On the 5th May, 1955, 25,330 tons of coal were produced — the highest daily output yet achieved.

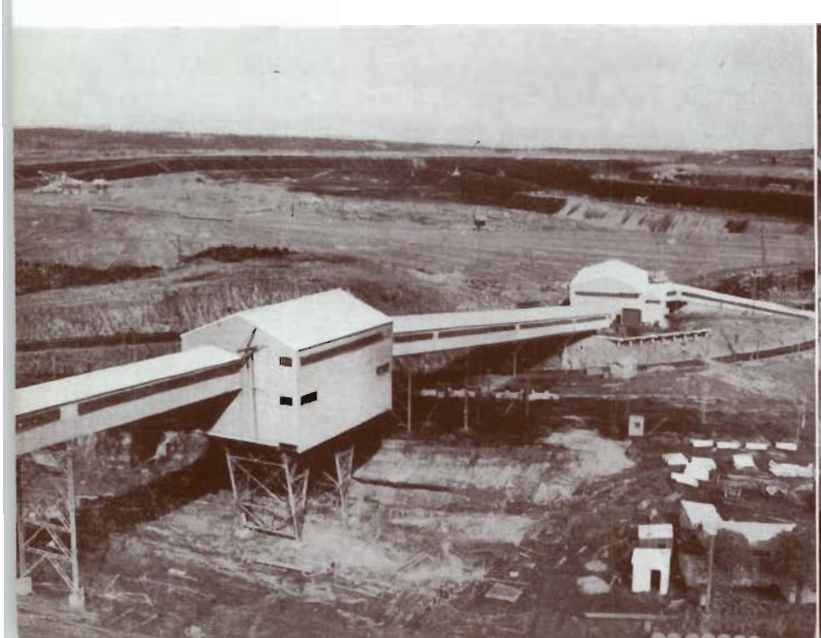
Overburden Removal

3,575,250 cubic yards of overburden were removed, compared with 2,793,350 cubic yards in the previous year, bringing the total removed to 30th June, 1955, to nearly 46 million cubic yards.

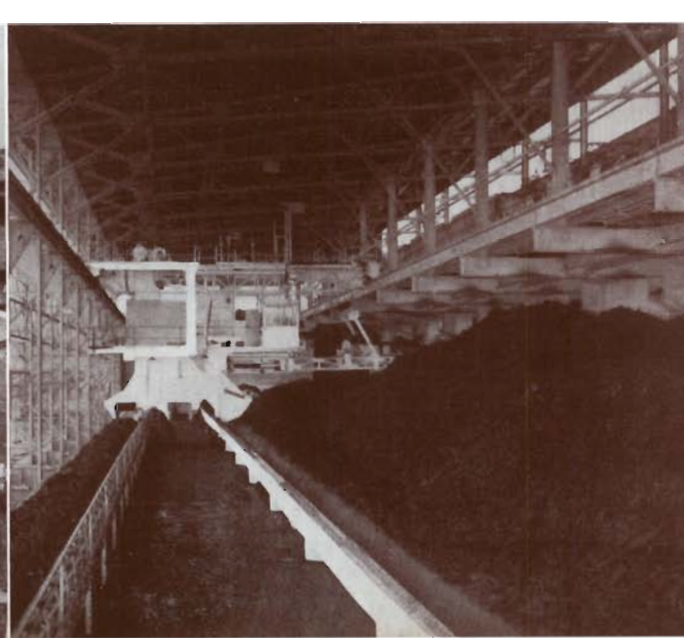
The area of the Open Cut has increased from 816 to 865 acres at grass level and from 722 to 769 acres at the surface of the coal.

BROWN COAL CONVEYOR SYSTEM — YALLOURN.

Conveyor galleries for transporting coal from Open Cut to Power Station.



5,000 ton ditch bunker at No. 1 coal level — brown coal is deposited by coal trains into bunker for loading into conveyor (at left).



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. Additional dredgers are required to cope with this increase and for the ultimate replacement of two of the older dredgers. Erection of the two German manufactured bucket wheel dredgers ordered in 1951 (capacity of each — 2,340 cubic yards per hour) is nearing completion; one will be used for coal winning, and the second machine (originally ordered for Morwell) will be used at Yallourn for overburden removal.

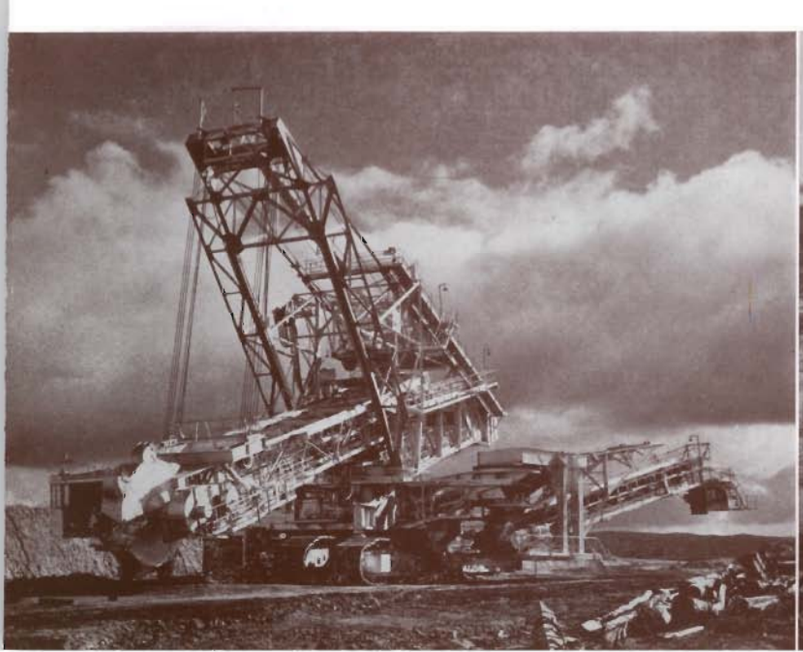
YALLOURN NORTH OPEN CUT

1,391,031 tons of coal were won during the year for power generation (Newport Power Station) and industry, compared with 1,262,094 tons last year. To date, the Commission has excavated 8,705,775 tons from this cut.

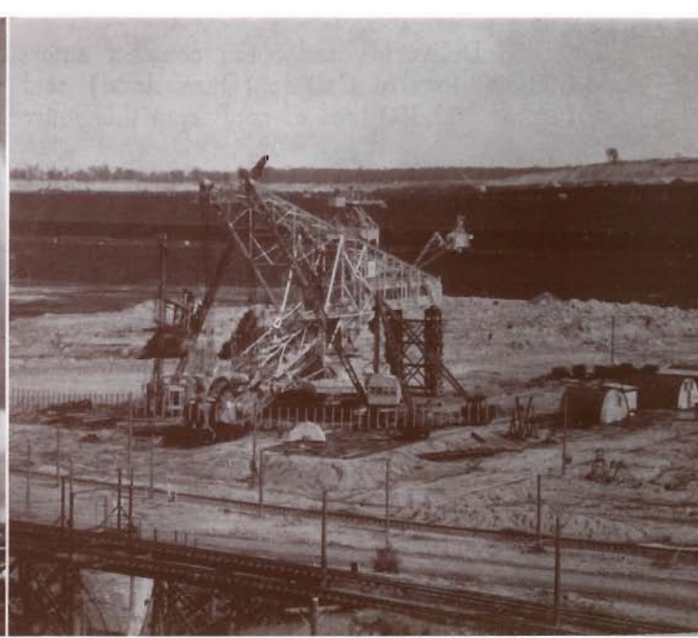
At the present rate of production it is estimated that the reserves of coal from this open cut will be depleted in 1959/60. Accordingly, to meet requirements until the Morwell briquette factories come into full production, a limited extension of the open cut workings at Yallourn North (at a site about four miles east — part of the same coal seam) is being opened up. Supplies from this source will be available about July, 1956.

NEW DREDGERS NEARING COMPLETION

Lubecker (German) bucket wheel overburden dredger — capacity 780 cubic yards per hour — placed in service at the new Morwell Open Cut since the close of the year.

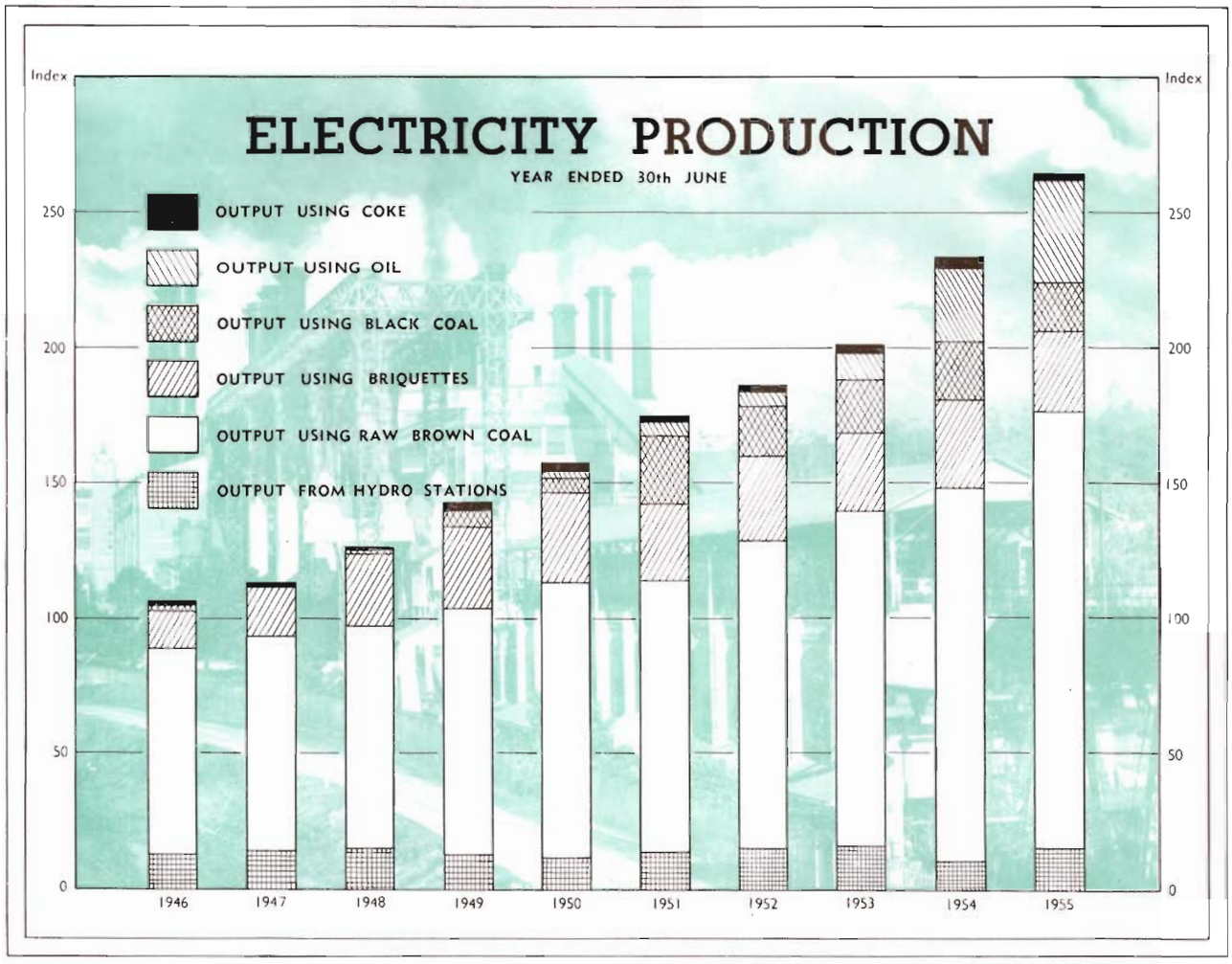


Stahlbau Rheinhausen (German) bucket wheel dredger — capacity 2,340 cubic yards per hour — being erected at Yallourn Open Cut as part of programme to augment coal production at this Open Cut to 10 million tons per annum.



FUEL SUPPLIES

Over the last decade the output from the Commission's power stations has almost trebled. 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, the only practicable extension of the State generating system for many years was at stations designed originally for peak load operation. As these plants now operate at higher load factors — and will continue to do so for several years yet — they require relatively greater quantities of fuel. During the year, 1,051,917 tons of brown coal (principally from Yallourn North) and 225,830 tons of black coal, mainly from Callide (Queensland), were used at peak-load stations. Fuel supplies were adequate for power station requirements throughout the period under review.

Deliveries under the contract entered into by the State Government in March, 1951, for 600,000 tons of Callide (Queensland) coal were completed and the Commission has ordered a further 300,000 tons of coal from this source.

Conversion of four boilers at Newport "A" Power Station to oil firing is in progress (one converted since the close of the year).

BRIQUETTE PRODUCTION AND DISTRIBUTION

	Tons
1929-30	161,708
1934-35	288,240
1939-40	428,389
1944-45	431,344
1949-50	588,564
1954-55	630,579

Production was 43,327 tons greater than last year, and is the highest yet attained.

By-product electricity amounted to 92.9 million kWh, of which 59.4 million kWh were delivered to the State system, the remainder being used at the factory. This year 2,239 tons of pulverised fuel were produced for use in Victorian Railways locomotives compared with 1880 tons last year.

With the reconstruction of three more drier stacks at the "A" Factory, work on this section of the plant has now been completed. The re-arrangement of the dried coal conveyors in Factory "B" has also been completed.

Alterations to plant and buildings in Factories "A" and "B" to provide improved operating conditions are now well advanced. Installation at Yallourn of a new four-stamp press transferred from Morwell is in progress.

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

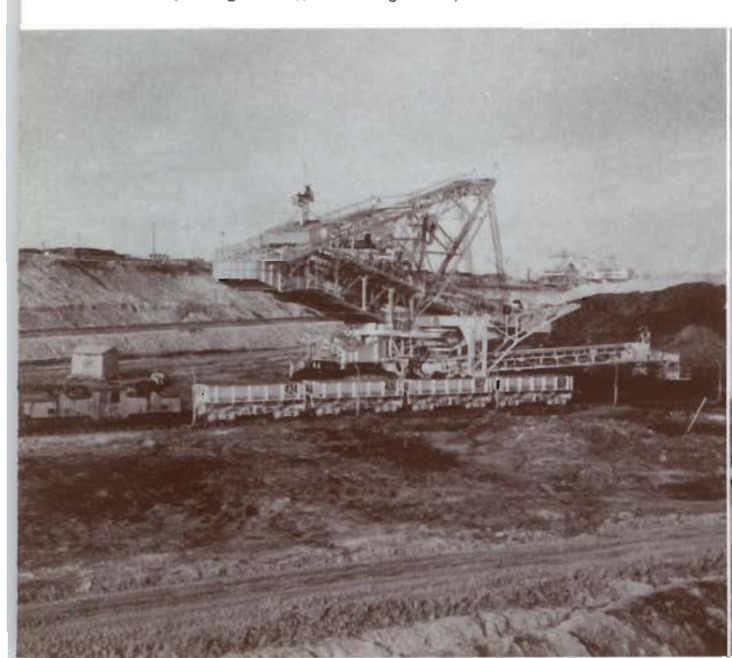
DISTRIBUTION

Sales	231,323 tons
(excluding Commission Power Stations — 350,271 tons)	
Revenue	£1,195,111
Expenditure	£1,175,126
Profit	£19,985

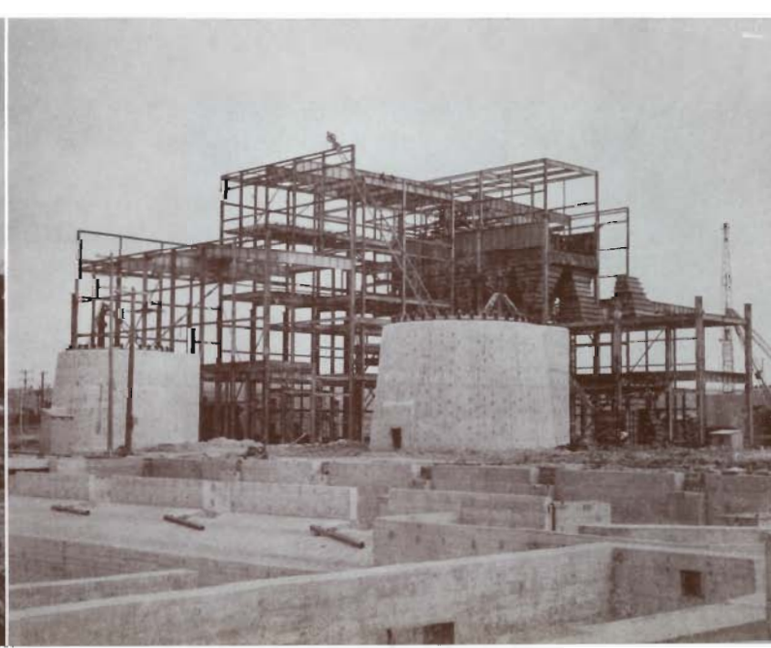
The profit on operations (£19,985) compared with a profit in the previous year of £60,568, which included non-recurring revenue due to stock adjustments. Also there were special "writings out" this year.

MORWELL POWER AND FUEL PROJECT

Gullet cut ready for future excavation of overburden by dredger. Lubecker (German) bucket wheel dredger, capacity 780 cubic yards per hour (centre), has been placed in service since the close of the year. Alluvial Mining Equipment (Australian construction) bucket chain dredger, capacity 1,100 cubic yards per hour (background), nearing completion.



Framework for boiler house building being erected—foundations are complete.

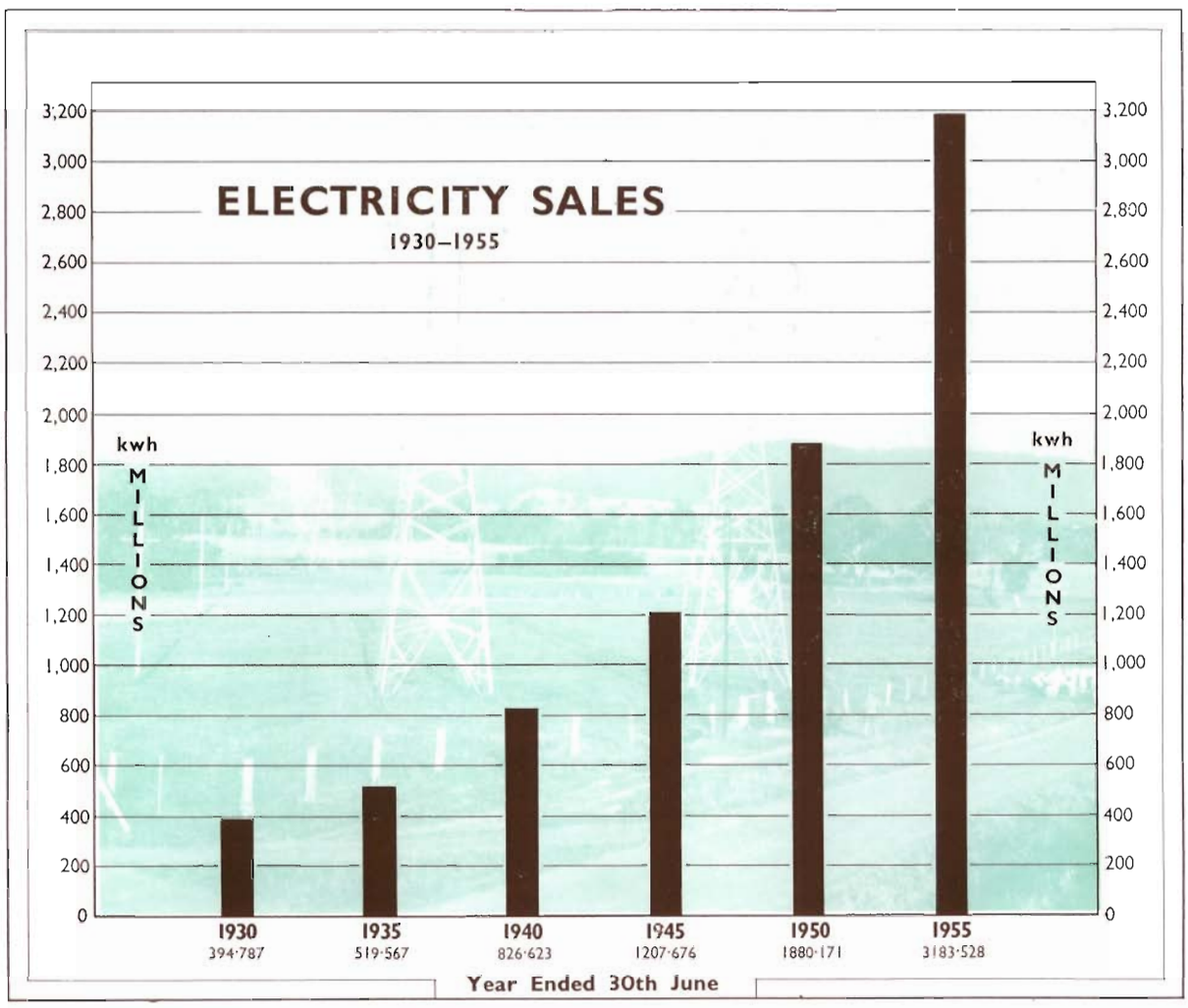


ELECTRICITY SUPPLY

ANALYSIS OF DEVELOPMENT

Electricity sold to all consumers, retail and bulk, totalled 3,184 million kilowatt hours — an increase of 13 per cent. for the year.

The increment closely approaches the high level reached last year, which was almost twice the largest previously recorded. This was caused partly by an increase of 6 per cent. in the number of consumers. However, the substantially increased use by existing consumers has continued to reflect 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 14.8 per cent.; there were 24,762 new consumers in this class. The average consumption per domestic consumer for each of the five years is as follows:—

	Average Consumption per Domestic Consumer kWh	Increase or Decrease kWh
1950-51	1,566	+ 10
1951-52	1,496	— 70
1952-53	1,600	+ 104
1953-54	1,770	+ 170
1954-55	1,921	+ 151

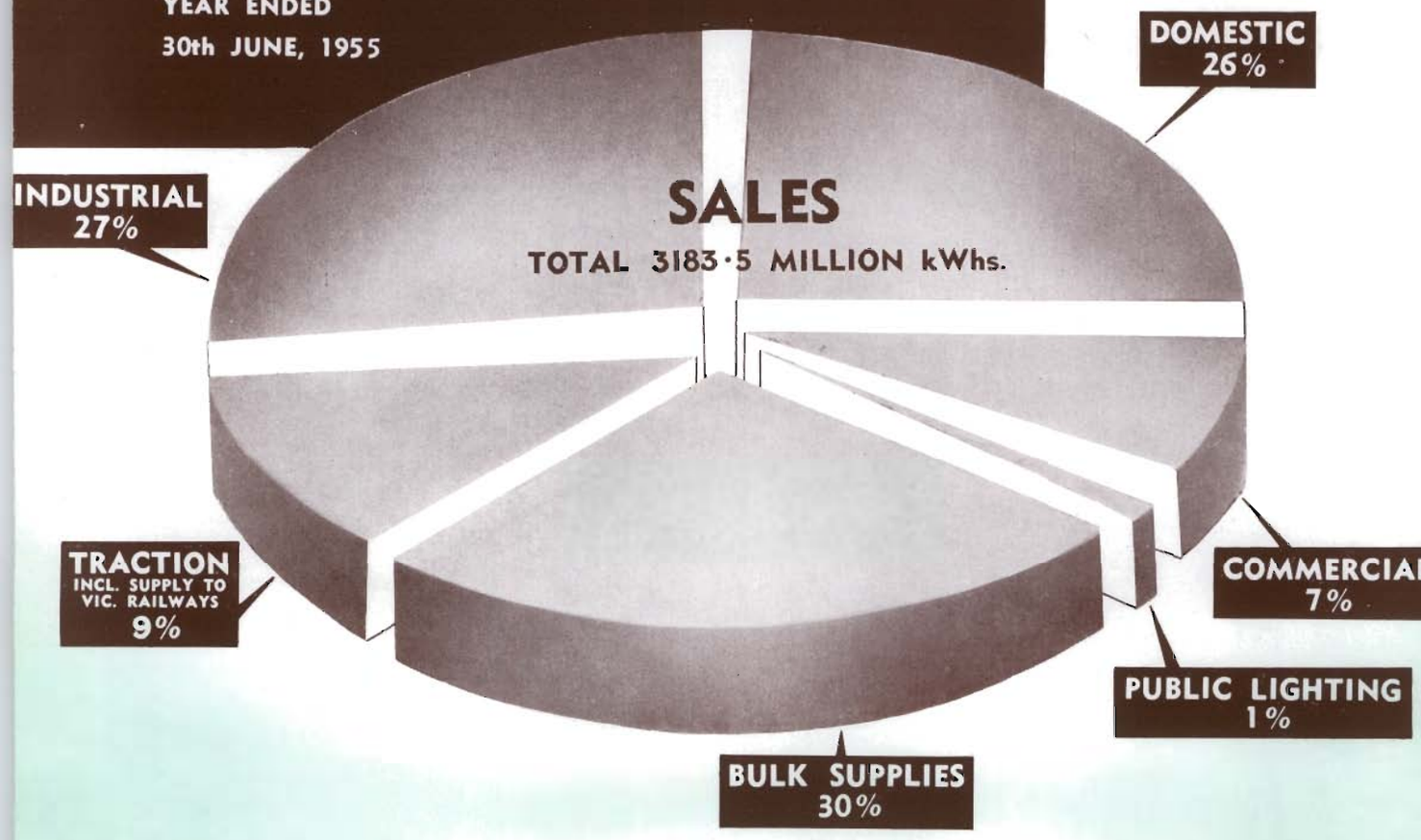
The average revenue received for each kilowatt-hour sold to the domestic consumer for all household purposes is today lower than the pre-war period, whereas since 1939 the basic wage has trebled. This favourable comparison is largely the result of the greater use of electricity by consumers, particularly at the lower off-peak tariff rates. (Based on 1939 consumption, the average rate per kilowatt-hour sold would have increased by about one-third of the basic wage increase.) The trend over the last ten years is shown in Graph No. 6 — "Ten Year Statistical Review" — at the front of this report.

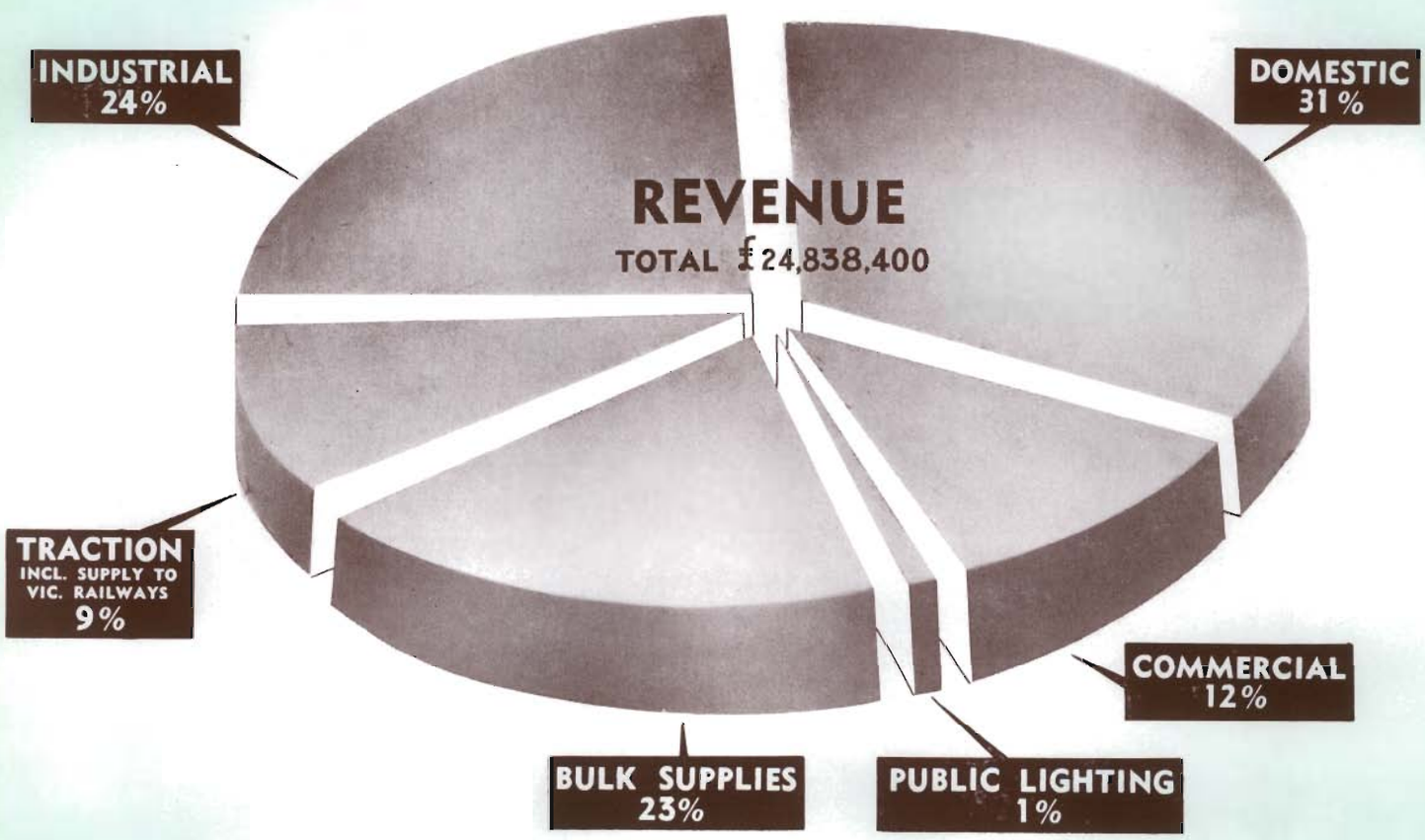
Sales to commercial and industrial consumers increased by 13.9 per cent. and 14.1 per cent. respectively. The number of consumers in these classes increased by 3,839 and an additional 44,928 h.p. of motors was connected.

ELECTRICITY SALES AND REVENUE

SUBDIVISIONS ACCORDING TO CLASSES OF CONSUMERS

YEAR ENDED
30th JUNE, 1955

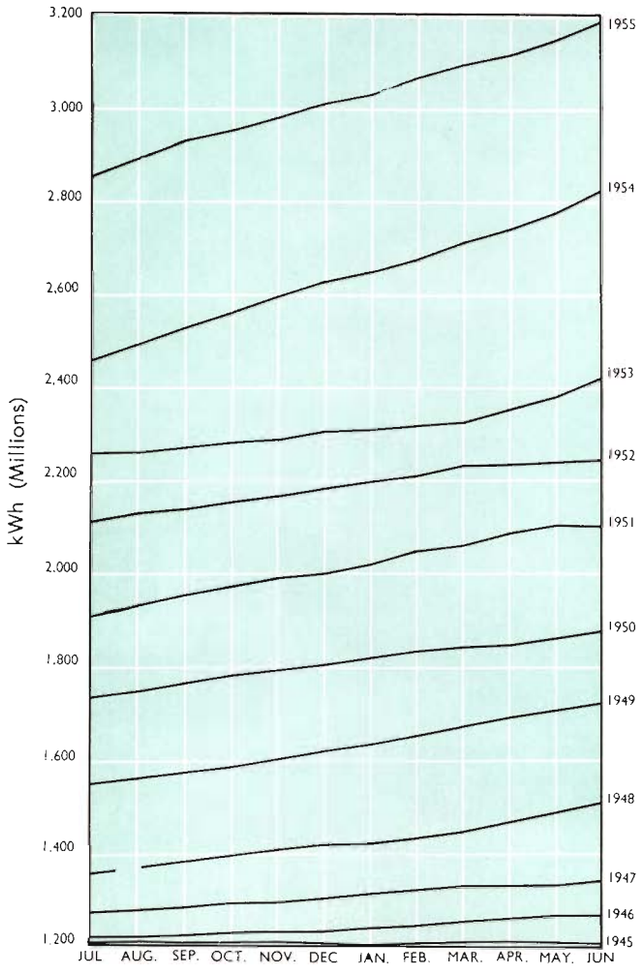




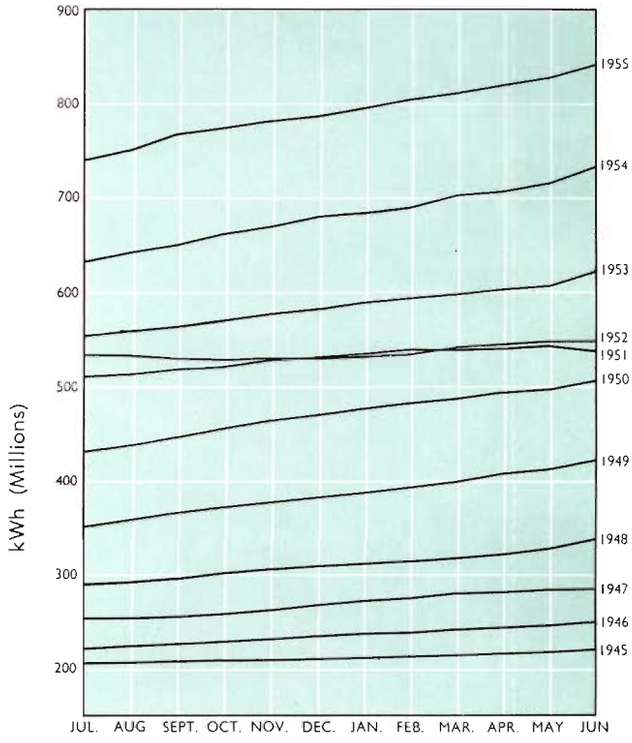
ELECTRICITY SALES

MOVING ANNUAL TOTALS

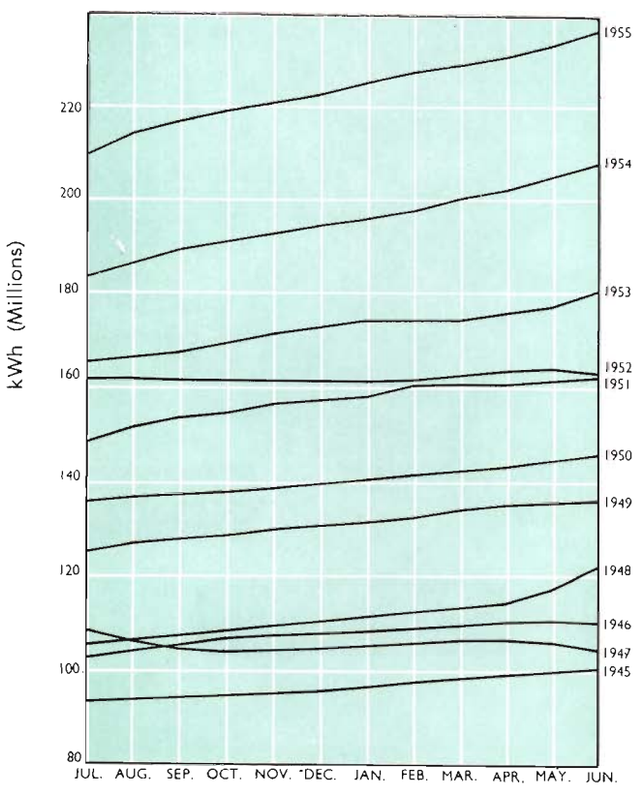
TOTAL SALES
(RETAIL AND BULK)



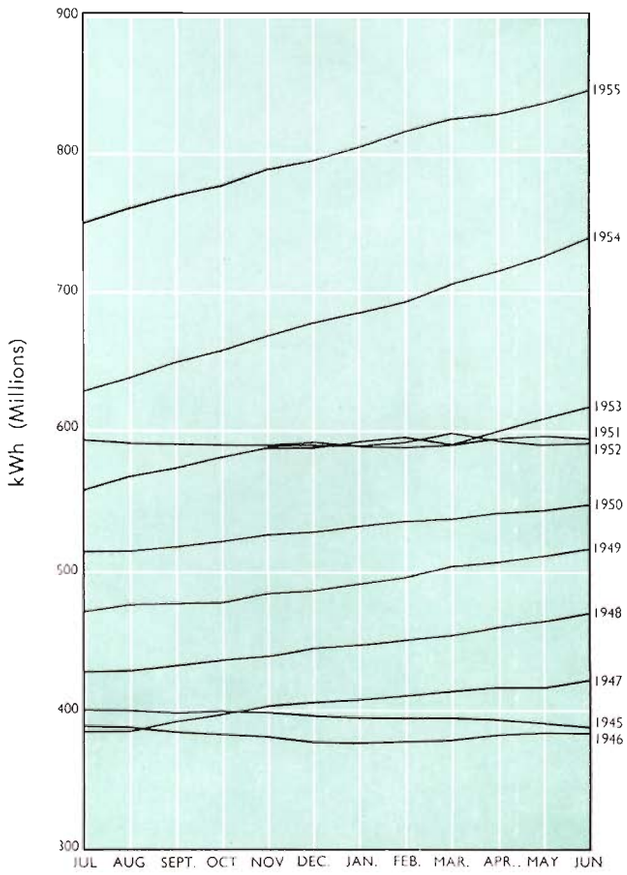
DOMESTIC



COMMERCIAL



INDUSTRIAL



COMMISSION'S UNDERTAKINGS FOR LOCAL DISTRIBUTION

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 £1,984,803 (11.5 per cent.) to £19,270,476.

Sales of Electricity increased by 257,976,111 (13.1 per cent.) to 2,227,918,254 kWh.

Consumers increased by 30,283 (6.0 per cent.) to 532,277.

Farms increased by 3,049 (11.3 per cent.) to 30,131.

Branch or Region	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	332.4	266,049	1,379.040	79	27,875	33.4	58.6	1,147
Ballarat	443.3	20,656	57.998	76	3,285	67.0	29.0	1,325
East. Metropolitan	951.0	67,753	198.734	126	17,465	64.0	105.3	4,387
Geelong	264.6	27,628	114.797	55	4,300	37.4	25.8	1,097
Gippsland (inc. Yallourn)	2,685.7	41,829	150.086	276	7,695	174.0	109.3	6,765
Midland	694.0	13,906	31.902	98	1,855	85.0	18.6	1,586
North Eastern (inc. Kiewa)	3,060.0	41,431	159.628	313	9,849	217.5	55.0	5,626
North Western	717.6	26,158	62.935	134	26,295	149.5	53.8	3,321
South Western	1,858.0	26,867	72.798	283	7,095	209.4	50.2	4,877
Total	11,006.6	532,277	2,227.918	1,440	105,714	1,037.2	505.6	30,131

BRANCH TRANSMISSION AND DISTRIBUTION

As the Gippsland railway electrification progressed, 22 kV transmission lines have been erected linking the Railways' traction system to the State network. Conversion of the Rubicon-Seymour line to 66 kV was completed after the close of the year.

A new 10,000 kVA transformer is being installed in the Bendigo Main Substation.

In the year under review, the following larger country extensions were completed or were nearing completion at 30th June, 1955:—

Ballarat Branch — Mt. Egerton, Durham Lead-Grenville-Mt. Mercer.

Eastern Metropolitan Branch — Beveridge-Wallan, Mt. Eliza.

Geelong Branch — Maude-Moorabool Valley, Lethbridge.

Gippsland Branch — Nambrok Soldier Settlement, Bass-Woolamai, Drouin South-Ripplebrook, Grantville, Thorpdale South, Hill End-Fumina South, Yarram area and Won Wron, Koornalla, Kardella, Leongatha South, Drouin West, Buffalo North, Modella.

Midland Branch — Eastville, Rockbank, Bealiba.

North Eastern Branch — Numurkah East, Wandiligong, Lima East, North West Mooroopna.

North Western Region — Serpentine, Toolleen, Corop, Leichardt, Kamarooka, Colbinabbin West, Central Mologa.

South Western Branch — Barwon Downs-Pennyroyal-Murroon, Lismore-Berrybank-Gnarkeet, Mininera area, Branxholme area, Yambuk-Codrington, Merino, Dean Marsh, Kinvonvie - Morgiana Soldier Settlement, Nullawarre.

The following local electricity supply undertakings were acquired following the extension of transmitted supply:—

Beaufort (Ballarat Branch), Boort (North Western Region), Rushworth (North Eastern Branch). The Horsham undertaking was acquired as part of the Wimmera regional scheme.

TRAMWAYS

BALLARAT, BENDIGO AND GEELONG

(Revenue — £181,727 Loss — £233,598)

Losses at Ballarat, Bendigo and Geelong during the year were £72,677, £68,318 and £92,603, respectively.

Total revenue (£181,727) decreased by £3,029 (1.6 per cent.); there was a decrease of 0.6 per cent. in the number of passengers carried.

Total expenditure (£415,325) increased by £2,653 (0.6 per cent.).

* * *

The Transport Regulation Board held a public hearing on passenger transport facilities at Geelong: subsequently it recommended that the existing tram services at Geelong should be scrapped as soon as a means of providing adequate alternative service could be found and that the alternative transport would best be provided by a modern motor omnibus service so organised as to provide for the maximum convenience and economy over the whole urban area.

A formal notice of intention to abandon the Geelong Tramways was laid before Parliament on 13th September, 1955. This notice provided for these tram services to be abandoned on 2nd January, 1956, or at a subsequent date not more than three months later as may be agreed upon between the Commission and the Board.

PERSONNEL

Total Personnel	30/6/55	30/6/54
Staff	6,014	5,617
Wages	12,172	11,730
	18,186	17,347

Wages employees at 30th June, 1955:—

Location	Operation	Construction
Power Generation	2,024	1,493
Main Transmission Lines, Terminal and Substations	361	599
Electricity Supply — Metropolitan Branch Distribution	374	138
Electricity Supply — Country Branch Distribution	569	803
Briquette Production and Distribution	459	475
Coal Winning — Yallourn	1,097	—
General Services — Town and Workshops — Yallourn	1,371	586
General Services — Workshops — elsewhere	1,411	132
Tramways — Ballarat, Bendigo, Geelong	280	—
Total	7,946	4,226
GRAND TOTAL:	12,172	

Difficulty has been experienced in obtaining sufficient skilled tradesmen, particularly those in the metal trades. Mr. J. A. P. Gerrard, Industrial Superintendent, visited Great Britain and the Continent and, in collaboration with the Commonwealth migration authorities, arranged for the migration of 320 — mainly skilled tradesmen.

Education and Training

Six Commission trainees were engaged on full-time studies at the University or Technical Colleges, and 85 were pursuing part-time courses. Five further scholarships (one at the University and four at Technical Schools) were awarded.

Within the Commission, three graduates and 47 cadet engineers are receiving special training; 213 men completed the course at the Training School for Linesmen; there are 593 apprentices, principally in the engineering trades. Special courses are being held for commercial executives, commercial trainees, draftsmen, survey assistants, power station personnel, operators, assistant officers-in-charge of district offices, meter testers and junior commercial officers.

Since the close of the year the Commission has extended its scholarship scheme to provide that up to ten scholarships for engineering courses at the University and ten for diploma courses at Technical Schools may be granted each year, subject to the total number current at any one time not exceeding 42. These scholarships are to be available to University and Technical School students as well as Commission trainees. Also, it was decided to grant a limited number of scholarships to enable Commission engineers to gain experience overseas.

Safety

Safety and accident prevention measures are being constantly reviewed by Section, Branch and Departmental Committees, special attention being given to safety education. Another 269 personnel qualified under the First Aid training scheme.

PUBLIC SAFETY AND OTHER REGULATORY RESPONSIBILITIES

ELECTRIC LIGHT AND POWER ACT, 1928

At the close of the financial year, 58 electricity supply undertakings (36 municipal and 22 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.	Undertakers	Area of Supply
283	A. J. Gloster	Township of Underbool (renewal)
285	Wycheproof Shire Council	Wycheproof and Sea Lake areas (renewal)
286	Wycheproof Shire Council	Outer area of the Shire of Wycheproof
287	S. F. Block	Township of Heywood (renewal)
288	Birchip Shire Council	Township of Birchip and along highway to Wycheproof Shire boundary (renewal)
289	Walpeup Shire Council	Township of Walpeup
290	Upper Murray Shire Council	Township of Corryong (renewal)
291	Casterton Electric Supply Co. Pty. Ltd.	Township of Casterton (renewal)

Orders in Council for the supply of electricity by local authorities were revoked following the transfer of the following undertakings to State ownership — Beaufort, Rushworth and Boort.

Extensions (totalling 569 kW) to generating plants at Edenhope, Heywood, Murtoa, Orbost, Quambatook and Underbool were approved.

Inspections were made of 34 electricity supply undertakings in addition to newly installed generating plants and high voltage systems. Complaints of unsatisfactory service were also investigated.

Licensing of Electrical Mechanics

Licences in force as at 30th June, 1955:— Grade "A" — 4,213; Grade "B1" — 150; Grade "B" — 1,102; Grade "C" — 1,342. Two licensing examinations (including theory and practice) were held.

Special conditional permits were issued — 1,440 for periods not exceeding six months and 622 for periods not exceeding twelve months.

Registration of Electrical Contractors

At 30th June, 1955, 1,431 registrations were in force — 102 more than the previous year.

Electrical Approvals Board

Under the Board's constitution two of its members retire each year. Mr. E. B. Foster and Mr. A. Renshaw were re-appointed as members of the Board for the ensuing three years as representing the interests of the wholesale electrical traders and the electrical contractors respectively.

It is now 20 years since the inception of the Board and it must receive much of the credit for the fact that in Victoria electrical fatalities have been low compared with other States and overseas. During this period 4,368 articles have been tested and approval given to 3,324; in addition, approximately 4,200 articles were voluntarily submitted to test.

Of the 14 electrical fatalities during the period under review, 9 (including 4 Commission employees) were killed by contact with overhead mains or high voltage equipment, 4 were caused by incorrect connection of flexible cords or alterations to wiring, and there was one case of suicide.

Electrolysis Mitigation.

The Electrolysis Technical Sub-Committee continued its work of investigating stray current electrolysis, the connection of new drainage bonds and maintenance of existing bonds.

The Sub-Committee has taken a leading part in the formation of the Australian Association for Corrosion Prevention. One of the main activities of this Association will be the co-ordinating of cathodic protection schemes.

The authority controlling telecasting has been warned of corrosion hazards involved in the use of television receivers employing half-wave rectification.

COMMISSIONERS

DEATH OF DR. W. D. CHAPMAN, M.C.E., D. ENG., M.I.E. AUST., M.I.C.E., COMMISSIONER, 1945-55

The Commission has placed on record its appreciation of Dr. Chapman's services in the following minute:—

"With great sorrow the Commission records the death on 6th May, 1955, of Dr. W. D. Chapman, M.C.E., D. Eng., M.I.E. Aust., M.I.C.E., who had been a Commissioner since 13th May, 1944.

Dr. Chapman's life was one of public service alike to Commonwealth and State. Military Service in two world wars with the rank, in 1943, of Brigadier, was interspersed with engineering work of a high order with the Railways Construction Branch, Victoria, the University of Melbourne and private industry. Subsequently, he served the Commonwealth as Director of Civil Engineering in the Railways Standardisation Division of the Commonwealth Department of Transport, and latterly as Assistant Superintendent of Design in the Department of Supply.

He played a prominent part in the activities of several of the engineering institutes, and was actively interested in philanthropic and public charitable organisations, notably the Austin Hospital and those associated with the welfare of Returned Servicemen. He brought to the Commission a wide experience through which he was able to make a very valuable contribution to the development of the State's electrical undertaking over the critical post-war years.

In 1949 his services in a full-time capacity were made available by the Commonwealth to enable him to act as Deputy Chairman and Acting Chairman of the Commission for a period of about 3½ months pending an appointment by the Government to fill the post of Chairman. The Commission's appreciation of his services in this regard was recorded in its Minutes of 1st September, 1949.

The Commission acknowledges the singular services of Dr. Chapman alike to Commonwealth, State and the community, and is conscious of a deep sense of loss in the passing of a colleague whose professional ability, counsel and co-operation were of such a high standard and were given so willingly, and whose personal charm and friendliness endeared him to all those with whom he came into contact."

• • •

A "Bogong Gum" tree (Eucalyptus chapmaniana, cameron) was planted by the Chairman of the Commission as a memorial to Dr. Chapman, in whose honour it was named, in the Maranoa Gardens, Balwyn, on the 8th September, 1955.

APPOINTMENT OF NEW COMMISSIONER

The Governor in Council appointed Professor Sir Alexander Fitzgerald, O.B.E., B. Com., F.A.S.A., F.C.I.S., F.C.A.A., as a Commissioner for a period of five years from 19th July, 1955, to fill the vacancy caused by the death of Dr. Chapman.

STAFF

Retirements

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

Mr. A. M. Carter, A.A.S.A., Manager, Personnel Department, retired on 7th May, 1955; he joined the Melbourne Electric Supply Co. Ltd. in 1910 and transferred to the Commission when that undertaking was acquired in 1930. Mr. Carter later served as Manager, Commercial Division, Electricity Supply Department, and from 1945 as Manager, Personnel Department.

Mr. J. R. Wilson, Dip. E.E., A.M.I.E. Aust., Engineering Member, Staff Boards, retired on 24th February, 1955, after 35 years' service with the Commission.

Mr. H. V. Harrison, Office Manager, Bendigo Branch, retired on 6th August, 1954, after 31 years' service with the Commission.

Senior Appointment

Mr. J. L. N. Cooke, LL.M., was appointed Manager, Personnel Department, as from 9th May, 1955. Mr. Cooke has served as Assistant Manager, Personnel Department, and previously as Assistant Industrial Officer.

* * *

The vast programme of new works and the planning, development, operation and administration of the power and fuel projects referred to in this report have made exacting demands on all Commission personnel. Commissioners again with real pleasure place on record their appreciation of the splendid contribution of service so willingly rendered to the community through the efficiency and loyalty of the personnel engaged throughout the many phases of the State's power and fuel undertakings.

* * *

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

R. A. HUNT, Chairman.

ANDREW W. FAIRLEY, Commissioner.

A. W. HENDERSON, Commissioner.

A. A. FITZGERALD, Commissioner.

D. H. MUNRO,
Secretary.

17th November, 1955.

PROFIT AND LOSS ACCOUNT,

BALANCE SHEET
AND
FINANCIAL STATISTICS

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERAL PROFIT AND LOSS ACCOUNT — YEAR ENDED 30th JUNE, 1955

(Adjusted to the nearest £)

1954	EXPENDITURE—	£	£
	Electricity Supply—		
1,139,764	Purchased Electricity	1,636,918	
14,167,263	Generation, Transmission, Transformation and Distribution	15,056,033	
2,416,789	Interest	3,639,775	
838,966	Depreciation and Sinking Fund	1,369,624	
1,026,820	Administration and General Expenses	1,146,394	
364,913	Employees' Facilities and Welfare Expense	481,893	
108,735	Loan Flotation Expense	131,119	
191,621	Accommodation and Miscellaneous Services	291,300	
20,254,871		23,753,056	
149,435	*Deduct*—Electricity transferred to Works	169,287	
20,105,436		23,583,769	
	Briquetting—		
2,383,576	Manufacture and Distribution	2,562,897	
101,469	Interest	113,304	
39,907	Depreciation and Sinking Fund	39,234	
60,711	Administration and General Expenses	56,569	
34,562	Employees' Facilities and Welfare Expense	37,035	
3,583	Loan Flotation Expense	3,536	
76,607	Accommodation and Miscellaneous Services	82,344	
2,700,415		2,894,919	
1,876,331	*Deduct*—Briquettes transferred to Works	1,719,743	
824,034		1,175,176	
	Brown Coal—		
1,738,292	Winning and Distribution	1,790,799	
48,792	Interest	48,493	
16,262	Depreciation and Sinking Fund	18,630	
30,236	Administration and General Expenses	22,420	
16,549	Employees' Facilities and Welfare Expense	14,074	
601	Loan Flotation Expense	595	
43,698	Accommodation and Miscellaneous Services	36,885	
1,894,430		1,931,896	
1,513,358	*Deduct*—Brown Coal transferred to Works	1,547,781	
381,072		384,115	
	Tramways—		
362,168	Power and Traffic Expenses	367,840	
383	Interest	312	
2,012	Depreciation	2,034	
38,859	Administration and General Expenses	35,284	
9,250	Employees' Facilities and Welfare Expense	9,855	
412,672		415,325	
	General—		
98,221	Miscellaneous Expenses	83,051	
1,859,494	**Profit**—Carried down	1,140,390	
23,680,979		26,781,826	
	Proportion of Interest and Other Expenditure on Works under Construction temporarily Capitalised now written out	330,822	
1,250,000	Contingency and Obsolescence Reserve	400,000	
705,885	Rate Stabilisation Reserve	—	
250,000	Surplus for year transferred to General Reserve	359,568	
359,494		1,140,390	
2,565,379			

1954	INCOME—	£	£
	Electricity Supply—		
6,487,545	Domestic—General	7,160,252	
539,799	Domestic—Farms	617,530	
2,705,241	Commercial	3,074,980	
4,578,069	Industrial—General	5,311,301	
107,397	Industrial—Mining	58,871	
506,881	Industrial—Farms	534,166	
2,016,357	Traction	2,166,962	
337,774	Public Lighting	333,620	
4,831,708	Bulk Supplies	5,567,924	
6,610	Miscellaneous	12,795	
22,117,381			24,838,401
	Briquetting—		
999,962	Briquette Sales	959,766	
167,711	*Add*—Briquettes on hand at end of year	403,055	
1,167,673		1,362,821	
283,021	*Deduct*—Briquettes on hand at beginning of year	167,710	
884,652			1,195,111
	Brown Coal—		
484,330	Brown Coal Sales	551,162	
484,330			551,162
	Tramways—		
184,323	Traffic Receipts	181,137	
433	Advertising, etc.	590	
184,756			181,727
	General—		
9,860	Miscellaneous Income		15,425
23,680,979			26,781,826
1,859,494	**Profit**—Brought down		1,140,390
705,885	Accumulated surplus—beginning of year		—
2,565,379			1,140,390

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

	1953–54	1954–55
Electricity Supply	£883,040	£1,028,955
Briquetting	29,100	27,747
Brown Coal	4,877	4,668

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

	Revenue	Expenditure
1953–54	£588,270	£582,918
1954–55	£891,574	£864,013

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERAL BALANCE SHEET AS AT 30th JUNE, 1955

(Adjusted to the nearest £)

1954 £	LIABILITIES	£	£
	Capital Liabilities—		
44,920,643	Victorian Government Advances	45,639,779	
3,576,801	*Deduct*—Redeemed or Cancelled Securities	3,895,584	
41,343,842*		41,744,195*	
	Debentures and Inscribed Stock	£	
125,311,845	Issued by Commission (See Schedule)	143,282,054	
1,727,874	*Deduct*—Redeemed or Cancelled Securities	2,200,650	
123,583,991†		141,081,404†	
458,395	Issued by Undertakings acquired by Commission (See Schedule)	571,982	
164,086,427	* 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, 1955 ... £6,540,557		183,397,581
	† Includes the undermentioned amounts raised in London and repayable in Sterling— 30th June, 1954 ... £795,420 30th June, 1955 ... £1,241,443		
	Current and Accrued Liabilities—		
1,936,504	Accounts Payable	2,270,586	
41,297	Consumers' Deposits	52,759	
296,369	Service Charges received in Advance	254,421	
43,772	Unclaimed Salaries, Wages and Interest	54,260	
105,650	Other Deposits and Trust Moneys	131,027	
1,305,233	Interest Accrued	1,642,289	
248,440	Salaries and Wages Accrued	306,267	
43,365	Pay Roll Tax Accrued	52,315	
50,677	Workers' Compensation Insurance Accrued	153,673	
102,892	Freight Accrued	97,496	
121,159	Miscellaneous	229,471	
4,295,557			5,244,564
	Suspense Credits—		
2,195,451	Consumers' Advances for Construction	3,265,526	
104,418	Miscellaneous	56,378	
2,299,869			3,321,904
	Reserves—		
20,170,363	Depreciation and Sinking Fund	21,608,869	
1,598,979	Contingency and Obsolescence	1,982,032	
500,000	Rate Stabilisation	500,000	
1,200,000	Rural Development	993,737	
1,064,304	General	1,486,861	
24,533,646			26,571,499
195,215,499			218,535,548

1954 £	ASSETS	£	£
	Fixed Capital—		
10,906,720	Coal Production	12,029,681	
19,127,427	* Briquette Production	16,247,343	
225,604	Briquette Storage and Distribution	230,583	
39,009,946	Power Production—Thermal Stations (Steam)	47,152,554	
1,769,289	" " Thermal Stations (Internal Combustion)	1,800,760	
14,311,685	" " Hydro Stations	19,112,667	
11,262,316	Transmission System	13,464,961	
9,022,657	Terminal Transformation System	10,242,000	
26,929,960	Distribution System	31,814,072	
7,854	Tramways	5,358	
41,020,435	General	40,563,222	
173,593,893		192,663,201	
280,454	*Deduct*—Proportion of cost of extensions payable by consumers	337,865	
173,313,439			192,325,336
	* £3,860,668 transferred from Briquette Production to Power Production in respect of Morwell boiler and generating plant following the decision to develop Morwell with priority for Power Production.		
	Current and Accrued Assets—		
161,964	Cash	353,268	
2,338,045	Accounts Receivable	2,545,998	
7,962,159	Materials and Supplies (Construction and Operation)	7,723,684	
54,633	Working Fund Advances	42,902	
71,707	Accounts in hands of Agent-General, London	19,677	
634	Investments	—	
28,959	Prepayments	43,799	
1,213,079	Accrued Revenues	1,396,350	
55,736	Miscellaneous	78,740	
11,886,916			12,204,418
	Suspense Debits—		
4,487,405	Overburden Removal and Disposal	4,830,130	
269,183	Preliminary Investigations	333,478	
486,823	Unallocated Contract Expenditure	384,258	
842,153	Unamortised Loan Flotation Expense	886,906	
279,569	Work in Progress	337,970	
2,971,854	* Interest and Other Expenditure on Works under Construction temporarily Capitalised	5,331,507	
188,606	Miscellaneous	169,730	
	* Formerly Interest during Construction on Major Works was permanently added to Fixed Capital Expenditure		
9,519,593			12,273,979
	Reserve Funds—		
495,551	Sinking Funds	614,940	
—	Contingency and Obsolescence Fund	1,116,875	
495,551			1,731,815
195,215,499			218,535,548

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, 1954	30th June, 1955
Pounds (Australian)	2,325,305	2,148,933
Pounds (Sterling)	1,173,724	793,059
American Dollars	4,996,676	—
German Deutschmarks	5,611	5,611

EDWIN TUCK, Chief Accountant

W. J. PRICE, Commercial Manager
4th November, 1955

AUDITOR-GENERAL'S CERTIFICATE

The Accounts of the State Electricity Commission of Victoria have been audited for the year ended 30th June, 1955. In my opinion the above Balance Sheet presents a correct view of the affairs of the undertaking at the 30th June, 1955, and the Profit and Loss Account properly summarizes the operations of the Commission for the year.

E. A. PEVERILL, Auditor-General
25th November, 1955

STATE ELECTRICITY COMMISSION OF VICTORIA

SCHEDULE OF FIXED CAPITAL EXPENDITURE AS AT 30th JUNE, 1955

(Adjusted to nearest £)

	YALLOURN		MORWELL		ELECTRICITY SUPPLY DEPARTMENT		KIEWA		OTHER AREAS & GENERAL		TOTAL	
	1954/55 New Expenditure	As at 30/6/55	1954/55 New Expenditure	As at 30/6/55	1954/55 New Expenditure	As at 30/6/55	1954/55 New Expenditure	As at 30/6/55	1954/55 New Expenditure	As at 30/6/55	1954/55 New Expenditure	As at 30/6/55
	£	£	£	£	£	£	£	£	£	£	£	£
Coal Production	931,406	**8,995,414**	378,102	**3,034,268**							1,309,508	**12,029,682**
Briquette Production	106,223	**2,570,474**	1,003,897	**13,676,869**							1,110,120	**16,247,343**
Briquette Storage and Distribution		**53,551**							4,832	**177,032**	4,832	**230,583**
Steam Power Stations												
Ballarat "B"									228,279	**3,039,372**		
Geelong "A"										**293,458**		
Geelong "B"									133,869	**3,682,477**		
Mildura									5,305	**172,297**		
Newport									172,658	**10,108,951**		
Redcliffs									58,191	**1,441,545**		
Richmond									124,546	**3,411,531**		
Morwell			258,264	**4,198,087**								
Yallourn	3,550,335	**20,795,532**										
Miscellaneous										**9,302**	4,531,447	**47,152,552**
Internal Combustion Power Stations												
Hamilton									505	**150,943**		
Horsham									62,510	**61,010**		
Shepparton									34,841	**1,050,683**		
Warrnambool									18,732	**538,125**	116,588	**1,800,761**
Hydro Power Stations												
Eildon-Rubicon									713,896	**2,618,931**		
Kiewa							2,484,415	**16,493,736**			3,198,311	**19,112,667**
Transmission Systems	198,165	**1,824,722**	186,562	**265,858**			126,572	**1,202,054**	1,701,158	**10,172,327**	2,212,457	**13,464,961**
Terminal Transformation System									1,310,268	**10,242,000**	1,310,268	**10,242,000**
Distribution Systems												
Metropolitan Branch					958,804	**9,730,549**						
Provincial & Country Branches					3,832,579	**21,995,532**						
Yallourn	4,086	**87,991**									4,795,469	**31,814,072**
Tramways						**5,358**						**5,358**
General												
Offices, Stores, Workshops, etc.	460,429	**3,312,273**	76	**367,751**	96,112	**1,887,566**	28,156	**1,329,719**	98,781	**2,713,948**	683,554	**9,611,257**
Plant and Equipment	55,522	**1,693,840**	6,308	**897,083**	379,996	**706,046**	49,587	**1,634,895**	901,884	**5,878,884**	1,393,297	**10,810,748**
Accommodation — Townships, Hostels, etc.	331,439	**6,139,069**	41,116	**1,131,479**			102,524	**3,836,346**	10,541	**568,400**	485,620	**11,675,294**
Miscellaneous Services (Roads, Railways, Sewerage, Electricity, Telephones, Fire Services, etc.)	182,725	**2,244,553**	549,667	**2,664,815**	21,764	**365,691**	305,816	**2,047,280**	119,145	**1,143,584**	1,179,117	**8,465,923**
	5,820,330	**47,717,419**	2,423,992	**26,236,210**	5,289,255	**34,690,742**	3,097,070	**26,544,030**	5,699,941	**57,474,800**	22,330,588	**192,663,201**
Deduct proportion of cost of extensions payable by consumers					53,896	**313,882**				**23,983**	53,896	**337,865**
	5,820,330	**47,717,419**	2,423,992	**26,236,210**	5,235,359	**34,376,860**	3,097,070	**26,544,030**	5,699,941	**57,450,817**	22,276,692	**192,325,336**

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
1955	**192,325,336**	**183,397,581**	**26,571,499**	**24,838,401**	**1,195,111**	**551,162**	**181,727**	**15,425**	**26,781,826**	**26,422,258**	+ **359,568**

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

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1955

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. 9	300,000	300,000	3·4375	16	1957	1	9,000 0 0	291,000 0 0
Loan No. 11	150,000	150,000	3·3125	10	1956	1	13,487 6 9	136,512 13 3
Loan No. 12	1,350,000	1,350,000	3·3125	10	1956	1	121,386 0 10	1,228,613 19 2
Loan No. 13	500,000	500,000	3·3125	10	1957	1	44,957 15 11	455,042 4 1
Loan No. 14	500,000	500,000	3·25	10	1957	1	44,858 1 8	455,141 18 4
Loan No. 15	1,000,000	1,000,000	3·25	15	1962	1	77,206 18 8	922,793 1 4
Loan No. 16	500,000	500,000	3·25	15	1962	1	38,603 9 5	461,396 10 7
Loan No. 17	500,000	500,000	3·25	15	1963	1	38,603 9 5	461,396 10 7
Loan No. 18	1,000,000	1,000,000	3·1875	10	1958	1	77,060 18 2	922,939 1 10
Loan No. 19	720,000	720,000	3·1875	10	1958	1	55,483 17 1	664,516 2 11
Loan No. 20	1,000,000	1,000,000	3·1875	10	1958	1	77,060 18 2	922,939 1 10
Loan No. 21	1,000,000	1,000,000	3·1875	10	1958	1	64,989 7 5	935,010 12 7
Loan No. 22	1,000,000	1,000,000	3·1875	10	1958	1	64,989 7 5	935,010 12 7
Loan No. 23	1,000,000	1,000,000	3·1875	10	1958	1	64,989 7 5	935,010 12 7
Loan No. 24	500,000	500,000	3·1875	10	1958	1	32,494 13 9	467,505 6 3
Loan No. 25	1,340,300	1,340,300	3·1875	12	1961	1	34,750 0 0	1,305,550 0 0
Loan No. 26	1,500,000	1,500,000	3·1875	10	1959	1	97,484 1 2	1,402,515 18 10
Loan No. 27	300,000	300,000	3·1875	12	1961	1	19,496 16 3	280,503 3 9
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	92,750 0 0	2,241,250 0 0
Loan No. 30	2,000,000	2,000,000	3·1875	10	1959	1	106,581 9 2	1,893,418 10 10
Loan No. 31	500,000	500,000	3·1875	10	1959	1	26,645 7 4	473,354 12 8
Loan No. 32	1,000,000	1,000,000	3·1875	10	1959	1	53,290 14 7	946,709 5 5
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	26,645 7 4	973,354 12 8
Loan No. 36	400,000	400,000	3·25	15	1964	0·5	10,671 9 4	389,328 10 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	26,645 7 4	973,354 12 8
Loan No. 39	1,000,000	1,000,000	3·1875	10	1960	0·5	26,645 7 4	973,354 12 8
Loan No. 40	2,488,800	2,488,800	3·25	15	1965	0·5	52,850 0 0	2,435,950 0 0
Loan No. 41	1,000,000	1,000,000	3·1875	10	1960	0·5	26,645 7 4	973,354 12 8
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	5,861 19 8	214,138 0 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	13,322 13 8	486,677 6 4
Loan No. 50	3,106,050	3,106,050	3·25	15	1965	0·5	61,900 0 0	3,044,150 0 0
Loan No. 51	500,000	500,000	3·1875	10	1960	0·5	10,488 7 4	489,511 12 8
Loan No. 52	500,000	500,000	3·3125	15	1965	0·5	10,507 18 9	489,492 1 3
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	100,950 0 0	5,897,500 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	21,035 9 4	978,964 10 8
Loan No. 77	100,000	100,000	3·5	12	1963	0·5	2,107 9 5	97,892 10 7
Loan No. 78	350,000	350,000	3·5	10	1961	0·5	7,376 3 1	342,623 16 11
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	31,612 1 4	1,468,387 18 8
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	81,050 0 0	5,912,650 0 0
Loan No. 86	25,000	25,000	3·5	10	1961	0·5	526 17 5	24,473 2 7
Loan No. 87	118,850	118,850	3·5	12	1963	0·5	2,504 14 7	116,345 5 5
Loan No. 88	2,000,000	2,000,000	3·5	5	1956	0·5	36,892 0 11	1,963,107 19 1
Loan No. 89	100,000	100,000	4·125	12	1963	0·5	1,562 14 6	98,437 5 6
Loan No. 90	100,000	100,000	4·125	12	1963	0·5	1,562 14 6	98,437 5 6
Loan No. 91	1,000,000	1,000,000	4·0	10	1961	0·5	15,608 0 0	984,392 0 0
Loan No. 92	4,930,000	4,929,800	4·125	10	1961	0·5	65,900 0 0	4,863,900 0 0
Loan No. 93	1,000,000	1,000,000	4·125	10	1962	0·5	15,627 5 2	984,372 14 10
Loan No. 94/99 ...	7,712,050	7,711,150	4·125	10	1962	0·5	78,700 0 0	7,632,450 0 0
Loan No. 95	250,000	250,000	4·125	10	1962	0·5	3,906 16 3	246,093 3 9
Loan No. 96	1,000,000	1,000,000	4·125	10	1962	0·5	15,627 5 2	984,372 14 10
Loan No. 97	1,000,200	1,000,000	4·125	10	1962	0·5	15,795 0 10	984,204 19 2
Loan No. 98	150,000	150,000	3·625	10	1962	0·5	...	150,000 0 0
Loan No. 102 ...	2,403,450	2,401,250	4·5	10	1962	0·5	20,600 0 0	2,380,650 0 0
Loan No. 104 ...	2,250,000	2,249,700	4·75	10.5	1963	0·5	17,300 0 0	2,232,400 0 0
Loan No. 111 ...	2,250,000	2,249,850	4·75	7/12	1960/65	0·5	12,950 0 0	2,236,900 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	10,237 10 0	989,762 10 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	12,400 0 0	2,106,800 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	31,114 16 1	2,968,885 3 11
Loan No. 127 ...	2,000,000	2,000,000	4·75	7	1960	0·5	10,000 0 0	1,990,000 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	2,600,000	4·75	7/15/25	1960/68/78	0·5	10,950 0 0	2,589,050 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	5,000 0 0	995,000 0 0
Loan No. 134 ...	4,250,000	4,246,150	4·75	10/15	1963/68	0·5	9,600 0 0	4,236,550 0 0
Loan No. 135 ...	1,700,000	1,650,670	4·5/4·75	5/7/12	1958/66	0·5	1,700 0 0	1,648,970 0 0
Loan No. 136 ...	1,000,000	1,000,000	4·875	15	1969	0·5	5,060 18 9	994,939 1 3
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
Carried Forward	£113,670,700	£113,605,920					£2,173,611 16 0	£111,432,308 4 0

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1955

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—	113,670,700	113,605,920					2,173,611 16 0	111,432,308 4 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	5,000 0 0	995,000 0 0
Loan No. 142 ...	5,000,000	4,996,500	4·75	10/20	1964/74	0·5	8,000 0 0	4,988,500 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	5,060 18 9	994,939 1 3
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	5,000 0 0	995,000 0 0
Loan No. 151 ...	100,000	100,000	4·875	20	1974	0·5	...	100,000 0 0
Loan No. 152 ...	75,000	75,000	4·875	10	1964	0·5	...	75,000 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	3,977 2 0	791,442 18 0
Loan No 155 ...	500,000	500,000	4·875	25	1979	0·5	...	500,000 0 0
Loan No. 156 ...	500,000	500,000	4·875	25	1979	0·5	...	500,000 0 0
Loan No. 158 ...	250,000	250,000	4·875	10	1964	0·5	...	250,000 0 0
Loan No. 159 ...	250,000	250,000	4·875	20	1974	0·5	...	250,000 0 0
Loan No. 160 ...	3,000,000	2,999,700	4·75	10/20	1964/74	0·5	...	2,999,700 0 0
Loan No. 161 ...	2,500,000	2,500,000	4·75	7	1961	0·5	...	2,500,000 0 0
Loan No. 162 ...	50,000	50,000	4·875	10	1964	0·5	...	50,000 0 0
Loan No. 163 ...	500,000	500,000	4·875	25	1979	0·5	...	500,000 0 0
Loan No. 164 ...	100,000	100,000	4·875	15	1969	0·5	...	100,000 0 0
Loan No. 165 ...	3,750,000	3,749,900	4·75	10/20	1964/74	0·5	...	3,749,900 0 0
Loan No. 166 ...	880,000	880,000	4·75	10	1965	0·5	...	880,000 0 0
Loan No. 167 ...	150,000	150,000	4·875	20	1974	0·5	...	150,000 0 0
Loan No. 168 ...	2,500,000	2,499,950	4·75	10/20	1965/75	0·5	...	2,499,950 0 0
Loan No. 169 ...	150,000	150,000	4·875	20	1974	0·5	...	150,000 0 0
Loan No. 170 ...	750,000	750,000	4·75	7	1962	0·5	...	750,000 0 0
Loan No. 171 ...	450,000	450,000	4·375	12	1967	0·5	...	450,000 0 0
Loan No. 172 ...	150,000	150,000	4·875	15	1970	0·5	...	150,000 0 0
Loan No. 173 ...	500,000	500,000	4·75	7	1962	0·5	...	500,000 0 0
Loan No. 174 ...	1,750,000	1,728,664	4·75	10/20	1965/75	0·5	...	1,728,664 0 0
Loan No. 175 ...	500,000	376,000	4·875	25	1980	0·5	...	376,000 0 0
Loan No. 176 ...	100,000	100,000	4·875	20	1975	0·5	...	100,000 0 0
Loan No. 177 ...	200,000	200,000	4·75	7	1962	0·5	...	200,000 0 0
	£143,496,120	£143,282,054					£2,200,649 16 9	£141,081,404 3 3

Issued by Undertakings Acquired by the State Electricity Commission of Victoria

Original Issues	£833,400 0 0
Outstanding at Dates of Acquisitions	£634,669112 11
Outstanding at 30th June, 1955	£571,982 4 0

STATISTICS
POWER PRODUCTION

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERATION OF ELECTRICITY

Station	Interconnected System																		Other Stations		Total
	Yallourn*		Newport		Richmond		Spencer Street (Melbourne City Council)		Regional Stations: Geelong "A" & "B"		Regional Stations: Ballarat "A" & "B"†		Regional Stations: Shepparton, Warrnambool and Hamilton		Eildon-Rubicon		Kiewa		Total Interconnected System		Mildura, Redcliffs and Horsham		
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 Hamilton connected to State system from 3.2.55		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 Horsham acquired 1.6.55		
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	...	...	...	...	...	...	...	...	...	...	...	...	...	...	378·8	87,500	...	...	378·8
1928–29	304·5	64,000	49·0	20,000	3·5	15,000	...	...	...	...	...	...	...	...	4·8	11,500	...	...	422·3	95,500	...	...	422·3
1929–30	**310·6**	**62,500**	**50·8**	**21,000**	**21·9**	**16,200**	...	...	...	...	...	...	...	...	65·3	16,310	...	...	461·2	103,160	...	...	**461·2**
1930–31	251·9	63,000	38·4	19,800	26·6	15,520	...	...	...	...	...	...	...	...	**77·9**	**19,300**	...	...	458·3	109,013	...	...	458·3
1931–32	320·1	80,000	9·8	18,800	25·7	15,000	...	...	20·5	5,570	...	...	...	...	120·9	23,100	...	...	504·9	116,959	...	...	504·9
1932–33	**386·2**	**88,500**	**2·8**	**14,400**	**22·5**	**15,360**	...	...	26·9	6,510	...	...	...	...	122·4	23,400	...	...	**549·7**	**123,404**	...	...	**549·7**
1933–34	429·3	95,000	7·6	18,500	22·6	15,120	...	...	**27·1**	**6,560**	...	...	...	...	**111·1**	**23,400**	...	...	590·0	127,621	...	...	590·0
1934–35	310·8	94,000	54·0	18,200	56·5	15,500	...	...	29·5	6,690	...	...	...	...	101·0	22,800	...	...	620·1	141,993	...	...	620·1
1935–36	**487·6**	**107,500**	**16·7**	**19,300**	**29·8**	**15,100**	...	...	30·8	6,980	12·7	3,711	...	...	155·3	25,300	...	...	716·1	158,862	...	...	716·1
1936–37	531·2	122,500	27·2	19,000	25·3	15,400	...	...	**34·1**	**7,930**	**13·2**	**3,825**	...	...	**134·7**	**25,400**	...	...	769·7	173,300	...	...	769·7
1937–38	654·8	140,500	27·1	18,600	24·2	15,300	...	...	32·1	7,930	12·5	3,750	...	...	141·4	25,490	...	...	836·1	181,847	...	...	836·1
1938–39	**696·6**	**136,500**	**23·9**	**19,600**	**26·7**	**15,200**	...	...	34·4	8,620	10·0	3,797	...	...	85·6	25,090	...	...	897·8	198,000	...	...	897·8
1939–40	776·1	168,000	39·3	35,000	16·2	15,400	...	...	**38·0**	**9,230**	**9·4**	**2,716**	...	...	**103·2**	**24,300**	...	...	1,024·2	218,600	...	...	1,024·2
1940–41	939·5	171,500	44·6	45,300	21·2	15,360	16·0	26,000	31·5	7,710	11·6	2,988	...	...	149·5	25,400	...	...	1,155·1	261,820	...	...	1,155·1
1941–42	**1,027·3**	**187,500**	**45·2**	**54,800**	**35·2**	**15,540**	**44·1**	**35,000**	21·7	10,050	14·3	3,820	...	...	97·8	20,800	...	...	1,330·5	297,696	...	...	1,330·5
1942–43	1,110·1	186,000	45·8	63,000	38·6	15,600	55·4	33,000	**30·7**	**10,600**	**14·6**	**4,140**	...	...	**133·4**	**25,600**	...	...	1,455·4	319,300	...	...	1,455·4
1943–44	1,088·0	188,000	83·3	71,600	44·5	15,600	63·8	40,650	34·3	11,800	15·0	5,960	...	...	156·2	26,100	...	...	1,475·6	328,000	...	...	1,475·6
1944–45	**1,133·2**	**187,000**	**92·1**	**89,500**	**40·2**	**15,530**	**59·3**	**35,070**	44·8	12,200	20·8	5,400	...	...	130·4	25,700	...	...	1,502·3	351,600	...	...	1,502·3
1945–46	1,136·7	190,500	136·9	93,500	33·1	15,600	55·0	34,200	**38·8**	**11,200**	**18·9**	**5,000**	...	...	**101·1**	**25,500**	**18·7**	**24,000**	1,594·6	377,100	...	...	1,594·6
1946–47	1,180·6	185,000	181·6	88,000	23·5	15,520	51·1	29,820	31·2	11,900	16·0	5,350	...	...	134·3	25,650	51·4	26,000	1,687·9	364,750	2·8	1,000	1,690·7
1947–48	**1,223·9**	**195,500**	**299·0**	**134,000**	**29·6**	**15,400**	**66·3**	**34,500**	26·9	11,800	18·0	5,150	...	...	144·7	25,850	61·5	26,700	1,900·8	449,500	3·6	1,140	1,904·4
1948–49	1,291·6	194,000	513·6	138,000	26·1	15,600	77·0	35,220	**33·1**	**11,750**	**18·8**	**5,650**	...	...	**161·8**	**25,850**	**68·3**	**26,400**	2,143·5	436,930	4·5	1,290	2,148·0
1949–50	1,287·6	186,500	717·8	175,000	26·6	15,600	105·4	41,910	32·9	11,800	18·8	5,850	...	...	139·1	25,550	44·4	28,000	2,357·6	504,090	5·2	1,382	2,362·8
1950–51	**1,241·8**	**187,000**	**990·5**	**242,800**	**19·5**	**15,000**	**105·6**	**38,700**	28·6	11,950	15·6	6,000	...	...	129·2	26,050	46·8	28,500	2,599·7	497,370	5·8	1,488	2,605·5
1951–52	1,282·4	196,000	1,085·5	249,400	28·7	14,800	94·2	39,450	**30·6**	**11,400**	**16·7**	**6,100**	**0·8**	**1,663**	**146·0**	**26,050**	**48·2**	**28,000**	2,785·1	533,370	6·6	1,580	2,791·7
1952–53	1,326·6	202,500	1,205·2	305,000	72·2	52,000	93·6	35,400	45·8	12,100	16·7	5,900	5·4	4,083	160·6	26,150	65·8	28,000	3,013·4	602,310	7·0	1,800	3,020·4
1953–54	1,394·0	243,000	1,322·7	304,400	202·0	51,900	212·4	73,000	46·1	12,000	22·5	6,000	12·3	12,000	168·2	25,950	66·7	28,000	3,473·2	701,650	29·2	12,800	3,502·4
1954–55	**1,668·1**	**260,000**	**1,249·9**	**303,000**	**175·2**	**52,000**	**306·6**	**83,000**	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	3,502·4
									182·0	**47,200**	**99·2**	**31,850**	**34·6**	**17,240**	**141·5**	**31,250**	**77·8**	**61,000**	**3,934·9**	**836,020**	**35·5**	**13,720**	**3,970·4**

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

Generated during 1954/55 by Local Authorities at Country Centres not served by State system : 45·5 million kWh

STATE ELECTRICITY COMMISSION OF VICTORIA

(a) LOAD FACTORS AT POWER STATIONS

Based on Appendix No. 6

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 Warrnamb'l & Hamilton	Eildon-Rubicon	Kiewa	Total Interconnected System	Mildura, Redcliffs and Horsham
	%	%	%	%	%	%	%	%	%	%	%
1925	19·1	38·6	...	...	...	...	...	...	...	28·7	...
1930	56·7	27·6	15·4	...	...	...	...	46·1	...	51·0	...
1935	*37·7	33·9	41·6	...	50·4	39·1	...	70·1	...	49·9	...
1940	52·6	12·8	12·0	...	46·5	44·2	...	67·0	...	53·3	...
1945	69·2	11·7	29·6	19·3	39·5	43·2	...	45·3	10·7	48·8	...
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
1955	73·2	47·1	38·5	42·2	44·0	35·6	22·9	51·7	14·6	53·7	29·5

*Severe Floods at Yallourn.

(b) FUEL USED AT POWER STATIONS (TONS)

Station	Type of Fuel	1954-55	1953-54	1952-53	1951-52	1950-51	1949-50	1948-49	1947-48	1946-47	1945-46
Yallourn	Brown Coal	4,846,876	4,380,080	4,203,197	4,154,742	3,968,509	4,075,675	4,035,535	3,766,828	3,666,105	3,517,235
	Briquettes ...	36,740	13,061	10,265	18,698	15,408	10,416	6,421	6,155	6,944	2,784
	Oil	3,021	397	...	...	...	...	...	...	...	...
Newport*	Brown Coal	794,668	742,472	722,884	562,198	358,148	332,676	94,155	315	290	...
	Briquettes ...	221,442	253,352	217,028	244,083	222,066	273,034	279,956	232,439	153,882	103,981
	Black Coal ...	216,836	259,640	220,935	241,733	263,001	46,173	62,569	5,669	736	17,497
	Oil	25,306	26,303	38,498	26,332	25,359	18,551	2,266	9	10	...
	Coke ...	...	...	...	...	...	...	...	...	...	440
Richmond	Briquettes ...	30,563	29,662	25,103	32,695	23,180	30,564	29,783	32,313	27,248	36,169
	Oil	44,613	51,740	15,739	...	...	...	...	...	...	...
	Coke ...	...	...	154	...	...	...	...	...	...	...
Spencer Street ...	Brown Coal	...	...	...	...	...	...	...	41	113	564
(Melbourne City Council)	Briquettes ...	22,225	41,547	60,364	65,935	69,261	71,610	49,475	41,411	34,069	12,770
	Black Coal ...	8,994	8,706	1,223	15	6,008	221	276	1,142	1,125	14,940
	Oil	84,484	37,017	19	22	23	18	17	...	...	...
	Coke ...	35,365	52,113	40,088	35,903	37,828	42,014	41,403	34,542	23,817	35,138
Geelong "A" and "B"	Brown Coal	219,164	106,955	7,378	66,906	11,356	...	...	...	...	...
	Briquettes ...	18,711	26,431	43,036	10,544	26,012	31,093	35,407	35,321	30,169	33,828
Ballarat "A" and "B"	Brown Coal	38,085	77,318	...	...	...	...	...	...	...	...
	Briquettes ...	11,161	18,531	25,144	19,628	19,747	18,135	22,772	22,845	21,791	19,577
	Oil	26,942	1,386	...	...	...	...	...	...	...	...
Shepparton	Oil	4,952	5,975	2,099	1,173	177	...	...	...	...	...
Warrnambool	Oil	1,728	1,448	829	100	...	...	...	...	...	...
Hamilton†	Oil	1,737	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 ...	4,828	14,284	...	...	...	...	...	...	...	...
	Oil	7	...	...	...	...	...	...	...	...	...
Redcliffs + ...	Briquettes ...	26,292	8,434	...	...	...	...	...	...	...	...
	Oil	25	9	...	...	...	...	...	...	...	...
Horsham **	Oil	108	...	...	...	...	...	...	...	...	...

*Includes Newport "A" from 21/1/51. †Acquired 1/7/46. ‡Acquired 1/10/53. +Commenced operation 16/1/54. **Acquired 1/6/55.

STATE ELECTRICITY COMMISSION OF VICTORIA

STATE GENERATING SYSTEM

(a) TOTAL INSTALLED PLANT CAPACITY

kW

(i) Interconnected System

Maximum continuous rating of plant installed at 30/6/55	898,295
Add—Available from Yallourn Briquette Factory	8,000
Total	906,295

(ii) Not connected to State System

Maximum continuous rating of plant installed at 30/6/55	19,264

Note — At Yallourn, Newport, Spencer Street, Richmond, 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
	C1	Parsons	50,000	11,000	3,000	1955
	C2	"	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	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	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
	10	"	15,000	6,600	3,000	1954
	11	"	30,000	22,000	3,000	1953
Shepparton	1	Brush	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	Electric Construction Co.	1,850	6,600	250	1953
	8	"	1,850	6,600	250	1953
	9	"	1,850	6,600	250	1953
Warrnambool	1	Brush	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
Hamilton	2	Brush	550	415	375	1947
	4	"	200	415	230	1946
	5	"	310	415	300	1937
	6	Bruce Peebles	420	415	300	1937
	7	" "	770	415	375	1950
	8	Brush	770	415	375	1951
Rubicon Falls	1	A.S.E.A.	275	6,600	500	1926
Lower Rubicon	1	Westinghouse	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
Eildon	3	Brown Boveri	8,000	6,600	250	Re-Installed 1954
	4	" "	8,000	6,600	250	Re-Installed 1954
Kiewa No. 3	1	English Electric	13,000	11,000	428	1944
" No. 4	2	" "	13,000	11,000	428	1945
	3	Metropolitan Vickers ...	15,400	11,000	600	1955
	4	" " ...	15,400	11,000	600	1955
			898,295			

*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

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	5,000	6,900	3,000	1954
	2	" ...	5,000	6,900	3,000	1954
Horsham	1	Laurence Scott	132	415	300	1949
	2	" "	132	415	300	1949
	3	" "	220	415	428	1951
	4	" "	400	415	428	1950
	5	Harland	300	415	375	1943
	6	"	520	415	375	1943
	7	Brush	560	400/440	428	1952
			19,264			

APPENDIX No. 8 — *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
	C2		200,000	645	840	1955
	C5		200,000	645	840	1955
	C6		200,000	645	840	1954
Newport	A1	Babcock & Wilcox	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		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	Babcock & Wilcox	30,000	200	600	1918
	A21		30,000	200	600	1918
	A22		30,000	200	600	1918
	A23		30,000	200	600	1918
	A24		30,000	200	600	1918
	A1M	International Combustion	187,500	400	780	1952
	A2M		187,500	400	780	1951
	A3M		187,500	400	780	1943
	A4M		187,500	400	780	1943
	1	Babcock & Wilcox	43,000	270	650	1923
	2		43,000	270	650	1923
	3		43,000	270	650	1923
	4		43,000	270	650	1923
	5		43,000	270	650	1923
	6	John Thompson	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		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	Babcock & Wilcox	20,000	160	570	1917
	2		20,000	160	570	1919
	15		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	John Thompson	27,000	200	588	1921
	2		27,000	200	588	1921
	3		27,000	200	588	1922
	4		27,000	200	588	1922
	5		27,000	200	588	1924
	6		27,000	200	588	1924
	B1	Westinghouse	110,000	625	825	1953
	B2		110,000	625	825	1954
	B3		110,000	625	825	1954
Ballarat	1	Stirling	11,000	160	600	1906
	2		11,000	160	600	1906
	3		11,000	160	600	1906
	4		11,000	160	600	1913
	5		11,000	160	600	1937
	B1	Westinghouse	70,000	430	760	1954
	B2		70,000	430	760	1954
	B3		70,000	430	760	1953
	B4		70,000	430	760	1953
Spencer Street (Melbourne City Council)	1	Babcock & Wilcox	25,000	160	570	Reconstd. 1925
	2		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	John Thompson	55,000	160	570	1937
	12		55,000	160	570	1939
	14		55,000	160	570	1940
	16		55,000	160	570	1936
	22		60,000	165	620	1941
	24		60,000	165	620	1941
	B1		150,000	275	775	1954
	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	70,000	430	760	1954
	2		70,000	430	760	1954

STATISTICS

ELECTRICITY SUPPLY

APPENDIX No. 9

ELECTRICITY SUPPLY UNDERTAKINGS — STATE OF VICTORIA

STATISTICAL SUMMARY AT 30th JUNE, 1955 — 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	1,004,151	265,142	36·94	1,369,018,937	45·12
Provincial Cities }	153,280	49,744	6·93	185,706,823	6·12
Country	683,231	217,391	30·29	673,192,494	22·18
Total	1,840,662	532,277	74·16	2,227,918,254	73·42
Other Undertakings—					
Metropolitan (receiving Bulk Supply from State Electricity Commission of Victoria)	521,752	160,888	22·42	769,433,780	25·36
Country (Local Undertakings)	83,405	24,571	3·42	37,102,432	1·22
Total	605,157	185,459	25·84	806,536,212	26·58
Grand Total	2,445,819*	717,736	100·00	3,034,454,466†	100·00

* Total population of Victoria—2,523,014

† Electricity sales per head of population—1,203 kwh.

APPENDIX No. 10

STATE ELECTRICITY COMMISSION OF VICTORIA

CONSUMER STATISTICS

(a) AGGREGATES FOR ALL BRANCHES 1936 - 1955

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.	
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
1955	1,841,000	451,223	28,218	52,582	532,277	28·9	1,921	31,014	4,654	129,136	702,898	30,131

(b) ELECTRICITY SUPPLY BRANCHES — 1954 AND 1955

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	1955	1,014,467	237,379	6,120	22,507	266,049	26·23	2,053	82,862	5,300	67,820	354,744	1,147
	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
Ballarat ...	1955	65,485	17,055	1,063	2,522	20,656	31·54	1,152	27,314	4,064	5,744	28,482	1,325
	1954	62,775	16,067	971	2,391	19,445	30·98	1,093	26,018	3,727	5,455	27,513	1,125
Eastern Metropolitan	1955	208,322	58,871	3,073	5,779	67,753	32·52	2,143	12,808	4,585	7,508	48,750	4,387
	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
Geelong ...	1955	82,570	23,669	918	3,027	27,628	33·46	1,420	78,072	4,115	7,222	50,875	1,097
	1954	79,160	21,759	853	2,857	25,483	32·19	1,302	76,283	3,904	6,971	50,048	1,025
Gippsland (incl. Yallourn)	1955	137,154	31,329	5,798	4,675	41,829	30·50	1,969	12,506	3,514	10,984	59,367	6,765
	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
Midland ...	1955	48,669	10,811	1,153	1,922	13,906	28·57	1,205	12,060	2,923	2,979	17,532	1,586
	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
North Eastern (incl. Kiewa)	1955	121,741	31,026	4,876	5,491	41,431	34·03	1,819	15,491	5,941	14,203	79,299	5,626
	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
North Western	1955	81,410	21,499	1,306	3,314	26,158	32·13	1,404	19,179	3,781	6,387	43,286	3,321
	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
South Western	1955	80,844	19,584	3,911	3,345	26,867	33·23	1,911	7,588	2,520	6,289	20,563	4,877
	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
Total	1955	1,840,662	451,223	28,218	52,582	532,277	28·92	1,921	31,014	4,654	129,136	702,898	30,131
	1954	1,753,042	426,461	25,882	49,410	501,994	28·64	1,770	29,844	4,330	121,664	657,970	27,082

STATE ELECTRICITY COMMISSION OF VICTORIA

ELECTRICITY SALES AND REVENUE

(a) AGGREGATES FOR ALL BRANCHES, 1936 - 1955

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.
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	1·978	0·917	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
1955	955·610	23·832	842·951	844·048	280·117	236·970	3,183·528	24,838,401	2·214	1·679	3·114

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

(b) ELECTRICITY SUPPLY BRANCHES — 1954 AND 1955

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)	1955	909·068	17·185	480·173	500·654	263·537	117·491	2,288·108	16,270,169	1·958	1·640	2·959
	1954	803·686	16·472	423·685	437·035	263·715	104·413	2,049·006	14,664,757	2·050	1·651	2·972
Ballarat	1955	...	0·513	19·217	28·133	...	10·135	57·998	573,084	2·887	1·639	3·290
	1954	...	0·489	17·272	24·587	...	8·841	51·189	522,151	2·996	1·672	3·368
Eastern Metropolitan	1955	...	1·633	121·136	38·231	12·305	25·429	198·734	1,980,575	2·378	1·949	3·212
	1954	...	1·448	101·881	28·352	1·728	22·045	155·454	1,608,307	2·442	2·019	3·165
Geelong	1955	...	0·730	32·334	69·640	...	12·093	114·797	1,002,269	2·749	1·505	3·591
	1954	...	0·675	27·310	62·552	...	10·901	101·438	904,551	2·937	1·511	3·574
Gippsland (Incl. Yallourn)	1955	...	1·166	59·590	69·011	4·275	16·044	150·086	1,379,438	2·457	1·713	3·224
	1954	...	1·085	52·887	52·547	...	14·414	120·933	1,153,922	2·476	1·804	3·188
Midland	1955	...	0·382	12·716	13·313	...	5·491	31·902	350,185	3·012	1·853	3·489
	1954	...	0·376	11·536	14·101	...	4·791	30·804	334,878	3·116	1·790	3·580
North Eastern (Incl. N.S.W. Bulk Supplies and Kiewa)	1955	42·244	1·030	54·694	72·124	...	31·780	201·872	1,765,657	2·549	1·710	2·741
	1954	38·106	0·946	46·703	74·777	...	27·938	188·470	1,625,718	2·664	1·631	2·788
North Western	1955	4·298	0·689	26·964	24·972	...	10·310	67·233	770,183	2·956	2·011	4·027
	1954	2·957	0·533	21·911	21·260	...	7·564	54·225	617,121	2·978	2·000	4·015
South Western	1955	...	0·504	36·127	27·970	...	8·197	72·798	746,841	2·498	1·927	3·947
	1954	...	0·484	31·096	24·385	...	7·207	63·172	665,976	2·593	1·940	4·034
Total	1955	955·610	23·832	842·951	844·048	280·117	236·970	3,183·528	24,838,401	2·214	1·679	3·114
	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

STATE ELECTRICITY COMMISSION OF VICTORIA
TRANSMISSION AND DISTRIBUTION SYSTEMS

Description	Increase during Year ended 30th June, 1955		Total at 30th June, 1955	
	Route Miles	Cable Miles	Route Miles	Cable Miles
OVERHEAD LINES				
Kiewa to Brunswick ... ... 220 kV.	153·0	513·6	153·0	513·6
Yallourn to Malvern ... ... 220 kV.	74·0	222·0	74·0	222·0
Yallourn to Yarraville ... ... 132 kV.	...	...	110·0	660·0
Yallourn to Richmond ... ... 132 kV.	...	...	80·5	483·0
Newport to Geelong ... ... 66 kV.	...	...	80·6	256·2
Yallourn to Warragul ... ... 66 kV.	...	...	24·8	74·4
Sunshine to Ballarat ... ... 66 kV.	−22·5	−68·5	55·5	165·5
Kiewa No. 3 P.S. to Eildon ... ... 66 kV.	6·8	20·3	143·8	605·3
Eildon to Thomastown ... ... 66 kV.	...	...	62·0	372·0
Eildon P.S. to Eildon Substation ... ... 66 kV.	−2·0	−7·8	0·5	1·5
Kiewa No. 3 P.S. to Howman's Gap ... ... 66 kV.	...	...	4·0	12·0
Thomastown to Bendigo ... ... 66 kV.	...	...	93·4	560·7
Kiewa Area ... ... 22 kV.	...	...	7·8	23·4
Eildon P.S. to Eildon Substation ... ... 6.6 kV.	−0·1	−2·1	0·5	1·5
Main Metro. Transmission Lines ... ... 66 kV.	...	...	49·7	105·1
Main Metro. Transmission Lines ... ... 22 kV.	8·0	34·5	253·0	866·2
Main Metro. Transmission Lines ... ... 6.6 kV.	...	...	5·9	19·5
Branches—				
Metropolitan ... ... 22 kV.	16·6	46·5	138·0	403·2
7.2, 6.6, 4.0 kV.	16·8	47·8	399·5	1,191·2
Low tension ...	58·6	270·9	2,258·2	8,705·4
Ballarat ... ... 22 kV.	65·8	143·2	462·8	1,150·3
6.6 kV.	1·2	7·5	21·0	63·4
Low tension ...	29·0	92·8	449·1	1,520·5
Eastern Metropolitan ... ... 66 kV.	−3·2	−9·6	18·8	56·5
22 kV.	73·7	177.0	879·4	2,262·1
6.6 kV.	−6·5	−13·5	53·3	138·2
Low tension ...	105·3	451·6	1,494·1	5,408·8
Geelong ... ... 22 kV.	44·5	103·7	281·0	683·8
6.6 kV.	−7·1	−21·3	65·6	233·1
Low tension ...	25·8	100·8	393·4	1,391·2
Gippsland ... ... 66 kV.	...	...	98·2	294·6
22 kV.	173·0	348·0	1,667·3	3,931·4
6.6 kV.	...	...	0·8	1·6
Low tension ...	109·0	322·0	1,495·9	4,912·4
Midland ... ... 22 kV.	85·0	188·6	695·9	1,855·3
6.6 kV.	...	...	7·5	16·6
Low tension ...	18·6	58·6	419·2	1,323·2
North-Eastern ... ... 66 kV.	25·0	75.0	198·9	708·8
22 kV.	192·5	439·1	2,054·2	5,129·4
Low tension ...	55·0	177·4	1,056·9	3,662·1
*North-Western ... ... 22 kV.	79·8	210·9	591·4	1,574·6
19.8 kV.	10·5	10·5	10·5	10·5
12.7 kV.	99·9	99·9	99·9	99·9
11 kV.	−40·9	−40·9	73·2	73·2
6.6 kV.	0·2	0·6	30·8	83·7
Low tension ...	53·8	190·7	632·1	1,967·0
South-Western ... ... 66 kV.	...	...	119·4	628·5
22 kV.	270·9	564·4	1,813·5	3,863·9
12.7 kV.	42·6	42·6	42·6	42·6
6.6 kV.	−104·1	−242·1	108·2	250·6
Low tension ...	50·2	143·5	694·2	1,890·5
Yallourn ... ... 6.6 kV.	1·0	2·9	14·1	42·3
Low tension ...	0·3	1·4	25·8	87·8
Kiewa ... ... 22 kV.	...	...	2·4	7·2
Low tension ...	...	...	8·8	43·0
Summary ... ... 220 kV.	227·0	735·6	227·0	735·6
132 kV.	...	...	190·5	1,143·0
66 kV.	4·1	9·4	949.6	3,841·1
22 kV.	1,009·8	2,255·9	8,846·7	21,750·8
19.8 kV.	10·5	10·5	10·5	10·5
12.7 kV.	142·5	142·5	142·5	142·5
11 kV.	−40·9	−40·9	73·2	73·2
7.2, 6.6, 4.0 kV.	−98·6	−220·2	707·2	2,041·7
Low tension ...	505·6	1,809·7	8,927·7	30,911·9
	1,760·0	4,702·5	20,074·9	60,650·3

UNDERGROUND CABLES.	Cable Miles	Cable Miles
60 kV.	...	0·62
22 and 20 kV.	2·95	165·94
11, 7.2, 6.6, 4.0, 3.3 and 2.2 kV.	11·92	372·06
Pilot, telephone, and supervisory	2·91	227·59
Low tension	6·40	85·28
	24·18	851·49

SUB-STATIONS.	Number	Capacity kVA	Number	Capacity kVA
Terminal Stations	...	85,000	9	824,000
Switching Stations	1	45,000	3	63,000
Main Metropolitan Transmission Sub-stations	3	74,000	51	739,500
Branches—				
Metropolitan	79	27,875	1,255	381,240
Ballarat	76	3,285	496	26,055
Eastern Metropolitan	126	17,465	1,269	129,679
Geelong	55	4,300	447	57,912
Gippsland	275	7,670	1,728	90,660
Midland	98	1,855	704	36,185
North-Eastern	313	9,849	2,406	132,621
*North-Western	134	26,295	764	85,130
South-Western	283	7,095	2,259	79,665
Yallourn	1	25	23	4,180
Kiewa	...	...	10	2,100
	1,444	309,714	11,424	2,651,927

* Includes Bendigo Branch, Mildura Sub-Branch and Horsham Sub-Branch.

STATE ELECTRICITY COMMISSION OF VICTORIA

STANDARD TARIFFS AS AT 30th JUNE, 1955

Tariffs	Residential and Commercial			Farming Farming Operations Only	Industrial Factories and Other Industrial Establishments	Miscellaneous
	Metropolitan	Provincial City and Town. (Ballarat, Bendigo, Geelong and Large Towns)	Country (Smaller Towns and Rural Areas)	All Extra-Metropolitan Areas	All Supply Areas	
	1	2	3	4	5	6
Residential Tariff (Domestic and Commercial Residential Premises)—						
Service Charge a month for each assessable room	1s. 3d.	1s. 8d.	1s. 10d.			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 and Horsham area will be supplied on request.
Rate a kWh	1.85d.	2.35d.	2.5d.			
Maximum overall rate a kWh	8.0d.	8.0d.	8.0d.			
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—	**Commercial General Service**	**Commercial General Service**	**Commercial General Service**	**Farming General Service**	**Industrial All-Purposes**	
Block Tariff—rates a kWh (based on monthly consumption)	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.	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.	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.	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.	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 Intermediate Rate Tariff a kWh }	0.875d. 1.35d.	0.975d. 1.475d.	0.975d. 1.475d.	0.975d. 1.475d.	0.875d. 1.35d.	
Minimum Charge—a month	3s. 6d.	4s. 0d.	4s. 6d.	4s. 0d.	3s. 6d.	

TARIFFS FOR NON-RESIDENTIAL PREMISES

*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. Until additional generating plant (using low cost raw brown coal) is installed, new hot water services connected (excluding dairy water heaters) are charged for a period of eighteen months at the Intermediate Rate Tariff after which they are transferred automatically to the lower Night Rate Tariff.

STATE ELECTRICITY COMMISSION OF VICTORIA

ELECTRICITY SUPPLY

GENERATION
TRANSMISSION
H.V. DISTRIBUTION