1956–57

VICTORIA

STATE ELECTRICITY COMMISSION OF VICTORIA

THIRTY-EIGHTH ANNUAL REPORT

FOR THE

FINANCIAL YEAR ENDED 30TH JUNE, 1957

TOGETHER WITH

APPENDICES

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

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

No. 39.—4s.—650/58.

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STATE ELECTRICITY COMMISSION OF VICTORIA

FEATURES OF 1956-57 OPERATIONS

	1956-57	1955-56	Increase or Decrease	Percentage
FINANCIAL				
INCOME—				
Electricity Supply £	33,823,207	28,887,195	+ 4,936,012	+ 17.1
Briquetting (after Stock Adjustment and less Transfers to Works) £	1,897,463	1,308,459	+ 589,004	+ 45.0
Brown Coal (less Transfers to Works) £	800,535	735,051	+ 65,484	+ 8.9
Tramways £	* 107,854	158,416	— 50,562	— 31.9
Miscellaneous £	12,741	12,858	— 117	— 0.9
TOTAL INCOME £	36,641,800	31,101,979	+ 5,539,821	+ 17.8
EXPENDITURE (incl. Appropriations, Writings off, etc.) £	36,235,942	30,739,515	+ 5,496,427	+ 17.9
NET SURPLUS £	405,858	362,464	+ 43,394	+ 12.0
CAPITAL EXPENDITURE—At end of Year £	235,830,564	215,687,042	+ 20,143,522	+ 9.3
Less Provision for Depreciation £	26,823,242	24,199,568	+ 2,623,674	+ 10.8
£	209,007,322	191,487,474	+ 17,519,848	+ 9.1
RESERVES—At end of Year £	8,922,189	8,162,820	+ 759,369	+ 9.3
ELECTRICITY PRODUCTION AND SALES				
MAXIMUM COINCIDENT DEMAND ON POWER STATIONS (1957 winter compared with 1956 winter) kW	1,016,860 (3/7/57)	943,330 (11/7/56)	+ 73,530	+ 7.8
ELECTRICITY GENERATED kWh-millions	4,763.1	4,429.4	+ 333.7	+ 7.5
ELECTRICITY SALES kWh-millions	3,859.6	3,605.5	+ 254.1	+ 7.0
NUMBER OF CONSUMERS (excluding Bulk Supplies) —	590,906	561,892	+ 29,014	+ 5.2
AVERAGE kWh SOLD PER CONSUMER—				
Domestic kWh	2,255	2,144	+ 111	+ 5.2
Commercial kWh	5,170	5,083	+ 87	+ 1.7
All Consumers (excluding Bulk Supplies) kWh	4,718	4,647	+ 71	+ 1.5
Per Head of Population (Victoria) kWh	1,389	1,324	+ 65	+ 4.9
AVERAGE PRICE PER kWh SOLD—				
Domestic d.	2.29	2.22	+ 0.07	+ 3.2
Commercial d.	3.79	3.29	+ 0.50	+ 15.2
Industrial d.	2.03	1.76	+ 0.27	+ 15.3
All Consumers (excluding Bulk Supplies) d.	2.29	2.12	+ 0.17	+ 8.0
MOTORS CONNECTED—				
Number	144,626	136,078	+ 8,548	+ 6.3
Horse-power	772,088	728,263	+ 43,825	+ 6.0
NUMBER OF FARMS SERVED	35,852	32,734	+ 3,118	+ 9.5
BRIQUETTES—				
Produced tons	617,989	634,099	— 16,110	— 2.5
Sold and used at Power Stations tons	597,732	632,263	— 34,531	— 5.5
BROWN COAL PRODUCED—				
Yallourn Open Cut tons	8,209,806	7,937,769	+ 272,037	+ 3.4
Yallourn North Open Cut tons	1,594,510	1,549,946	+ 44,564	+ 2.9
Morwell Open Cut tons	55,233	14,694	+ 40,539	+ 275.9
TRAMWAY PASSENGERS	6,278,354	9,710,879	— 3,432,525*	— 35.3

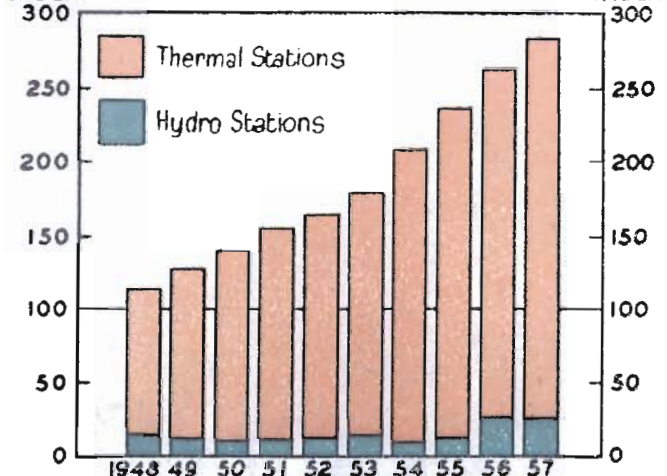
* Geelong Tramways ceased operation 25/3/56.

TEN YEAR STATISTICAL REVIEW
BASE YEAR 1946-47 = 100

MAIN FEATURES OVER THE DECADE :-

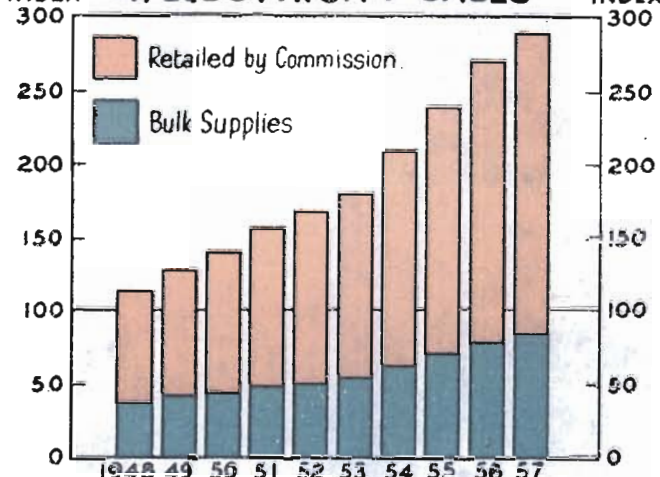
1. Electricity production and sales have almost trebled.
2. New generators installed have no more than kept pace with demand.
3. Despite major increases in cost levels, the cost per kwh of domestic electricity is only 43% higher than 10 years ago, largely because of the substantial increase in the use of electricity per consumer.
4. Active rural electrical development has doubled country consumers, (farms supplied have more than trebled).

1. PRODUCTION



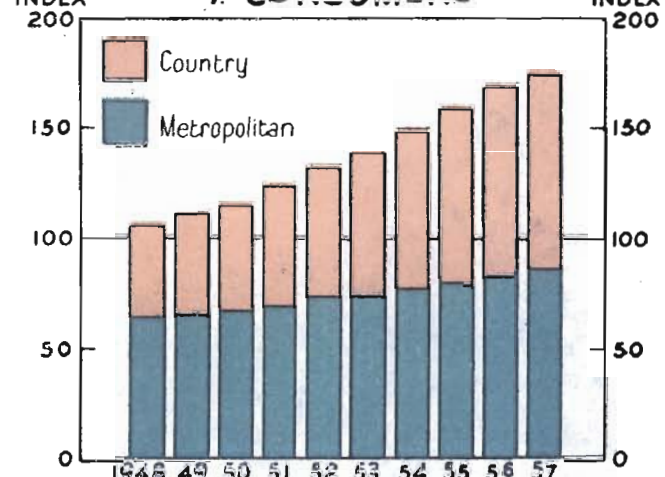
Production of electricity (4763·1 million kwhs. in 1956/57), has almost trebled over the decade. (Statistics App 6)

4. ELECTRICITY SALES



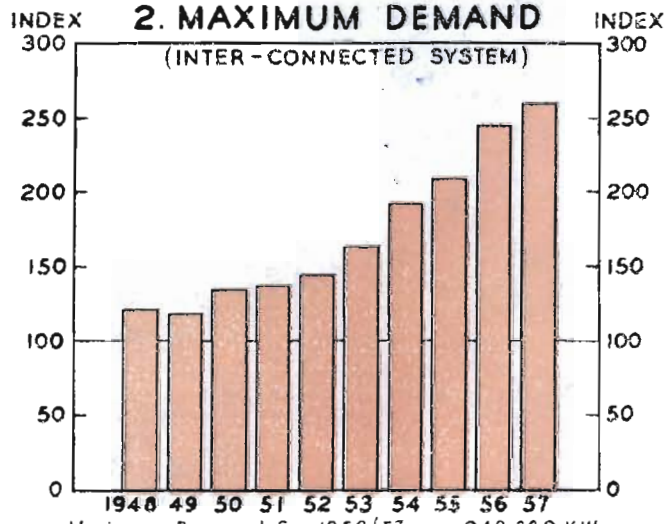
Sales for 1956/57 were 3859·6 million kwhs, an increase of 7·0 per cent over last year. (Statistics - App.II)

7. CONSUMERS



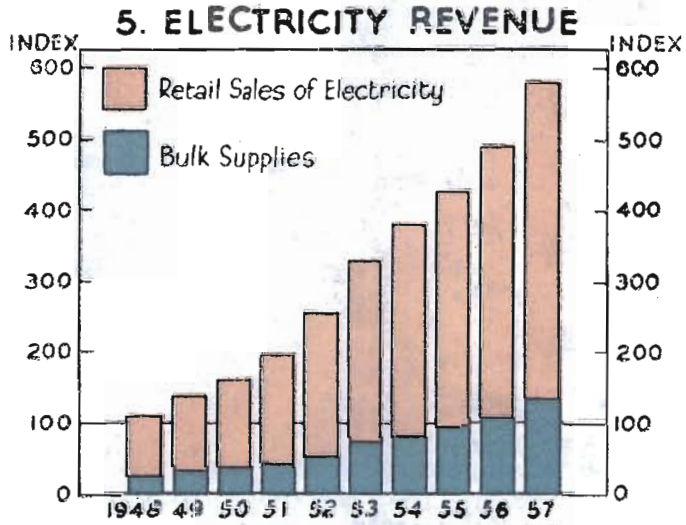
The number of consumers (590,906 at 30·6·57) has increased steadily over the decade. Country consumers have more than doubled. (Statistics App. 10)

2. MAXIMUM DEMAND



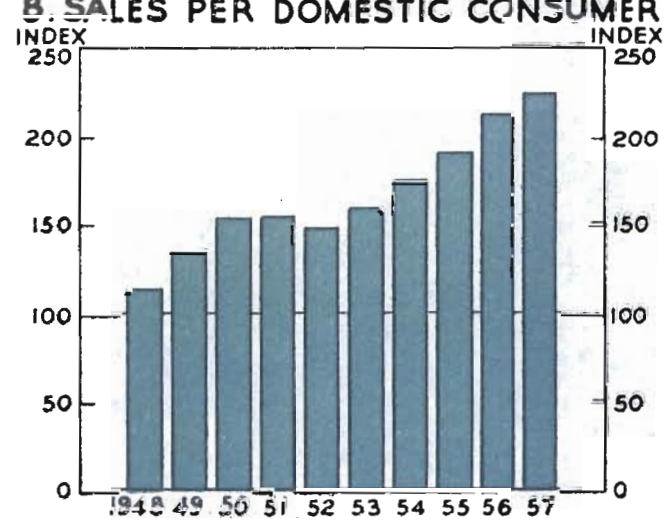
Maximum Demand for 1956/57 was 943,330 K.W. (M.D. on 3·7·57 reached 1,016,860 K.W.) Statistics-App.6

5. ELECTRICITY REVENUE



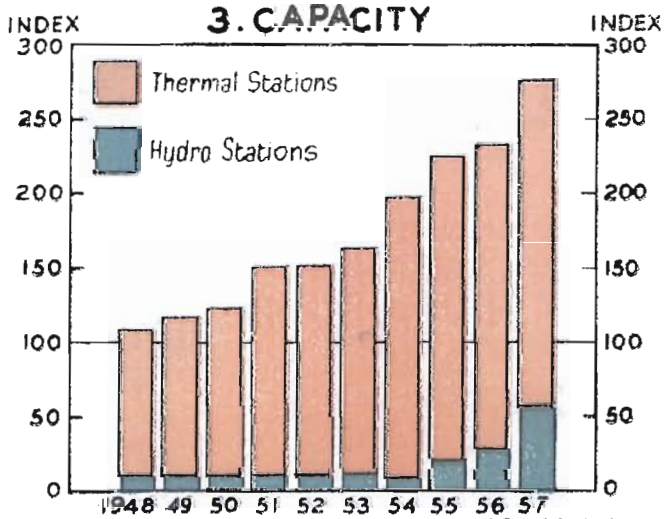
Over the decade revenue has increased almost sixfold.

8. SALES PER DOMESTIC CONSUMER



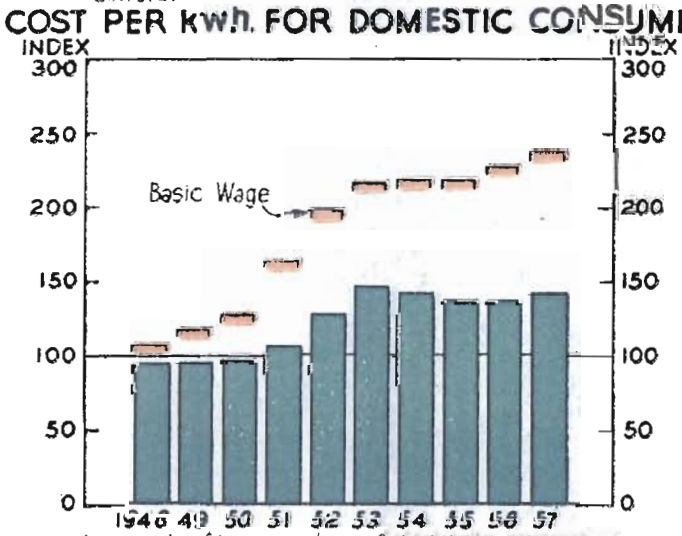
Over the last 10 years consumption per domestic consumer has increased from 1015 to 2255 kwhs. (Statistics - App.10)

3. CAPACITY



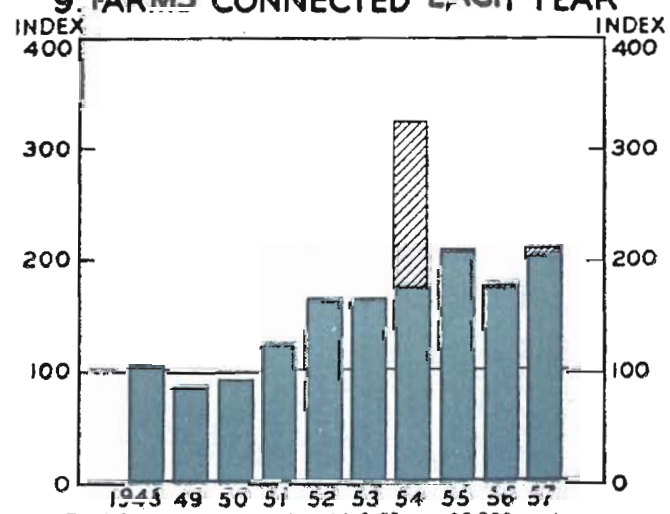
The installed capacity of generators was 1,136,599 K.W. at 30·6·57, an increase of 175,550 for year (Statistics - App.8) Interconnected system 1,109,195 K.W., Regional Stations 27404 K.W.

6. COST PER kwh. FOR DOMESTIC CONSUMERS



As a result of increased use of electricity, revenue per kwh. is only 43 per cent higher than 10 years ago, notwithstanding that the basic wage has increased more than 138 per cent. (Statistics - App. II)

9. FARMS CONNECTED EACH YEAR



Total farms connected at 30·6·57 was 35,852 an increase of 3,118 for the year. Shaded portion of the graph represents farms previously supplied by undertakings acquired. (Statistics - App. 10)

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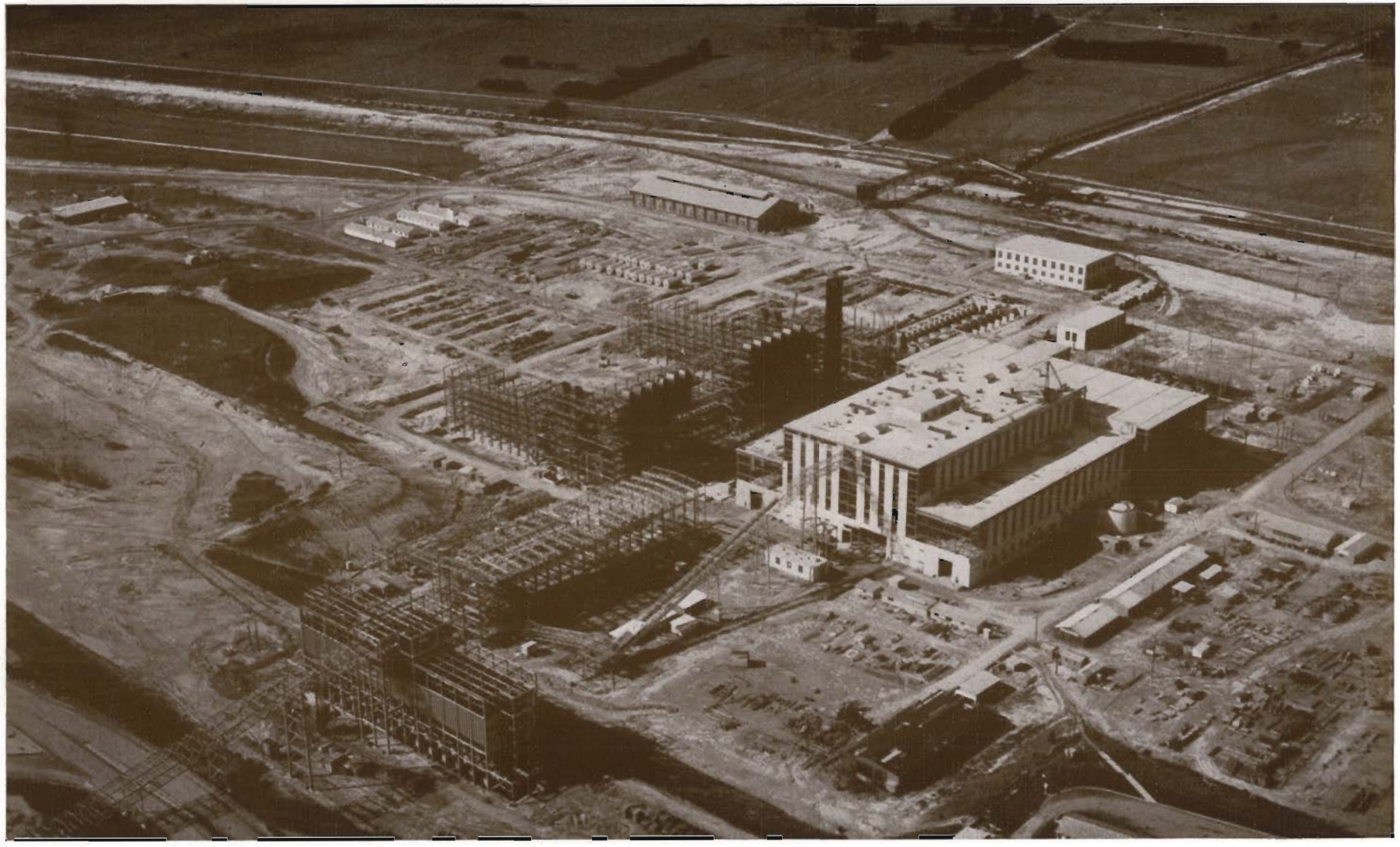


MORWELL POWER AND FUEL PROJECT

Coal conveyor system from the open cut leading to raw coal bunkers (left foreground); behind is the steelwork of the coal crushing and screening plant. Power station building is on the right and steelwork of the briquette factory to the left. Briquette and brown coal conveyor system to the Gas and Fuel Corporation plant (right background).

THIRTY-EIGHTH ANNUAL REPORT

Honourable G. O. Reid, 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-Eighth Annual Report of the Commission, covering the financial year ended 30th June, 1957, together with Balance Sheet and Profit and Loss Account.

The main features of the year's activities are these:—

- The year's operating results again were financially satisfactory.
- Electricity sales increased by 254 million kWh, or 7 per cent.; but for the mild winter of 1957 this increase would have been considerably greater.
- The Commission supplied 99 per cent. of electricity used in Victoria.
- Generating capacity was increased by 175,550 kW.
- The maximum demand on the interconnected system for the first time has exceeded one million kW (1,016,860 kW—3rd July, 1957). At the time the available generating plant capacity was 1,019,000 kW.
- The number of consumers now served is 590,906 (plus 170,900 through bulk supply authorities). 29,014 new consumers were connected by the Commission this year, including 3,118 farms.
- Brown coal production reached nearly 10 million tons—the highest figure yet recorded.
- Briquette production was 618,000 tons.

FINANCIAL

The surplus for the year was £405,858 (£362,464 last year) after providing full interest and depreciation on assets in service, writing out £2,100,000 in respect of interest and other expenditure during construction, and transferring £400,000 to the Obsolescence Reserve and £100,000 to the Rural Development Reserve.

Income from all sources totalled £36,641,800—an increase of £5,539,821 (17.8 per cent.). Expenditure and appropriations—£36,235,942—were £5,496,427 (17.9 per cent.) higher.

Electricity charges for Commercial and Industrial tariffs were increased as from 1st October, 1956, by approximately 10 per cent. for the specific purpose of providing some of the capital funds vital to meet the expanding electricity needs of the State.

A substantial increase in sales of electricity (254 million kWh), together with this increase in tariffs, has contributed largely to the additional income, while increased expenditure reflects the higher outputs required to meet the demand.

* * *

The last five public loans of the Commission were considerably undersubscribed. The Commission is gravely concerned that, if future loans continue to be undersubscribed, there will be difficulty in arranging for the underwriting of amounts adequate for its already restricted loan programme.

This experience demonstrates the unfavourable outlook of investors towards semi-government loans; the situation has persisted for many months, and reflects the attractions to lenders large and small of other types of investments which offer interest rates and conditions well beyond the limits officially prescribed for semi-government entities.

At present the Commission is finding up to 25 per cent. of its capital funds from revenue (operating surplus and moneys available from depreciation and other reserves), and aims to find 33 per cent. Unless capital finance is more freely available for its increasing works programme, it will be necessary to obtain a still larger percentage of capital from revenue in future years.

CAPITAL FINANCE FOR FUTURE DEVELOPMENT OF STATE GENERATING SYSTEM

The Commission's successive Annual Reports have emphasised strongly the difficulties which continue to be experienced by itself and other public authorities in respect of capital finance.

Our last report referred at length to the engagement by the Commission of an eminent firm of engineering consultants (Ebasco Services Inc., of New York) to examine and report on the Commission's loading forecasts, its plans for meeting the State's future electricity needs, and the capital expenditure involved. The essence of these plans is a total capital requirement of £300 million, starting with £24 million in 1956-57, and rising to something over £40 million in 1964-65.

The projected expenditure is of such dimensions that both the Government and the Commission have felt that, in terms of plant and money, the plans should have the full support of an engineering authority of the world standing enjoyed by Ebasco. Their representative, Mr. Murray F. Gill, B.E.E. (Texas), M.I.E.E., spent several months with the Commission.

The main conclusions of Ebasco were recorded in the last Annual Report, and, as Minister, you reported them to Parliament in October, 1956, in a comprehensive statement on the Commission's activities.

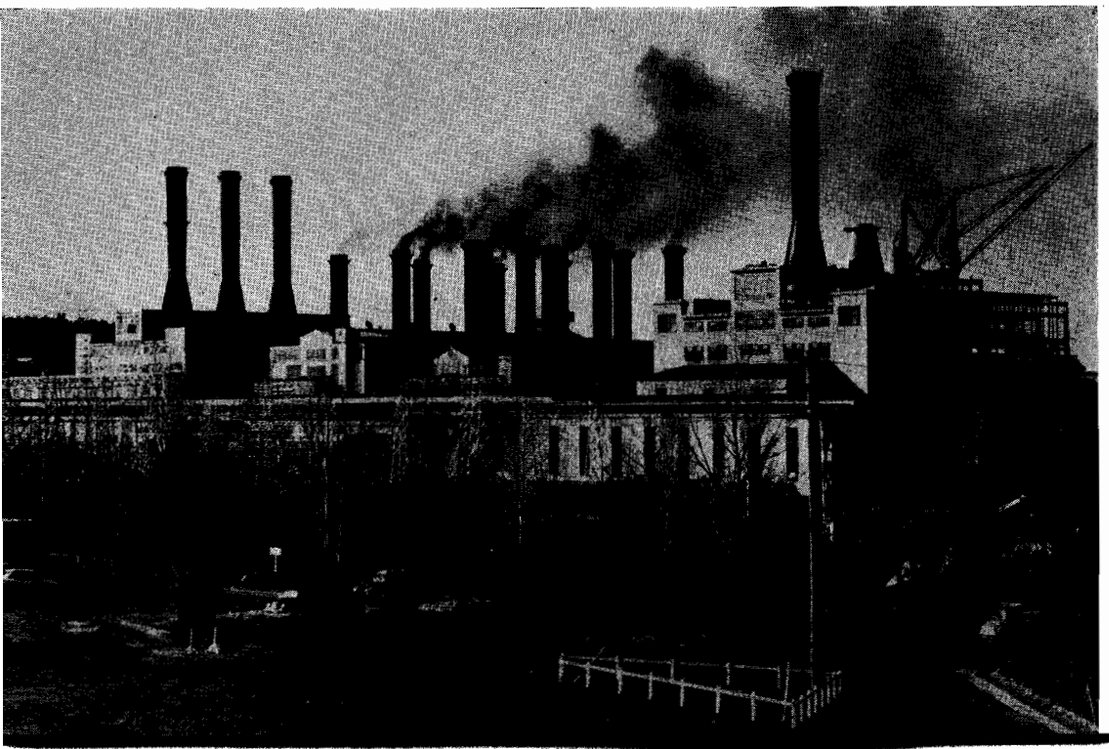
It is appropriate to this current report, however, to record that the review of Ebasco—

1. confirmed the conclusions of the State Electricity Commission as to—
   growth of load
   need for reserve plant
   and
   amount of capital required
   } for the next ten years

   AND

   generally confirmed the manner and rate at which the Commission considered the required capital funds should be spent, but proposed certain changes of size of generating sets;
2. confirmed the policy of increasing tariffs to supplement the Commission's sources of capital finance (this was the subject of an interim report by Ebasco at the time the latest increases in tariffs were under consideration in August, 1956);
3. encouraged, but would go further than the Commission in changing from day labour to contract for its main construction works;
4. confirmed the financial soundness of the Commission's undertakings;
5. expressed the same anxiety as has the Commission because the present methods of obtaining capital funds are quite unsuitable for a business which in the normal course must make long-term commitments on a large scale if it is to fulfil its obligations to the public, the Government, and Parliament.

Although the Commission's assessment of the future needs, both as to plant and money, has been endorsed emphatically, this—however encouraging—does nothing to solve the basic and inter-related problems of lack of sufficient capital finance and the lack of assurance of capital funds on anything but a year-to-year basis. This latter practice in Australian government finance places a public authority such as the Commission in an invidious position in assuming responsibility for long-term commitments. And the problem still would exist even if there were to be an increase beyond the suggested one-third of capital requirements being met from the Commission's revenues.



YALLOURN POWER STATION

New 'D' Extension — two 50,000 kW turbo-generator sets—at right.

This is the background against which the Commission faces the task of obtaining and spending approximately £300 million over less than ten years in order that the citizens of the State of Victoria may be assured of an adequate supply of electricity. Its hopes, expressed in the last report, that the Loan Council by now would have considered a case prepared by the Commonwealth regarding long-term finance for public works have not so far borne fruit. But the Commission is pleased to know that the Commonwealth Co-ordinator of Works now has under study the future financial and physical needs of the Australian electricity supply industry.

Obviously, substantial deficiency in capital funds will result in a failure in electricity supply—which must hamper seriously the growth and economic development of the State.

All this you have brought to the notice of Parliament.

* * *

Later in this report, reference is made to the placing of orders for Yallourn "E" Power Station. On Ebasco advice, the proposed Hazelwood Power Station (to the south of and based on the Morwell Open Cut) will have units of 200,000 kW. This station is planned to commence operation in 1963-64. By 1965, i.e., eight years hence, the total system demand is expected to be 1,773,000 kW. This year it has already reached 1,016,860 kW—compared with 943,330 kW during the 1956 winter.

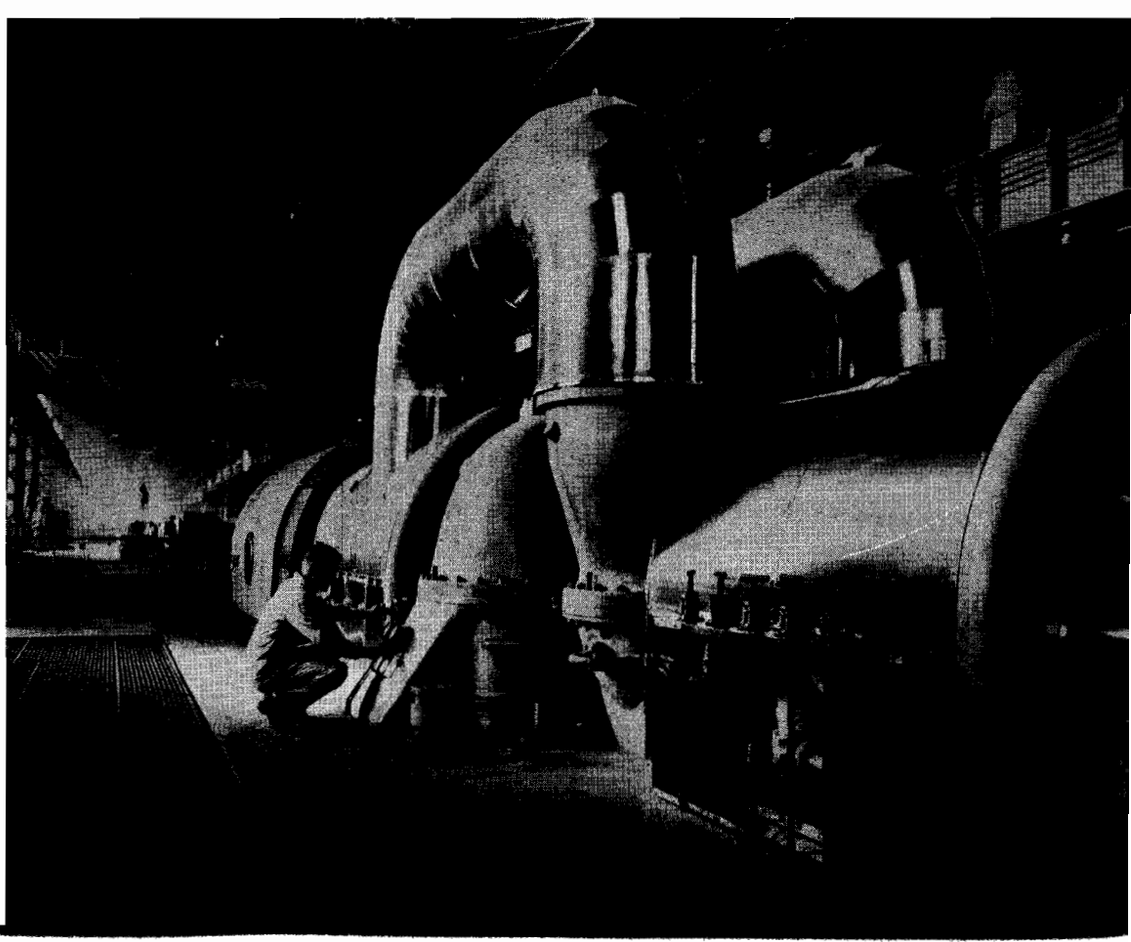
MINISTER'S STATEMENT TO PARLIAMENT AND NEW LEGISLATION

As reported last year, on 24th October, 1956, the Minister of Electrical Undertakings made a statement to the Legislative Assembly on the Commission's main activities. A copy of this statement was annexed to the 37th Annual Report.

The State Electricity Commission (Land Compensation) Act 1957 (No. 6122) was passed by Parliament on 13th November, 1957; this Act amends Section 15 (2) of the Principal Act to authorise the acquisition of land within a radius of 20 miles of Morwell at current prices, based on the use to which the land was put on 1st January, 1954.

PARLIAMENTARY VISIT TO SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME

At the invitation of the Minister of Electrical Undertakings and with the co-operation of the Snowy Mountains Hydro-Electric Authority, an official inspection of the Snowy undertaking was made by members of both Houses of Parliament on 19th-21st February, 1957.



YALLOURN POWER STATION — 'D' EXTENSION

New 50,000 kW turbo-generator in operation since March, 1957, using surplus steam from 'C' Station. (Second unit 50,000 kW to be in operation by end of 1957.)

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 30/6/56			Year ended 30/6/57	
£	£		£	£
		ELECTRICITY SUPPLY		
28,887,195		Income	33,823,207	
26,672,105		Expenditure	29,619,864	
	2,215,090	*Profit*		4,203,343
		BRIQUETTING		
1,308,159		Income	1,897,463	
1,298,918		Expenditure	1,880,090	
	9,241	*Profit*		17,373
		BROWN COAL — YALLOURN NORTH		
735,051		Income	800,535	
143,025		Expenditure	548,896	
	292,026	*Profit*		251,639
		PROVINCIAL TRAMWAYS		
158,116		Income	107,854	
366,110		Expenditure	276,545	
	207,994	*Loss*		168,691
		OTHER		
	12,858	Miscellaneous Income		12,741
		Interest during Construction for year in Operating Areas—Yallourn,, Kiewa, etc.	1,177,652	
95,781		Brown Coal Investigations	95,696	
113,576	209,357	Miscellaneous Expenditure	158,449	1,431,797
		MAKING A TOTAL		
31,101,979		Income	36,641,800	
28,989,515		Expenditure	33,757,192	
	2,112,464	*Profit*		2,884,608
		Plus transfer from Rural Development Reserve to cover losses on marginal rural extensions		121,250
	2,112,464			3,005,858
		Appropriations from the profit were:—		
1,750,000		Proportion of interest on Morwell and other expenditure on works under construction temporarily capitalised now written out	2,100,000	
—		Obsolescence Reserve	400,000	
—		Rural Development Reserve	100,000	2,600,000
£362,464		Leaving a surplus which was transferred to Contingency and General Reserve		405,858

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

Electricity Supply	Profit up £1,988,253
Briquetting	Profit up £7,832
Brown Coal	Profit down £40,387
Tramways	Loss down £39,003

The substantial increase in Electricity Supply profit is attributable to increased sales and tariffs. The extension of the Yallourn North Open Cut has temporarily reduced the profit on Operations, and lower Tramway losses followed the abandonment of the Geelong system.

ASSETS AND LIABILITIES

Capital Expenditure as at 30th June, 1957, was as under:—

As at 30/6/56 £		As at 30/6/57 £
	Fixed Capital —	
11,237,122	Coal Production	15,591,448
17,555,906	Briquette Production and Distribution	17,741,001
81,973,811	Power Production	93,414,011
67,167,797	Transmission, Transformation and Distribution Systems	76,540,279
31,752,106	General (for details see Appendix No. 3)	32,543,825
215,687,012		235,830,564
24,199,568	Deduct Provision for Depreciation	26,823,242
191,487,171		209,007,322
386,393	*Current Assets in excess of Current Liabilities* (reflects lower Bank Overdraft)	3,692,733
5,181,585	*Overburden Suspense* (cost of uncovering coal yet to be won—Yallourn and Morwell)	5,803,096
9,089,153	*Other Suspense Expenditure* (net)	9,180,507
£206,144,305		£227,683,658
	The funds for this expenditure were obtained from:—	
	Loans —	
42,363,165	Victorian Government Advances	45,739,961
151,714,412	S.E.C. Debentures and Inscribed Stock	167,575,291
611,781	Acquired Undertakings' Debentures and Inscribed Stock	638,534
194,689,691		£213,953,786
7,426,309	*Reserves* (excluding external sinking fund investment—£875,990)	8,046,199
4,028,305	*Consumers' Advances for Construction*	5,683,673
£206,144,305		£227,683,658

The General Profit and Loss Account and Balance Sheet, and the Schedules of Fixed Capital, Debentures and Inscribed Stock, are shown in Appendices Nos. 1, 2, 3 and 5.

PROVISIONS AND RESERVES

Balances at 30th June, 1957, were:—

Provision for Depreciation	£26,823,242	(Increase £2,623,674)
Obsolescence Reserve	£2,247,775	(Increase £272,100)
Rural Development Reserve	£932,136	(Decrease £24,057)
Contingency and General Reserve (including Sinking Fund Provision)	£5,742,278	(Increase £1,011,326)

Depreciation, based on estimated lives, is provided in respect of the fixed capital assets in service. The sinking fund method of calculation has been again used for long life assets, but as from 1st July, 1957, the annual provision for both long and short life assets will be determined by the more commonly used straight line method. Under both these accepted methods the accumulated provision over the estimated lives of assets is the same, viz., the cost of the assets: the change varies only the amount provided as between the individual years.

An amount of £400,000 was appropriated to the Obsolescence Reserve (previously Contingency and Obsolescence Reserve), and irrecoverable expenditure totalling £127,900, was written out.

Losses on rural extensions and intangible expenditure on acquisitions totalling £124,057, were written out to the Rural Development Reserve, and £100,000 was appropriated from the profit.

The following amounts were transferred to the Contingency and General Reserve (previously General Reserve) :—

Surplus for year	£405,858
Inclusion of Rate Stabilisation Reserve	500,000
Commonwealth Government and other contributions to the Commission's equity in National Debt Sinking Fund	105,468
	£1,011,326

LOAN LIABILITY

The total loan liability at 30th June, 1957, was £213,953,786, the increase for the year (£19,264,095) being incurred as follows:—

	New Indebtedness £	Less Redemptions: Sinking Fund Contributions £	Less Redemptions: Maturity Repayments £	Net Increase £
State of Victoria	3,788,607	412,111		3,376,496
State Electricity Commission Loans	16,779,260	807,411	111,000	15,860,849
Municipalities (acquired undertakings)	78,943	52,193		26,750
	£20,646,810	£1,271,715	£111,000	£19,264,095

The following is a summary in round figures of the new loan moneys received in each of the last six years—conversion and short-term loans redeemed within the year are excluded.

Year ended 30th June	Public Loans	Private Loans	Total, Public and Private Loans	Advances by State of Victoria
	£	£	£	£
1952	18,500,000	1,700,000	23,200,000	9,000,000
1953	9,100,000	8,100,000	17,200,000	7,000,000
1954	11,900,000	11,600,000	23,500,000	6,000,000
1955	11,000,000	7,300,000	18,300,000	2,000,000
1956	7,300,000	4,000,000	11,300,000	1,000,000
1957	10,100,000	6,600,000	16,700,000	3,400,000

During the year public loans underwritten and the amounts subscribed were:—

Amount Underwritten	Term	Interest Rate Per Cent.	Subscriptions	
£			£	%
2,000,000*	5/10/15 years	5½	2,049,750	102
3,500,000	5/10/20 years	5½	1,777,150	51
2,100,000	5/10/20 years	5½	1,374,850	65
2,800,000	5/10/20 years	5½	1,619,300	58

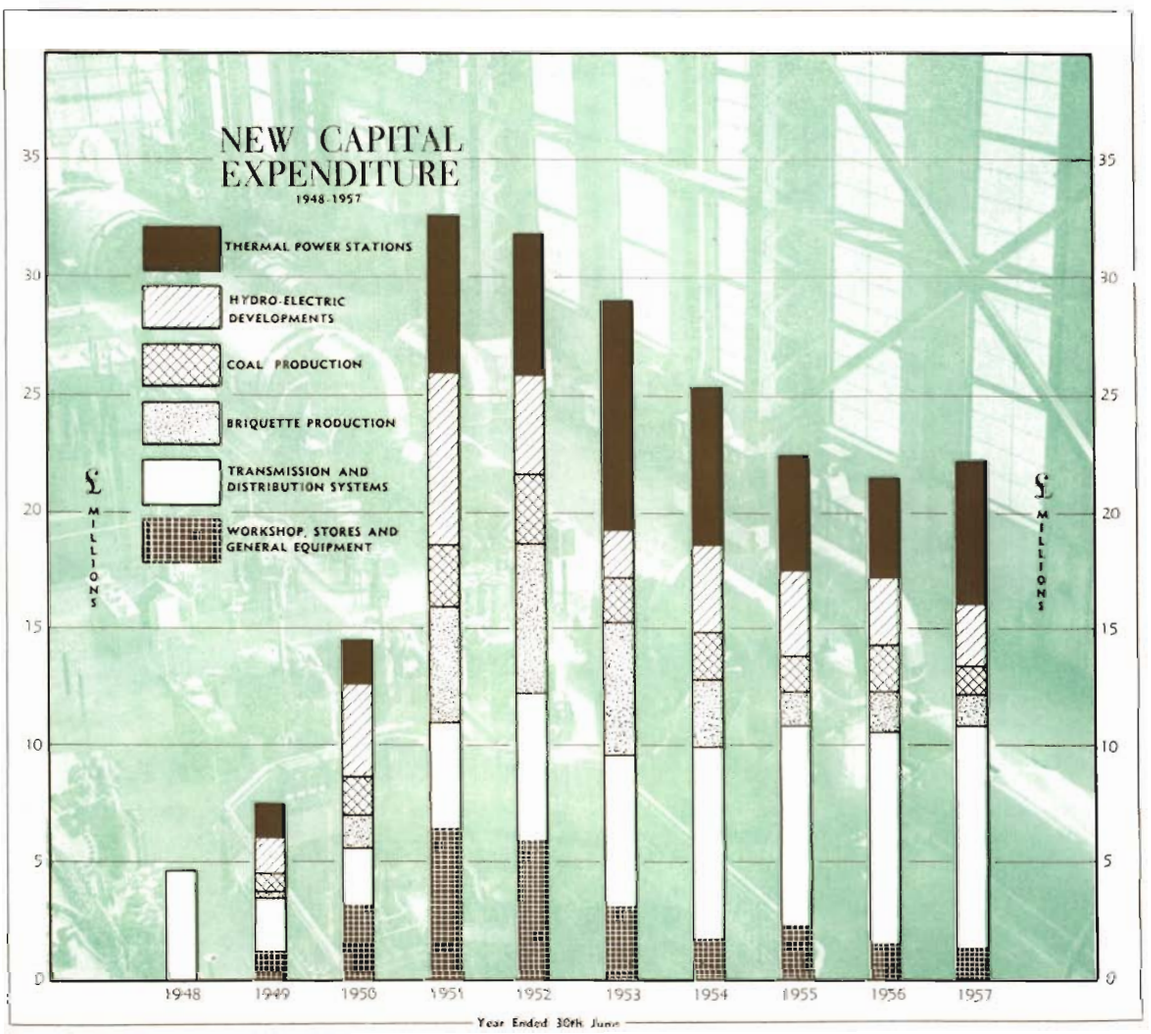
* Loan opened for subscription 29th June, 1956.

Under-subscriptions were met by the underwriters; over-subscriptions to the first loan, which closed early, had to be returned to the subscribers.

CAPITAL EXPENDITURE

Total capital expenditure at 30th June, 1957, was £235,830,564, a net increase of £20,143,522 for the year after deduction for retirements.

Details of new expenditure are set out in Appendix No. 3.



YALLOURN POWER STATION — "E" EXTENSION

On 30th July, 1957, the Governor in Council approved a further extension (240,000 kW) to the Yallourn Power Station to be in service by 1961-62.

The Commission's original proposals for "E" Station were to instal two 75,000 kW turbo-generators and four boilers. In recent years there has been considerable development overseas towards larger-sized generating units, and the overseas consultants, Ebasco Services Incorporated, strongly favoured increasing the size of the two units to 120,000 kW each. (In Great Britain, the Central Electricity Authority has recently decided to instal thirteen 120,000 kW sets instead of twenty-six 60,000 kW units, and is now contemplating even larger units.) The two 120,000 kW sets now proposed at Yallourn, besides resulting in lower operating costs, will provide an additional 90,000 kW of sorely needed generating capacity, as compared with the earlier proposal for two 75,000 kW sets.

Associated with these two sets, two mill-fired boilers—each capable of providing 950,000 lb. of steam per hour—are to be installed. Alternative offers for two boilers to each turbo-generator were obtained, but the saving in capital cost on the recent definite engineering trend towards one boiler per turbo-generator was as much as £800,000.

Orders have been placed since the close of the year for the two major sections of the plant (the two 950,000 lb. per hour boilers were ordered from Babcock and Wilcox of Aust. Pty. Ltd., and the two 120,000 kW turbo-generators and associated transformers and switchgear from Australian Electrical Industries Pty. Ltd.), on the basis of the first set being in operation in 1961 and the second in 1962. The total capital cost of the power station is estimated at £18,500,000; arrangements have been made with the two principal tenderers for payments to be spread over a period of nine years. Under this arrangement, £11 million will be met by the time the first generator is in service in 1961, and the remaining £7.5 million will be spread over the ensuing five years.

The Commission, in entering into these heavy long-term commitments, has accepted a degree of business risk as to the availability of the necessary capital finance. As emphasised earlier in this report, there is no means by which it or other public authorities can be assured of finance for the completion of essential long-term projects such as power stations and the like.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME

Reference has been made in previous reports to the influence of the Snowy Mountains Hydro-Electric Scheme upon Victorian electricity supply. An agreement has been signed by the Prime Minister and the Premiers, on behalf of the Governments of the Commonwealth and the States of New South Wales and Victoria, setting out the terms and conditions upon which the State water and electricity authorities will participate in the scheme.

A summary of the main provisions of the agreement is as follows:—

(i) The Governments of the Commonwealth and the States are to submit the agreement for approval to their respective Parliaments, and as soon as practicable will legislate to enable the Snowy Mountains Hydro-Electric Authority to carry out the provisions of the agreement.

(ii) The Authority is to construct the scheme, and, once a State has firmly based its planning on receiving electricity from a particular stage, construction must proceed to ensure that, as far as reasonably practicable, electricity will be available in accordance with that planning.

(iii) The Authority is to protect the catchment areas against adverse effects arising from the construction, operation and maintenance of the Scheme.

(iv) Water diverted from the Snowy River to the Murray will be shared equally between Victoria and New South Wales. (Water diverted to the Murrumbidgee River will be available to New South Wales.)

(v) Full information regarding the electricity to be made available from each stage is to be made known to the States at least five years prior to the estimated date of production.

(vi) The Commonwealth has first priority in receiving electricity from the scheme for use in the Australian Capital Territory and the Snowy Mountains area. (Its needs are not expected to be large.)

(vii) The Electricity Commission of New South Wales and this Commission are entitled to share the surplus electricity in the proportion of two-thirds and one-third, respectively, but in special circumstances they may agree between themselves to take different proportions.

(viii) The two State electricity authorities may take their respective shares as and when required by them, and may accumulate or draw in advance of their entitlements, provided the interests of other parties to the agreement are not prejudiced.

(ix) The Commonwealth and the two State electricity authorities will share costs of production for each financial year by contributing in proportion to their respective entitlements.

(x) Under a "ceiling price" clause as a principle a State would not be at a financial disadvantage, through taking Snowy electricity.

(xi) A Snowy Mountains Council, comprising representatives of the Commonwealth, the Authority, and the States of New South Wales and Victoria, will report to and advise the Governments on matters concerning the Snowy Scheme, and will control the operation and maintenance of the permanent works of the Authority.

Construction of the Snowy Mountains Scheme was begun in August, 1949, in anticipation of the execution of the agreement, and the scheme is planned for completion by 1982-83. Victoria's share in the complete scheme (2,770,000 kW) would amount to approximately 900,000 kW of generating capacity, with an estimated average output of 1,900,000,000 kWh per annum.

The Guthega Power Station came into operation in February, 1955, and for the time being the output is being taken wholly by New South Wales. The first two main power stations (T.1 and T.2 on the Tumut River) will have a total capacity of 600,000 kW. Victoria will commence to receive its one-third share of the output, after Commonwealth requirements are met, when these stations are in operation--T.1 will commence in 1959, and both are scheduled for completion by 1963.

The principal advantage of the scheme to Victoria in the next six years is the securing of up to 200,000 kW of power without having to bear the capital cost (approximately £25 million) that would be involved in installing thermal plant with its related coal production equipment.

The load factor of the Snowy Scheme is relatively low (30 per cent. for T.1 and T.2 Power Stations, and 24 per cent. for the scheme when completed). Snowy power, therefore, will be supplementary to thermal base load plant which would need to be operated at a load factor of approximately 80 per cent. in order to satisfy a total system requirement of 55 per cent. to 60 per cent. This means that the Snowy Scheme cannot stand alone; at all times its effective place in the generating systems of New South Wales and Victoria depends upon large thermal power stations being provided by these States. By 1965 it is expected that Snowy will provide Victoria with 200,000 kW of low load factor power —or somewhat less than 12 per cent. of the then expected loading on the Victorian generating system.

FUTURE OF MOUNT BEAUTY TOWNSHIP

KIEWA HYDRO-ELECTRIC SCHEME

Construction work at the Kiewa Hydro-Electric Scheme is now concentrated at the higher No. 1 Development, and large numbers of the personnel accordingly have been transferred in proximity to the sites of the Rocky Valley Dam and the No. 1 Power Station. With the completion of the lower developments the main works locations are over 17 miles distant from Mt. Beauty. This has meant that housing and accommodation requirements at Mt. Beauty have been reduced, although personnel employed on operations and maintenance have increased.

The township, with its modern amenities and attractive surrounds, is potentially one of the State's best tourist resorts because of its easy access to mountain scenery, its good snowfields, fishing attractions, and the general beauty of the surrounding country.

As a first step in popularising the township of Mt. Beauty as a tourist resort, the Commission has leased the former staff hostel as a guest house, and is making available sites and buildings for the development of a motel, caravan park and service station. It will later sell or lease houses for holiday purposes as they become surplus to its own requirements.

In keeping with this movement, the Shire of Bright assumed full responsibility for municipal administration and services as from 1st October, 1957.

CONNECTION OF NEW CONSUMERS

FINAL PHASE OF ELECTRIFICATION OF THE STATE

Further progress has been made on the final phase of the electrification of the State; at 30th June, 1957, approximately 664,500 dwellings were supplied with electricity. There remains a dual task of connecting as many as possible of the 57,500 homes as yet unserviced with electricity, and at the same time extending supply to 21,000 new homes being erected each year.

SUMMARY OF PROGRESS — 147,900 NEW CONSUMERS IN FIVE YEARS

Year Ended 30th June	Total	Metropolitan Area	Outside Metropolitan Area	Farms Connected
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
1956*	29,615	9,835 (33 per cent.)	19,780 (67 per cent.)	2,603
1957*	29,014	8,596 (30 per cent.)	20,418 (70 per cent.)	3,118
Total for 5 years	147,892	42,662 (29 per cent.)	105,230 (71 per cent.)	15,899

* During these years 8,344, 3,459, 1,630 and 1,889 consumers respectively were from undertakings acquired. The corresponding numbers of farms were 2,219, 45, 12 and 127 respectively.

The number of extra-metropolitan consumers has more than doubled, and the number of farms has more than trebled during the last decade. The extent of country electrical development is evident from the following statistics and further information in the Ten Year Statistical Review Graphs 7 and 9 (frontispiece) :—

Financial Year	Total Consumers served directly by the Commission	Extra Metropolitan Consumers	Farms Supplied
1936-37	235,942	68,486	3,200
1941-42	292,341	96,981	6,785
1946-47	339,286	132,653	11,680
1951-52	443,014	201,196	19,953
1956-57	590,906	306,426	35,852

During 1956-57 more than twice 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	19,523	2,488
High Voltage lines erected	1,652.6 miles	38.4 miles
Low Voltage lines erected	323.2 miles	52.9 miles
Substations erected	2,109	94

This rural extension programme has continued to depend on the "self-help" plan whereby prospective consumers advance the capital cost of construction, such advances being repaid by offsetting quarterly accounts for electricity consumed; interest is credited on advances.

But for the splendid response by large numbers of prospective consumers, it would not have been possible to maintain a consistent rate of progress. The Commission expresses appreciation of this co-operative effort by consumers; it has proved a very practical answer to the problem of maintaining its rural development programme in the face of the general shortage of funds for capital works.

MAJOR EXTENSIONS PROGRAMME

SYSTEM GENERATING CAPACITY

Generating plant on order or in course of construction (including associated boiler plant), its location and planned dates for operation, are as follows:—

Plant	Planned Date of Operation as at 30/6/57
Yallourn Power Station—	
Remaining 50,000 kW turbo-generator set	1957
Two 120,000 kW turbo-generator sets	1961-62
Kiewa Hydro-Electric Project—	
No. 1 Power Station—Six 16,000 kW turbo-generators	1961-62
Morwell Power and Fuel Project—	
To produce—First Stage—42,000 kW	1959
Second Stage—24,000 kW	1960
Third Stage—25,000 kW	1961
Fourth Stage—60,000 kW	1963
(Turbo-generator for the Fourth Stage has yet to be ordered.)	
Spencer Street Power Station (Melbourne City Council)—	
One 30,000 kW turbo-generator set	1959

In addition, the Commission expects to receive 25,000 kW from the Snowy Mountains Hydro-Electric Scheme in 1959, a further 15,000 kW in 1960, and progressive increases in the ensuing years.

YALLOURN POWER STATION

(Approved Development — Four 50,000 kW Sets and Two 120,000 kW Sets)

Yallourn "D":

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

The first turbo-generator was placed in service in March, 1957, using steam received by a cross-over from "C" Station; the second turbo-generator will be completed by the end of 1957. Erection of the first four boilers is proceeding; these should be ready for service before the winter of 1958.

Yallourn "E":

The "E" extension will comprise two 120,000 kW turbo-generators and two 950,000 lb./hr. mill-fired boilers. Orders have been placed for the boilers, turbo-generators, transformers and switchgear, the first set to be ready for service by 1961 and the second by 1962 (see reference page 11).

General:

Work on coal handling plant for the new extensions is almost completed; the second 5,000-ton ditch bunker was brought into service in April, 1957. This plant, with the addition of a branch conveyor, will also meet the needs of the new "E" Station.

A small storage of 8,500 acre feet on the Latrobe River just upstream from Yallourn is planned to provide, in conjunction with cooling towers, the condensing water requirements for the augmented power station and, at the same time, enable satisfactory river flows to be maintained.

777 men were employed by the Commission and 508 by contractors on these extensions at 30th June, 1957.

KIEWA HYDRO-ELECTRIC SCHEME No. 1 DEVELOPMENT
Construction of No. 1 Penstock (pipeline) above No. 1 Power Station — six 16,000 kW turbo-generators, planned for operation during 1961/62.

KIEWA HYDRO-ELECTRIC PROJECT

Water Storage on the High Plains

Work continued throughout the summer period on the cut-off wall (60 per cent. complete), and the placing of selected earth and rock fill at the Rocky Valley Dam (capacity 23,600 acre feet).

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

The headrace tunnel has been completed and work is proceeding on the pipeline (two contracts) —the upper section is 25 per cent. completed, and all overseas steel supplies have been received.

The upper section of the tailrace tunnel has been excavated for its full length and excavation of the underground power station chamber commenced. The station will comprise six 16,000 kW turbo-generators and is planned for operation during 1961-62; delivery of turbine plant has commenced.

No. 4 Development -- Installed Capacity 61,600 kW

The main components of this development have been in service since April, 1956.

A tunnel to divert water from the West Kiewa River to No. 4 Power Station was brought into service on 10th June, 1957. Completion of this will increase the energy output of the power station by about 50 per cent. The concrete lining of this tunnel will be carried out during the coming summer.

Altogether 607 men were employed by the Commission on the Kiewa Project at 30th June, 1957.

MORWELL POWER AND FUEL PROJECT

Power Output to System — 91,000 kW (first 3 stages), with 1,564,000 Tons of Briquettes Per Annum

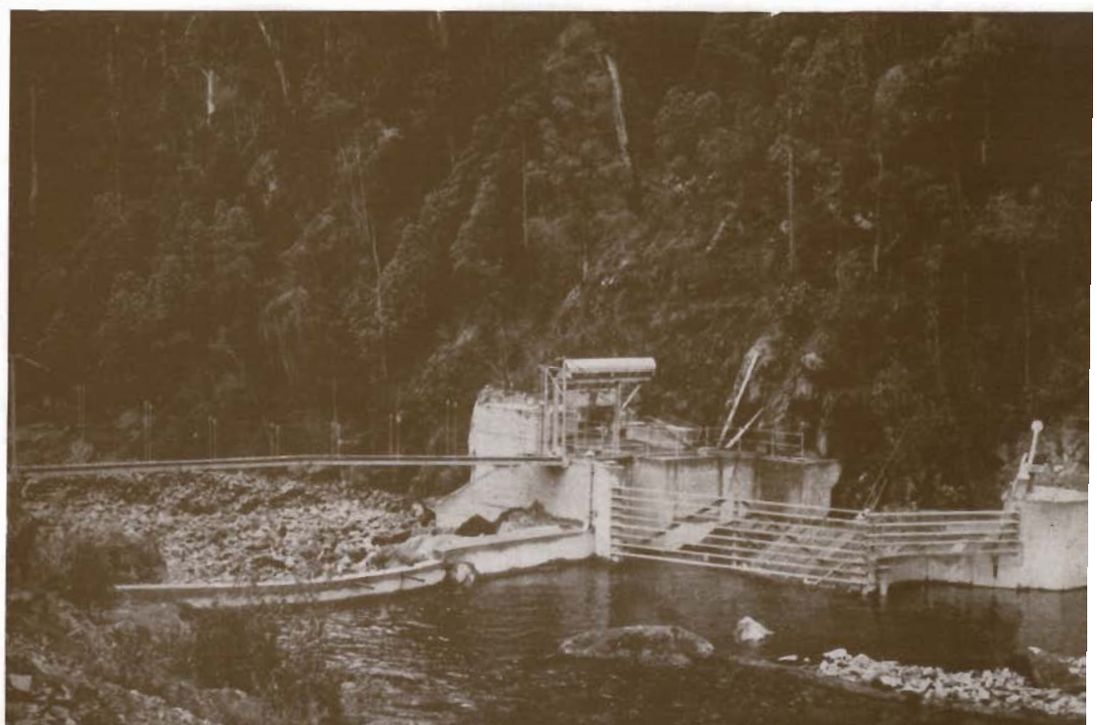
Deliveries of materials for the first two briquette factories are virtually completed, and the erection of structural steelwork is well advanced.

Erection of power station buildings is nearing completion, and the first six boilers are being installed. Foundations for the first 20,000 kW low pressure turbo-generator are being constructed, and a contract has been placed for the erection of three back-pressure turbo-generators, 30,000 kW each.

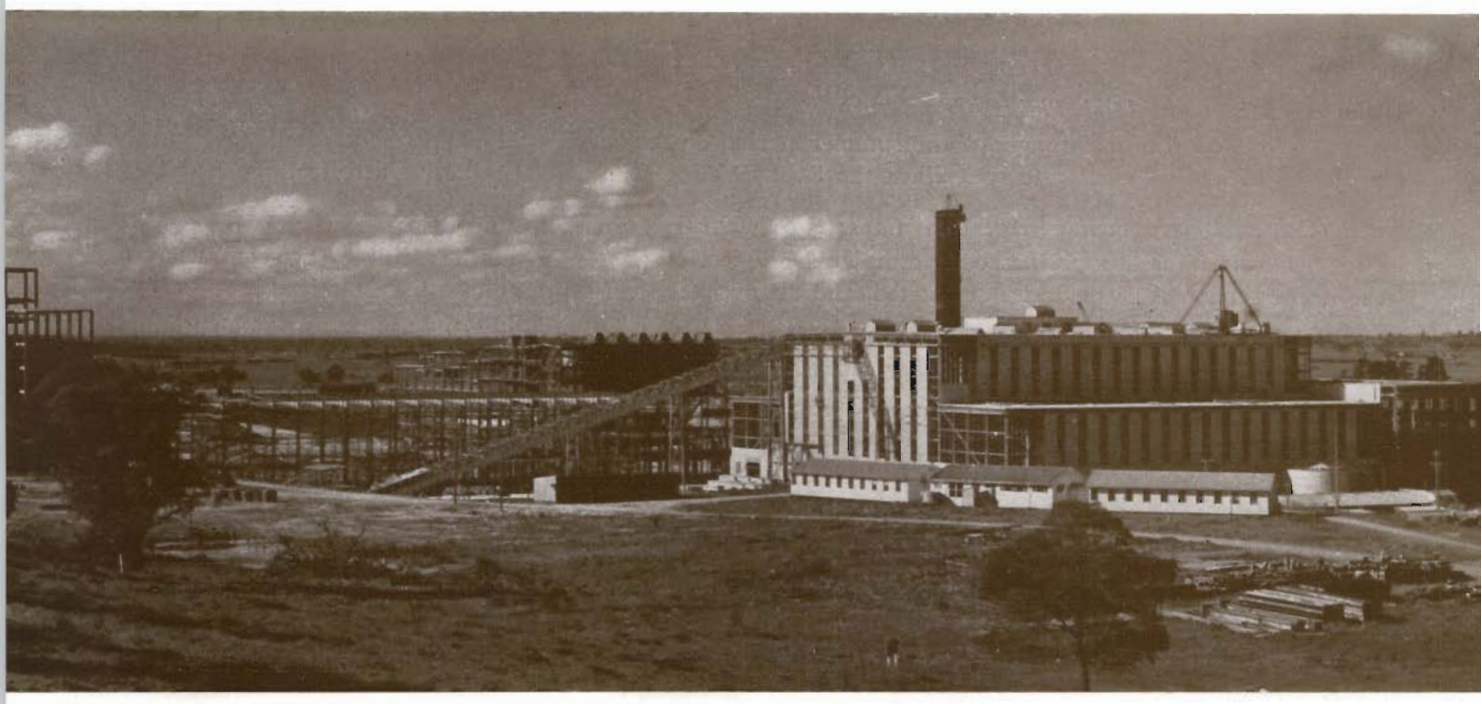
Work commenced on the steel work for the coal conveyors to carry coal from the open cut to the power station, briquette factories and to the Gas and Fuel Corporation's gasification plant.

A bucket chain overburden dredger (output 1,100 cubic yards per hour) was brought into service on 11th July, 1956; another bucket chain dredger, designed for similar output, is being modified for coal winning.

On this project 393 men were employed by contractors at 30th June, 1957, and 779 by the Commission, including 231 on overburden removal and related open cut operations.



KIEWA HYDRO-ELECTRIC SCHEME No. 4 DEVELOPMENT
Offtake structure, Lower West Kiewa diversion, which came into operation on 10th June, 1957, augmenting water supply to No. 4 Power Station by 50 per cent.



MORWELL POWER AND FUEL PROJECT

Boiler and turbine house buildings under construction (right); briquette factory steelwork being erected (centre background); raw coal bunkers, capacity 7,500 tons (left).

EILDON HYDRO-ELECTRIC PROJECT

The two 60,000 kW turbo-generators referred to in last year's report have now been installed; the first was placed in service in November, 1956, and the second in May, 1957.

REDCLIFFS POWER STATION

The capacity of this station has been augmented by the installation of three 1,850 kW diesel-electric sets; the first was placed in service in March, 1957 and the remaining two in June, 1957.

CAIRN CURRAN RESERVOIR HYDRO-ELECTRIC DEVELOPMENT

The Commission has reached agreement with the State Rivers and Water Supply Commission concerning the installation of a 2,000 kW turbo-generator at the enlarged Cairn Curran Reservoir at Baringhup (Central Victoria). All water released for irrigation purposes will be available for electricity generation.

Tenders have been called for the supply of the turbo-generator.

MORWELL POWER AND FUEL PROJECT

(Right) Coal winning by Bucket Chain Dredger (capacity 1,100 cubic yards per hour) at Morwell Open Cut. This dredger ultimately will be used for overburden removal.

NEW COAL DREDGER — YALLOURN OPEN CUT

(Below) Bucket wheel dredger—capacity 2,340 cubic yards per hour—commenced operation in November, 1956.

MAIN TRANSMISSION AND DISTRIBUTION

Work has commenced on the Victorian section of a 330 kV transmission line from Dederang to the River Murray to link with the Snowy Mountains Hydro-Electric Scheme, but work on the New South Wales section is awaiting completion of the agreement (see page 11).

A second 220 kV circuit between Eildon and Melbourne (section of the Kiewa transmission line) and a 220 kV switching station at Eildon were placed in service.

Work is well advanced on the Geelong-Colac section of the Melbourne-Geelong-Colac 220 kV transmission line, and surveys for the 220 kV transmission line between Kiewa, Shepparton and Bendigo are in progress.

To link the Wimmera regional scheme with the interconnected State system, work is proceeding on a 66 kV transmission line between Ballarat and Horsham and a main substation at Horsham.

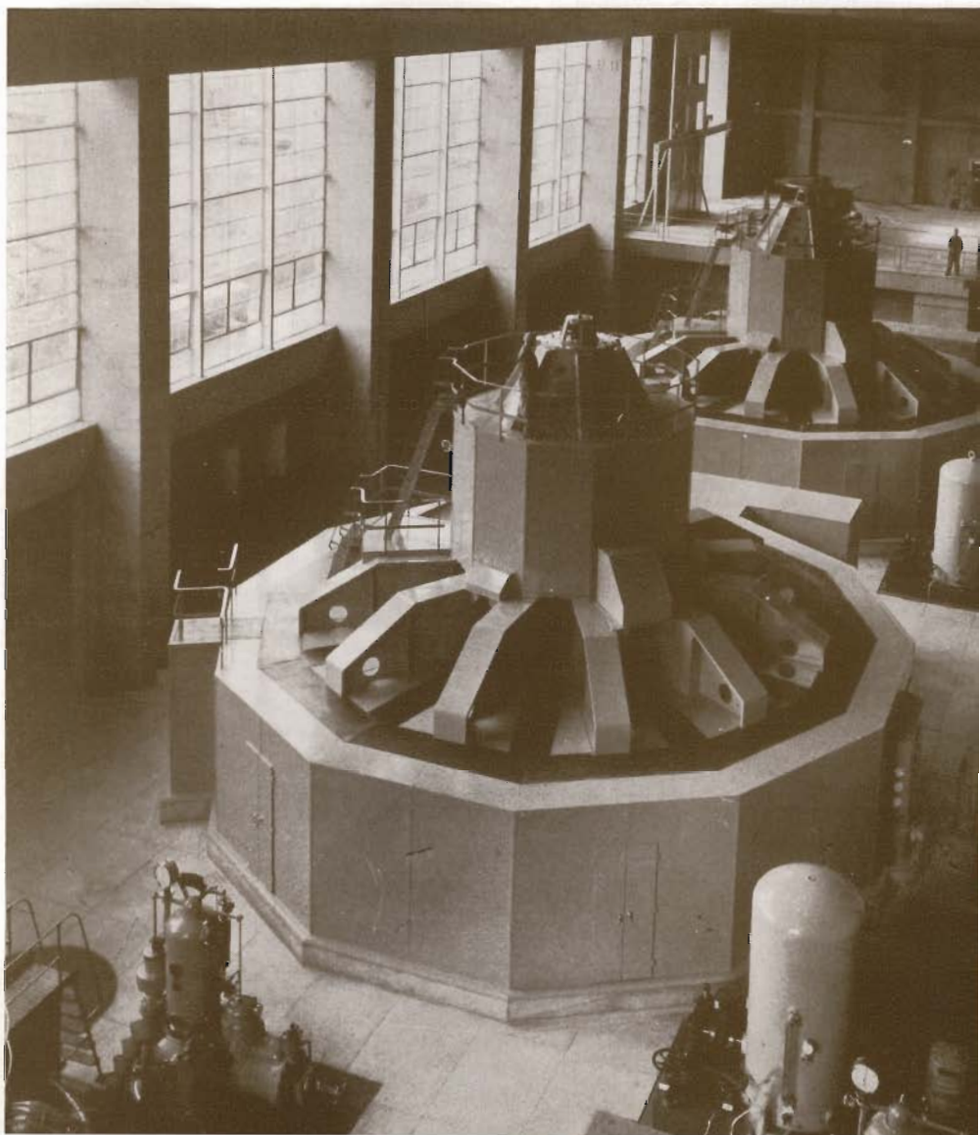
66 kV lines between Ringwood and Lilydale, Mornington and Rosebud, and Kyabram and Echuca, were placed in service, and work is proceeding on similar links between Terang and Hamilton and Maffra and Bairnsdale.

The minimum transmission work necessary to receive power from the new Hume Hydro-Electric Power Station, which commenced operation on 14th April, 1957, has been carried out, but further work to take full advantage of the output is still necessary.

A new terminal station was placed in service during the year at Springvale and new main substations at Preston, Burwood and Ormond; transformer capacity has been augmented at Bendigo, Maffra, Warragul and Leongatha main substations, and similar work is proceeding at Mansfield, Colac, Camperdown, Terang and Kyabram.

* * *

A new Main Control Centre for the State System is being established adjacent to the Richmond Terminal Station, and when completed will replace the present Central Control at the Head Office building, which was established in 1937, and is now quite inadequate for the rapidly expanding System.



EILDON HYDRO-ELECTRIC SCHEME

Interior of Power Station showing the two 60,000 kW turbo-generator sets. Part of the two 8,000 kW sets may be seen in the foreground.

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-Murtoa.

Terminal stations are located at Richmond, West Melbourne, Yarraville, Brunswick, Clifton Hill, Thomastown, East Malvern, Sunshine, Ringwood, Rowville (near Dandenong), Geelong and Springvale.

From these generating and terminal stations 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, 30/6/57	Maximum Demand		kWh Generated (Millions)	
		1956-57	1955-56	1956-57	1955-56
1. *Interconnected State System*					
(a) *Thermal Stations*	kW	kW	kW		
Yallourn (including allowance for briquette factory)	339,000	313,000	279,000	2,085.0	1,887.8
Melbourne —					
Newport	311,000	316,400	298,400	1,408.7	1,278.7
Spencer Street	84,750	95,000	94,000	273.0	269.3
Richmond	53,000	52,000	52,500	206.4	200.1
Geelong "A"	10,500	12,100	12,200	12.3	17.1
Geelong "B"	30,000	34,700	35,500	187.9	161.5
Ballarat "A"	5,900	5,500	5,500	2.2	4.9
Ballarat "B"	20,000	26,400	26,000	55.6	72.3
Shepparton	10,530	10,220	10,250	22.4	18.3
Warrnambool	4,980	4,980	4,980	5.0	6.5
Hamilton	3,020	2,400	2,400	8.0	7.2
(b) *Hydro Stations*					
Eildon — Rubicon	148,915	133,500	31,170	212.5	171.1
Kiewa	87,600	90,000	90,000	228.3	288.2
Hume		12,000		5.8	
Total Interconnected System	1,109,195	943,330*	897,190	4,713.1	4,383.0
2. *Not connected to State System*					
Thermal Stations					
Redcliffs } Inter-	17,550	10,600	10,000	40.7	36.6
Mildura } connected	7,000	4,200	3,100	3.4	5.2
Horsham } Inter-	2,264	1,260	1,310	5.0	4.4
Murtoa } connected	590	345	260	0.9	0.2
Sub-Total	27,404	—	—	50.0	46.4
TOTAL	1,136,599	—	—	4,763.1	4,429.4

* Maximum Coincident Demand on 11th July, 1956. On 3rd July, 1957, the maximum demand on the interconnected system reached 1,016,860 kW.

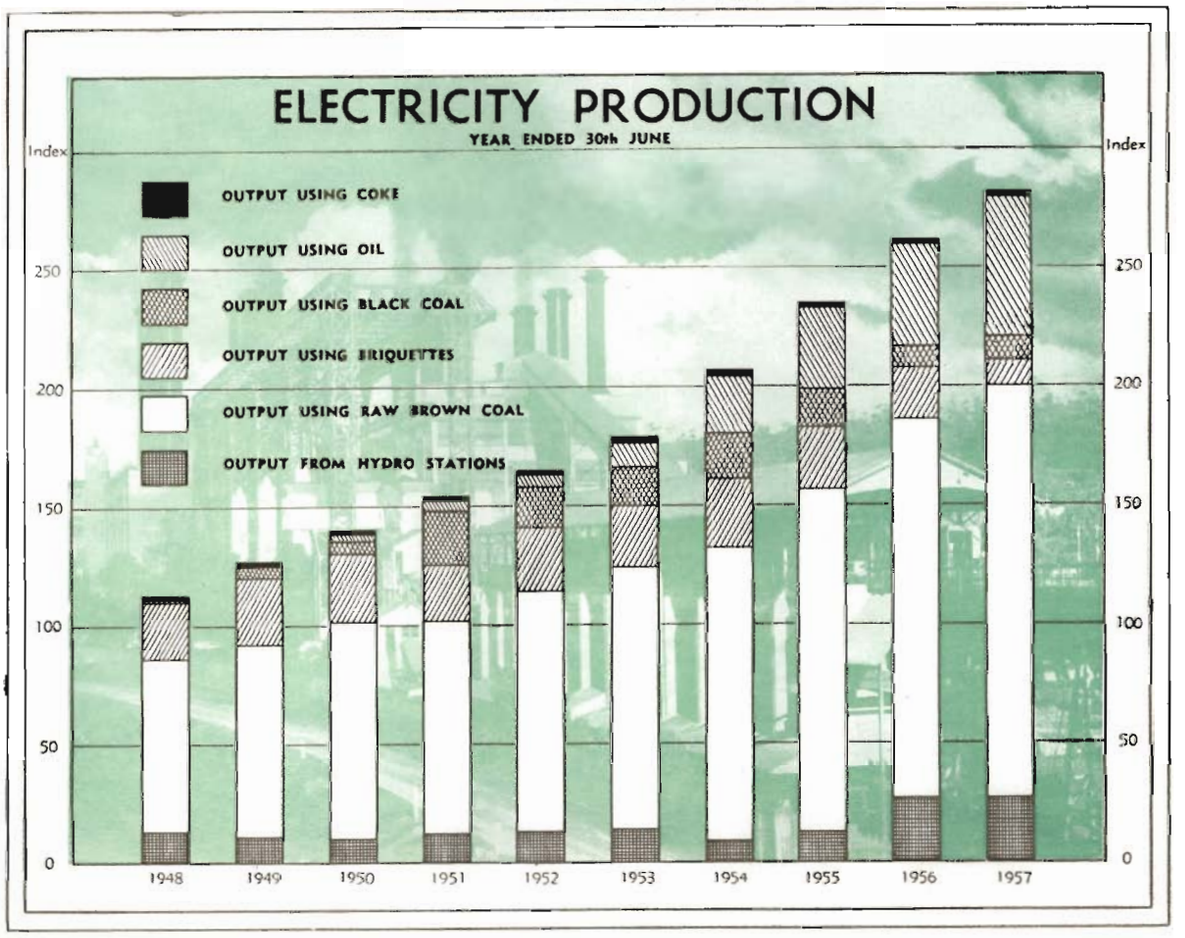
NOTES:

1. The effective capacity of generators is reduced because at Yallourn generators have been completed ahead of their related boilers, and at Newport, Ballarat "A" and Mildura, there are some limitations on boiler capacity.
2. The capacity available to meet the peak winter demand on the interconnected system 1,019,000 kW.
3. At Eildon the two 8,000 kW sets cannot be operated when the reservoir is at high level.
4. Hume—first 25,000 kW set of this station commenced service in April, 1957. Under agreement the Electricity Commissions of New South Wales and Victoria share the electricity output and the operating cost.

The higher requirements of electricity were met principally by Yallourn, where new plant was installed, and Newport.

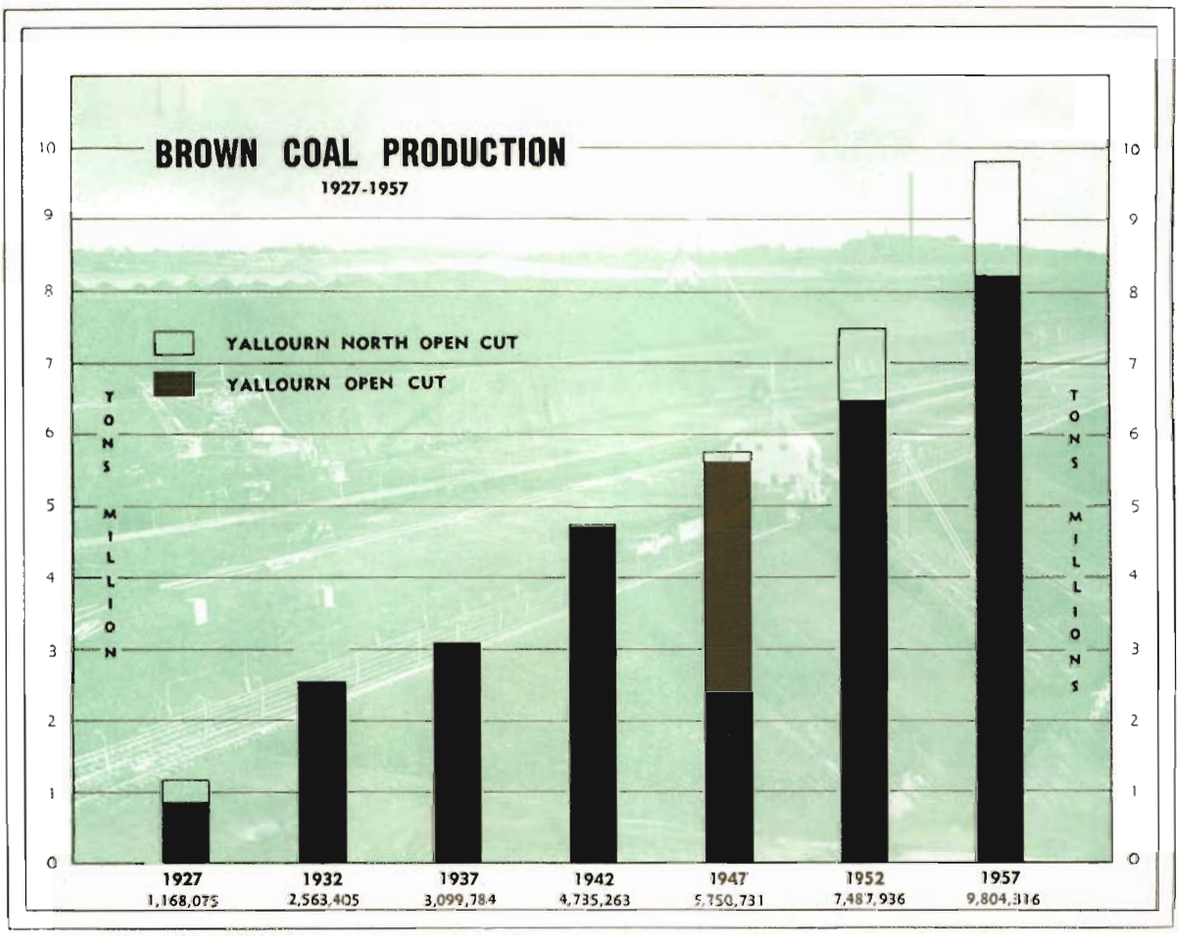
FUEL SUPPLIES

Over the last decade the output from the Commission's power stations has almost trebled. The fuel needed for this increased production has been met substantially from Victoria's own brown coal resources; however, the use of oil has played an increasing part in meeting these demands (see (accompanying graph).



As previously reported, the only practicable extension of the State generating system during the war and the immediate post-war 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 1,096,326 tons of brown coal (principally from Yallourn North) and 137,693 tons of black coal (mainly from Callide, Queensland) were used at peak load stations. Fuel supplies were adequate for power station requirements.

COAL PRODUCTION



YALLOURN OPEN CUT

Coal Winning:

The year's operations brought the total coal excavated since the commencement of operations to over 138 million tons. Of the 8,209,806 tons won during the year, 5,790,963 tons were delivered to the Yallourn Power Station, and 2,418,843 tons to the Briquette Factory. On 14th September, 1956, 28,962 tons of coal were produced—the highest daily output yet achieved.

Overburden Removal:

2,878,200 cubic yards were removed, compared with 3,372,480 cubic yards in the previous year, bringing the total removed to 30th June, 1957, to over 52 million cubic yards.

The area of the open cut has increased from 933 to 965 acres at grass level, and from 828 to 861 acres at coal surface level.

Plant:

To provide fuel for the extensions to the Yallourn Power Station, the annual ouput of coal will have to be progressively increased to some 11 million tons; additional dredgers are required to cope with this increase and for the ultimate replacement of two of the older dredgers. The second of two German-manufactured bucket wheel dredgers (capacity 1,350 tons per hour) was placed in service in November, 1956. A further bucket chain coal dredger (output 1,750 tons per hour) ordered originally for the Morwell Project will be erected at Yallourn; the first components have been delivered since the close of the year.

YALLOURN NORTH OPEN CUT:

1,594,510 tons of coal were won during the year (1,466,948 tons from Yallourn North Open Cut and 127,562 tons from the Yallourn North Extension) for power generation at Newport Power Station and industry, compared with 1,549,946 tons last year. To date the Commission has excavated 11,850,231 tons from this seam.

The Gas and Fuel Corporation at Morwell received 19,701 tons of coal during the year.

MORWELL OPEN CUT:

Overburden removal continued during the year; 1,475,632 cubic yards were removed, bringing the total to date to 5,290,477 cubic yards.

As part of the opening up process 55,233 tons of coal were won and used at Yallourn Power Station; the total output to date is 69,927 tons.

BRIQUETTE PRODUCTION AND DISTRIBUTION

	Tons
1931-32	321,741
1936-37	364,695
1941-42	413,450
1946-47	490,338
1951-52	568,252
1956-57	617,989

Production was slightly less than last year (16,110 tons).

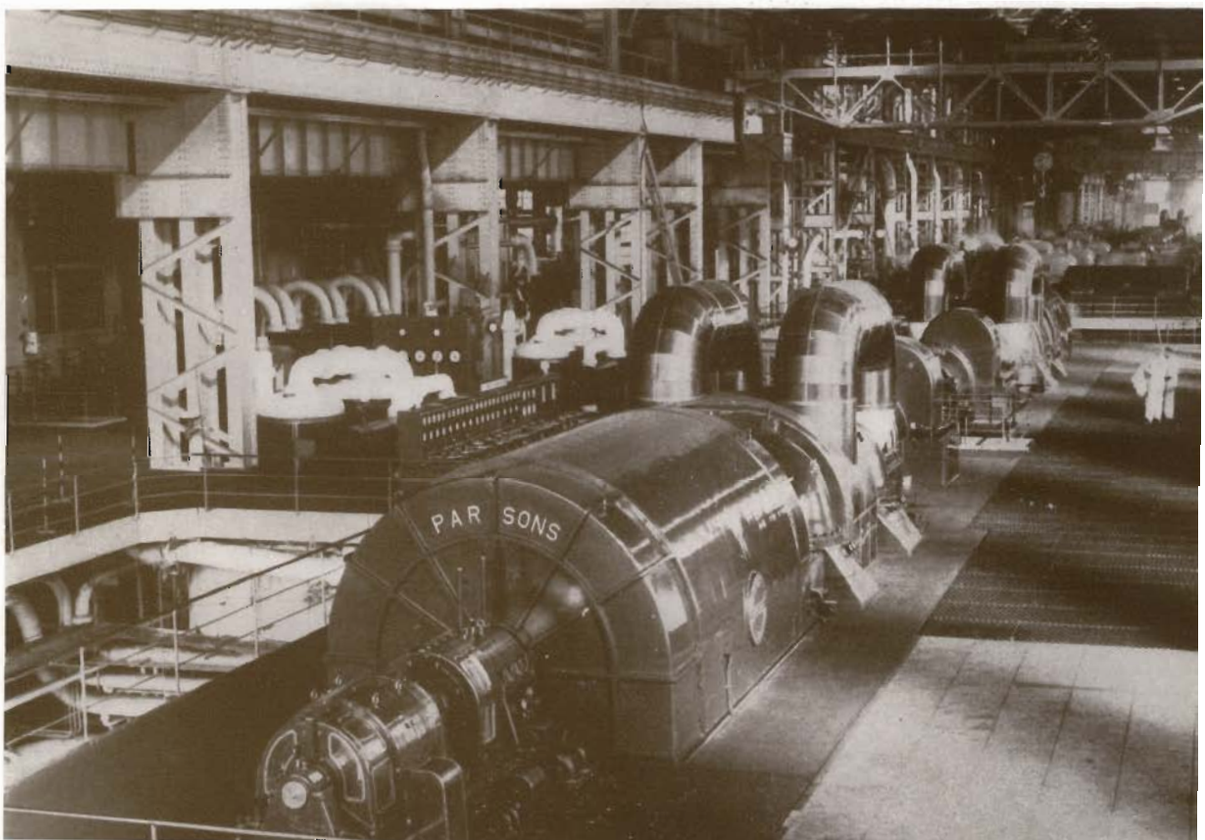
Alterations are in progress at the briquette factories to provide improved operating conditions and to stabilise output. A new four-stamp press transferred from Morwell has been placed in service in "B" Factory.

DISTRIBUTION

Sales (excluding Commission Power Stations—169,299 tons)	428,433 tons
Revenue	£1,897,463
Expenditure	£1,880,090
Profit	£17,373

The profit on operations (£17,373) compared with the profit in the previous year of £9,541. Deliveries to the Gas and Fuel Corporation at Morwell commenced in August, 1956, and totalled 57,847 tons.

Because of the very favourable output from hydro-electric power stations in the early part of the financial year, it was possible to make a special release of 60,000 tons of briquettes to the public to assist in meeting the winter demand for fuel.



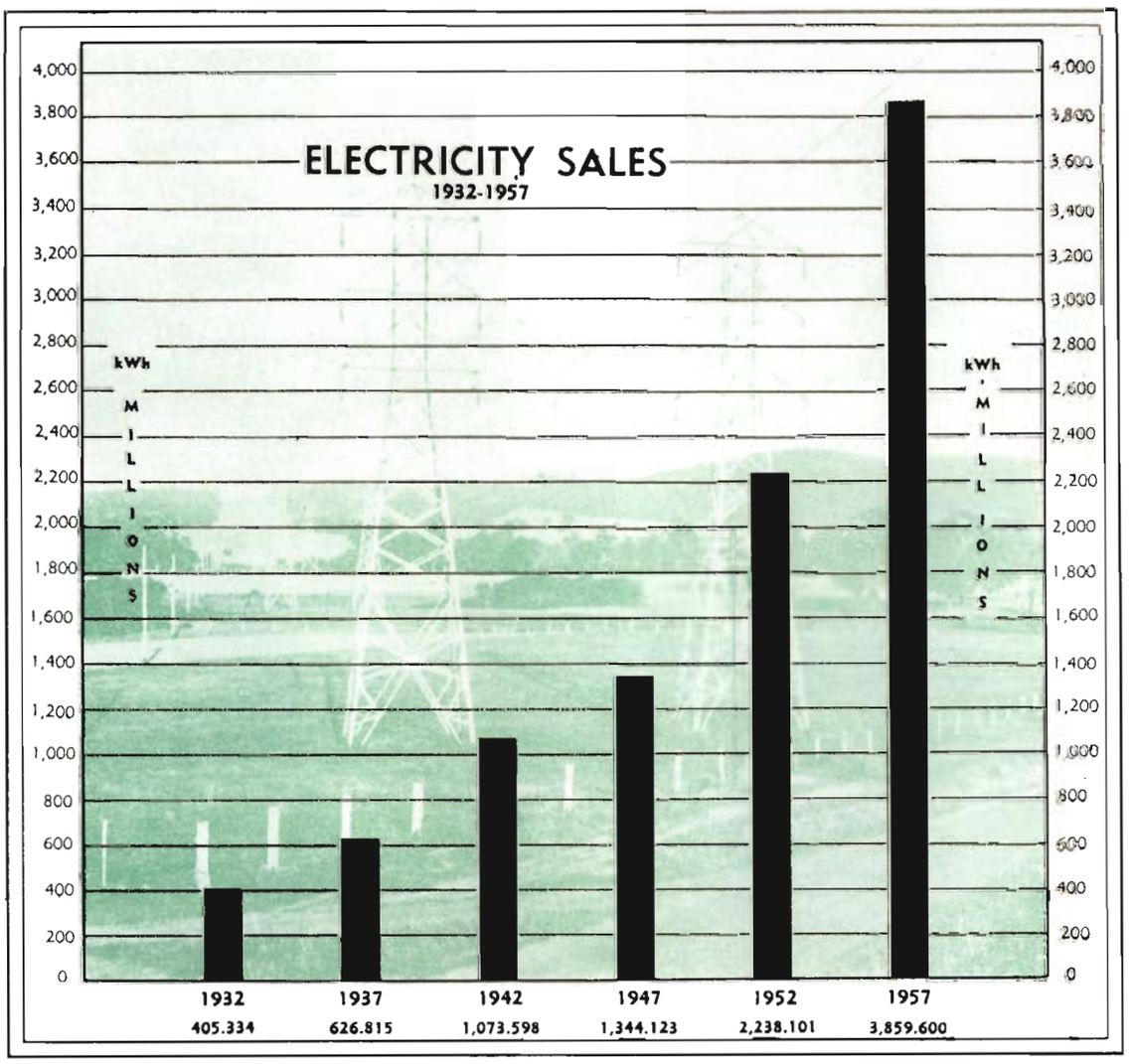
YALLOURN POWER STATION
Interior of turbine room with two 50,000 kW turbo-generators in 'C' Station (foreground) and one 50,000 kW set in 'D' Station (background); the older 'A' and 'B' Stations in between.

ELECTRICITY SUPPLY

ANALYSIS OF DEVELOPMENT

Electricity sold to all consumers, retail and bulk, totalled 3,860 million kilowatt-hours — an increase of 7 per cent.

The rate of increase has declined from the very high level in recent years (13 per cent. for the last two years), and reflects the general commercial and industrial consolidation now taking place following a period of rapid development. Also, the unusually mild weather over the latter part of the year has had an appreciable effect on sales of electricity for heating purposes. There was an increase of 5 per cent. in the number of consumers.



Sales by the Commission to domestic consumers increased by 10.6 per cent.; there were 23,336 new consumers in this class. The average consumption per domestic consumer for each of the last five years is as follows:—

	Average Domestic Consumption per Consumer (kWh)	Increase (kWh)
1952-53	1,600	104
1953-54	1,770	170
1954-55	1,921	151
1955-56	2,144	223
1956-57	2,255	111

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 greater use of electricity by consumers, particularly at the lower off-peak rates. The trend over the last ten years is shown in Graph 6, "Ten Year Statistical Review" at the front of this report.

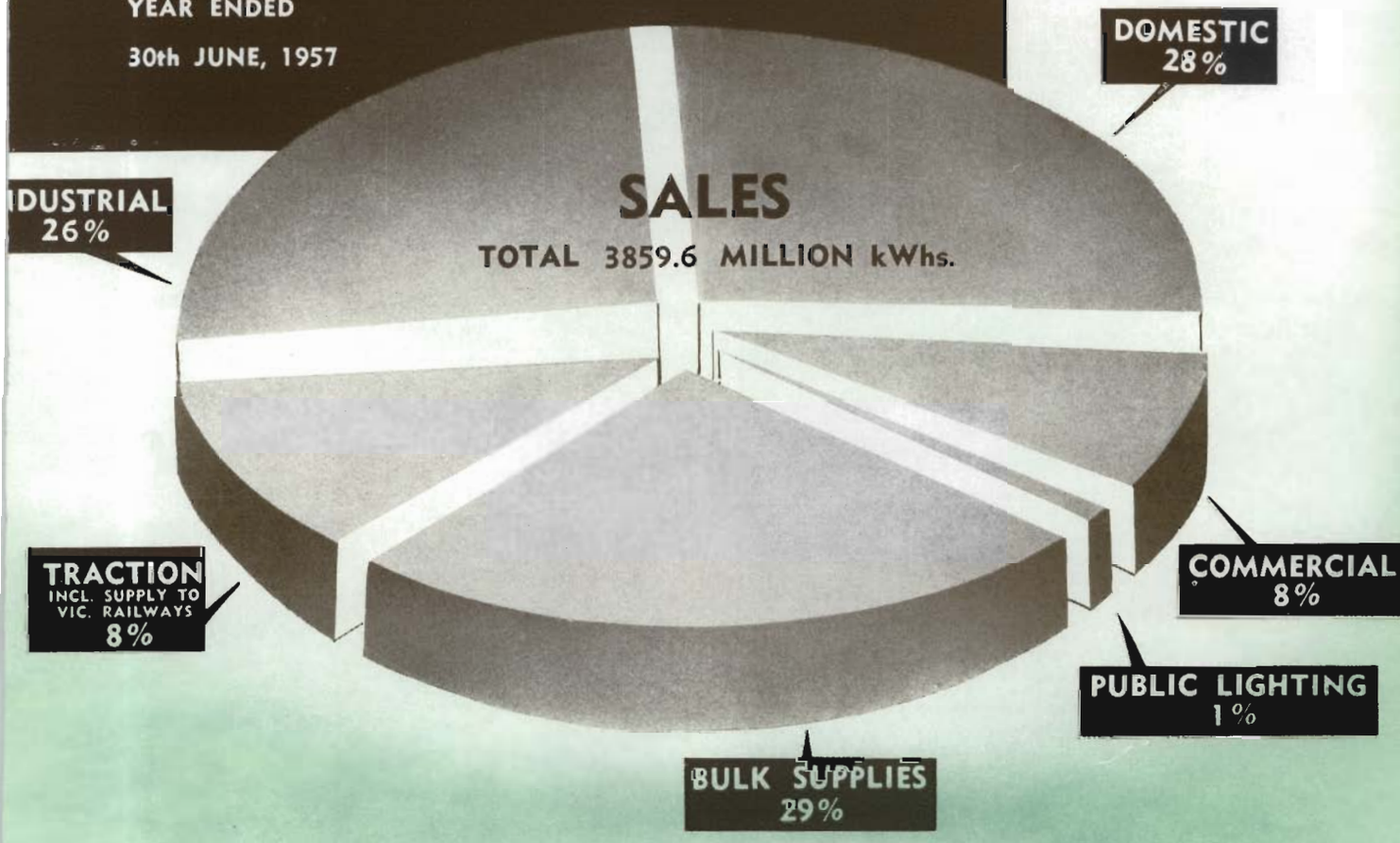
Sales to commercial and industrial consumers increased by 7.9 per cent. and 4.6 per cent. respectively. The number of consumers in these classes increased by 5,663, and an additional 43,825 h.p. of motors was connected.

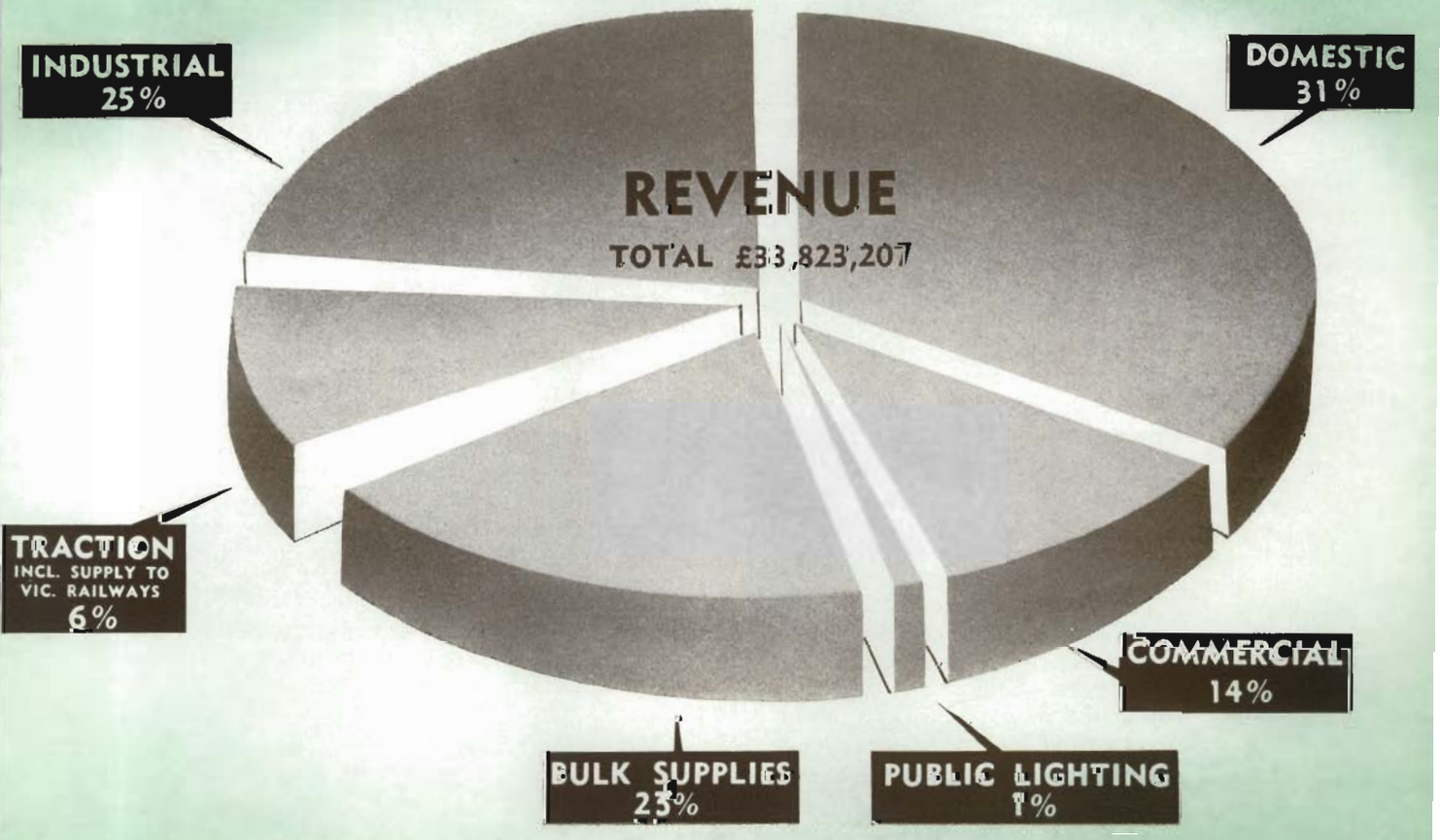
Two field days were held at Murroa and Portland to assist farmers in adapting electricity to their farm and home requirements.

ELECTRICITY SALES AND REVENUE

SUBDIVISIONS ACCORDING TO CLASSES OF CONSUMERS

YEAR ENDED
30th JUNE, 1957

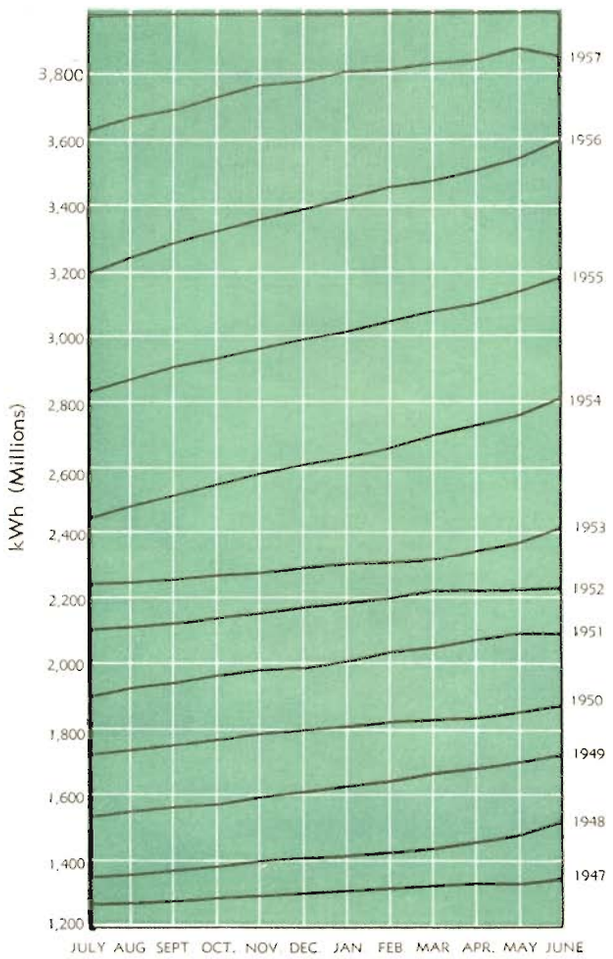




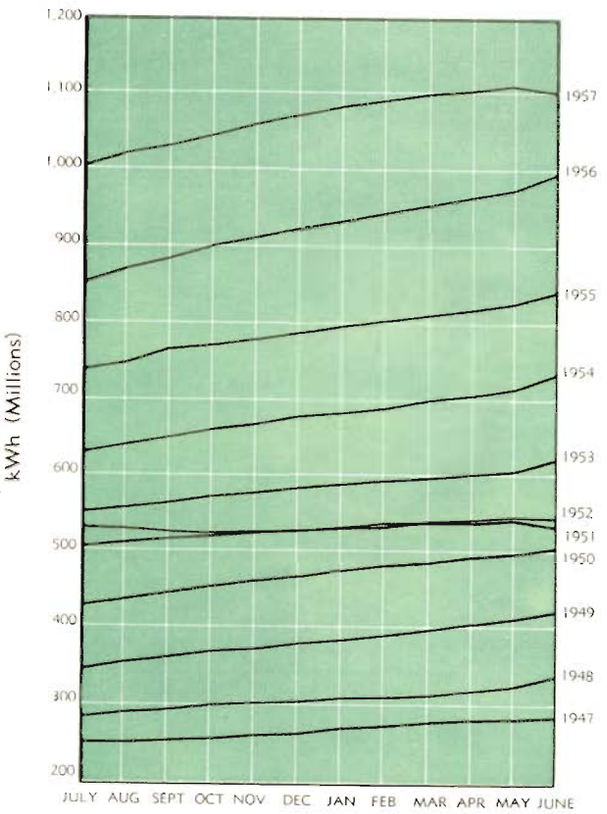
ELECTRICITY SALES

MOVING ANNUAL TOTALS

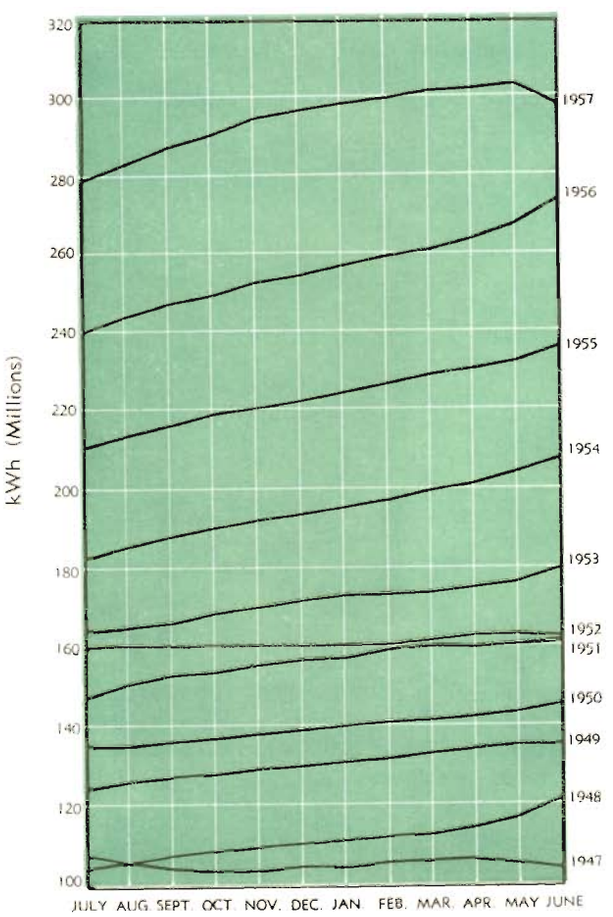
TOTAL SALES
RETAIL AND BULK



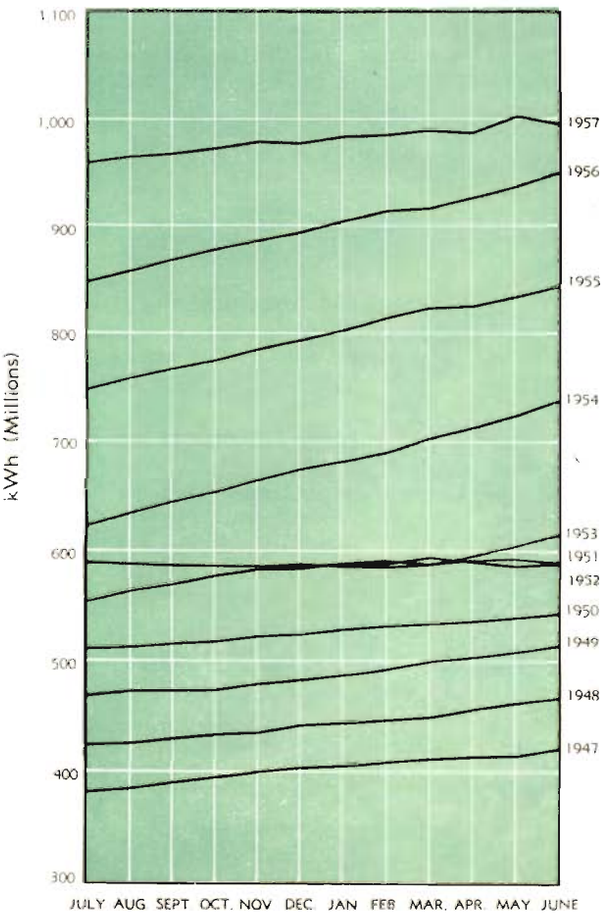
DOMESTIC



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 £3,508,776 (15.6%) to £25,976,647.

Sales of Electricity increased by 180,309,226 (7.1%) to 2,727,003,652 kWh.

Consumers increased by 29,014 (5.2%) to 590,906.

Farms increased by 3,118 (9.5%) to 35,852.

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	365.2	284,480	1,618.283	94	40,880	38.4	52.9	1,138
Ballarat	627.9	22,452	70.487	172	5,920	126.5	15.7	1,732
Eastern Metropolitan	1,096.0	81,263	292.338	146	34,984	99.1	93.3	5,100
Geelong	331.6	30,895	131.854	82	10,755	101.3	20.7	1,293
Gippsland (incl. Yallourn)	3,308.2	46,596	208.173	282	2,890	205.4	56.4	7,651
Midland	862.0	15,109	37.443	104	7,565	86.2	17.0	1,998
North Eastern (incl. Kiewa)	3,596.0	46,935	185.167	378	11,610	202.7	35.2	6,814
North Western	1,375.6	32,353	86.470	420	23,275	495.3	72.4	4,204
South Western	2,241.0	30,823	96.788	516	12,417	336.1	12.5	5,922
Total	13,803.5	590,906	2,727.003	2,194	150,296	1,691.0	376.1	35,852

BRANCH DISTRIBUTION

In the year under review, the following larger country extensions were completed or were nearing completion at 30th June, 1957:—

Metropolitan Branch:

Werribee - Mt. Cotterill.

Ballarat Branch:

Carngham - Snake Valley, Mt. Emu, Ballarto - Ballarto South.

North Western Region:

Tooborac, Bear's Lagoon, Nangiloc - Colignan, Hawkinston, Gladfield, Mologa.

Geelong Branch:

Staughton Vale.

BALLARAT-HORSHAM TRANSMISSION LINE

(Right) Erection of 66 kV transmission line to connect Wimmera regional scheme with State interconnected system.

FARM ELECTRICAL FIELD DAY

(Below) Farmers attending a field day near Murtoa; Commission staff demonstrated uses of electricity on the farm and in the home.

Eastern Metropolitan Branch:

Devon Meadows, Heathcote Junction and Wandong, Dixon's Creek and Steel's Creek, Seville South, Pearcedale.

Gippsland Branch:

Hazel Park - Woorarra East, Warneet - Watson's Point - Cannon's Creek, Dollar, Boorool-Berry's Creek, Allambee South - Hallston, Nilma North, Rhyll, Mount Taylor, The Gurdies - Lang Lang South, Athlone Stage 1, Bunyip River - Iona Stage 3.

Midland Branch:

Franklinford, Mt. Lonarch, Drummond.

North Eastern Branch:

Lima East, Indigo Valley, Killingworth, Rosewhite and Happy Valley, Longwood, Creighton's Creek, Rochester West.

South Western Branch:

Gellibrand - Beech Forest, Yeo - Yeodene, Forrest - Barramunga, Peterborough, Berrambool, Orford Area, Wallacedale, Nirranda, Leslie Manor, Boortkoi Soldier Settlement.

Kilmore (North Eastern Branch), Wycheproof - Sealake, Birchip and Gunbower (North Western Region) local electricity supply undertakings were acquired following the extension of transmitted supply. As part of the Wimmera regional scheme, the Natimuk undertaking was acquired and linked with Horsham.

TRAMWAYS

BALLARAT AND BENDIGO

Revenue — £107,854 Loss — £168,129

Under modern transport conditions the Commission sees no prospect of any improvement in these tramway services, which have never been economically justified.

Having regard to the satisfactory outcome of the changeover at Geelong to omnibus services, the Commission is convinced that alternative forms of transport would provide more adequately for the convenience of the travelling public also at Ballarat and Bendigo, where, over the past year, losses totalling over £168,000 were incurred (£21,000 higher than in the previous year). The steady decline in the number of passengers carried has continued.

	Revenue		Expenditure		Passengers	
	£	%	£	%		%
Ballarat	65,245	(−0.1)	145,542	(+ 2.5)	3,896,039	(−6.1)
Bendigo	42,609	(+0.2)	130,441	(+16.0)	2,382,315	(−5.5)
Total	107,854	(−)	275,983	(+ 8.4)	6,278,354	(−5.9)

Expenditure of £562 was incurred in respect of the closing down of the Geelong system, making the total loss on tramway operations £168,691.

PERSONNEL

Total Personnel

	30/6/57	30/6/56
Staff	6,552	6,492
Wages	11,581	11,997
	18,133	18,489

Wages employees at 30th June, 1957:—

Location	Operation	Construction
Power Generation	2,118	1,166
Main Transmission Lines, Terminal and Substations	395	445
Electricity Supply – Metropolitan Branch Distribution	400	130
Electricity Supply – Country Branch Distribution	731	779
Briquette Production and Distribution	452	55
Coal Winning—Yallourn and Morwell	952	237
General Services – Town and Workshops, Yallourn	1,319	428
General Services – Workshops – Elsewhere	1,344	464
Tramways – Ballarat and Bendigo	163	3
Total	7,874	3,707
GRAND TOTAL	11,581	

Education and Training:

The Commission's scholarship scheme provides 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 at any one time not exceeding 42. These scholarships are available to University and Technical School students as well as Commission trainees. Also, a limited number of scholarships is granted to enable Commission engineers to gain overseas experience.

During the year four scholarships were awarded for University courses, nine for Technical Schools, and four for overseas experience—a total of 17. Thirty-nine scholarships were current at the end of the year, and 114 Commission trainees had been granted time off to pursue part-time courses.

Within the Commission, 67 cadet engineers and two agricultural cadets are receiving special training; 197 men completed the course at the Training School for Linesmen; there are 567 apprentices, principally in the engineering trades. Special courses are being held for commercial executives, commercial trainees and junior officers, draftsmen, power station personnel, operators, assistant officers-in-charge of electricity supply districts, meter testers, electrical testers and chemical assistants.

Safety:

Safety and accident prevention measures are being constantly reviewed by Section, Branch and Departmental Committees; special attention has been given to safety education. Another 350 qualified as First Aiders.

PUBLIC SAFETY AND OTHER REGULATORY RESPONSIBILITIES

ELECTRIC LIGHT AND POWER ACT 1928

At the close of the financial year, 52 electricity supply undertakings (31 municipal and 21 owned by companies or persons) were operating in Victoria under the provisions of the Act.

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

Order No.	Undertakers	Area of Supply
297	L. M. Brooksby	Township of Apsley
298	Heidelberg City Council	Supply to Glen Iris Brick Tile and Terra Cotta Co. Pty. Ltd. (short-term renewal—subsequently expired)
299	C. C. Wallis	Township of Serviceton (renewal)
300	Karkarooc Shire Council	Township of Woomelang (renewal)
301	Footscray City Council	Kingsville area

Orders in Council for the supply of electricity by local authorities were revoked following the transfer of the following undertakings to State ownership — Kilmore, Birchip, Wycheproof-Sealake, Natimuk.

Extensions (totalling 1,118 kW) to generating plants at Cohuna, Edenhope, Orbost, Portland, Corryong and Manangatang were approved.

Inspections were made of 30 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, 1957:—Grade "A"—4,682; Grade "B1"—161; Grade "B"—1,207; Grade "C"—1,533. Two licensing examinations (including theory and practice) were held.

Special conditional permits were issued—1,290 for periods not exceeding six months, and 541 for periods not exceeding twelve months.

Registration of Electrical Contractors:

At 30th June, 1957, 1,532 registrations were in force, six more than the previous year.

Electrical Approvals Board:

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

Since the inception of the Board in 1935, 4,938 prototypes have been tested and approval given to 3,932; in addition, approximately 4,700 were voluntarily submitted for examination and testing.

Of the 27 electrical fatalities during the year, fifteen (including four Commission employees) were killed by contact with overhead or other conductors; six were caused by incorrect connection or lack of maintenance of flexible cords; three resulted from the explosion of an oil immersed high voltage switch on a consumer's premises; two were due to faulty portable motor-operated appliances; there was one suicide.

Electrolysis Mitigation:

The Electrolysis Technical Sub Committee continued its work of investigating and mitigating stray current electrolysis, including corrosion hazards associated with the use of the type of television receiver not employing full wave rectification.

COMMISSIONERS

RE-APPOINTMENT OF COMMISSIONERS:

Commissioner Sir Andrew W. Fairley, K.B.E., C.M.G., was re-appointed by the Government as Commissioner for a period of one year as from 1st January, 1957. Sir Andrew's term of appointment was limited to one year at his own request.

STAFF

Retirements:

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

Mr. R. H. Doolan, A.A.S.A., Internal Auditor, retired on 30th November, 1956, after 32 years' service with the Commission.

Mr. R. M. Bainbridge, A.A.S.A., Assistant Chief Accountant (Administrative), retired on 30th June, 1957, after 27 years' service with the Commission.

Mr. G. A. Watt, Dip.E.E., A.M.I.E. Aust., Liaison Engineer, Design and Construction Department, retired on 16th November, 1956, after 37 years' service with the Commission.

Senior Appointments:

Mr. N. T. Jewell, M.E.E., A.M.I.E. Aust., was appointed Director of Engineering, as from 1st May, 1957. Mr. Jewell is responsible to the General Manager for the co-ordination of all engineering activities of the Commission, and for the administration of related policy; he was previously Engineer for Design and Construction, having served the Commission since 1922.

Consequent upon Mr. Jewell's appointment, Mr. A. R. Shepley, B.C.E., B.Sc., M.I.E. Aust., was appointed Engineer for Design and Construction as from 5th June, 1957. Mr. Shepley was previously Assistant General Superintendent, Yallourn.

The Supplies and General Services Department was established on 19th December, 1956, with Mr. J. F. Breen, M. Aust. I.M.M., as Manager; Mr. Breen was previously the Manager, General Services. Mr. A. E. Hingeley, A.A.S.A., A.C.I.S., L.C.A., has been appointed Assistant Manager of the new Department.

Mr. M. B. Matthews, A.A.S.A., joined the Commission's service as Internal Auditor as from 1st May, 1957. Mr. C. F. Colclough, A.A.S.A., who was previously Assistant Internal Auditor, was appointed Deputy Internal Auditor as from 1st February, 1957.

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 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 Commission's undertakings.

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

W. H. CONNOLLY, Chairman.

ANDREW W. FAIRLEY, Commissioner.

A. W. HENDERSON, Commissioner.

A. A. FITZGERALD, Commissioner.

D. H. MUNRO,

Secretary.

31st October, 1957.

PROFIT AND LOSS ACCOUNT
BALANCE SHEET
AND
FINANCIAL STATISTICS

STATE ELECTRICITY COMMISSION OF VICTORIA

GENERAL PROFIT AND LOSS ACCOUNT — YEAR ENDED 30th JUNE, 1957

(Adjusted to the nearest £)

1956 £	EXPENDITURE—	£	£
	Electricity Supply—		
1,695,765	Purchased Electricity	1,820,149	
16,417,248	Generation, Transmission, Transformation and Distribution	18,091,545	
4,467,507	Interest	5,046,678	
1,710,007	Depreciation	1,898,547	
1,438,646	Administration and General Expenses	1,568,122	
623,371	Employees' Facilities and Welfare Expense	792,449	
155,005	Loan Flotation Expense	191,623	
372,169	Accommodation and Miscellaneous Services	418,575	
26,879,718		29,827,688	
207,613	Deduct—Electricity transferred to Works	207,824	
26,672,105			29,619,864
	Briquetting—		
2,633,502	Manufacture and Distribution	2,462,834	
115,425	Interest	125,398	
40,605	Depreciation	44,905	
66,875	Administration and General Expenses	67,941	
44,785	Employees' Facilities and Welfare Expense	52,954	
3,561	Loan Flotation Expense	4,175	
92,843	Accommodation and Miscellaneous Services	95,277	
2,997,596		2,853,484	
1,698,678	Deduct—Briquettes transferred to Works	973,394	
1,298,918			1,880,090
	Brown Coal (Yallourn North)—		
1,976,957	Winning and Distribution	2,075,268	
44,770	Interest	48,161	
18,356	Depreciation	30,327	
26,589	Administration and General Expenses	32,471	
17,003	Employees' Facilities and Welfare Expense	23,806	
589	Loan Flotation Expense	1,002	
41,285	Accommodation and Miscellaneous Services	53,096	
2,125,549		2,264,131	
1,682,524	Deduct—Brown Coal transferred to Works	1,715,235	
443,025			548,896
	Tramways—		
324,826	Power and Traffic Expenses	242,504	
179	Interest	198	
1,470	Depreciation	657	
30,280	Administration and General Expenses	25,480	
9,355	Employees' Facilities and Welfare Expense	7,706	
366,110		276,545	
	General—		
209,357	Miscellaneous Expenses (incl. Brown Coal Investigation £25,696)	254,145	
—	Interest during construction for year in Operating Areas—Yallourn, Kiewa, etc.	1,177,652	
209,357		1,431,797	
2,112,464	**Profit**—Carried down	2,884,608	
31,101,979		36,641,800	
1,750,000	Proportion of Interest on Morwell and Other Expenditure on Works under Construction temporarily Capitalised now written out	2,100,000	
—	Obsolescence Reserve	400,000	
—	Rural Development Reserve	100,000	
362,464	Surplus for year transferred to Contingency and General Reserve	405,858	
2,112,464		3,005,858	

1956 £	INCOME—	£	£
	Electricity Supply—		
8,426,217	Domestic—General	9,614,026	
781,279	Domestic—Farms	879,320	
3,781,640	Commercial	4,703,998	
6,282,309	Industrial—General	7,612,162	
57,780	Industrial—Mining	65,390	
640,032	Industrial—Farms	767,896	
2,137,809	Traction	1,942,121	
352,932	Public Lighting	385,022	
6,419,323	Bulk Supplies	7,846,560	
7,874	Miscellaneous	6,712	
28,887,195			33,823,207
	Briquetting—		
1,297,290	Briquette Sales	1,803,658	
414,224	Add—Briquettes on hand at end of year	508,029	
1,711,514		2,311,687	
403,055	Deduct—Briquettes on hand at beginning of year	414,224	
1,308,459			1,897,463
	Brown Coal (Yallourn North)—		
735,051	Brown Coal Sales	800,535	
735,051			800,535
	Tramways—		
157,049	Traffic Receipts	107,507	
567	Advertising, etc.	347	
158,416			107,854
	General—		
12,858	Miscellaneous Income		12,741
31,101,979			36,641,800
2,112,464	**Profit**—Brought down		2,884,608
—	Losses on rural extensions met by transfer from Rural Development Reserve		121,250
2,112,464			3,005,858

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

	1955-56	1956-57
Electricity Supply	£1,178,255	£1,342,950
Briquetting	27,066	27,080
Brown Coal	4,482	6,485

		Revenue	Expenditure
Sale of Electrical Appliances—The operating accounts include in respect of this function	1955-56	£952,500	£917,836
	1956-57	£722,213	£718,312

STATE ELECTRICITY COMMISSION OF VICTORIA
GENERAL BALANCE SHEET AS AT 30th JUNE, 1957

(Adjusted to the nearest £)

1956 £	LIABILITIES	£	£
	Capital Liabilities—		
46,658,140	Victorian Government Advances	50,446,746	
4,294,675	Deduct—Redeemed or Cancelled Securities	4,706,785	
42,363,465*		45,739,961*	
	Debentures and Inscribed Stock	£	
154,572,810	Issued by Commission (See Schedule)	170,882,420	
2,858,368	Deduct—Redeemed or Cancelled Securities	3,307,129	
151,714,442†		167,575,291†	
611,784	Issued by Undertakings acquired by Commission (See Schedule)	638,534	
	* Of these totals the undermentioned amounts are deemed to have been raised overseas and to be repayable in Sterling		
	30th June, 1956 ... £6,534,557 30th June, 1957 ... £3,283,023		
	† Includes the undermentioned amounts raised in London and repayable in Sterling		
	30th June, 1956 ... £1,235,042 30th June, 1957 ... £1,228,361		
194,689,691			213,953,786
	Current and Accrued Liabilities—		
6,585,950	Bank Overdraft	2,639,468	
4,602,005	Accounts Payable	4,481,253	
65,034	Consumers' Deposit	73,609	
281,200	Service Charges received in Advance	294,123	
56,825	Unclaimed Salaries, Wages and Interest	58,358	
143,822	Other Deposits and Trust Moneys	100,443	
1,887,211	Interest Accrued	2,058,369	
409,393	Salaries and Wages Accrued	379,813	
46,439	Pay Roll Tax Accrued	46,358	
167,617	Workers' Compensation Insurance Accrued	170,031	
124,397	Freight Accrued	76,968	
251,643	Miscellaneous	206,921	
14,621,536			10,585,714
	Suspense Credits—		
4,028,905	Consumers' Advances for Construction	5,683,673	
46,727	Miscellaneous...	76,119	
4,075,632			5,759,792
	Reserves—		
1,975,675	Obsolescence	2,247,775	
956,193	Rural Development	932,136	
5,230,952	Contingency and General	5,742,278	
8,162,820			8,922,189
221,549,679			239,221,481

1956 £	ASSETS	£	£
	Fixed Capital—		
14,237,422	Coal Production	15,591,448	
17,323,746	Briquette Production	17,506,401	
232,160	Briquette Storage and Distribution	234,600	
51,205,701	Power Production- Thermal Stations (Steam)	57,105,193	
2,236,967	,, ,, ,, ,, (Internal Combustion)	2,478,190	
31,531,143	,, ,, Hydro Stations	33,870,282	
15,558,327	Transmission System	17,071,417	
11,837,962	Terminal Transformation System	13,873,066	
40,128,033	Distribution System	46,019,215	
31,752,106	General Service Assets	32,544,067	
216,043,567		236,293,879	
24,199,568	Deduct—Provision for Depreciation	26,823,242	
191,843,999		209,470,637	
356,525	Deduct—Proportion of cost of extensions payable by consumers	463,315	
191,487,474			209,007,322
	Current and Accrued Assets—		
2,992,166	Accounts Receivable	3,200,039	
8,509,159	Materials and Supplies (Construction and Operation)	7,281,940	
42,848	Working Fund Advances	43,349	
25,532	Accounts in hands of Agent-General, London	18,018	
1,431,293	Investment of "Self-Help" Contributions Unexpended	1,531,293	
48,101	Prepayments	46,172	
1,926,406	Accrued Revenues	2,132,462	
32,424	Miscellaneous...	25,174	
15,007,929			14,278,447
	Suspense Debits—		
5,181,585	Overburden Removal and Disposal	5,803,096	
299,618	Preliminary Investigations	11,188	
659,487	Unallocated Contract Expenditure	1,019,207	
907,705	Unamortised Loan Flotation Expense	1,058,281	
374,857	Work in Progress	296,718	
6,792,213	Interest and Other Expenditure on Works under Construction temporarily Capitalised	6,673,403	
102,300	Miscellaneous...	197,829	
14,317,765			15,059,722
	Reserve Funds—		
736,511	Sinking Funds	875,990	
736,511			875,990
221,549,679			239,221,481

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, 1956	30th June, 1957
Pounds (Australian)	1,844,960	988,452
Pounds (Sterling)	723,495	427,853
German (Deutschmarks)	5,611	190,144
Italian (Lire)	7,244,602	7,244,602

J. L. PEPPERELL, Chief Finance Officer

W. H. CONNOLLY, Chairman
8th November, 1957

AUDITOR-GENERAL'S CERTIFICATE

The accounts of the State Electricity Commission of Victoria have been audited for the year ended 30th June, 1957. For the purpose of the audit, the detailed examinations and checks carried out by the Commission's Internal Audit Staff have been accepted by my officers. In my opinion, the above Balance Sheet presents a correct view of the affairs of the undertaking at the 30th June, 1957, and the Profit and Loss Account properly summarizes the operations of the Commission for the year.

R. W. GILLARD, Auditor-General
25th November, 1957

STATE ELECTRICITY COMMISSION OF VICTORIA

SCHEDULE OF FIXED CAPITAL EXPENDITURE AS AT 30th JUNE, 1957

(Adjusted to nearest £)

	YALLOURN		MORWELL		ELECTRICITY SUPPLY DEPARTMENT		KIEWA		OTHER AREAS & GENERAL		TOTAL	
	1956/57 New Expenditure	As at 30/6/57	1956/57 New Expenditure	As at 30/6/57	1956/7 New Expenditure	As at 30/6/57	1956/57 New Expenditure	As at 30/6/57	1956/57 New Expenditure	As at 30/6/57	1956/57 New Expenditure	As at 30/6/57
	£	£	£	£	£	£	£	£	£	£	£	£
Coal Production	653,333	**10,942,040**	509,081	**4,649,408**	...	...	...	...	...	...	1,162,414	**15,591,448**
Briquette Production	108,456	**2,879,179**	1,016,738	**14,627,222**	...	...	...	...	...	...	1,125,194	**17,506,401**
Briquette Storage and Distribution	...	**53,256**	...	...	...	...	...	...	3,364	**181,344**	3,364	**234,600**
Steam Power Stations—												
Ballarat "A"	...	...	...	...	...	...	...	...	...	**84,003**	...	...
Ballarat "B"	...	...	...	...	...	...	...	...	32,185	**3,083,001**	...	...
Geelong "A"	...	...	...	...	...	...	...	...	...	**293,433**	...	...
Geelong "B"	...	...	...	...	...	...	...	...	34,972	**3,735,693**	...	...
Mildura	...	...	...	...	...	...	...	...	1,423	**205,743**	...	...
Newport	...	...	...	...	...	...	...	...	200,280	**10,554,584**	...	...
Redcliffs	...	...	...	...	...	...	...	...	43,209	**1,616,885**	...	...
Richmond	...	...	...	...	...	...	...	...	6,461	**3,565,936**	...	...
Yallourn	3,761,507	**27,372,879**	...	...	...	...	...	...	...	...	...	...
Swan Hill	...	...	...	...	...	...	...	...	...	**9,651**	...	...
Morwell	...	...	1,430,975	**6,583,385**	...	...	...	...	...	...	5,511,012	**57,105,193**
Internal Combustion Power Stations—											...	...
Hamilton	...	...	...	...	...	...	...	...	6,642	**160,663**	...	...
Shepparton	...	...	...	...	...	...	...	...	4,123	**1,058,856**	...	...
Warrnambool	...	...	...	...	...	...	...	...	Cr. 1,842	**524,843**	...	...
Horsham	...	...	...	...	...	...	...	...	421	**64,240**	...	...
Redcliffs	...	...	...	...	...	...	...	...	241,539	**651,386**	...	...
Dunmunkle	...	...	...	...	...	...	...	...	2	**18,202**	250,885	**2,478,190**
Hydro Power Stations—												
Kiewa	...	...	...	...	...	...	1,988,699	**29,770,415**	...	...	...	...
Eildon-Rubicon	...	...	...	...	...	...	...	...	666,785	**4,060,213**	2,655,484	**33,830,628**
Transmission System	106,993	**2,145,835**	173,355	**814,485**	...	...	88,786	**2,081,956**	1,084,224	**12,026,686**	1,453,358	**17,068,962**
Terminal Transformation System	...	...	...	...	...	...	...	...	1,903,274	**13,847,870**	1,903,274	**13,847,870**
Distribution System—												
Metropolitan Branch	...	...	...	...	1,364,158	**13,383,091**	...	...	...	...	...	...
Provincial and Country Branches	...	...	...	...	4,652,677	**32,143,748**	...	...	...	...	...	...
Yallourn	1,115	**96,608**	...	...	...	...	...	...	...	...	6,017,950	**45,623,447**
General—												
Offices, Stores, Workshops, etc.	119,167	**3,599,696**	109,455	**789,534**	Included in Distribution Systems		Included in Hydro Power Stations		77,769	**2,582,620**	306,391	**6,971,850**
Plant and Equipment	198,486	**2,236,419**	50,018	**1,235,135**					571,108	**6,268,051**	819,612	**9,739,605**
Accommodation—Townships, Hostels, etc.	116,553	**6,462,611**	2,444	**1,176,337**					54,692	**469.553**	173,689	**8,108,501**
Miscellaneous Services— (Roads, Railways, Sewerage, Electricity, Telephones, Fire Services, etc.)	128,534	**2,437,983**	416,274	**3,714,150**					60,054	**1,571,736**	604,862	**7,723,869**
	5,194,144	**58,226,506**	3,708,340	**33,589,656**	6,016,835	**45,526,839**	2,077,485	**31,852,371**	4,990,685	**66,635,192**	21,987,489	**235,830,564**
Deduct Provision for Depreciation	...	**10,356,986**	...	**620,669**	...	**4,367,401**	...	**959,720**	...	**10,518,466**	...	**26,823,242**
	...	**47,869,520**	...	**32,968,987**	...	**41,159,438**	...	**30,892,651**	...	**56,116,726**	...	**209,007,322**

ABSTRACT OF CAPITAL, REVENUE AND OPERATING ACCOUNTS

Year ended 30th June	Capital				Revenue						Operating Expenditure, Writings Off and Appropriations	Transfers from Reserves	+ Surplus — Deficit
	Capital Expenditure	Loan Liability	Depreciation Provision	Reserves	Electricity Supply	Briquetting	Brown Coal	Tramways	Miscellaneous	Total			
	£	£	£	£	£	£	£	£	£	£	£	£	£
1925	**7,759,825**	**8,293,765**	**43,300**	**636**	**617,286**	**40,468**	**41,602**	...	...	**699,356**	**963,638**	...	— **264,282**
1926	9,032,464	10,120,794	67,208	408	713,252	122,379	19,476	...	...	855,107	1,125,077	...	— 269,970
1927	10,742,104	11,849,698	262,533	409	975,362	179,184	16,124	...	...	1,170,670	1,367,324	...	— 196,654
1928	12,762,939	13,567,546	493,143	792	1,262,787	192,256	10,698	...	...	1,465,741	1,463,868	...	+ 1,873
1929	**14,530,684**	**15,126,107**	**767,123**	**66,495**	**1,427,751**	**226,186**	**7,858**	...	...	**1,661,795**	**1,657,181**	...	+ **4,614**
1930	16,397,608	16,778,413	1,057,237	93,902	1,624,255	264,459	9,153	...	...	1,897,867	1,892,601	...	+ 5,266
1931	18,553,592	19,286,428	1,444,883	148,579	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**	**1,915,465**	**219,740**	**2,456,696**	**357,056**	...	**35,450**	**717**	**2,849,919**	**2,846,888**	...	+ **3,031**
1933	19,667,259	19,668,146	2,415,059	408,853	2,577,547	313,435	...	34,180	97	2,925,259	2,921,830	...	+ 3,429
1934	19,748,318	19,109,659	2,858,907	473,189	2,717,992	309,936	...	33,510	74	3,061,512	3,028,393	...	+ 33,119
1935	**20,305,078**	**19,527,309**	**3,402,565**	**355,247**	**2,995,707**	**297,858**	...	**77,121**	**10,098**	**3,380,784**	**3,374,306**	...	+ **6,478**
1936	20,866,242	18,806,748	3,787,609	592,438	3,164,703	348,650	...	78,207	8,180	3,599,740	3,572,012	...	+ 27,728
1937	21,638,314	18,682,415	4,255,919	752,108	3,339,560	337,227	...	76,142	7,500	3,760,429	3,721,528	...	+ 38,901
1938	**22,698,893**	**19,242,265**	**4,752,164**	**920,179**	**3,539,974**	**394,634**	...	**75,567**	**1,008**	**4,011,183**	**3,957,354**	...	+ **53,829**
1939	24,268,880	19,422,927	5,273,991	1,175,716	3,685,107	377,022	...	78,664	1,099	4,141,892	4,020,992	...	+ 120,900
1940	25,369,679	20,524,010	5,832,704	1,467,494	3,894,893	400,125	...	78,211	3,700	4,376,929	4,250,416	...	+ 126,513
1941	**26,116,795**	**20,678,339**	**6,365,755**	**1,852,323**	**4,241,264**	**379,847**	...	**89,571**	**13,374**	**4,724,056**	**4,563,376**	...	+ **160,680**
1942	26,955,737	20,523,266	6,962,906	2,293,554	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	7,605,229	2,854,998	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**	**8,269,445**	**3,277,571**	**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	8,983,062	3,919,272	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	9,759,802	4,688,513	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**	**10,642,598**	**5,043,406**	**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	11,541,035	5,024,987	6,543,089	325,181	102,003	143,878	33,338	7,147,489	7,360,561	243,000	+ 29,928
1949	47,327,034	33,829,561	12,286,528	5,161,998	8,129,973	300,277	194,995	147,797	32,776	8,805,818	8,879,517	103,000	+ 29,301
1950	**61,358,803**	**51,270,067**	**13,321,314**	**4,879,110**	**9,446,008**	**436,862**	**244,100**	**171,504**	**40,183**	**10,338,657**	**10,688,025**	**100,000**	— **249,368**
1951	93,096,608	83,647,043	14,291,427	5,017,185	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	15,387,228	5,208,528	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**	**16,590,666**	**5,930,424**	**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	17,389,921	7,143,725	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	18,840,434	7,731,065	24,838,401	1,195,111	551,162	181,727	15,425	26,781,826	26,422,258	...	+ 359,568
1956	215,687,042*	194,689,691	24,199,568*	8,162,820	28,887,195	1,308,459	735,051	158,416	12,858	31,101,979	30,739,515	...	+ 362,464
1957	**235,830,564**	**213,953,786**	**26,823,242**	**8,922,189**	**33,823,207**	**1,897,463**	**800,535**	**107,854**	**12,741**	**36,641,800**	**36,357,192**	**121,250**	+ **405,858**

* After £3,672,336 depreciation of short life assets applied in reduction of capital expenditure was brought back and transferred to depreciation provision.

APPENDIX No. 5

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1957

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, 1957
	£	£	%	Years		%	£ s. d.	£ s. d.
Loan No. 15	1,000,000	1,000,000	3·25	15	1962	1	102,631 18 8	897,368 1 4
Loan No. 16	500,000	500,000	3·25	15	1962	1	51,315 19 5	448,684 0 7
Loan No. 17	500,000	500,000	3·25	15	1963	1	51,315 19 5	448,684 0 7
Loan No. 18	1,000,000	1,000,000	3·1875	10	1958	1	102,370 11 9	897,629 8 3
Loan No. 19	720,000	720,000	3·1875	10	1958	1	73,706 16 6	646,293 3 6
Loan No. 20	1,000,000	1,000,000	3·1875	10	1958	1	102,370 11 9	897,629 8 3
Loan No. 21	1,000,000	1,000,000	3·1875	10	1958	1	89,517 4 6	910,482 15 6
Loan No. 22	1,000,000	1,000,000	3·1875	10	1958	1	89,517 4 6	910,482 15 6
Loan No. 23	1,000,000	1,000,000	3·1875	10	1958	1	89,517 4 6	910,482 15 6
Loan No. 24	500,000	500,000	3·1875	10	1958	1	44,758 12 3	455,241 7 9
Loan No. 25	1,340,300	1,340,300	3·1875	12	1961	1	68,300 0 0	1,272,000 0 0
Loan No. 26	1,500,000	1,500,000	3·1875	10	1959	1	134,275 16 9	1,365,724 3 3
Loan No. 27	300,000	300,000	3·1875	12	1961	1	26,855 3 5	273,144 16 7
Loan No. 28	360,000	360,000	3·1875	12	1961	1	—	360,000 0 0
Loan No. 29	2,334,000	2,334,000	3·1875	12	1961	1	144,900 0 0	2,189,100 0 0
Loan No. 30	2,000,000	2,000,000	3·1875	10	1959	1	154,121 16 4	1,845,878 3 8
Loan No. 31	500,000	500,000	3·1875	10	1959	1	38,530 9 1	461,469 10 11
Loan No. 32	1,000,000	1,000,000	3·1875	10	1959	1	77,060 18 2	922,939 1 10
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	38,530 9 0	961,469 11 0
Loan No. 36	400,000	400,000	3·25	15	1964	0·5	15,441 7 8	384,558 12 4
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	38,530 9 0	961,469 11 0
Loan No. 39	1,000,000	1,000,000	3·1875	10	1960	0·5	38,530 9 0	961,469 11 0
Loan No. 40	2,488,800	2,488,800	3·25	15	1965	0·5	84,050 0 0	2,404,750 0 0
Loan No. 41	1,000,000	1,000,000	3·1875	10	1960	0·5	38,530 9 0	961,469 11 0
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	8,476 14 0	211,523 6 0
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	19,265 4 6	480,734 15 6
Loan No. 50	3,106,050	3,106,050	3·25	15	1965	0·5	90,400 0 0	3,015,650 0 0
Loan No. 51	500,000	500,000	3·1875	10	1960	0·5	16,247 6 10	483,752 13 2
Loan No. 52	500,000	500,000	3·3125	15	1965	0·5	16,298 8 7	483,701 11 5
Loan No. 53	500,000	500,000	3·375	15	1965	0·5	—	500,000 0 0
Loan No. 54	1,800,000	1,800,000	3·375	15	1965	0·5	—	1,800,000 0 0
Loan No. 55	500,000	500,000	3·375	12	1962	0·5	—	500,000 0 0
Loan No. 56	250,000	250,000	3·375	19/20	1969/70	0·5	—	250,000 0 0
Loan No. 57	500,000	500,000	3·375	14	1964	0·5	—	500,000 0 0
Loan No. 58	1,300,000	1,300,000	3·375	12	1962	0·5	—	1,300,000 0 0
Loan No. 59	500,000	500,000	3·375	14	1964	0·5	—	500,000 0 0
Loan No. 60	1,000,000	1,000,000	3·375	12	1962	0·5	—	1,000,000 0 0
Loan No. 61	1,000,000	1,000,000	3·375	12	1962	0·5	—	1,000,000 0 0
Loan No. 62	500,000	500,000	3·375	12	1962	0·5	—	500,000 0 0
Loan No. 64	500,000	500,000	3·375	12	1962	0·5	—	500,000 0 0
Loan No. 65	800,000	800,000	3·325	12	1962	0·5	—	800,000 0 0
Loan No. 67	250,000	250,000	3·375	12	1962	0·5	—	250,000 0 0
Loan No. 68	6,000,000	5,998,450	3·375	12	1963	0·5	166,750 0 0	5,831,700 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	32,648 1 6	967,351 18 6
Loan No. 77	100,000	100,000	3·5	12	1963	0·5	3,275 1 6	96,724 18 6
Loan No. 78	350,000	350,000	3·5	10	1961	0·5	11,462 15 5	338,537 4 7
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	49,126 2 10	1,450,873 17 2
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	146,050 0 0	5,847,650 0 0
Loan No. 86	25,000	25,000	3·5	10	1961	0·5	818 15 6	24,181 4 6
Loan No. 87	118,850	118,850	3·5	12	1963	0·5	3,892 8 7	114,957 11 5
Loan No. 89	100,000	100,000	4·125	12	1963	0·5	2,714 18 8	97,285 1 4
Loan No. 90	100,000	100,000	4·125	12	1963	0·5	2 714 18 8	97,285 1 4
Loan No. 91	1,000,000	1,000,000	4·0	10	1961	0·5	27,081 12 3	972,918 7 9
Loan No. 92	4,930,000	4,929,800	4·125	10	1961	0·5	108,250 0 0	4,821,550 0 0
Loan No. 93	1,000,000	1,000,000	4·125	10	1962	0·5	27,149 7 0	972,850 13 0
Loan No. 94/99 ...	7,712,050	7,711,150	4·125	10	1962	0·5	164,750 0 0	7,546,400 0 0
Loan No. 95	250,000	250,000	4·125	10	1962	0·5	6,787 6 8	243,212 13 4
Loan No. 96	1,000,000	1,000,000	4·125	10	1962	0·5	27,149 7 0	972,850 13 0
Loan No. 97	1,000,000	1,000,000	4·125	10	1962	0·5	27,452 13 1	972,547 6 11
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	48,250 0 0	2,353,000 0 0
Loan No. 104	2,250,000	2,249,700	4·75	10·5	1963	0·5	42,000 0 0	2,207,700 0 0
Loan No. 111	2,250,000	2,249,850	4·75	7/12	1960/65	0·5	36,300 0 0	2,213,550 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	21,470 13 2	978,529 6 10
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	30,150 0 0	2,089,050 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	65,376 0 9	2,934,623 19 3
Loan No. 127	2,000,000	2,000,000	4·75	7	1960	0·5	31,447 11 2	1,968,552 8 10
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	35,350 0 0	2,564,650 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	15,723 15 8	984,276 4 4
Loan No. 134	4,250,000	4,246,150	4·75	10/15	1963/68	0·5	46,050 0 0	4,200,100 0 0
Loan No. 135	1,778,190	1,778,190	4·5/4·75	5/7/12	1958/66	0·5	1,700 0 0	1,776,490 0 0
Loan No. 136	1,000,000	1,000,000	4·875	15	1969	0·5	15,944 6 4	984,055 13 8
Loan No. 137	100,000	100,000	4·875	15	1968	0·5	—	100,000 0 0
Loan No. 138	250,000	250,000	4·875	10	1963	0·5	—	250,000 0 0
Loan No. 139	75,000	75,000	4·875	25	1979	0·5	—	75,000 0 0
Loan No. 141	1,000,000	1,030,000	4·75	7	1961	0·5	15,723 15 8	984,276 4 4
Loan No. 142	5,000,000	4,996,500	4·75	10/20	1964/74	0·5	53,300 0 0	4,943,200 0 0
Loan No. 143	500,000	500,000	4·875	10	1964	0·5	—	500,000 0 0
Carried Forward ...	115,523,890	115,504,940					3,112,226 16 0	112,392,713 4 0

APPENDIX No. 5 continued

STATE ELECTRICITY COMMISSION OF VICTORIA

DEBENTURES AND INSCRIBED STOCK — CURRENT AS AT 30th JUNE, 1957

Loan No.	Amount Authorised	Amount Subscribed and Received	Rate	Term	Due	Sinking Fund	Amount Redeemed	Outstanding as at 30th June, 1957
Brought Forward	£ 115,523,890	£ 115,504,940	%	Years		%	£ s. d. 3,112,226 16 0	£ s. d. 112,392,713 4 0
Loan No. 144	1,000,000	1,000,000	4·875	15	1969	0·5	15,944 6 4	984,055 13 8
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	15,723 15 8	984,276 4 4
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	12,460 18 2	782,959 1 10
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	28,500 0 0	2,971,200 0 0
Loan No. 161	2,500,000	2,500,000	4·75	7	1961	0·5	25,593 15 0	2,474,406 5 0
Loan No. 162	50,000	50,000	4·875	10	1964	0·6	—	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	19,900 0 0	3,730,000 0 0
Loan No. 166	880,000	880,000	4·75	10	1965	0·5	9,009 0 0	870,991 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	15,650 0 0	2,484,300 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	7,678 2 6	742,321 17 6
Loan No. 171	450,000	450,000	4·375	12	1967	0·5	4,598 8 9	445,401 11 3
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	5,118 15 0	494,881 5 0
Loan No. 174	1,750,000	1,750,000	4·75	10/20	1965/75	0·5	10,950 0 0	1,739,050 0 0
Loan No. 175	500,000	500,000	4·875	25	1980	0·5	—	500,000 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
Loan No. 178	250,000	250,000	4·875	20	1975	0·5	—	250,000 0 0
Loan No. 180	500,000	500,000	4·875	25	1980	0·5	—	500,000 0 0
Loan No. 181	2,000,000	2,000,000	4·75	10/20	1965/75	0·5	5,700 0 0	1,994,300 0 0
Loan No. 182	2,000,000	2,000,000	4·75	10/20	1965/75	0·5	1,800 0 0	1,998,200 0 0
Loan No. 183	500,000	500,000	4·75	7	1962	0·5	2,500 0 0	497,500 0 0
Loan No. 184	750,000	750,000	4·875	10	1966	0·5	3,750 0 0	746,250 0 0
Loan No. 185	1,000,000	1,000,000	4·75	5/10	1961/66	0·5	1,500 0 0	998,500 0 0
Loan No. 186	200,000	200,000	5·0	20	1976	0·5	—	200,000 0 0
Loan No. 187	86,100	86,100	4·625/4·875	5/7/12	1961/63/68	0·5	—	86,100 0 0
Loan No. 189	2,250,000	2,249,450	5·25	5/7/15	1961/63/71	0·5	—	2,249,450 0 0
Loan No. 190	710,710	710,710	5·0/5·25	5/7/12	1961/63/68	0·5	—	710,710 0 0
Loan No. 191	50,000	50,000	5·5	15	1971	0·5	—	50,000 0 0
Loan No. 192	125,000	125,000	5·375	7	1963	0·5	—	125,000 0 0
Loan No. 193	150,000	150,000	5·5	20	1976	0·5	—	150,000 0 0
Loan No. 194	150,000	150,000	5·4375	7	1963	0·5	—	150,000 0 0
Loan No. 195	500,000	500,000	5·5	15	1971	0·5	2,534 7 6	497,465 12 6
Loan No. 196	2,000,000	1,999,750	5·25	5/10/15	1961/66/71	0·5	—	1,999,750 0 0
Loan No. 197	100,000	100,000	5·375	5	1961	0·5	—	100,000 0 0
Loan No. 198	255,000	255,000	5·5	20	1976	0·5	—	255,000 0 0
Loan No. 199	132,500	132,500	5·5	10	1966	0·5	—	132,500 0 0
Loan No. 200	50,000	50,000	5·5	30	1986	0·5	—	50,000 0 0
Loan No. 201	1,945,800	1,945,800	5·5	15	1971	0·5	5,990 10 0	1,939,809 10 0
Loan No. 202	250,000	250,000	5·5	25	1981	0·5	—	250,000 0 0
Loan No. 203	100,000	100,000	5·5	10	1966	0·5	—	100,000 0 0
Loan No. 204	250,000	250,000	5·5	20	1976	0·5	—	250,000 0 0
Loan No. 206	100,000	100,000	5·395833	8	1964	0·5	—	100,000 0 0
Loan No. 207	250,000	250,000	5·4375	8 & 4 mths.	1965	0·5	—	250,000 0 0
Loan No. 208	250,000	250,000	5·5	30	1986	0·5	—	250,000 0 0
Loan No. 209	1,192,900	1,192,900	5·5	10	1966	0·5	—	1,192,900 0 0
Loan No. 210/215 ...	5,600,000	5,599,500	5·25	5/10/20	1961/66/76	0·5	—	5,599,500 0 0
Loan No. 211	750,000	750,000	5·5	20	1976	0·5	—	750,000 0 0
Loan No. 212	250,000	250,000	5·5	10	1966	0·5	—	250,000 0 0
Loan No. 213	1,000,000	1,000,000	5·5	10	1966	0·5	—	1,000,000 0 0
Loan No. 214	500,000	500,000	5·5	30	1986	0·5	—	500,000 0 0
Loan No. 216	150,000	150,000	5·5	10	1967	0·5	—	150,000 0 0
Loan No. 217	441,800	441,800	5·5	10	1967	0·5	—	441,800 0 0
Loan No. 218	250,000	250,000	5·5	20	1977	0·5	—	250,000 0 0
Loan No. 219	100,000	100,000	5·5	30	1987	0·5	—	100,000 0 0
Loan No. 220	2,800,000	2,800,000	5·25	5/10/20	1962/67/77	0·5	—	2,800,000 0 0
Loan No. 221	250,000	250,000	5·5	25	1982	0·5	—	250,000 0 0
Loan No. 222	150,000	150,000	5·4375	7	1964	0·5	—	150,000 0 0
Loan No. 223	16,000	16,000	5·5	10	1967	0·5	—	16,000 0 0
Loan No. 224	343,000	250,000	5·5	30	1987	0·5	—	250,000 0 0
Loan No. 225	442,000	442,000	5·5	10	1967	0·5	—	442,000 0 0
Loan No. 226	250,000	250,000	5·5	30	1987	0·5	—	250,000 0 0
Loan No. 227	100,000	100,000	5·5	30	1987	0·5	—	100,000 0 0
Loan No. 228	400,000	400,000	5·5	30	1987	0·5	—	400,000 0 0
Loan No. 229	100,000	10,000	5·5	30	1987	0·5	—	10,000 0 0
Loan No. 230	50,000	20,000	5·5	14	1971	0·5	—	20,000 0 0
Loan No. 231	50,000	27,500	5·5	20/30	1977/87	0·5	—	27,500 0 0
Loan No. 232	25,000	8,500	5·5	10/15	1967/72	0·5	—	8,500 0 0
Loan No. 233	78,000	78,000	5·5	10	1967	0·5	—	78,000 0 0
Loan No. 234	60,000	60,000	5·5	10	1967	0·5	—	60,000 0 0
Loan No. 235	30,000	12,000	5·5	30	1987	0·5	—	12,000 0 0
Loan No. 236	250,000	10,000	5·5	35	1992	0·5	—	10,000 0 0
Loan No. 237	500,000	20,000	5·5	10	1967	0·5	—	20,000 0 0
Loan No. 238	107,000	85,000	5·5	30	1987	0·5	—	85,000 0 0
	£171,915,120	£170,882,420					£3,307,128 14 11	£167,575,291 5 1

ISSUED BY UNDERTAKINGS ACQUIRED BY STATE ELECTRICITY COMMISSION OF VICTORIA

Original Issues	£1,040,450 0 0
Outstanding at Dates of Acquisition	788,216 5 11
Outstanding at 30th June, 1957	638,534 2 11

STATISTICS
POWER PRODUCTION

STATE OF VICTORIA
GENERATION OF ELECTRICITY

Station	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		Hume (output shared with N.S.W.)		Total Interconnected System		Other Stations: Mildura, Redcliffs, Horsham and Murtoa		Total	Other Undertakings	Total for Victoria
	State Electricity Commission of Victoria																										
	Interconnected System																						Other Stations				
Year	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW summated	kWh (mills.)	M.D.kW summated	kWh (mills.)	M.D.kW summated.	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW	kWh (mills.)	M.D.kW Coincident	kWh (mills.)	M.D.kW summated	kWh (mills.)	kWh (mills.)	kWh (mills.)
	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 Warrnamb'l 7.4.52 Hamilton connected to State system from 3.2.55		Operation commenced 14.3.28		Operation commenced 1.9.44		Operation commenced 14.4.57				Hamilton acquired 1.7.46 Mildura acquired 1.10.53 Redcliffs commenced operation 16.1.54				
1924–25	48·4	29,000	53·4	15,800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	101·8	40,500	Horsham acquired 1.6.55		101·8	345.5	447·3
1925–26	142·7	37,500	46·0	16,800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	188·7	50,000	Murtoa acquired 1.3.56		188·7	333·8	522·5
1926–27	**238·8**	**61,000**	**45·4**	**19,800**	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	**284·2**	**76,000**	...	...	**284·2**	**302·1**	**586·3**
1927–28	319·7	68,500	54·3	20,800	...	...	...	...	...	...	...	...	...	...	4·8	11,500	...	...	...	...	378·8	87,500	...	...	378·8	252·3	631·1
1928–29	304·5	64,000	49·0	20,000	3·5	15,000	...	...	...	...	...	...	...	...	65·3	16,310	...	...	...	...	422·3	95,500	...	...	422·3	248·5	670·8
1929–30	**310·6**	**62,500**	**50·8**	**21,000**	**21·9**	**16,200**	...	...	...	...	...	...	...	...	**77·9**	**19,300**	...	...	...	...	**461·2**	**103,160**	...	...	**461·2**	**245·0**	**706·2**
1930–31	251·9	63,000	38·4	19,800	26·6	15,520	...	...	20·5	5,570	...	...	...	...	120·9	23,100	...	...	...	...	458·3	109,013	...	...	458·3	211·1	669·4
1931–32	320·1	80,000	9·8	18,800	25·7	15,000	...	...	26·9	6,510	...	...	...	...	122·4	23,400	...	...	...	...	504·9	116,959	...	...	504·9	194·7	699·6
1932–33	**386·2**	**88,500**	**2·8**	**14,400**	**22·5**	**15,360**	...	...	**27·1**	**6,560**	...	...	...	...	**111·1**	**23,400**	...	...	...	...	**549·7**	**123,404**	...	...	**549·7**	**197·9**	**747·6**
933–34	429·3	95,000	7·6	18,500	22·6	15,120	...	...	29·5	6,690	...	...	...	...	101·0	22,800	...	...	...	...	590·0	127,621	...	...	590·0	206·2	796·2
1934–35	310·8	94,000	54·0	18,200	56·5	15,500	...	...	30·8	6,980	12·7	3,711	...	...	155·3	25,300	...	...	...	...	620·1	141,993	...	...	620·1	235·3	855·4
1935–36	**487·6**	**107,500**	**16·7**	**19,300**	**29·8**	**15,100**	...	...	**34·1**	**7,930**	**13·2**	**3,825**	...	...	**134·7**	**25,400**	...	...	...	...	**716·1**	**158,862**	...	...	**716·1**	**228·9**	**945·0**
1936–37	531·2	122,500	27·2	19,000	25·3	15,400	...	...	32·1	7,930	12·5	3,750	...	...	141·4	25,490	...	...	...	...	769·7	173,300	...	...	769·7	233·9	1,003·6
1937–38	654·8	140,500	27·1	18,600	24·2	15,300	...	...	34·4	8,620	10·0	3,797	...	...	**85·6**	**25,090**	...	...	...	...	**836·1**	**181,847**	...	...	**836·1**	**240·4**	1,076·5
1938–39	**696·6**	**136,500**	**23·9**	**19,600**	**26·7**	**15,200**	...	...	**38·0**	**9,230**	**9·4**	**2,716**	...	...	**103·2**	**24,300**	...	...	...	...	**897·8**	**198,000**	...	...	**897·8**	**240·2**	**1,138·0**
1939–40	776·1	168,000	39·3	35,000	16·2	15,400	...	...	31·5	7,710	11·6	2,988	...	...	149·5	25,400	...	...	...	...	1,024·2	218,600	...	...	1,024·2	227·5	1,251·7
1940–41	939·5	171,500	44·6	45,300	21·2	15,360	16·0	26,000	21·7	10,050	14·3	3,820	...	...	97·8	20,800	...	...	...	...	1,155·1	261,820	...	...	1,155·1	222·5	1,377·6
1941–42	**1,027·3**	**187,500**	**45·2**	**54,880**	**35·2**	**15,540**	**44·1**	**35,000**	**30·7**	**10,600**	**14·6**	**4,140**	...	...	**133·4**	**25,600**	...	...	...	...	**1,330·5**	**297,696**	...	...	**1,330·5**	**202·3**	**1,532·8**
1942–43	1,110·1	186,000	45·8	63,000	38·6	15,600	55·4	33,000	34·3	11,800	15·0	5,960	...	...	156·2	26,100	...	...	...	...	1,455·4	319,300	...	...	1,455·4	188·1	1,643·5
1943–44	1,088·0	188,000	83·3	71,600	44·5	15,600	63·8	40,650	44·8	12,200	20·8	5,400	...	...	130·4	25,700	...	...	...	...	1,475·6	328,000	...	...	1,475·6	193·0	1,668·6
1944–45	**1,133·2**	**187,000**	**92·1**	**89,500**	**40·2**	**15,530**	**59·3**	**35,070**	**38·8**	**11,200**	**18·9**	**5,000**	...	...	**101·1**	**25,500**	**18·7**	**24,000**	...	...	**1,502·3**	**351,600**	...	...	**1,502·3**	**207·4**	**1,709·7**
1945–46	1,136·7	190,500	136.9	93,500	33·1	15,600	55·0	34,200	31·2	11,900	16·0	5,350	...	...	134·3	25,650	51·4	26,000	...	...	1,594·6	377,100	...	...	1,594·6	202·8	1,797·4
1946–47	1,180·6	185,000	181·6	88,000	23·5	15,520	51·1	29,820	26·9	11,800	18·0	5,150	...	...	144·7	25,850	61·5	26,700	...	...	1,687·9	364,750	2·8	1,000	1,690·7	208·9	1,899·6
1947–48	**1,223·9**	**195,500**	**299·0**	**134,000**	**29·6**	**15,400**	**66·3**	**34,500**	**33·1**	**11,750**	**18·8**	**5,650**	...	...	**161·8**	**25,850**	**68·3**	**26,400**	...	...	**1,900·8**	**449,500**	**3·6**	**1,140**	**1,904·4**	**252·3**	**2,156·7**
1948–49	1,291·6	194,000	513·6	138,000	26·1	15,600	77·0	35,220	32·9	11,800	18·8	5,850	...	...	139·1	25,550	44·4	28,000	...	...	2,143·5	436,930	4·5	1,290	2,148·0	254·6	2,402·6
1949–50	1,287·6	186,500	717·8	175,000	26·6	15,600	105·4	41,910	28·6	11,950	15·6	6,000	...	...	129·2	26,050	46·8	28,500	...	...	2,357·6	504,090	5·2	1,382	2,362·8	260·5	2,623·3
1950–51	**1,241·8**	**187,000**	**990·5**	**242,800**	**19·5**	**15,000**	**105·6**	**38,700**	**30·6**	**11,400**	**16·7**	**6,100**	**0·8**	**1,663**	**146·0**	**26,050**	**48·2**	**28,000**	...	...	**2,599·7**	**497,370**	**5·8**	**1,488**	**2,605·5**	**158·2**	**2,763·7**
1951–52	1,282·4	196,000	1,085·5	249,400	28·7	14,800	94·2	39,450	45·8	12,100	16·7	5,900	5·4	4,083	160·6	26,150	65·8	28,000	...	...	2,785·1	533,370	6·6	1,580	2,791·7	59·0	2,850·7
1952–53	1,326·6	202,500	1,205·2	305,000	72·2	52,000	93·6	35,400	46·1	12,000	22·5	6,000	12·3	12,000	168·2	25,950	66·7	28,000	...	...	3,013·4	602,310	7·0	1,800	3,020·4	64·5	3,084·9
1953–54	**1,394·0**	**243,000**	**1,322·7**	**304,400**	**202·0**	**51,900**	**212·4**	**73,000**	**103·6**	**47,400**	**53·4**	**29,800**	**30·2**	**15,230**	**92·6**	**26,950**	**62·3**	**28,000**	...	...	**3,473·2**	**701,650**	**29·2**	**12,800**	**3,502·4**	**50·3**	**3,552·7**
1954–55	1,668·1	260,000	1,249·9	303,000	175·2	52,000	306·6	83,000	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	45·5	4,015·9
1955–56	1,887·8	279,000	1,278·7	298,400	200·1	52,500	269·3	94,000	178·6	47,700	77·2	31,500	32·0	17,630	171·1	31,170	288·2	90,000	...	...	4,383·0	897,190	46·4	14,670	4,429·4	43·4	4,472·8
1956–57	**2,085·0**	**313,000**	**1,408·7**	**316,400**	**206·4**	**52,000**	**273·0**	**95,000**	**200·2**	**46,800**	**57·8**	**31,900**	**35·4**	**17,600**	**212·5**	**133,500**	**228·3**	**90,000**	**5·8**	**12,000**	**4,713·1**	**943,330**	**50·0**	**16,405**	**4,763·1**	**43·1**	**4,806·2**

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

STATE ELECTRICITY COMMISSION OF VICTORIA

(a) LOAD FACTORS AT POWER STATIONS

Based on Appendix No. 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, Warrnambool and Hamilton	Eildon-Rubicon	Kiewa	Total Interconnected System	Mildura, Redcliffs Murtoa & Horsham
	%	%	%	%	%	%	%	%	%	%	%
1927	44·7	26·2	...	...	...	...	...	...	...	42·7	...
1932	45·6	5·9	19·5	...	47·0	...	...	59·6	...	49·2	...
1937	49·5	16·3	18·8	...	46·2	38·1	...	63·3	...	50·7	...
1942	62·6	9·4	25·9	14·4	33·1	40·3	...	59·5	...	51·0	...
1947	72·8	23·6	17·3	19·6	26·0	39·9	...	63·9	26·3	52·9	...
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
1956	77·0	48·8	43·4	32·6	42·6	27·9	20·7	62·5	36·5	55·6	36·5
1957	76·0	50·8	45·3	32·8	48·8	20·7	23·0	40·3	29·0	57·0	34·8

(b) FUEL USED AT POWER STATIONS (TONS)

Station	Type of Fuel	1956-57	1955-56	1954-55	1953-54	1952-53	1951-52	1950-51	1949-50	1948-49	1947-48
Yallourn	Brown Coal	5,846,396‖	5,432,123‖	4,846,876	4,380,080	4,203,197	4,154,742	3,968,509	4,075,675	4,035,535	3,766,828
	Briquettes	15,702	22,774	36,740	13,061	10,265	18,698	15,408	10,416	6,421	6,155
	Oil	43	1,414	3,021	397	...	...	...	...	...	...
Newport	Brown Coal	836,233	852,950	794,668	742,472	722,884	562,198	358,148	332,676	94,155	315
	Briquettes	107,721	210,627	221,442	253,352	217,028	244,083	222,066	273,034	279,956	232,439
	Black Coal ...	134,837	118,846	216,836	259,640	220,935	241,733	263,001	46,173	62,569	5,669
	Oil	157,439	82,566	25,306	26,303	38,498	26,332	25,359	18,551	2,266	9
Richmond	Briquettes	13,701	23,017	30,563	29,662	25,103	32,695	23,180	30,564	29,783	32,313
	Oil	57,977	54,658	44,613	51,740	15,739	...	...	...	...	...
	Coke ...	...	...	...	...	154	...	...	...	...	...
Spencer Street ...	Brown Coal	...	...	...	...	...	...	...	...	...	41
(Melbourne City Council)	Briquettes	8,137	16,641	22,225	41,547	60,364	65,935	69,261	71,610	49,475	41,411
	Black Coal ...	2,856	1,810	8,994	8,706	1,223	15	6,008	221	276	1,142
	Oil	84,731	82,970	84,484	37,017	19	22	23	18	17	...
	Coke ...	26,450	21,840	35,365	52,113	40,088	35,903	37,828	42,014	41,403	34,542
Geelong "A" and "B"	Brown Coal	260,093	231,933	219,164	106,955	7,378	66,906	11,356	...	...	...
	Briquettes	11,494	14,958	18,711	26,431	43,036	10,544	26,012	31,093	35,407	35,321
Ballarat "A" and "B"	Brown Coal	...	...	38,085	77,318	...	...	...	...	...	...
	Briquettes	3,143	6,872	11,161	18,531	25,144	19,628	19,747	18,135	22,772	22,845
	Oil	20,477	27,192	26,942	1,386	...	...	...	...	...	...
Shepparton	Oil	5,588	4,611	4,952	5,975	2,099	1,173	177	...	...	...
Warrnambool ...	Oil	1,157	1,510	1,728	1,448	829	100	...	...	...	...
Hamilton	Oil	1,846	1,693	1,737	1,799	1,650	1,565	1,317	1,132	975	812
	Wood ...	...	...	...	...	...	697	1,277	1,352	1,311	1,289
Mildura*	Briquettes	5,897	7,896	4,828	14,284	...	...	...	...	...	...
	Oil	...	...	7	...	...	...	...	...	...	...
Redcliffs†	Briquettes	13,912	28,793	26,292	8,434	...	...	...	...	...	...
	Oil	8,997	6	25	9	...	...	...	...	...	...
Horsham‡	Oil ...	1,546	1,266	108	...	...	...	...	...	...	...
Murtoa ¶...	...										

* Acquired 1/10/53. † Commenced operation 16/1/54. ‡ Acquired 1/6/55. ¶ Acquired 1/3/56. ‖ Includes 55,233 tons and 14,694 tons, of Morwell Coal respectively.

APPENDIX No. 8

STATE ELECTRICITY COMMISSION OF VICTORIA

STATE GENERATING SYSTEM

(a) TOTAL INSTALLED PLANT CAPACITY — **kW**

(i) Interconnected System

Maximum continuous rating of plant installed at 30/6/57	1,101,195
Add—Available from Yallourn Briquette Factory	8,000
Total	1,109,195
(ii) Not connected to State System	27,404

(b) GENERATORS INSTALLED AT POWER STATIONS

(i) Interconnected System

Power Station	Set No.	Make	Maximum Continuous Rating	Voltage	R.P.M.	Year Installed
STEAM—			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		50,000	11,000	3,000	1955
	C2		50,000	11,000	3,000	1954
	C3		6,000	3,300	3,000	1956
	D2		50,000	11,000	3,000	1957
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	Brown Boveri	15,000	6,600	3,000	1923
	2		15,000	6,600	3,000	1923
	3		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
	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
INTERNAL COMBUSTION—						
Shepparton	1	Brush (Mirrlees Engine)	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. (Sulzer Engine)	1,850	6,600	250	1953
	8		1,850	6,600	250	1953
	9		1,850	6,600	250	1953
Warrnambool	1	Brush (Mirrlees Engine)	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 (Crossley Engine)	550	415	375	1947
	4		200	415	230	1946
	5	Brush (Mirrlees Engine)	310	415	300	1937
	6	Bruce Peebles (Mirrlees Engine)	420	415	300	1937
	7		770	415	375	1950
	8	Brush (Mirrlees Engine)	770	415	375	1951
HYDRO—						
Rubicon Falls	1	A.S.E.A. (Boving Turbine)	275	6,600	500	1926
Lower Rubicon	1		2,700	6,600	750	1928
Royston	1	Westinghouse (Boving Turbine)	840	6,600	1,000	1928
Rubicon	1		4,550	6,600	500	1928
	2		4,550	6,600	500	1928
Eildon	1	British Thomson-Houston (Boving Turbine)	60,000	11,000	150	1957
	2		60,000	11,000	150	1956
	3	Brown Boveri (Boving Turbine)	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
	2		13,000	11,000	428	1945
Kiewa No. 4	1	Metropolitan Vickers	15,400	11,000	600	1956
	2		15,400	11,000	600	1955
	3		15,400	11,000	600	1955
	4		15,400	11,000	600	1955
			1,101,195			

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

APPENDIX No. 8 continued

STATE ELECTRICITY COMMISSION OF VICTORIA

STATE GENERATING SYSTEM

(ii) Not connected to State System

Power Station	Set No.	Make	Maximum Continuous Rating	Voltage	R.P.M.	Year Installed
STEAM—			kW			
Mildura	1	Metropolitan Vickers	1,000	6,600	1,000	1932
	2	Metropolitan Vickers	1,000	6,600	1,000	1934
	3	S.T.A.L.	2,500	6,600	3,000	1940
	4	S.T.A.L.	2,500	6,600	1,500	1950
Redcliffs	A1	Metropolitan Vickers	1,000	6,600	1,500	1937
	A2	Metropolitan Vickers	1,000	6,600	1,500	1943
	C1	Westinghouse	5,000	6,900	3,000	1954
	C2	Westinghouse	5,000	6,900	3,000	1954
INTERNAL COMBUSTION—						
Redcliffs	B1	Electric Construction Co. (Sulzer Engine)	1,850	6,600	250	1957
	B2	Electric Construction Co. (Sulzer Engine)	1,850	6,600	250	1957
	B3	Electric Construction Co. (Sulzer Engine)	1,850	6,600	250	1957
Horsham	1	Laurence Scott (Ruston & Hornsby Engine)	132	415	300	1949
	2	Laurence Scott (Ruston & Hornsby Engine)	132	415	300	1949
	3	Laurence Scott (Ruston & Hornsby Engine)	220	415	428	1951
	4	Laurence Scott (Ruston & Hornsby Engine)	400	415	428	1950
	5	Harland (Bellis & Morcom Engine)	300	415	375	1943
	6	Harland (Bellis & Morcom Engine)	520	415	375	1943
	7	Brush (Ruston & Hornsby Engine)	560	400/440	428	1952
Murtoa	1	Brush (Ruston & Hornsby Engine)	160	415	500	1955
	2	G.E.C. (Ruston & Hornsby Engine)	75	420	1,000	1952
	3	G.E.C. (Crossley Engine)	75	420	1,000	1952
	4	G.E.C. (Ruston & Hornsby Engine)	140	415	600	1952
	5	Brush (Ruston & Hornsby Engine)	140	415	600	1952
			27,404			

(Appendix No. 8 continued next page)

APPENDIX No. 8 continued

STATE ELECTRICITY COMMISSION OF VICTORIA

STATE GENERATING SYSTEM

(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
	C3		200,000	645	840	1956
	C4		200,000	645	840	1957
	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		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	John Thompson	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	Combustion Engineering	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	Combustion Engineering	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)	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
	B2		150,000	275	775	1955
	C1		300,000	620	820	1953

(ii) Not connected to State System

Mildura	1		14,000	260	650	1939
	2		14,000	260	650	1939
	3		14,000	260	650	1940
	4		30,000	260	700	1951
Redcliffs	A1	Babcock & Wilcox	20,000	215	520	1940
	A2		13,500	215	520	1944
	A3		13,500	215	520	1944
	A4		13,500	215	520	1948
	A5		13,500	215	520	1948
	A6		13,500	215	520	1953
	C1	Combustion Engineering	70,000	430	760	1954
	C2		70,000	430	760	1954

STATISTICS
ELECTRICITY SUPPLY

APPENDIX No. 9

ELECTRICITY SUPPLY UNDERTAKINGS — STATE OF VICTORIA
STATISTICAL SUMMARY AT 30th JUNE, 1957 — 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	1,064,573	284,649	36·27	1,612,799,844	43·44
Provincial Cities }	182,075	53,605	6·83	213,819,088	5·76
Country	730,274	252,652	32·19	900,384,720	24·25
Total	1,976,922	590,906	75·29	2,727,003,652	73·45
Other Undertakings—					
Metropolitan (receiving Bulk Supply from State Electricity Commission of Victoria) ...	569,106	170,900	21·77	950,329,020	25·60
Country (Local Undertakings)	76,683	23,052	2·94	35,120,544	0·95
Total	645,789	193,952	24·71	985,449,564	26·55
Grand Total	2,622711*	784,858	100·00	3,712,453,216†	100·00

* Total population of Victoria 2,673,498.
† Electricity Sales per head of population 1,389 kWh.

APPENDIX No. 10

STATE ELECTRICITY COMMISSION OF VICTORIA
CONSUMER STATISTICS
(a) AGGREGATES FOR ALL BRANCHES 1938-1957

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.	
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
1956	1,949,000	475,192	30,549	55,877	561,892	28·8	2,144	32,233	5,083	136,078	728,263	32,734
1957	**1,977,000**	**498,528**	**33,339**	**58,750**	**590,906**	**29·9**	**2,255**	**31,051**	**5,170**	**144,626**	**772,088**	**35,852**

(b) ELECTRICITY SUPPLY BRANCHES — 1956 AND 1957

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 ...	1957	1,064,015	253,668	6,420	24,348	284,480	26·74	2,496	87,533	6,013	74,666	386,124	1,138
	1956	1,055,071	246,029	6,237	23,574	275,884	26·15	2,329	91,439	5,868	71,515	369,297	1,142
Ballarat ...	1957	68,945	18,433	1,302	2,701	22,452	32·57	1,288	27,513	4,856	6,333	30,899	1,732
	1956	67,589	17,750	1,140	2,622	21,528	31·85	1,246	28,960	4,727	6,037	29,900	1,496
Eastern Metropolitan	1957	241,894	70,855	3,554	6,824	81,263	33·59	2,495	20,430	5,182	8,819	56,026	5,100
	1956	233,629	64,605	3,296	6,242	74,174	31·75	2,395	15,768	4,995	8,152	52,441	4,654
Geelong ...	1957	112,472	26,435	1,080	3,366	30,895	27·47	1,711	69,203	4,478	9,212	58,441	1,293
	1956	111,472	25,255	996	3,207	29,472	26·44	1,615	75,490	4,448	7,290	51,211	1,198
Gippsland ... (incl. Yallourn)	1957	144,891	34,637	6,720	5,210	46,596	32·16	2,122	15,336	3,913	11,839	62,812	7,651
	1956	143,337	32,927	6,275	4,976	44,207	30·84	2,166	12,238	3,894	11,298	60,925	7,167
Midland... ...	1957	41,957	11,614	1,425	2,050	15,109	36·01	1,402	10,503	3,319	3,533	19,450	1,998
	1956	43,249	11,194	1,291	1,996	14,501	33·53	1,327	12,175	3,319	3,260	18,374	1,805
North Eastern (incl. Kiewa)	1957	126,948	34,813	5,928	6,153	46,935	36·97	1,998	13,452	6,529	15,784	85,832	6,81
	1956	124,905	32,941	5,418	5,856	44,254	35·43	1,973	13,842	6,355	14,945	78,025	6,31
North Western	1957	90,791	25,851	2,054	4,382	32,353	35·63	1,436	19,321	3,471	7,044	48,420	4,204
	1956	87,740	23,586	1,586	3,827	29,051	33·11	1,414	22,889	3,781	6,691	45,469	3,643
South Western	1957	85,009	22,222	4,856	3,716	30,823	36·26	2,178	8,359	2,931	7,396	24,084	5,922
	1956	81,917	20,905	4,310	3,577	28,821	35·18	2,076	8,801	2,803	6,890	22,621	5,315
Total ...	1957	1,976,922	498,528	33,339	58,750	590,906	29·89	2,255	31,051	5,170	144,626	772,088	35,852
	1956	1,948,909	475,192	30,549	55,877	561,892	28·83	2,144	32,233	5,083	136,078	728,263	32,734

APPENDIX No. 11

STATE ELECTRICITY COMMISSION OF VICTORIA

ELECTRICITY SALES AND REVENUE

(a) AGGREGATES FOR ALL BRANCHES, 1938-1957

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.
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	3,685,533	2·420	0·922	2·567
1940	285·031	16·804	141·172	252·072	59·844	67·224	822·147	3,881,022	2·165	0·883	2·338
1941	311·546	16·516	155·726	307·239	60·199	73·547	924·773	4,241,264	2·059	0·842	2·262
1942	**369·236**	**10·509**	**173·951**	**377·439**	**64·295**	**78·168**	**1,073·598**	**4,657,452**	**1·973**	**0·817**	**2·112**
1943	404·121	11·694	192·067	417·220	66·085	87·821	1,179·008	4,935,602	1·869	0·799	1·908
1944	422·287	15·984	203·979	400·129	66·008	92·938	1,201·325	5,101,631	1·822	0·830	1·835
1945	417·193	16·782	220·247	387·365	65·299	100·790	1,207·676	5,259,890	1·783	0·852	1·781
1946	447·005	17·255	250·245	383·018	66·605	110·413	1,274·541	5,605,333	1·700	0·883	1·814
1947	**449·380**	**17·614**	**285·596**	**421·887**	**65·107**	**104·539**	**1,344·123**	**5,835,194**	**1·606**	**0·868**	**1·900**
1948	506·780	18·106	339·025	468·238	66·900	122·448	1,521·497	6,543,089	1·506	0·874	1·905
1949	563·296	18·607	422·681	516·071	68·181	136·179	1,725·015	8,129,973	1·517	0·977	2·070
1950	613·552	14·253	504·311	546·607	54·998	146·450	1,880·171	9,446,008	1·554	1·057	2·148
1951	656·488	17·982	536·844	592·261	135·548	162·219	2,101·342	11,524,389	1·679	1·141	2·178
1952	**679·665**	**20·451**	**547·213**	**590·871**	**236·265**	**163·636**	**2,238·101**	**15,099,864**	**2·063**	**1·415**	**2·639**
1953	729·369	21·228	623·067	617·150	248·115	180·830	2,419·759	19,189,514	2·343	1·697	3·078
1954	844·749	22·508	734·281	739·596	265·443	208·114	2,814·691	22,117,381	2·297	1·685	3·120
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
1956	1,058·771	25·843	994·824	952·383	297·839	275·805	3,605·465	28,887,195	2·221	1·759	3·291
1957	**1,132·597**	**28·193**	**1,100·551**	**996·296**	**304·291**	**297·672**	**3,859·600**	**33,823,207**	**2·288**	**2·034**	**3·793**

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

(b) ELECTRICITY SUPPLY BRANCHES — 1956 AND 1957

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	1957	1,076·306	19·681	624·828	555·482	273·462	144·830	2,694·589	21,362,315	2·016	1·990	3·590
(Incl. Metropolitan Bulk Supplies)	1956	1,008·795	18·256	563·517	566·375	268·215	134·632	2,559·790	18,526,602	1·955	1·697	3·104
Ballarat	1957	...	0·561	23·289	33·731	...	12·906	70·487	789,363	2·983	1·981	3·901
	1956	...	0·529	21·737	32·059	...	12·203	66·528	682,212	2·941	1·729	3·420
Eastern Metropolitan	1957	...	2·367	169·645	70·135	16·189	34·002	292·338	3,085,051	2·454	2·186	3·948
	1956	...	1·950	148·333	50·253	19·599	30·145	250·280	2,481,853	2·363	1·999	3·410
Geelong	1957	...	0·977	44·332	71·763	...	14·782	131,854	1,343,383	2·732	1·859	4·319
	1956	...	0·833	39·695	72·772	...	13·976	127·276	1,170,287	2·731	1·593	3·786
Gippsland	1957	...	1·409	71·880	100·251	14·640	19·993	208·173	2,074,030	2·578	1·971	3·955
(Incl. Yallourn) ...	1956	...	1·289	69·690	74·331	10·025	18·858	174·193	1,657,484	2·491	1·797	3·409
Midland...	1957	...	0·422	16·001	14·316	...	6·704	37·443	462,016	3·054	2·250	4·137
	1956	...	0·403	14·649	15·000	...	6·511	36·563	411,600	2·995	1·954	3·631
North-Eastern (Incl. N.S.W. Bulk Supplies and Kiewa)	1957	52·070	1·197	67·784	76·917	...	39·269	237·237	2,377,121	2·672	2·080	3·348
	1956	45·703	1·119	63·220	71·854	...	36·212	218·108	2,003,997	2·569	1·840	2·923
North Western ...	1957	4·221	0·996	35·767	35·223	...	14·484	90·691	1,249,052	3·222	2·681	4·929
	1956	4·273	0·926	31·871	33·257	...	13·541	83·868	1,033,151	3·107	2·297	4·274
South Western ...	1957	...	0·583	47·025	38·478	...	10·702	96·788	1,080,876	2·583	2·181	4·758
	1956	...	0·538	42·112	36·482	...	9·727	88·859	920,009	2·526	1·946	4·169
Total	1957	1,132·597	28·193	1,100·551	996·296	304·291	297·672	3,859·600	33,823,207	2·288	2·034	3·793
	1956	1,058·771	25·843	994·824	952·383	297·839	275·805	3,605·465	28,887,195	2·221	1·759	3·291

APPENDIX No. 12

STATE ELECTRICITY COMMISSION OF VICTORIA

TRANSMISSION AND DISTRIBUTION SYSTEMS

Description		Increase during Year ended 30th June, 1957		Total at 30th June 1957	
		Route Miles	Cable Miles	Route Miles	Cable Miles
OVERHEAD LINES					
Kiewa to Brunswick	220 kV.	...	186·0	153·0	699·6
Yallourn to Malvern	220 kV.	...	...	74·0	444·0
Rowville to Thomastown	220 kV.	...	...	23·7	71·1
†Yallourn to Yarraville	132 kV.	...	...	110·0	660·0
Yallourn to Richmond	132 kV.	...	...	80·5	483·0
Newport to Geelong	66 kV.	3·1	14·7	83·7	270·9
Yallourn to Warragul	66 kV.	...	...	24·8	74·4
Sunshine to Ballarat	66 kV.	...	...	55·5	165·5
Kiewa No. 3 P.S. to Eildon	66 kV.	...	...	143·8	605·3
Eildon to Thomastown	66 kV.	...	...	62·0	372·0
Eildon P.S. to Eildon Substation	66 kV.	...	...	0·5	1·5
Kiewa No. 3 P.S. to Howman's Gap	66 kV.	...	...	4·0	12·0
Yallourn to Morwell	66 kV.	...	...	9·1	54·6
Morwell Area	66 kV.	...	...	0·3	1·5
Thomastown to Bendigo	66 kV.	...	...	93·4	560·7
Kiewa Area	22 kV.	...	...	7·8	23·4
Morwell Area	22 kV.	...	...	0·3	1·5
Morwell Substation to Substation "GF"	11 kV.	1·1	3·3	2·2	9·9
Eildon P.S. to Eildon Substation	6·6 kV.	...	...	0·5	1·5
Main Metro. Transmission Lines	66 kV.	21·9	74·7	74·8	189·3
Main Metro. Transmission Lines	22 kV.	5·0	15·0	267·5	917·1
Main Metro. Transmission Lines	6·6 kV.	...	...	5·9	19·5
Branches—					
Metropolitan	22 kV.	17·9	46·9	168·6	486·0
	7·2, 6·6, 4·0 kV.	15·2	44·9	427·5	1,276·3
	Low tension	50·6	247·6	2,366·6	9,191·9
Ballarat	22 kV.	39·7	87·0	535·8	1,308·9
	12·7 kV.	86·7	86·7	110·9	110·9
	6·6 kV.	0·1	1·8	21·2	64·7
	Low tension	15·7	57·0	483·6	1,646·9
Eastern Metropolitan	66 kV.	...	...	18·8	56·5
	22 kV.	108·0	328·5	1,057·4	2,776·2
	6·6 kV.	—9·0	—18·0	38·8	106·4
	Low tension	93·1	454·3	1,684·9	6,276·8
Geelong	22 kV.	97·6	222·1	413·0	982·9
	6·6 kV.	3·5	11·1	67·2	240·2
	Low tension	20·5	73·5	440·0	1,561·3
Gippsland	66 kV.	...	...	108·5	325·5
	22 kV.	119·6	241·3	1,921·9	4,462·7
	12·7 kV.	85·7	85·7	85·7	85·7
	6·6 kV.	...	...	0·8	1·6
	Low tension	56·3	155·9	1,640·2	5,364·3
Midland	22 kV.	90·5	200·9	873·9	2,258·5
	12·7 kV.	3·2	3·2	3·2	3·2
	6·6 kV.	—7·5	—16·6	...	...
	Low tension	17·0	47·2	460·0	1,436·5
North-Eastern	66 kV.	—18·7	—56·1	226·2	790·7
	22 kV.	161·3	369·5	2,505·4	6,057·0
	12·7 kV.	60·1	60·1	60·1	60·1
	Low tension	35·4	131·1	1,145·6	3,977·1
*North-Western	22 kV.	326·7	880·7	1,053·6	2,843·4
	19·8 kV.	—10·5	—10·5	...	...
	12·7 kV.	178·9	178·9	480·5	480·5
	11 kV.	...	...	33·4	33·4
	6·6 kV.	0·2	0·5	31·4	85·5
	Low tension	72·1	241·9	764·5	2,418·7
South-Western	66 kV.	...	...	119·4	628·5
	22 kV.	51·2	128·2	2,078·0	4,563·4
	12·7 kV.	284·9	284·9	450·0	450·0
	Low tension	12·5	33·5	751·7	2,031·1
Yallourn	6·6 kV.	...	...	14·2	42·6
	Low tension	0·1	0·3	26·3	89·7
Kiewa	22 kV.	...	...	8·3	24·8
	Low tension	—0·2	—0·8	5·6	32·7
Summary	220 kV.	...	186·0	250·7	1,214·7
	132 kV.	...	...	190·5	1,143·0
	66 kV.	6·3	33·3	1,024·8	4,108·9
	22 kV.	1,017·5	2,520·1	10,891·5	26,705·8
	19·8 kV.	—10·5	—10·5	...	...
	12·7 kV.	699·5	699·5	1,190·4	1,190·4
	11 kV.	1·1	3·3	35·6	43·3
	7·2, 6·6, 4·0 kV.	2·5	23·7	607·5	1,838·3
	Low tension	373·1	1,441·5	9,769·0	34,027·0
		2,089·5	4,896·9	23,960·0	70,271·4

* Includes Bendigo Branch, Mildura and Wimmera Sub-branches.

† One circuit between Wheeler's Hill and Yarraville operates at 66 kV and is also connected to Thomastown and Ringwood Terminal Stations.

APPENDIX No. 12 continued

STATE ELECTRICITY COMMISSION OF VICTORIA

TRANSMISSION AND DISTRIBUTION SYSTEMS

UNDERGROUND CABLES	Cable Miles	Cable Miles
60 kV.	—	0·62
22 and 20 kV.	1·19	169·72
11, 7·2, 6·6, 4·0, 3·3 and 2·2 kV.	6·36	379·66
Pilot, telephone, and supervisory	22·15	266·26
Low tension	5·30	94·57
	35·00	910·83

SUBSTATIONS	Number	Capacity kVA	Number	Capacity kVA
Terminal Stations	2	111,500	12	1,051,000
Switching Stations	...	...	5	70,500
Main Metropolitan and Transmission Substations	3	165,000	60	978,500
Branches—				
Metropolitan	94	40,880	1,413	463,885
Ballarat	172	5,920	755	35,535
Eastern Metropolitan	146	34,984	1,584	212,303
Geelong	82	10,755	591	71,080
Gippsland	282	3,040	2,240	105,445
Midland	104	7,565	914	44,440
North-Eastern	379	11,710	3,202	183,671
*North-Western	420	23,275	1,410	116,210
South-Western	516	12,417	3,102	109,412
Yallourn	...	—150	25	4,280
Kiewa	—1	—100	9	2,000
	2,199	426,796	15,322	3,448,261

* Includes Bendigo Branch, Mildura and Wimmera Sub-branches.

STATE ELECTRICITY COMMISSION OF VICTORIA

STANDARD TARIFFS AS AT 1st JULY, 1957

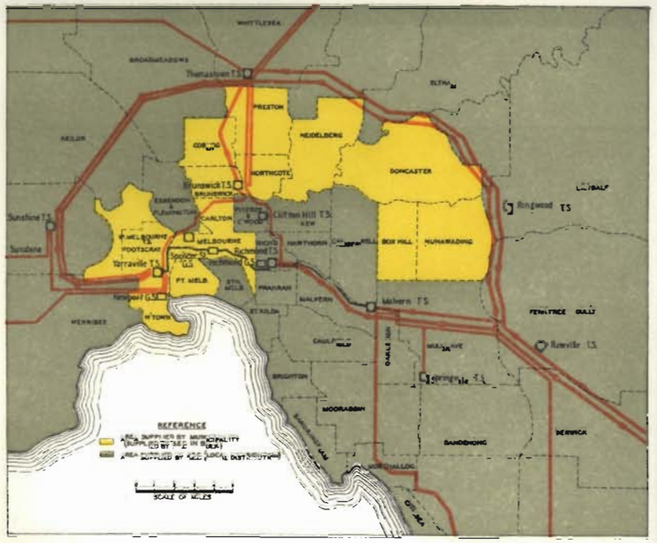
Tariffs	Residential and Commercial			Farming Forming Operations Only	Industrial Factories and Other Industrial Establishments	Miscellaneous
	Metropolitan	Provincial City and Town. (Ballarat, Bendigo, Geelong and Large Towns)	Country (Smaller Towns and Rural Areas)	All Extra-Metropolitan Areas	All Supply Areas	
	1	2	3	4	5	6
Residential Tariff (Domestic and Commercial Residential Premises) Service Chorge a month for each assessable room Rate a kWh Maximum overall rate a kWh	1s. 4d. 2.0d. 7.0d.	1s. 9d. 2.55d. 7.0d.	1s. 11d. 2.7d. 7.0d.			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 Wimmera areas will be supplied on request.
TARIFFS FOR NON-RESIDENTIAL PREMISES **Lighting**— Block Tariff—rates a kWh (bosed on monthly consumption)	First 20 at 8.5d. Balance at 6.8d.	First 100 at 10.7d. Balance at 7.9d.	First 100 at 11.8d. Next 200 at 9.6d. Balance at 7.9d.		First 20 at 8.5d. Balance at 6.8d.	
Power and Heating— Block Tariff—rates a kWh (based on monthly consumption) Rental a month for each two-rate meter	First 200 at 4.5d. Next 4,800 at 2.6d. „ 20,000 at 2.1d. Balance at 2.05d. 11 p.m.-7 a.m.—1.02d. 10s. 0d.	First 200 at 5.2d. Next 4,800 at 3.4d. Balance at 2.25d. 11 p.m.-7 a.m.—1.13d. 10s. 0d.	First 50 at 5.6d. Next 150 at 5.2d. „ 4,800 at 3.4d. Balance at 2.25d. 11 p.m.-7 a.m.—1.13d. 10s. 0d.		First 200 at 4.5d. Next 4,800 at 2.6d. „ 20,000 at 2.1d. Balance at 2.05d. 11 p.m.-7 a.m.—1.02d. 10s. 0d.	
Power, Heating and Lighting— Block Tariff—rates a kWh (based on monthly consumption) Rental a month for each two-rate meter	**Commercial General Service** First 20 at 8.5d. Next 980 at 6.8d. „ 1,000 at 4.5d. „ 3,000 at 4.0d. „ 20,000 at 2.1d. Balance at 2.05d. 11 p.m.-7 a.m.—1.02d. (Power and Heating only) 10s. 0d.	**Commercial General Service** First 100 at 10.7d. Next 900 at 7.9d. „ 4,000 at 5.2d. Balance at 2.25d. 11 p.m.-7 a.m.—1.13d. (Power and Heating only) 10s. 0d.	**Commercial General Service** First 100 at 11.8d. Next 200 at 9.6d. „ 700 at 7.9d. „ 4,000 at 5.2d. Balance at 2.25d. 11 p.m.-7 a.m.—1.13d. (Power ond Heating only) 10s. 0d.	**Farming General Service** First 4 at 10.0d. Next 196 at 4.5d. „ 4,800 at 2.8d. Balance at 2.0d. 11 p.m.-7 a.m.—1.05d. 5s. 0d.	**Industriol All-Purpose** First 20 at 8.5d. Next 480 at 6.8d. „ 4,500 at 4.2d. „ 20,000 at 2.1d. „ 100,000 at 2.05d. Balance at 2.0d. 11 p.m.-7 a.m.—1.02d. (See Note 2 below) 10s. 0d.	
Industrial Maximum Demand (See Note 3 below) **Power, Heating and Lighting**					£1 13s. 4d. o month for each kW of maximum demand plus 0.86d. a kWh (500 kW Minimum demond charge). Reset monthly.	
Commercial Range (Electric Cooking)—Rate a kWh	2.0d.	2.55d.	2.7d.			
Water Heating—Night Rate Tariff a kWh Interim Rate Tariff a kWh (See Note 4 below)	0.95d. 1.45d.	1.05d. 1.6d.	1.05d. 1.6d	1.05d. 1.6d.	0.95d. 1.45d.	
Minimum Charge—a month	3s. 6d.	4s. 0d.	4s. 6d.	4s. 0d.	3s. 6d.	

Notes.—1. Details regarding the application of the above toriffs are shown in the Commission's published tariff schedules, which ora available on request. 2. A consumer adopting the Industrial All-Purpose Tariff must agree to pay a special minimum charge of £23 1s. 2d. per month. 3. The Industrial Maximum Demand Tariff is available only to consumers entering into a five-year agreement providing for high voltage supply and for monthly payments based on the minimum demond 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 Interim Rate Tariff after which they are transferred automatically to the lower Night Rate Toriff.

STATE ELECTRICITY COMMISSION OF VICTORIA

ELECTRICITY SUPPLY

GENERATION
TRANSMISSION
H.V. DISTRIBUTION
1st JULY, 1957



REFERENCE

- TERMINAL STATIONS
- GENERATING STATIONS (THERMAL)
- GENERATING STATIONS (HYDRO)
- MAIN TRANSMISSION LINE KIEWA - MELBOURNE 220 KV
- MAIN TRANSMISSION LINE YALLOURN - MELBOURNE 132 KV & 220 KV
- MAIN TRANSMISSION LINES 66 KV
- ERAKEN TRANSMISSION & DISTRIBUTION LINES
- TOWNS SUPPLIED BY S.E.C.
- ELECTRIC SUPPLY UNDERTAKINGS (MUNICIPAL & PRIVATE) GENERATING OWN SUPPLY
- ELECTRIC SUPPLY UNDERTAKINGS (MUNICIPAL & PRIVATE) SUPPLIED IN BULK BY S.E.C.
- ELECTRICITY SUPPLY (BRANCH OFFICES)
- ELECTRICITY SUPPLY (DISTRICT OFFICES)

SCALE OF MILES

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