

NEW ZEALAND.

EXTRACT FROM THE
PUBLIC WORKS STATEMENT,
AND
REPORT OF CHIEF ELECTRICAL ENGINEER,

1941.

(Together with additional Statistical Tables relating to all Electric Supply Authorities.)

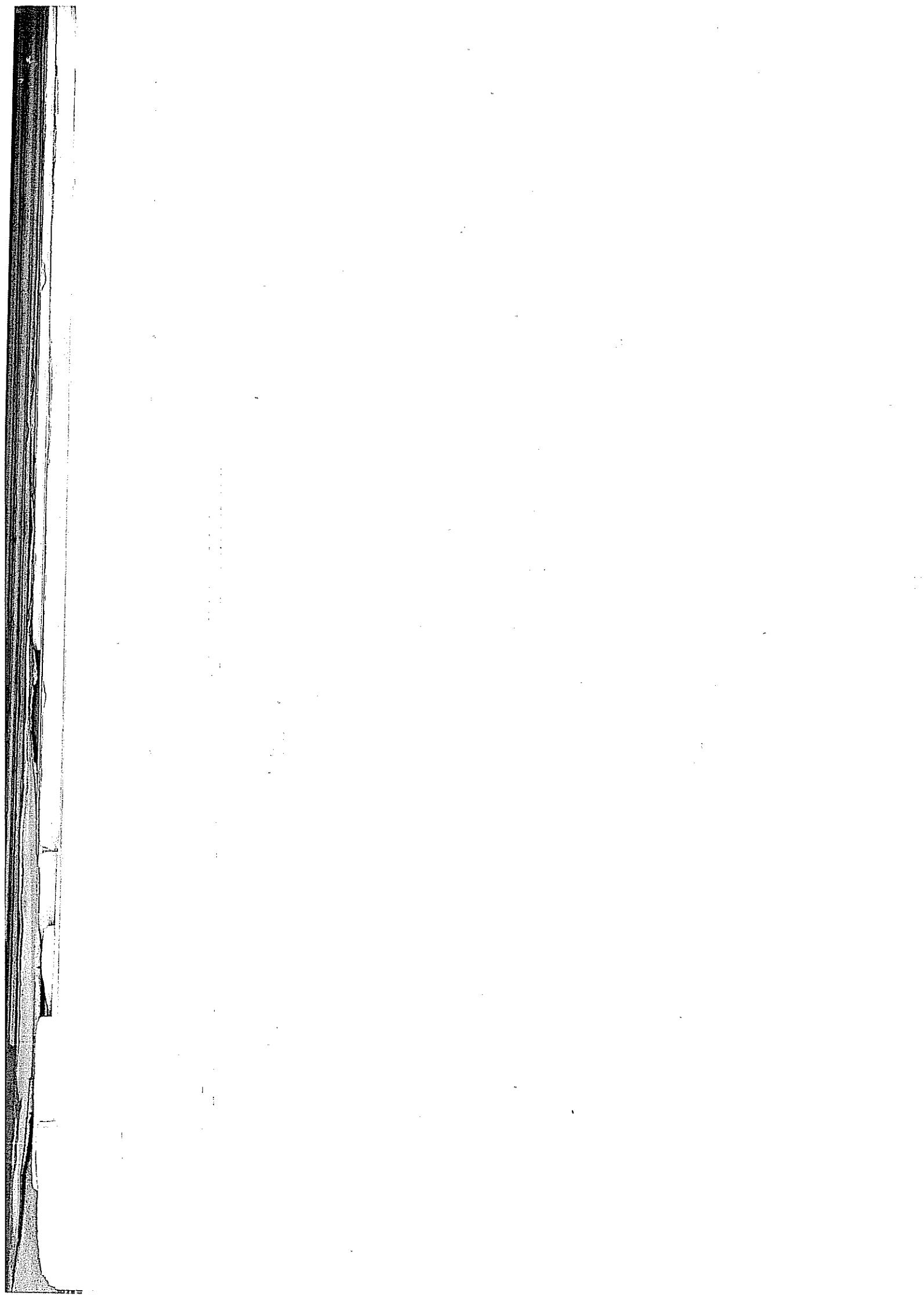
HYDRO-ELECTRIC DEVELOPMENT.



WELLINGTON.

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1942.



NEW ZEALAND.

HYDRO-ELECTRIC DEVELOPMENT. YEAR ENDING 31st MARCH, 1941.

EXTRACT FROM THE PUBLIC WORKS STATEMENT.
BY THE HON. H. T. ARMSTRONG, MINISTER OF PUBLIC WORKS.

HYDRO-ELECTRIC DEVELOPMENT.

All generating stations have operated smoothly during the year, and the financial results of operations have again been very satisfactory. After paying net operating-expenses the revenue for the year gave a return of 9·07 per cent. on the average capital in operation, as compared with 8·7 per cent. for last financial year.

The development of secondary industries made necessary by the war has been a factor in increasing the demand in both Islands, and the units generated in Government generating-stations and Government-controlled stations showed an increase over the previous year of 13·90 per cent. in the North Island and 13·41 per cent. in the South Island.

Amending legislation passed last year rendered the Electric Supply Account liable for payment of taxes, and the sum of £336,049 was accordingly paid for income-tax, national security tax, and social security charge.

DEMAND VERSUS GENERATING-CAPACITY.

During the year it has been found necessary to call on all North Island Electric Supply Authorities, which are dependent on the Government hydro-electric generating-stations, to exercise a strict control over the increasing electrical demand in their respective areas. The response so far has enabled the Public Works Department to postpone the implementing of any arbitrary scheme for rationing of supplies, which is the only alternative and one which it is desired to avoid if possible.

Several expedients have been adopted by Supply Authorities in general to tide over the present difficulties, which, however, cannot be disposed of until delivery of additional generating-plant is obtained from overseas; but it is satisfactory to record that up to the present Electric Supply Authorities have not found it necessary to introduce any measures of a drastic nature.

The legislation extending daylight saving throughout the year has proved most beneficial in alleviating the position in the generating-stations.

OPERATING RESULTS.

North Island System.—The plants at Arapuni, Waikaremoana, Mangahao, and Horahora have been fully operated throughout the year. Assistance from various local plants—principally the King's Wharf Station, Auckland, and the Evans Bay Station, Wellington—was necessary during the autumn and winter months to meet the ever-increasing demand for power.

The result of the year's operation was as follows:—

Capital investment at end of year	£	11,561,705
Revenue		
Operating-expenses		1,533,136
		640,884
Balance		<u>£892,252</u>

The balance has been used in paying £336,073 for interest, £284,532 for social security charge, national security and income-taxes, and £148,937 to bring the Sinking Fund up to statutory requirements. The balance of £122,710 has been transferred to Reserve Fund. It was not necessary to make any payment to the Depreciation Reserve as this account has reached the statutory limit of 12½ per cent.

The Reserve Accounts established in connection with this scheme show that £1,112,633 has been credited to Depreciation Reserve, £1,308,951 to Sinking Fund and £303,948 to the Reserve Fund.

South Island System.—The plants at Lake Coleridge, Waitaki, Monowai, and Arnold River have also been operated successfully.

The year's operations resulted as under:—

Capital investment at end of year	£	7,289,053
Revenue		
Operating-expenses		678,813
Balance		<u>£505,524</u>

The balance has been used in payment of £254,069 for interest, £51,511 for social security charge, national security and income-taxes, £73,711 to the Depreciation Reserve, and £126,227 to the Sinking Fund.

The various Reserve Accounts established in connection with this scheme show that £813,288 has been paid to the Depreciation Reserve, £543,856 to Sinking Fund, and £86,766 to Reserve Fund. There is still a deficiency of £214,654 as against the statutory requirements of Sinking Fund.

Summarized Position: Percentage earned on Operating Capital after paying Working-expenses.

	Average Operating capital.	Gross Revenue.	Working- expenses.	Net Balance.	Percentage Net Balance to Operating- capital.
North Island system	£ 9,519,865	£ 1,533,136	£ 640,884	£ 892,252	Per Cent. 9.37
South Island system	5,882,967	678,813	173,289	505,524	8.59
Totals ..	15,402,832	2,211,949	814,173	1,397,776	9.07

The general position to date is that the Electric Supply Account has been able to meet all operating and interest charges, has provided the statutory requirement of £1,925,921 for depreciation, and in addition, has provided £1,852,807 towards the statutory sinking-fund requirement of £2,067,461. In addition, £390,724 has been paid to the Reserve Fund from profits from time to time. In other words, the electric-supply system as a whole has paid all operating and interest charges and provided £4,169,452 in reserves, of which £1,538,178 has already been utilized for the paying-off of loans which formed part of the original capital. There are, however, still to be met arrears of sinking funds amounting to £214,654.

CONSTRUCTION.

The demand for electric power still continues to increase, and, in addition to the ordinary expansion due to farming development and the construction of houses, industrial development and the supply of military camps has imposed a special load on the supply system.

To meet this demand additional main generating-stations and increased reticulation facilities have to be provided as a matter of urgency.

On the Waikato River two additional 21,600 kW. units are being installed at Arapuni, thus completing the final development at this station to a total of 146,400 kW.

At Karapiro some sixteen miles below Arapuni, a new dam is being built to utilize 100 ft. fall, and three 30,000 kW. generating-units are being installed, thus providing 90,000 kW. additional power from which must be deducted 10,300 kW. at present being generated at Horahora, which will be submerged when this new development is put into operation.

At the outlet to Lake Taupo a diversion canal has been constructed on which six regulating-gates have been installed so that the outflow from Lake Taupo can be regulated to provide water as required for the generating-stations below. The use of these gates will obviate any water being wasted over the spillways at certain seasons, and this water will be stored for use when the peak demand requires it.

At Waikaremoana work is nearing completion on the lower development which utilizes a head of 370 ft., and at this station two 20,000 kW. generating-units are being installed. The main feature of this work is the construction of 7,500 ft. of 16 ft. diameter pressure-tunnel.

At Cobb River good progress is being made on a scheme recently taken over from a private company. This scheme utilizes water under a head of 1,964 ft. and four 3,000 kW. generating-units are being installed, of which one unit is to be used as a spare; therefore the output will be 9,000 kW. This scheme is capable of being doubled at some future date.

In Canterbury construction works are proceeding on Highbank scheme situated on the Rakaia River, although the water-supply is being obtained from the Rangitata River by means of a 42-mile irrigation race. The available fall is 330 ft., and one 25,200 kW. generating-unit is being installed.

At Waitaki two new 15,000 kW. generating-units have been installed, bringing the total capacity of the station to 60,000 kW.

At Lake Tekapo construction has been started on regulating-works which involve the construction of a 20-ft.-diameter concrete-lined pressure-tunnel 6,000 ft. long, and a dam at the outlet of Lake Tekapo. These regulating-works will perform a similar function in controlling the water to Waitaki power-station as the Lake Taupo regulating-works for stations on the Waikato River. In addition to the regulating-works, there is a fall of 100 ft. which will be used subsequently to operate a generating unit of 21,600 kW. capacity at the outlet of the tunnel.

With the exception of Tekapo, tenders for which have not yet been called, the manufacture of the generating-units for these stations is well advanced, and it is hoped that deliveries will be made in due sequence, notwithstanding the prevailing difficulty of shipping during the war period.

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TABLE No. 5.
ELECTRIC SUPPLY ACCOUNT.—STATEMENT OF ACCOUNTS AT THE 31ST MARCH, 1941.
GENERAL BALANCE-SHEET

AT 31ST MARCH, 1941, COMPARED WITH POSITION AT 31ST MARCH, 1940.

Liabilities.	1940-41.				1939-40.				Assets.				1940-41.				1939-40.			
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.		
Aid to Water-power Works and Electric Supply Accounts—																				
Supply Stock issued—																				
At 2½ per cent. interest	..	1,300	000	0	0		1,300	000	0	..	12,193	876	18	1	11,039	964	16	8		
At 3 per cent. interest	..	3,149	372	9	6		3,149	372	9	6	25,242	0	9		2,175	7	5			
At 3½ per cent. interest	..	500	000	0	0		1,711	755	0	0	1,449	225	0		11,042	140	4	1		
At 3½ per cent. interest	..	1,711	755	0	0		..	..	..	..	..	..	..	..	..	..	..	..
At 3½ per cent. interest	..	567	290	0	0		1,643	470	0	0	1,643	470	0		7,294	627	0	0		
At 4 per cent. interest	..	1,643	470	0	0		2,623	913	18	0	2,623	913	18	0	10,547	0	5			
At 4½ per cent. interest	..	2,623	913	18	0		3,159	227	13	6	3,159	227	13	6	7,305	174	0	5		
Treasury Bills—																				
At 1½ per cent. interest	..	310	000	0	0		..	110	000	0	..	7,663	010	7	4	7,677	232	14	5	
At 1½ per cent. interest	..	430	000	0	0		..	75	000	0	..	75	000	0		14,222	7	1		
Treasury Notes—																341,979	1	1		
At 4½ per cent. interest				15,470	029	1	0	14,171	199	1	0	..	..	..	..
Consolidated Fund—																				
Interest accrued on loans to 31st March, 1941.							316,742	19	1	123,218	9	4								
Temporary transfers from other accounts ..							125,000	0	0	175,000	0	0		..	..	..	..	..
Interest reserve, being excess of interest charged to schemes over interest actually paid on capital liability ..							86,555	18	10	82,606	13	5								
Carried forward							15,998	327	18	11	14,562	024	3	9	Carried forward .. ..	..	..	..
																20,257	293	11	0	
																18,365	987	8	10	

TABLE No. 5.—*continued.*
NORTH ISLAND HYDRO-ELECTRIC-POWER SUPPLY—*continued.*
Depreciation Reserve Account.

		1940-41.	1939-40.	1940-41.	1939-40.
To Replacements, Renewals, &c.					
Balance...	£ 11,685	£ 19,051
	7 2	6 10
				1,112,633	1,081,075
				2 6	9 4
				£1,124,318	£1,100,126
				9 8	16 2

Depreciation Reserve Account.

Sinking Fund Account.						
To Balance	..	..	..	..	£	s. d.
					1,308,950	16 5
					1,159,820	3 11
					By Balance at close of previous year	
					Interest..	
					Amount set aside as per Net Revenue and Appropriation Account	
					1,159,820 3 11	
					193 10 0	
					148,937 2 6	
					418,552 3 4	
					£1,308,950 16 5	£1,159,820 3 11

Personal Word

TABLE No. 5—*continued*.
 NORTH ISLAND HYDRO-ELECTRIC-POWER SUPPLY—*continued*.
 BALANCE-SHEET AT 31ST MARCH, 1941, COMPARED WITH POSITION AT 31ST MARCH, 1940.

	1940-41.				1939-40.				1940-41.				1939-40.						
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	
Liabilities.	1,112,633	2	6	1,081,975	9	4	Hydro-electric plants—				2,645,343	5	9	2,646,143	2	s. d.
Sinking Fund—	1,134,771	13	2	739,092	13	2	Aranui	..	..	..	327,381	9	6	2,228,466	3	8
Utilized for redemption of loans	174,179	3	3	420,727	10	9	Horahora	..	..	..	1,365,097	14	5	1,404,321	18	3
Available for further redemptions	1,308,950	16	5	1,159,820	3	11	Mangauao	..	..	..	713,523	14	1	704,747	8	7
Reserve Fund	303,958	4	1	181,248	2	9	Fuel-plants—				5,051,346	3	9	5,053,679	9	8
Sundry creditors—							Penrose	..	..	Huntly	..	..	..	65,431	7	8	65,431	7	8
Public Works Department	25,797	12	6	32,717	15	11	Transmission lines system	..	..	..	11,264	2	5	11,412	1	11
Other Government Departments	2,711	3	3	2,382	12	7	Substations	..	..	..	1,386,362	2	5	1,209,354	7	10
Non-departmental	172,544	13	0	88,639	11	2	Communication system	..	..	..	171,634	19	6	174,845	213	3
Sundry credit balances—				201,053	8	9	123,739	19	2	Distribution system	..	..	..	56,664	6	1	62,342	8	8
Head Office Account	543	14	9	543	14	7	Offices, stores, land, buildings, &c.	..	..	..	71,325	7	8	73,715	3	8
				9,291,979	12	4	3,495,475	1	9	Cost of raising loans	..	..	..	307,475	12	2	296,955	12	2
										Interest during construction—									
										On assets in operation	..	..	..	973,707	16	10	963,962	2	3
										On assets not in operation	..	..	..	51,120	4	6	19,546	18	5
														1,024,828	0	4	1,024,828	0	4
Works under construction											383,509	0	8	383,509	0	8
Plant, motor-vehicles, and tools														1,667,556	14	11	1,667,556	14	11
Stocks of materials											11,561,704	13	5	11,561,704	13	5
Sundry debtors—														66,446	13	0	66,446	13	0
Public Works Department											245,916	16	10	245,916	16	10
Other Government Departments											14,077	13	1	14,077	13	1
Non-departmental											296,092	2	3	296,092	2	3
Sinking Fund investments											319,838	14	10	319,838	14	10
														25,242	0	9	25,242	0	9
														£12,219,118	18	10	£11,042,140	4	1

* Includes Communication system.

TABLE No. 5—continued.
SOUTH ISLAND HYDRO-ELECTRIC-POWER SUPPLY.
PROFIT AND LOSS ACCOUNT FOR YEAR ENDED 31ST MARCH, 1941, COMPARED WITH YEAR ENDED 31ST MARCH, 1940.
Gross Revenue Account.

	1940-41.	1939-40.	1940-41.	1939-40.
To Generating-expenses (hydro-electric)—				
Lake Coleridge	£ 14,538 18 1	£ 12,668 3 5	£ 443,634 13 3	£ 402,773 19 9
Lake Waiau	8,560 13 1	8,457 8 6		
Kaimata	1,577 12 9	1,215 14 10	21,089 4 11	
Monowai	6,370 10 0	7,709 0 4	79,340 15 4	
	31,047 13 11	30,030 7 1	96,639 10 4	
Generating expenses (fuel) Dobson	8,421 14 11	12,816 15 8	222,494 10 9	
Purchase of power in bulk .. ..	.. ..	298 4 3	666,029 4 0	
Standby charges .. ..	.. ..	225 0 0	559,893 10 4	
	39,982 13 1	43,184 19 8		
Transmission System : Patrol and maintenance	24,564 11 7	15,927 19 10		
Substations : Operation and maintenance	22,230 8 1	20,671 17 5		
Communication System : Patrol and maintenance	1,373 0 3	1,353 2 3		
Distribution : Maintenance	19,933 18 0	19,473 12 10		
System operation, testing, &c.	11,781 18 1	7,826 12 1		
Management and general expenses	53,411 16 5	66,527 8 7		
Balance, to Net Revenue and Appropriation Account	505,524 9 11	438,652 12 8		
	£678,812 15 5	£613,612 5 4	£678,812 15 5	£613,612 5 4

	1940-41.	1939-40.	1940-41.	1939-40.
To Interest (gross) for year ended 31st March, 1941 ..	£ 262,392 19 11	£ 252,569 17 10	.. ..
Less interest capitalized	8,323 8 11	5,651 0 0	505,624 9 11	£ 438,652 12 8
Depreciation on completed works .. ..	.. ..	254,069 11 0		
Sinking Fund .. ..	.. ..	73,711 4 7		
Reserve Fund .. ..	.. ..	126,227 3 11		
Social Security charge, national security tax, income-tax .. ..	.. ..	66,302 8 9		
	51,516 10 5	.. ..	
	£505,624 9 11	£438,652 12 8	£505,624 9 11	£438,652 12 8

TABLE No. 5—continued.
 SOUTH ISLAND HYDRO-ELECTRIC-POWER SUPPLY—continued.

Depreciation Reserve Account.

		1939-40.	1939-40.		1939-40.	1939-40.
To Replacements, Renewals, &c.	..	£ 45,649 18 10	£ 33,216 13 8	By Balance from previous year's statement..	..	£ 755,025 16 10
Balance ..	..	813,288 3 3	755,025 16 10	Interest at 4 per cent. per annum..	..	637,799 5 7
				Amount set aside as per Net Revenue and Appropriation Account	..	30,201 0 8
					73,711 4 7	25,511 19 4
						124,931 6 7
		£858,938 2 1	£788,242 10 6			
					£858,938 2 1	£788,242 10 6

Sinking Fund Account.

		£ s. d.	£ s. d.	By Balance at close of previous year..	..	..	£ s. d.
To Balance ..	..	..	..	Interest ..	..	..	417,604 14 3
				Amount set aside as per Net Revenue and Appropriation Account	..	..	350,840 10 0
					126,227 3 11	Dr. 38 4 6	66,802 8 9
		£543,855 16 1	£417,604 14 3				£543,855 16 1
							£417,604 14 3

Reserve Fund Account.

		£ s. d.	£ s. d.	By Balance at close of previous year..	..	..	£ s. d.
To Capital loss ..	..	..	..	..	..	..	87,199 6 0
Balance ..	..	..	..				87,199 6 0
		£87,199 6 0	£87,199 6 0				£87,199 6 0

TABLE No. 5—*continued.*
SOUTH ISLAND HYDRO-ELECTRIC POWER SUPPLY—*continued.*
BALANCE-SHEET AT 31ST MARCH, 1941, COMPARED WITH POSITION AT 31ST MARCH, 1940.

	1940-41.			1939-40.			1940-41.			1939-40.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
<i>Liabilities.</i>												
Depreciation Reserve	813,288	3	3	755,025	16	10	Hydro-electric plants—		
Sinking Fund—										Lake Coleridge ..	865,214	15
Utilized for redemption of loans	403,406	5	1	340,355	5	1	..	..	7	1,009,302	7
Available for further redemptions	140,449	11	0	77,349	9	2	..	..	..	146,440	5
										202,381	9	4
Reserve Fund							3,124,338	17	9
										2,982,941	13	2
										133,219	19	2
										1,027,863	5	0
										1,005,666	2	3
										721,610	11	10
										652,966	16	4
										73,017	2	9
										872,192	19	1
										851,305	19	7
										21,670	12	8
										532,491	17	6
										529,647	5	2
										21,518	6	7
										476,533	11	11
										4,762	0	0
										481,295	11	11
										203,128	14	8
										7,289,053	1	3
										6,936,918	1	11
										110,852	3	8
										126,092	18	5
										121,872	6	8
										6,796	9	11
										2,597	7	4
										111,646	18	0
										121,034	15	3
										14,222	7	1
										10,547	0	5
										57,677,232	14	5
										£7,305,714	0	5
										£214,654	2	3
										£252,670	11	5

Contingent Liabilities,
Arrears of appropriation to Sinking Fund ..

CHIEF ELECTRICAL ENGINEER'S REPORT.

For full text of the above report, refer to Public Works Statement, 1941, Appendix D, pages 40 to 57 inclusive.

REGISTRATION OF ELECTRICAL WIREMEN.

The statistics for the year ended 31st March, 1941, are set out below (the figures in parenthesis are for the previous year) :—

Number of meetings	18	(17)
Registrations—		
Inspectors	31	(38)
Wiremen—		
Full registration	168	(123)
Limited registration	64	(85)
Provisional licenses	27	(64)
Temporary permits	1	(18)
Reregistrations after periodical purging	7	(—)
Examinations—		
Wiremen's—		
Candidates—		
Written part	449	(527)
Practical part	360	(355)
Passed (per cent.)—		
Written part	32	(34)
Practical part	53	(52)
Highest marks—		
Written part	87	(91)
Practical part	91	(93)
Servicemen's—		
Candidates—		
Written part	103	(113)
Practical part	70	(99)
Passed (per cent.)—		
Written part	40	(34)
Practical part	67	(61)
Highest marks—		
Written part	100	(89)
Practical part	93	(95)
Defective work reports		
Endorsements made	36	(51)
Endorsements removed	4	(2)
Breach of Act reports		
Prosecutions authorized	1	(3)
	91	(59)
	51	(36)

INTRODUCTORY REMARKS CONCERNING TABLES PREPARED BY THE CHIEF ELECTRICAL ENGINEER.

For reasons of economy in paper, the usual number of tables is not being published for the year ended 31st March, 1941, tables VI, VII, VIII, XII, XV, and XVI being omitted. Tables IV and V have been incorporated in table XI.

This edition contains—

- Table I: P.W.D. System: Capital Outlay and Results of Operation.
- Table II: P.W.D. System: Analysis of Capital Outlay.
- Table III: P.W.D. System: Working-costs.
- Table IX: Populations, Consumers, Route-miles of Lines, &c
- Table X: Results of Generation and Distribution.
- Table XI: Financial Results of Operation.
- Table XIII: Averages derived from Tables IX, X, and XI.
- Table XIV: Ranges, Water-heaters, and Milking-machines.

The statistics and information usually compiled under the headings "Local Electrical Supply Systems," "Broken Wires and Poles," "Growth of Load," "Electrical Accidents," and "Electrical Fires," have been condensed and summarized as follows :—

A. Condensed Statistics, 1940-41.

		1941.	1940	Increase or Decrease
(a) Installed generating-capacity (main stations)	kW	338,075	303,166	+34,909
(b) Installed generating-capacity (standby)	kW	100,117	100,539	-422*
(c) Total connected load	kW	2,388,389	2,152,201	+236,188
(d) Consumers	No.	442,222	426,354	+15,868
(e) Units sold per capita	No.	917	837	+80
(f) Units sold per consumer	No.	2,981	2,877	+104
(g) Route-miles of main and distribution line	R.M.	28,180	27,358	+822
(h) Consumers per route-mile	No.	15.69	15.58	+0.11
(i) Sales per route-mile	Units	51,394	46,784	+4,610
(j) Miles of conductor in service	Miles	140,099	134,603	+5,496
(k) Broken poles reported	No.	405	393	+12
(l) Broken wires reported	No.	1,609	2,029	-420
(m) Electrical fires reported	No.	19	25	-6
(n) Electrical accidents reported	No.	25	48	-23
(o) Electric ranges installed	No.	(10 fatal)	(10 fatal)	
(p) Electric water-heaters installed	No.	105,522	92,323	+13,199
(q) Electric milking-machines installed	No.	124,193	100,948	+17,245
		29,365	27,183	+2,182

* Plant removed Hawke's Bay and Rotorua Stations

B. Summarized Results of Operations for Year ended 31st March, 1941.

Item.	Water	Steam	Gas	Oil	Total
1. Number of main stations	No.	33(a)	1(c)	6(b)	40
2. Installed capacity (main plant)	kW	336,118	750	1,207	338,075
3. Number of standby plants	No.	11(d)	10(f)	25(e)	49
4. Installed capacity (standby plant)	kW	2,506	77,565	18,945	100,117
5. Number of consumers	No.				
6. Connected load	kW		442,222		
7. Units generated	No.	1,698,362,131	123,980,885	7,689,323	1,830,232,208
8. Units sold to consumers	No.		1,448,310,043		
9. Percentage of non-productive units	%		20.89		
10. Total operative capital (including distribution systems and standby plant)	£		41,552,698		
11. Total capital per kilowatt installed (including distributing systems, &c.)	£		94.82		
12. Annual working-costs	£		2,032,745*		
13. Annual working-cost per unit under section 8	d.		0.336		
14. Annual capital costs (interest, sinking fund, and depreciation)	£		2,300,226		
15. Annual capital cost per unit under section 8	d.		0.382		
16. Annual capital cost as a percentage of capital	%		5.55		
17. Total annual costs (section 12 plus section 14)	£		4,341,971		
18. Total annual cost per unit under section 8	d.		0.719		
19. Total annual revenue (from retail sale of electricity)	£		5,443,696		
20. Average revenue per unit (from sections 19 and 8)	d.		0.902		
21. Gross revenue (excluding rates and bulk sales)	£		5,507,120		
22. Net profit (section 21 less section 17)	£		1,255,158		
23. Ratio of working-costs to gross revenue (section 12 and section 21)	%		36.31		

* After deducting cost of power purchased in bulk.

MAIN STATIONS

(a) Hydro-electric : Arapuni, Horahora, Waikaremoana, Mangahao, Mangorei, Kourarau, Opunake, Lake Coleridge, Waitaki, Waipare, Dunedin, Picton, Queenstown, Raetihi, Taihape, Tauranga, Westport, Kaponga, Murchison, Kanieri, Reefton Electric Light and Power Co., Ltd. Wilsons (N.Z.) Portland Cement Co., Ltd., Westland Power, Ltd. Total, 33.

(b) Oil : Waimea, Picton, Kaikoura, L Keys, Kohukohu, Reefton Electric Light and Power Co., Ltd., Rawene Motors Total, 6.

STANDBY STATIONS

(d) Hydro-electric : Banks Peninsula, Hawke's Bay, South Canterbury, Waitaki, New Plymouth, Ohakune, Patea, Raetihi, Taumarunui, Te Aroha, Thames Borough Total, 11.

(e) Oil : Penrose, Dobson, Hawke's Bay, Marlborough, Opunake, Poverty Bay, South Taranaki, Waimea, Waitaki, Dunedin, Palmerston North, Wellington, Napier, New Plymouth, Ohakune, Patea, Picton, Queenstown, Rangiora, Thames Borough. Murchison, Kanieri, L Keys, Kohukohu, Reefton Electric Light and Power Co., Ltd., Westland Power, Ltd. Total, 25.

(f) Steam : Huntly, Christchurch Tramway Board, Invercargill, Auckland, Wangānui-Rangitikei, Christchurch City, Dunedin, Nelson, Wellington, Wilson's Portland Cement Co., Ltd. Total, 10.

(g) Gas : Palmerston North, Taihape, Westport, Total, 3.

TABLE I.—SUMMARY OF FINANCIAL AND OPERATING STATISTICS FOR NORTH ISLAND AND SOUTH ISLAND ELECTRIC POWER SYSTEMS FOR THE YEAR ENDING 31ST MARCH, 1941.

NOTE.—“North Island system” includes Arapuni—Horahora—Mangahao—Waikaremoana all interconnected. “South Island system” includes Lake Coleridge—Waitaki—Southland—Arnold River (Westland) all interconnected.

	1940-41 (Seventh Year).		1940-41 (Seventh Year).
(a) Financial.			
(1) Capital outlay—		(6) Net profit for year—	
Assets in operation—		North Island system	£ 556,179
North Island system ..	9,843,028	South Island system ..	177,744
South Island system ..	6,988,580		
Total assets in operation ..	16,831,608	Total profit for year ..	733,923
Assets not in operation—			
North Island system ..	1,718,677		
South Island system ..	300,473		
Total assets not in operation ..	2,019,150		
Total capital outlay ..	18,850,758		
(2) Revenue for year—		(7) Allocation of Profits—	
North Island system ..	1,533,136	Sinking Fund—	
South Island system ..	678,813	North Island system ..	148,937
Total revenue for year ..	2,211,949	South Island system ..	126,227
			275,164
(3) Costs—		Income-tax, &c.—	
Working-costs—		North Island system ..	284,532
North Island system ..	640,884	South Island system ..	51,517
South Island system ..	173,288		
Total working-costs for year ..	814,172		336,049
(4) Capital charges—		Reserve Fund—	
Interest—		North Island system ..	122,710
North Island system ..	336,073	South Island system ..	Nil.
South Island system ..	254,070		
Depreciation—			122,710
North Island system ..	Nil.		
South Island system ..	73,711		
Total capital charges for year—			
North Island ..	336,073	(8) Accumulated Depreciation Reserve—	
South Island ..	327,781	North Island system ..	1,112,633
	663,854	South Island system ..	813,288
	1,478,026	Total Depreciation Reserve ..	1,925,921
(5) Total cost for year—			
North Island ..	976,957	(9) Accumulated Sinking Fund—	
South Island ..	501,129	North Island system ..	1,308,951
	1,478,026	South Island system ..	543,856
	1,478,026	Total Sinking Fund Reserve ..	1,852,807
	1,478,026	Arrears in Sinking Fund payments not yet appropriated—	
	1,478,026	North Island system ..	Nil.
	1,478,026	South Island system ..	214,654
	1,478,026		
	1,478,026	(10) Reserve Fund—	
	1,478,026	North Island system ..	303,958
	1,478,026	South Island system ..	86,766
	1,478,026	Total Reserve Fund ..	390,724

(Continued on next page.)

TABLE I.—SUMMARY OF FINANCIAL AND OPERATING STATISTICS FOR NORTH ISLAND AND SOUTH ISLAND ELECTRIC-POWER SYSTEMS FOR THE YEAR ENDING 31ST MARCH, 1941—continued.

NOTE.—“North Island system” includes Arapuni–Horahora–Mangahao–Waikaremoana all interconnected. “South Island system” includes Lake Coleridge–Waitaki–Southland–Arnold River (Westland) all interconnected.

	1940-41 (Seventh Year)	1940-41 (Seventh Year)
(b) Operating Results.		
Maximum load (kilowatts)—		
North Island system	246,700	
South Island system	84,920	
Average load (kilowatts)—		
North Island system	142,231	
South Island system	47,031	
Average load factor—		
North Island system	Per Cent. 57.65	
South Island system	56.44	
Units output—		
North Island system	1,245,047,813	
South Island system	419,883,195	
Combined ..	1,665,831,008	
Units distributed—		
Units sold—		
North Island system	1,122,692,042	
South Island system	358,442,353	
Combined ..	1,481,134,395	
Units unsold (station auxiliaries, &c)—		
North Island system	5,500,429	
South Island system	2,907,865	
Combined ..	8,408,294	
Total units distributed, North Island system	1,128,192,471	
Total units distributed, South Island system	361,350,218	
Combined ..	1,489,542,689	
Line losses—		
Transmission and distribution—	Units.	Per Cent.
North Island system	117,755,342	9.45
South Island system	58,532,977	13.94 *
Combined ..	176,288,319	
Revenue—		
Per kilowatt (system maximum)—		
North Island system	£	6.21
South Island system	d.	7.99
Per unit generated—		
North Island system	d.	0.295
South Island system	d.	0.388
Per unit distributed—		
North Island system	d.	0.326
South Island system	d.	0.451
Per unit sold—		
North Island system	d.	0.328
South Island system	d.	0.454
Working costs—		
Per kilowatt (system maximum)—		
North Island system	£	2.59
South Island system	d.	2.04
Per unit generated—		
North Island system	d.	0.1234
South Island system	d.	0.099
Per unit distributed—		
North Island system	d.	0.136
South Island system	d.	0.115
Per unit sold—		
North Island system	d.	0.137
South Island system	d.	0.116
Capital charges—		
Per kilowatt (system maximum)—		
North Island system	£	1.36
South Island system	d.	3.86
Per unit generated—		
North Island system	d.	0.0647
South Island system	d.	0.1873
Per unit distributed—		
North Island system	d.	0.0715
South Island system	d.	0.2177
Per unit sold—		
North Island system	d.	0.0718
South Island system	d.	0.2195
Total costs—		
Per kilowatt (system maximum)—		
North Island system	£	3.06
South Island system	d.	5.90
Per unit generated—		
North Island system	d.	0.1882
South Island system	d.	0.2864
Per unit distributed—		
North Island system	d.	0.2078
South Island system	d.	0.3328
Per unit sold—		
North Island system	d.	0.2088
South Island system	d.	0.3355

* Retail transmission and distribution losses Southland Area 24.975 per cent.

TABLE II.—ANALYSIS OF CAPITAL OUTLAY AS AT 31ST MARCH, 1941.

North Island System.		South Island System.		Combined Totals.
Headworks and power-stations—		Headworks and power-stations—		
Land, fencing, and roading—		Land, fencing, and roading—		
Arapuni	£ 106,059	Coleridge	£ 25,841	
Horahora	3,208	Waitaki	48,441	
Mangahao	74,707	Southland	12,226	
Waikaremoana	18,533	Arnold River (Kaimata)	1,456	
Taupo	30,693	Highbank	1,842	
Headworks—		Headworks—		
Arapuni	1,221,524	Coleridge	550,679	
Horahora	151,468	Waitaki	1,073,524	
Mangahao	943,849	Southland	86,816	
Waikaremoana	190,148	Arnold River (Kaimata)	109,524	
Karapiro	565,660	Highbank	18,763	
Lower development	117,078	Tekapo	89,963	
Generating-station, buildings, and village—		Generating-station, buildings, and village—		
Arapuni	257,872	Coleridge	101,073	
Horahora	61,037	Waitaki	488,974	
Mangahao	131,095	Southland	43,199	
Waikaremoana	263,802	Arnold River (Kaimata)	8,617	
Generating plant and machinery—		Highbank	13,143	
Arapuni	927,834	Generating plant and machinery—		
Horahora	95,491	Coleridge	194,701	
Mangahao	220,978	Waitaki	362,060	
Waikaremoana	280,500	Southland	60,641	
" Lower development	56,003	Arnold River (Kaimata)	26,843	
Auxiliary stations (three)—Penrose, Huntly, Grand Junction	77,695	Highbank	13,340	
Transmission and distribution—		Auxiliary station (one)—Dobson (ex Lyttelton)		
Primary distribution—		133,220		
11 kV. lines	62,822			
33 kV. lines			540,747	
50 kV. lines	422,883		58,871	
66 kV. lines				
110 kV. lines	1,855,470		610,255	
Secondary distribution			392,557	
Substations—			327,722	
11 kV. substations	13,345			
33 kV. substations			471,841	
50 kV. substations	416,953		257,747	
66 kV. substations				
110 kV. substations	1,135,896			
General—				
General offices, garages, stores, and other accommodation	70,326	General—		
Telephone services	178,123	General offices, garages, stores, and other accommodation	29,205	
Explorations and preliminary surveys; engineering, office, and general expenses; charges and expenses of raising loans	576,825	Telephone services	77,437	
Interest during construction	1,024,928	Explorations and preliminary surveys; engineering, office, and general expenses; charges and expenses of raising loans	533,018	
Grand totals	11,561,705	Interest during construction	489,619	2,979,381
			7,289,053	18,850,758

TABLE III.—OPERATING OR WORKING COSTS FOR YEAR ENDED 31ST MARCH, 1941.

	North Island System.			South Island System.		
	Cost.	Cost per Unit.		Cost.	Cost per Unit.	
		Generated.	Distributed.		Generated.	Distributed.
(a) Hydro stations	£ 63,859	d. 0·0139	d. ..	£ 31,048	d. 0·0178	d. ..
(b) Fuel stations	12,380	2·9598	..	8,422	7·0720	..
(c) Auxiliary stations, power purchased, and standby provision	419,238	0·7097	..	523	2·5442	..
Generated and purchased	495,477	0·0954	0·1054	39,993	0·0229	0·0266
(d) Transmission	31,784	0·0061	0·0068	24,565	0·0140	0·0163
(e) Communication system	2,296	0·0004	0·0005	1,373	0·0008	0·0009
(f) Substations	42,390	0·0082	0·0090	22,230	0·0127	0·0148
(g) Distribution	2,160	0·0004	0·0005	19,934	0·0114	0·0132
(h) System operations	13,821	0·0027	0·0029	11,782	0·0067	0·0078
(i) Management and general expenses	52,956	0·0102	0·0109	53,412	0·0305	0·0355
	640,884	0·1234	0·1363	173,288	0·0990	0·1151

North Island System.

Units generated—

Hydro

1,103,170,650

South Island System.

419,548,030

TABLE IX.—STATISTICS OF POPULATION, CONSUMERS, GENERATING PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, &c., FOR THE YEAR ENDED 31ST MARCH, 1941.

Supply Authorities,	Population included in Area of Supply.	Number.	Number of Consumers.	Source of Supply.	Year when supply commenced.	Capacity of Generating Plant.		Static Head in Feet.	Voltage.		Secondary Distribution System of Supply).	Distribution Transformers.	Route-miles of Lines.	Street Lighting System.	No.			
						Main Plant.	Standby Plant.		Generation.	Transmission.								
SIO WOKES DEPARTMENT, North Island System	1921	106,585*	kVA.	230,785	kW.	{ 3,750† 1,500‡	4,680 1,875§	Ft. Arapuni = 175 Mangahao = 896 Horihora = 27 Monowai = 670 Coleridge = 480 Arnold River = 62·5 Waitaki = 70 Monowai = 154	{ 11,000 6,000	{ 110,000 50,000	11,000 3,300	400/230 A.C.	65	5,928 Miles, 1,511 ..
South Island System	..	50,530	12,342	I.	1916	103,560*	kVA.	116,954	kW.	{ 5,780† 1,000‡	7,200 1,100 1,250§	
Totals	50,530	12,785	..	..	290,145	347,730	13,110	10,114	..	..	..	1,780	27,785	3,412 Parallel		
POWER BOARDS.	..	19,330	4,862	G.S.	1923	..	..	..	..	..	..	..	..	1,854	33,713	4,923 ..
Uckland	..	210,700	67,435	G.N.	1908	{ 37,050† 3,650‡	47,347 D.C.	
North Peninsula	..	3,550	1,118	G.S.	1921	..	..	..	..	72*	90	310	3,300 (s)	22,000	11,000	11,854 Series
W. of Islands	..	32,100	1,040	I. & G.N.	1930	88*	..	..	..	..	..	123	400	400/230 D.C.	1,128	77,043 1,273 Series and Parallel
W. of Plenty	..	13,270	2,378	G.N.	1928	..	..	..	..	..	..	..	..	..	..	..
Weller		
Ambridge	..	6,030	1,840	G.N.	1921	..	..	..	..	..	..	..	..	..	..	..
Natural Hawke's Bay	..	10,450	2,193	G.N.	1925	..	..	..	..	..	..	..	..	..	..	..
Natural Waitomo	..	29,030	7,386	G.N. & B.	1921	..	..	..	..	..	..	..	..	..	..	..
Waimearie	..	12,550	3,272	G.N.	1925	..	..	..	..	..	..	..	..	..	..	..
Franklin	..	21,300	5,381	G.N.	1925	..	..	..	..	..	..	..	..	..	..	..
Golden Bay	..	3,500	5,534	I. & B.	1920	200*	..	..	..	..	..	..	..	..	..	..
Grey	..	18,030	4,830	G.S.	1920	..	..	..	..	..	..	..	..	..	..	..
Hawke's Bay	..	32,370	9,133	G.N.	1927	..	..	..	..	{ 520† 144‡	650 D.C.	..	..	..	..	..
Harrowhams	..	18,550	6,132	G.N.	1924	..	..	..	..	..	..	..	..	..	..	..
Hutt Valley	..	54,890	16,415	G.N.	1924	..	..	..	..	..	..	..	..	..	..	..
Hutt Country		
Wainui	..	6,800	783	G.S.	1925	..	..	..	..	..	..	..	..	..	..	..
Wainauwhata-Oroun	..	23,420	5,948	G.N.	1924	..	..	..	..	..	..	..	..	..	..	..
Borough	..	15,400	3,400	I.	1927	1,000*	..	..	..	..	..	..	..	..	..	..
North Auckland	..	27,280	4,282	G.N.	1930	..	..	..	..	..	..	..	..	..	..	..
North Canterbury	..	15,400	3,644	G.S.	1928	..	..	..	..	..	..	..	..	..	..	..
Wainake	..	0,000	1,342	G.N.	1921	..	..	..	..	..	..	..	..	..	..	..
Otago	..	34,580	5,068	G.S. & B.	1926	..	..	..	..	148†	185	47	6,000 (s)	..	..	..
Central Otago Central	..	6,300	1,045	I. & B.	1925	1,000*	..	..	..	..	..	..	..	..	..	..
						2,000	..	..	..	..	..	..	..	..	..	..
							
						887	..	..	..	..	..	..	..	..	..	..
						6,000 (s)	..	..	..	..	..	..	..	..	..	..
						6,000	..	..	..	..	..	..	..	..	..	..
						33,000	..	..	..	..	..	..	..	..	..	..

(For notes see page 23.)

TABLE IX.—STATISTICS OF POPULATION, CONSUMERS, GENERATING-PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, &c., FOR THE YEAR ENDED 31ST MARCH, 1941—*continued.*

Geographical or Generating Plant.												Voltage.																				
Included in Number of Consumers.						Source of Supply.			Main Plant.			Standby Plant.			Static Head in Feet.			Generation.			Trans-mission.			Primary Distribution.			Secondary Distribution (and System of Supply).			Distribution Transformers.		
Area of Supply.						when Supply con- tinued.			kW.			kVA.			Ft.			Ft.			kVA.			kVA.			Number.			Total kVA.		
PARDS—continued.	Bay	25,100	Number	6,321	G.N.	1912	0800†	300†	850	D.C.		
10	26,300	5,423	G.S.	1925	..	..	..	32*	40	480†	007	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	15,580	4,100	I. & G.N.	1929	556*	695	..	..	440 D.C. (s)	440 (s)	400 (s)	440 (s)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	14,000	2,964	G.S. & B.	1922	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	15,580	3,100	I. & G.N.	1927	4,800*	5,400	..	..	400/230 A.C.	400/230 A.C.	400/230 A.C.	400/230 A.C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	9,240	2,187	G.N.	1925	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	11,000	2,444	G.N. & B.	1926	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	12,770	2,701	G.N.	1921	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	1,500	400	L	1924	760*	930	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	42,310	10,418	G.N.	1921	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	15,900	3,183	I. & B.	1933	{ 750†	940	100†	125	900/16/10	450/230	900/16/10	450/230	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	25,440	6,201	G.N.	1923	{ 440†	644†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21	3,800	594	L	1925	624*	780	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	7,800	547	G.N.	1928	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	18,010	4,953	G.S.	1926	..	..	..	..	120*	150	250	3,300 (s)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	52,340	10,316	G.N.	1926	..	..	..	..	102†	249	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25	10,000	1,010	G.N.	1926	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26	46,290	12,007	G.N.	1924	..	..	..	..	1,500†	1,875	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27	974,950	246,034	..	..	..	10,808	12,804	47,480	63,081	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
E. AUTHORITIES.												Councils.						D.C. (s)						D.C. (s)						Series and parallel		
1	104,000	34,201	G.S.	1003	17,000*	21,250	700	{ 1,400†	800†	D.C.	
2	83,000	31,518	I. & G.S.	1007	{ 0,600 (s)	2,310	D.C.	
3	22,000	7,042	G.S.	1014	{ 0,600 (s)	1,800†	D.C. (s)	
4	11,400	3,043	I. & B.	1023	760†	037	500†	024		
5	23,000	7,010	B.	1024	{ 2,000†	2,500		
6	131,000	41,004	G.N.	1007	{ 5,000†	31,000†	D.C. (s)	
7	365,000	124,007	17,750	22,187	32,051	38,234		
F. AUTHORITIES.												Councils.						D.C. (s)						D.C. (s)						Series and parallel		
1	
2	
3	
4	
5	
6	
(For notes see page 23.)												(For notes see page 23.)						(For notes see page 23.)						(For notes see page 23.)						(For notes see page 23.)		

TABLE IX.—STATISTICS OF POPULATION, CONSUMERS, GENERATING-PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, &c., FOR THE YEAR ENDED 31ST MARCH, 1941—continued.

City Authorities— <i>et al.</i> rough Councils,	Population included in Area of Supply.	Number.	Source of Supply.	Capacity of Generating Plant.			Static Head in Feet.	Generation.	Trans- mission.	Voltage.	Distribution.		Route- miles of Lines.	Street Lighting System.	No. No.	
				Main Plant.	Standby Plant.	kVA.					Transformer. Number.	Total kVA.				
G.A. AUTHORITIES— <i>et al.</i>																
Iton	2,000	506	G.S.	1,003	..	..		..	..	3,300	400/230 A.C.	19	971	12	1
wood	17,280	5,714	G.N.	1,013	..	..		..	..	11,000	400/230 A.C.	42	4,800	65	2
ton	1,270	5,450	B.	1,005	..	..		..	..	3,300	400/230 A.C.	4	275	14	3
ton	1,610	6,642	B.	1,017	..	..		..	..	3,300	400/230 A.C.	4	265	14	4
R	3,000	1,031	G.S.	1,017	..	..		..	..	11,000	400/230 A.C.	9	941	12	5
R	15,080	4,993	B.	1,013	..	..		..	..	11,000	400/230 A.C.	34	5,525	43	6
Plymouth	24,050	7,505	G.N.	1,006	..	..		..	..	11,000	400/230 A.C.	271	11,081	376	7
ane	1,890	503	I. & B.	1,014	..	..		..	..	6,600 (s)	400/230 A.C.	18	281	19	8
ne	2,180	400	I. & B.	1,001	..	..		..	..	6,600	500 D.C. (Trans.)	20	592	38	9
astown	1,390	452	I.	1,017	{ 145† 10*	..		..	..	3,300 (s)	400/230 A.C.	..	..	Parallel	0
astown	920	292	L.	1,084	75	128†	D.C.	100	..	..	400/230 D.C.	..	..	Parallel	10
hi	2,080	512	I.	1,017	280*	350	90*	120	..	3,300	400/230 A.C.	8	80	8	11	
ora	2,240	817	B.	1,010	..	..	..	..	..	6,600	400/230 A.C.	18	451	23	12
ation	5,870	1,905	G.S.	1,016	..	..	..	..	..	3,300	400/230 A.C.	7	422	14	13
astour (Tourist Dept.)	10,740	3,330	G.N.	1,001	..	..	..	..	..	11,000	400/230 A.C.	17	2,100	21	14
ord	3,900	1,238	B.	1,008	..	..	..	..	..	3,300	400/230 A.C.	101	3,740	137	15
ter	3,200	1,100	G.S.	1,018	..	..	..	..	..	3,300	280/115 A.C.	18	1,665	22	16
ps	2,210	681	I. & B.	1,013	160*	D.C.	76†	65	..	6,600	400/230 A.C.	8	725	10	17	
anz	4,370	1,220	G.N.	1,024	..	..	..	..	..	3,300	400/230 D.C.	1	100	11	18
anz	3,910	1,512	I. & G.N.	1,015	3,460*	4,300	..	..	..	6,600	400/230 A.C.	28	1,085	31	20
ohn	2,450	828	B.	1,006	..	..	..	..	..	11,000	400/230 A.C.	14	1,500	64	21
ke	1,020	304	D.	1,021	..	..	..	..	..	3,300	400/230 A.C.	13	940	22	22
anz	4,220	1,239	I. & B.	1,014	..	..	428*	500	55	3,300 (s)	400/230 A.C.	..	..	Parallel	10
u	17,800	5,347	B.	1,008	110/80	3,300	400/230 A.C.	23	1,390	25	23
ra	2,630	809	B.	1,013	..	..	138*	106	..	33,000	400/230 A.C.	25	4,505	71	24
out	2,060	688	B.	1,007	220*	250	..	..	..	11,000	400/230 A.C.	15	1,100	18	25
ntane	4,240	1,430	I. & B.	1,025	..	..	210†	262	..	6,600	400/230 A.C.	15	450	12	26
paret	2,000	732	B.	1,022	..	..	..	..	..	22,000	400/230 A.C.	15	487	33	27
paret	7,600	2,082	B.	1,016	..	..	..	..	..	3,300 (s)	400/230 A.C.	12	1,025	30	28
Totals	156,050	49,310	..	..	4,321	4,975	3,900	4,620	..	..	..	..	..	2,865	44
on Boards.	..	1,700	440	I. & B.	1,016	96*	120	..	..	..	..	..	..	51,244	1,170
gn	..	330	146	B.	1,013	3,300	400/230 A.C.	30	518	55	1
u	..	770	182	B.	1,029	3,300	400/230 A.C.	3	141	11	2
Totals	..	2,850	768	96	120	54	694	71

(For notes see page 23.)

TABLE IX.—STATISTICS OF POPULATION, CONSUMERS, GENERATING-PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, &c., FOR THE YEAR ENDED 31ST MARCH, 1941—continued.

PPV Authorities, Local Authorities— continued, County Councils,	Population included in Area of Supply.	Number of Consumers.	Source of Supply.	Capacity of Generating Plant.		Static Head in Feet.	Transmission. Generation.	Primary Distribution.	Secondary Distribution (and System of Supply).	Distribution Transformers, Number.	Total kVA.	Route- miles of Lines.	Street Lighting System.	No.		
				Main Plant.	Standby Plant.											
Merci Electric, Ltd.	2,830	900	I. & G.S.	1,921	1,500*	187	250/100	2,400	11,000	400/230 A.C.	6	1,530	30	Series.	1	
Keys, Kotonu and Portton Electric Light and Power Co., Ltd.	400	67	I.	1,033	207	36	230	400	..	400/230 A.C.	..	..	2	Parallel.	2
Levins Motors, Ltd.	1,500	356	I.	1,887	98*	121	D.C.	30	..	230 D.C.	..	..	..	Parallel.	3
Son's (N.Z.) Portland Cement, Ltd.	300	55	I. & B.	1,036	1,101	3,750	3,100†	130	230	230 D.C.	..	..	1	Parallel.	4
Portland Power, Ltd.	500	106	I. & B.	1,016	3,000*	3,750	5,500	200/150	5,500	400/230 A.C.	31	901	46	Parallel.	5	
Totals	4,000	385	I. & B.	1,928	903*	1,130	45†	..	6,600	400/230 A.C.	48	1,630	74	Parallel.	6	
Total	9,530	1,952	..	..	5,097	6,606	3,487	4,046	..	..	..	..	..	..	..
Grand totals	1,570,100	442,222	338,075	395,002	100,117	117,104	20,730	625,512	23,180	..

Notes.—1 Includes Arapuni, Hororata, Waitaki, Coleridge, Waikato, Monowai, and Mangahao power-stations interconnected.

2 Includes Lake Taupo, Waikato, Monowai, and Arnold River.

3 Includes Penrose Diesel plant.

4 Invercargill City Council steam-plant.

5 Huntly steam-plant.

6 Dobson Diesel plant.

7 Not actively functioning.

8 Dobson Diesel plant.

9 Government supply, North Island system.

10 Not yet actively functioning.

11 Board constituted 15th May, 1940; not yet actively functioning.

12 Independent supply (own generating plant); I = Independent generating capacity.

13 South Island system; I = Independent generating capacity.

14 Bulk supply from another authority.

The following symbols are used to denote:

Total Population of Dominion as at 31st March, 1941: 1,636,230.

Ratio of Total Population in Areas of Supply (excluding outer areas of Electric-power Boards) to total Population of Dominion: 96·50 per cent.

TABLE X.—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31ST MARCH, 1941.

For notes see page 26.)

TABLE X.—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31ST MARCH, 1941—continued.

Supply Authorities.	Connected Load.	Maximum Lead on Bulk System.	Excluding Bulk Supply.	Generated.						Units sold (Average).		Per capita Distribution of Power for Head of Household.	Per capita Distribution of Power for Consumer and their Families.	Per capita Distribution of Power for Non-residential Producers.	Consumers per Route-mile of Line.	Ratio of Consumers to Population in Area of Supply.						
				Water.		Steam.		Oil.		In Bulk for Resale.												
				kWh.	%	kWh.	%	kWh.	%	kWh.	%											
IN LOCAL AUTHORITIES.																						
City Councils.				218,484	32,744	1,651	41.64	8,491	1.00	278,139	110,449,580	9,712,341	12,144,313	11.00	938,026	280,536	0.850					
Bristol	240,300	122,107	24,846,177	8,651,800	10,08	41,64	1.00	35,582,400	10,447,599	10,610,135	7,001,168	83,918,184	13,407,007	13.83	1,010,202	115,530	1.62					
Cardiff	24,291	2,808,115	5,533,341	1,081,503	970	75,16	0.87	12,061,670	41,955	10,601,670	9,678,829	1,040,306	9,759	1,456,484	115,535	0.83						
Glasgow	12,503	1,374,156	5,756,521	1,374,156	1.00	16,000	0.87	3,076,640	2,048,565	2,048,565	1,268	1,268	1,268	82	115,535	32,090	0.70					
Leeds	37,436	5,394,145	16,000	3,928	18,26	52,42	1.00	26,196,624	28,448	20,866,378	22,078,735	3,290,710	12,55	1,031,492	280,850	0.746						
Nottingham	12,503	1,374,156	5,756,521	1,374,156	1.00	16,000	0.87	3,076,640	2,048,565	2,048,565	1,268	1,268	1,268	82	115,535	32,090	0.70					
Sheffield	211,435	30,928	18,26	52,42	1.00	16,000	0.87	157,320,678	20,866,378	123,289,192	14,031,468	10,92	1,018,2713	166	280,74	380,523	0.755					
Totals	370,390	626,252	68,278,139	76,204,665	210,4,014	..	329,240,807	475,837,615	91,490,127	339,764,131	44,583,357	9,30	1,931	276,001	120				
Borough Councils.				2,607	3,221,111	3,24	0.92	..	..	..	..	..	..	..	..	..	..
Bath	20,440	3,247,37	48,17	..	..	..	..	13,215,270	13,215,270	13,215,270	703,165	..	..	..	..	..	..
Brentwood	1,559	2,330,14	75,51	40	..	..	..	1,035,636	1,035,636	1,035,636	12,703,971	61,112,209	2,223	49	40,612	194,488	0.540		
Bristol	1,688	1,981,187	41,14	..	..	..	..	713,660	657,050	657,050	36,375	3,51	787	126	10,114	48,91	0.518	
Bury	5,000	4,901,9	6,600	7,00	..	..	..	1,745,600	1,662,936	1,662,936	55,710	7,03	400	1,214	47	48,166	33,06		
Chesterfield	15,166	2,658,115	6,00	6,68	..	..	..	14,031,517	14,128,817	14,128,817	82,644	4,753	6,655	103	14,213	88,11	0.511		
Derby	35,110	6,171,17	37,62,14	12,232	0,40	33,614,203	45,746,213	45,746,213	93,840	13,100,893	925,084	6,550	120	33,60	97,474	0.51				
Durham	1,352	184,17	37,42,19	7,972,840	..	..	..	12,153,750	12,153,750	12,153,750	20,100	1,051,927	4,540,366	13,51	1,611,111	31,30	0,512		
Fareham	2,555	355,13	94,52,55	132,077	219,000	680,140	680,140	1,066,250	73,800	10,87	77,471	90,01	30,08				
Gateshead	962	1,962,0	51,17	1,501,126	1,634,006	1,634,006	1,465,232	1,465,232	1,032	1,032	174	31,950	30,56	..				
Hartlepool	620	82,13,52	34,94	226,720	255,800	255,800	255,800	229,188	30,723	11,82	82,936	100	82,922	22,88	..				
Plymouth	3,465	3,383,3	2,00	770	19,000	40,710	40,710	205,377	205,377	21,825	21,825	54	43,05	22,88			
Southport	12,102	1,187	0,74,49	69	1,201,610	249,000	802,665	66,07	38	24,894	35,330	32,51		
Tottenham	12,489	1,868,14	95,45	96	5,167,270	5,167,270	5,167,270	1,315,312	1,315,312	1,007	90	1,743	90	18,28			
Wolverhampton	105,111	105,111	1,927	97	34	121	96,073	95,76	1,627	12			
Wrexham	3,376	3,376	3,376	3,376	123	221,454	32,45	37,47	13			
Other Local Authorities.	1,107	4,107	3,072	4,107			
Total	33,388	217,773	36,271,738	..	435,160	139,869,126	139,869,126	163,305,261	23,828,978	121,133,518	18,634,863	11,39,1776	2,438	25	122,051	41,82	31,59
Town Boards.																						
Appleton	1,636	320,10	80,62	52	643,040	829,408	1,472,508	1,282,434	160,074	12,00	754	8,07	25,80	13,27	
Langwarrin	1,488	39,8,183	95	62,426	280,800	256,062	53,760	10,72	674	1,765	38,42	10,752	10,752	1	
Linlithgow	1,510	30,10,23	23	75	13,88	8,66	13,88	18,	10,752	10,752	1	
Totals	2,230	643,040	1,178,694	1,821,734	1,592,256	229,478	12,59,159	2,073	80	22,426	10,81	26,94

(For notes see page 26.)

TABLE X.—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31ST MARCH, 1941.—*continued.*

Connected Local. Supply Authorities.	Maximum Load on System.	Demand Factor and Power Factor.	Units sold (Average).																
			Generated.				Purchased.				Sold.				Ratio of Consumers to Population in Area of Supply.				
			Water.	Steam.	Oil.	Gas.	In Bulk for Resale.	In Bulk to Consumers.	Metall to Consumers.	Non- productive.									
GENERAL AUTHORITIES—cont'd			kW.	kW.	kWh.	kWh.	kWh.	kWh.	kWh.	kWh.	kWh.	kWh.	kWh.	kWh.	%				
Corporations.			937,123	35,633	9,606,310	3,245,638	3,606,310	3,245,638	3,606,310	3,245,638	3,606,310	3,245,638	3,606,310	3,245,638	3,606,310	kWh.			
Electric	7,554	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Public Utility	237	..	..	..	141,650	141,650	..	..	..	..	..	..	..	..	..	..
Gas	507	..	..	..	23,300	23,300	..	..	..	..	..	..	..	..	..	..
Steam	84	..	..	..	33,025	33,025	..	..	..	..	..	..	..	..	..	..
Water	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	26,365	..	..	..	2,430,921	2,430,921	..	..	..	..	..	..	..	..	..	..
Totals	34,797	..	..	..	324,300	324,300	..	..	..	..	..	..	..	..	..	..
Totals, other Local Authorities	412,778	881,052	105,517,217	105,517,217	76,204,605	76,204,605	76,237,940	76,237,940	109,809,472,081,803	109,809,472,081,803	656,741,503,115,323,675	656,741,503,115,323,675	476,352,649	476,352,649	65,005,179	65,005,179	
Totals, other Local Authorities	412,778	881,052	105,517,217	105,517,217	76,204,605	76,204,605	76,237,940	76,237,940	109,809,472,081,803	109,809,472,081,803	656,741,503,115,323,675	656,741,503,115,323,675	476,352,649	476,352,649	65,005,179	65,005,179	
TOTALS, OTHER AUTHORITIES																			
Electric	3,563	1,178,33,006,54,70	5,264,000	..	..	4,310	..	..	37,114	5,645,424	..	4,806,546	838,878	14,86	239	169,218
Gas	112	1,13,11,52,16,83	..	..	..	10,650	..	..	..	19,160	..	15,160	4,000	20,96	220	31,80
Steam	671	133,62,20,10,06	200,000	..	..	22,080	..	..	..	222,080	..	163,560	58,520	26,36	67	22,560
Water	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	21,168	110	18,15,12,17,04	13,012,000	..	28,322	134,933	14,117,683	5,815,870	25,752	1,451,564	9,07	86,104	276,859	25,752		
Portland Motors, Ltd.	7,303	3,160	14,03,17,04	13,012,000	..	80,300	624,246	1,319,030	..	1,055,129	263,907	10,35	1,040	276,859		
Portland Power, Ltd.	..	2,149	312,14,51,25,42	694,790		
Total	21,168	13,817	20,070,700	20,070,700	80,300	80,300	73,881	..	1,136,353	21,361,024	5,815,870	12,916,015	1,355,1,401	262	117,078	12,45	
Grand Total	3,264,351	2,388,380	1,830,232,208	1,830,232,208	1,498,312,131,113,080,885	1,498,312,131,113,080,885	7,689,423	100,869	1,620,244,711	3,459,476,010,1,620,244,711	1,448,310,043	382,417,112	20,89,4,017	51,394,21	16,60	28,00	..

TABLE A.—SUMMARY OF TOTALS RELEVANT TO TABLE X.

Supply Authority.	Units generated.	Population included in Area of Supply.	Number of Consumers.	Capital invested in Transmission and Distribution System
Works Department	..	1,624,007,370	50,530	Number- 12,785 $\frac{£(N.Z.)}{8,512,403}$
Power Boards	..	101,339,567	974,950	246,034
Local Authorities—				
Councils	..	140,587,718	36,000	124,007 $\frac{£,588,860}{49,310}$
burgh Councils	..	36,906,767	156,050	927,335
in Rounds	..	64,910,010	2,850	$\frac{22,594}{5,820}$
City Councils	..	52,175	20,110	114,112
Totals, other Local Authorities	..	184,469,700	54,000	180,511 $\frac{4,052,910}{4,052,910}$
Total	..	20,225,571	9,530	1,982
Totals for all Supply Authorities	..	1,830,339,308	1,579,100	74,256 $\frac{442,222}{26,401,325}$

NOTES TO TABLE X.	Based on Total Units Sold to Ultimate Consumers less Units supplied for Large Industrial and Fraction Loads (1,318,510,630).	Based on Total Units Sold to Ultimate Consumers (1,448,310,043).
Units sold per head of population ..	834	917
Units sold per consumer ..	2,981	3,275

NOTES.—	1. Includes Arapuna, Hororata, Waitakereona, Mangatua, Koutirau, and Opunake.	Includes Lake Coleridge.
Waitaki, Monowai, and Arohī River.	2. Not actively functioning.	not yet actively functioning.
Licence delegated to Westland Power, Ltd.	3. No returns received.	4. Board constituted 15th May, 1940; power supplied in March, 1933. First shown in returns for 1936.
Generated under agreement for Public Works Department.	5. Includes 2,079,000 units generated under agreement for Public Works Department.	Includes 2,079,000 units generated under agreement for Public Works Department.
agreements for Public Works Department.	6. Includes 12,153,750 units generated under agreement for Public Works Department.	Includes 12,153,750 units generated under agreement for Public Works Department.
7. Made up as follows:	7. From Auckland Power Board, 47,451,450 units; Pirimata, 2,441,450 units; McLaren's Pools, 18,455 units; Wairarapa Power Board, 2,190,655 units; Opunake Power Board, 1,411,000 units; Hawke's Bay Power Board, 101,745 units; Napier Borough Council, 33,380 units; New Plymouth Borough Council, 12,153,750 units; Palmerston North City Council, 2,079,000 units; Wellington City Council, 7,450,700 units; Wainuiomata Restricted Power Board, 7,400 units; Invercargill City Council, 41,055 units.	Includes 12,153,750 units generated under agreement for Public Works Department.
Auckland Power Board.	8. Made up as follows:	Made up as follows: From Christchurch Tramway Power Board, 1,400,750 units sold to Public Works Department.
Power Board.	9. Includes units generated for Public Works Department.	9. Includes 1,101,745 units sold to Public Works Department.
Wainuiomata Restricted Power Board.	10. Includes 222,490 units sold to Public Works Department.	10. Includes 93,640 units generated under agreement for Public Works Department.
Invercargill City Council.	11. Includes 1,400,750 units sold to Public Works Department.	11. Includes units sold in transmission and distribution.
Public Works Department.	12. Includes 18,455 units supplied to station auxiliaries, &c.	12. Total units sold in both this retail division by capital expenditure, by percentage of total units generated and purchased.
Wainuiomata Restricted Power Board.	13. Total units sold in both this retail division by capital expenditure, by percentage of total units generated and purchased.	13. Percentage of total units generated.
Wainuiomata Restricted Power Board.	14. Excludes units sold for Gold-dredging (1,101,455).	14. Excludes units sold for Gold-dredging (1,101,455).
Wainuiomata Restricted Power Board.	15. Total units sold to Whangarei Borough Council (5,851,870).	15. Total units sold to ultimate consumers divided by total route-miles of line.
Wainuiomata Restricted Power Board.	16. Total units sold to ultimate consumers divided by total route-miles of line.	16. Total units sold to ultimate consumers divided by total route-miles of line.

TABLE XI.—CAPITAL OUTLAY, FINANCIAL RESULTS OF GENERATION, DISTRIBUTION AND OPERATION FOR THE YEAR ENDED 31ST MARCH, 1941.

Supply Authorities.	Capital Outlay on Electrical Supply System.	Loan Liability.	Revenue.						Working-expenses.						Capital Charges.						Net Results.								
			From Sale of Electrical Energy.			Profits and Other Sources			Cost of Power.			Management and General.			Interest, Sinking Fund.			Depreciation.			Other Capital Charges.			Total Annual Costs.		Profit.	Loss.		
			Retail.	Bulk (for Resale).	Excise	Accrued Profits	Other Sources	Excise Profits	Total.	Generated.	Purchased.	Total.	Management	General.	Total.	Interest.	Sinking Fund.	Depreciation.	Other Capital Charges.	Total.	£	£	£	£	£	£			
PUBLIC WORKS DEPARTMENT.	11,501,753	£ 2,911,980	£ 61,978	£ 1,457,000	£ 446,000	£ 1,426	£ 8,151	£ 1,533,306	£ 68,204 ¹	£ 419,238 ¹	£ 298	£ 22,080	£ 3,214	£ 25,000	£ 336,073	£ 14,837	£ 7,046	£ 73,712	£ 68,992	£ 402,056	£ 1,125,805	£ 407,241	£ 265,104	£ 255	£ 255				
North Island System.	7,390,905	6,153,177	210,705	1,446,000	30,460	321,038	30,460	674,381	30,460	100,110	37,308	632,030	12,052	632,030	100,110	68,992	73,712	68,992	100,110	100,000	101,477	101,477	101,477	101,477	101,477	101,477			
South Island System.	10,011,658	15,451,187	231,083	1,903,708	425	21,610	2,207,517	107,703	419,536	184,756	80,994	362,040	500,142	217,920	81,658	889,720	1,091,778	515,739		
TOTALS.	18,021,658	15,451,187	231,083	1,903,708	425	21,610	2,207,517	107,703	419,536	184,756	80,994	362,040	500,142	217,920	81,658	889,720	1,091,778	515,739		
POWER BOARDS.	304,751	302,374	65,905	1,068	1,461	7,726	69,034	22,080	93,321	4,312	34,340	16,025	781	547 ²	27,488	61,828	7,206	..	..	..	..	..	..	..
Ashburton.	3,808,384	2,592,400	105,519	154,063	272	616	10,736	5,193	120,612	2,451	607	129,370	86,257	41,877	63,700 ²	321,254	105,861	105,861	105,861	105,861	105,861	105,861	105,861	105,861			
Anchored Islands Peninsula.	110,151	101,019	176,900	10,747	94	5,193	2,451	607	12,052	4,183	2,300	2,075	154 ²	6,617	17,052	1,720 ²	1,720 ²	1,720 ²	1,720 ²	1,720 ²	1,720 ²	1,720 ²		
Bay of Islands.	211,254	188,700	53,003	2,156	2,120	2,807	60,574	242	5,751	3,011	3,011	3,435	8,520	3,620	12,140	48,052	12,140	1,720 ²	1,720 ²	1,720 ²	1,720 ²	1,720 ²	1,720 ²		
Ballerup.			
Camburidge.	117,439	106,016	27,033	154	250	251	27,089	..	10,703	4,802	2,103	12,200	4,230	2,103	2,103	2,103	..	..	..	..	..	..	..	..
Central Hawke's Bay.	102,920	105,600	33,780	..	..	..	12,400	5,000	21,518	2,049	21,518	6,937	100	100	100	100	..	..	..	..	..	..	..	..
Central Waitaki.	623,036	475,322	105,387	66	1,451	42,430	12,028	15,175	9,980	21,074	8,250	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234	10,234			
Dannevirke.	240,043	215,525	41,738	..	..	..	107,195	41,919	47,919	4,406	21,417	6,006	5,807	8,941	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087	2,087			
Franlin.	385,809	400,332	82,276	..	65	1,069	1,058	84,092	80	80	335	36,607	8,841	8,207	8,207	8,207	8,207	8,207	8,207	8,207	8,207	8,207	8,207	8,207	8,207		
Garden Bay.	33,582	24,707	6,769	..	..	..	117	80	80	80	80	..	..	..	..	..	..	..	..	..	..	..	..	..
Grey.	218,027	216,637	70,555	..	..	..	206	739	1,069	6,459	6,459	29,349	6,459	4,037	8,098	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056			
Hawke's Bay.	53,641	103,736	111,285	28,672	..	..	140,623	5,986	140,623	2,902	140,623	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065	17,065		
Horowhenua.	273,827	216,121	70,169	..	..	..	902	860	171,350	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hutt Valley.	411,753	336,362	168,748	..	..	..	909	866	170,453	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
King Country.	74,350	68,281	98,181	..	..	..	178	178	178	178	178	..	..	..	..	..	..	..	..	..	..	..	..	..
Masterton.	77,778	74,350	6,307	..	..	..	41,511	408	1,336	1,336	1,336	..	..	..	..	..	..	..	..	..	..	..	..	..
Manawatū-Oruawhata.	530,507	508,281	328,464	44,240	..	..	322	2,971	2,971	2,971	2,971	..	..	..	..	..	..	..	..	..	..	..	..	..
North Auckland.	366,317	370,847	70,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Canterbury.	308,801	370,847	170,734	43,304	4,994	67	1,527	95,654	75,719	8,382	6,382	17,065	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605			
North Canterbury.	271,176	250,722	20,576	112	1,527	95,654	75,719	8,382	6,382	17,065	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605		
Ohau.	111,612	82,265	50,935	153	1,527	95,654	75,719	8,382	6,382	17,065	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605		
Otago Central.	350,174	309,605	122,426	31,347	742	1,527	95,654	75,719	8,382	6,382	17,065	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605	11,605		
Poverty Bay.	377,006	314,215	84,333	268	1,241	85,959	85,959	85,959	25,720	12,094	8,921	8,921	8,921	8,921	8,921	8,921	8,921	8,921	8,921	8,921	8,921	8,921		
South Canterbury.	358,910	310,773	63,814	..	..	..	871	1,021	80,457	6,457	6,457	10,568	6,457	5,658	56,045	13,206	8,157	4,471	..	..	..	..	..	..
South Canterbury.	247,673	204,156	67,711	2,840	50	4,045	2,129	2,840	8,011	4,337	3,106	8,011	4,337	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106	3,106			
Springburn-Elesmere.	147,610	140,600	53,387	2,928	2,928	50,934	34,072	10,568	3,935	3,935	35,542	6,130	3,723	3,723	3,723	3,723	3,723	3,723	3,723	3,723	3,723	3,723	3,723	3,723
Taranaki.	187,605	104,215	35,104	1,427	2,113	11,843	8,947	8,947	9,021	12,124	18,738	3,644	2,336	2,336	2,336	2,336	2,336	2,336	2,336	2,336	2,336	2,336	2,336	2,336
Tauranga.	195,618	187,411	43,807	539	2,112	16,458	5,875	5,875	5,875	27,231	7,659	2,434	2,434	2,434	2,434	2,434	2,434	2,434	2,434	2,434	2,434	2,434	2,434	
Te Urewera.	92,871	88,450	48,333	17	3,013	45,954	6,063	6,063	3,013	27,442	1,377	3,050	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	2,970	
Teyot.	61,014	61,000	5,043	801	1,235	154	6,959	6,959	6,959	10,568	5,658	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	
Thames Valley.	804,880	800,004	107,800	10,585	3,538	1,392	183,552	10,568	73,981	22,350	11,804	8,442	5,658	5,658	5,658	5,658	5,658	5,658	5,658	5,658	5,658	5,658	5,658				
Waimea.	100,550	140,401	77,253	4,088	1,160	1,527	34,702	10,568	84,018	4,020	16,210	6,720	10,363	10,363	10,363	10,363	10,363	10,363	10,363	10,363	10,363	10,363	10,363	10,363			
Wairarapa.	397,263	332,034	73,858	..	..	..	2,112	2,112	21,118	1,840	1,840	1,840	20,518	13,757	11,084											

TABLE XI.—CAPITAL OUTLAY, FINANCIAL RESULTS OF GENERATION, DISTRIBUTION, AND OPERATION FOR THE YEAR ENDED 31ST MARCH, 1941—continued.

(For notes see page 29.)

TABLE XI.—CAPITAL OUTLAY, FINANCIAL RESULTS OF GENERATION, DISTRIBUTION, AND OPERATION FOR THE YEAR ENDED 31ST MARCH, 1941—*continued.*

Interagency Council on Operating Public Works
Net profit for Year—
Public Works—December

Autocratic power	Barbarus
Cities	...
...	...

Subagents Town Boards 109, 120

Counties .. 900
Companies .. 1,804

Total net profit: 1,000/-

U.S. GOVERNMENT PRINTING OFFICE: 1913

TABLE XIII.—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31ST MARCH 1947

(For notes see page 32.)

TABLE XIII.—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31ST MARCH, 1941—continued.

Supply Authorities.		Capital Outlay.		Revenue from Sale of Electricity.						Working-costs.						Capital Charges.				Total Costs.			
Per Head of Population.	Per Con-sumer.	Per £1 of Revenue.	Per Unit sold.	Per Unit Overall including Bulk Supply.	Per Unit (Exclu-sive of Bulk Supply).	Per Unit sold (Domestic Supply).	Per Head Popula-tion.	Per Retail Consumer.	Per Route-mile of Line.	Per kW. Maximum Demand.	Per kW. Per Route-mile of Line.	Per Unit sold.	Per Unit Maximum Demand.	Per Unit sold.	Per kW. Maximum Demand.	Per Cent. of Capital Outlay.	Per Cent. of Maximum Demand.	Per Unit sold.	Per kW. Maximum Demand.	Per Cent. of Distribution Capital.	No.		
Other Local Authorities.																							
1. Christchurch	£(N.Z.) 10-51	£(N.Z.) 31-88	£(N.Z.) 3-21	d.	0-760	0-708	0-658	3-13	£(N.Z.) 888-40	d.	0-507	£(N.Z.) 8-15	d.	£(N.Z.) 78-27	0-107	1-46	1-44	15-82	1		
2. Dunedin	22-96	22-54	23-66	0-639	0-787	0-818	0-703	3-47	0-84	0-402	0-322	0-248	0-37	0-704	0-51	28-70	22-91	40-82	1		
3. Invercargill	7-64	27-09	2-84	1-452	1-452	1-010	1-484	2-01	1-454	0-945	0-920	13-14	2-70	3-70	4-83	0-605	8-03	21-22	60-63	2	
4. Nelson	13-95	43-60	4-38	3-540	3-540	5-074	3-33	3-33	3-33	0-926	0-926	2-236	2-236	1-122	1-122	1-122	1-122	1-122	1-122	1	
5. Palmerston North	12-25	41-20	3-33	0-832	0-832	0-830	0-545	3-49	11-37	16-34	974-11	0-657	5-10	0-803	8-51	5-10	3-030	3-030	3-030	3	
6. Wellington	12-07	37-32	2-40	0-785	0-785	0-781	0-574	4-07	10-36	17-34	1-977-87	0-657	14-34	1-977-87	0-039	5-10	0-837	0-837	0-837	44-97	4
Totals	14-10	41-32	3-62	0-812(d)	0-802(d)	0-802(d)	0-802(d)	..	3-52(g)	0-64(G)	934-97(m)	47-69	6
<i>Borough Councils.</i>																						34-57(q)	
1. Bluff	6-05	20-94	2-14	2-207	2-207	2-207	1-074	3-811	3-06	0-80	18-14	475-00	1-701	14-14	14-14	1-68	2-004	2-004	15-82	1	
2. Hamilton	5-02	16-18	1-53	1-074	1-074	1-074	1-074	3-29	0-95	18-15	870-44	0-735	12-43	68-21	1-31	4-71	0-812	13-73	40-82	1	
3. Invercargill	7-40	21-14	2-07	1-102	1-102	1-102	1-102	3-88	0-95	10-96	400-13	0-945	17-10	70-79	0-077	3-02	4-11	0-054	21-22	2	
4. Kaiapoi	0-11	27-09	3-61	1-484	1-484	1-484	1-484	2-01	1-454	0-945	0-945	1-188	1-188	77-97	0-102	3-24	1-152	1-152	61-49	3	
5. Lyttelton	6-26	16-01	1-72	1-351	1-351	1-351	1-351	3-14	0-95	10-65	207-65	0-945	16-10	70-79	0-237	4-11	1-150	1-150	18-69	2	
6. Napier	8-76	27-95	3-46	1-454	1-454	1-454	1-454	3-14	0-95	10-13	800-42	0-876	1-188	63-04	0-130	5-50	1-150	1-150	26-37	4	
7. New Plymouth	8-75	27-95	3-46	1-454	1-454	1-454	1-454	3-14	0-95	10-13	800-42	0-876	1-188	63-04	0-130	5-50	1-150	1-150	26-37	4	
8. Ohakune	15-27	50-78	3-26	0-709	0-709	0-709	0-709	2-055	0-95	11-20	21-27	1,315-30	0-929	13-23	0-130	0-130	0-130	0-130	15-31	5	
9. Patea	5-11	16-28	1-87	2-035	2-035	2-035	2-035	3-95	0-95	12-65	31-28	0-511	14-22	73-14	0-157	3-95	0-100	0-100	30-82	6	
10. Petone	10-42	45-52	3-00	1-900	1-900	1-900	1-900	2-055	0-95	12-65	31-28	0-511	14-22	73-14	0-157	3-95	0-100	0-100	30-82	6	
11. Queenstown	12-37	37-70	3-76	1-406	1-406	1-406	1-406	3-18	0-95	14-60	414-04	0-841	14-60	55-02	0-186	6-67	12-73	12-73	17-24	7	
12. Raetihi	6-30	51-55	0-38	2-753	2-753	2-753	2-753	3-16	0-95	10-03	12-65	326-67	0-834	13-717	0-184	3-17	4-96	4-96	22-25	8	
13. Rangiora	8-66	40-82	4-96	1-432	1-432	1-432	1-432	2-066	0-95	12-73	28-73	1-360	14-60	58-26	0-176	8-78	0-176	0-176	45-14	9	
14. Riccarton	4-82	13-23	1-53	1-291	1-291	1-291	1-291	3-01	1-01	10-40	21-62	205-53	0-463	14-60	10-85	5-01	2-400	2-400	2-400	47-75	10
15. Ross ^(e)	0-44	10-84	2-48	0-785	0-785	0-785	0-785	2-055	0-95	1-210	3-40	1-210	0-555	18-17	0-613	9-05	0-58	1-104	1-104	38-57	11
16. Rotorua (Tourist Department)	11-64	36-25	3-12	1-257	1-257	1-257	1-257	2-055	0-95	7-00	12-83	725-24	0-660	13-27	82-19	0-116	2-01	1-104	1-104	38-57	12
17. Stratford	0-06	28-67	2-08	1-072	1-072	1-072	1-072	1-357	1-072	1-357	1-357	1-357	0-821	13-61	0-047	0-77	2-42	0-77	11-55	13	
18. Summer	6-96	14-09	2-10	1-072	1-072	1-072	1-072	1-303	1-072	1-303	1-303	1-303	0-821	13-61	0-047	0-77	2-42	0-77	11-55	14	
19. Taipao	4-90	15-00	2-15	1-840	1-840	1-840	1-840	2-45	1-020	1-840	1-840	1-840	0-821	13-61	0-047	0-77	2-42	0-77	11-55	14	
20. Taumarunui	17-92	63-00	3-77	1-757	1-757	1-757	1-757	3-38	1-072	1-757	1-757	1-757	0-821	13-61	0-047	0-77	2-42	0-77	11-55	14	
21. Te Aroha	45-79	118-42	6-12	0-440	0-440	0-440	0-440	1-041	1-041	1-041	1-041	1-041	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
22. Te Puke	8-06	25-03	2-23	0-994	0-994	0-994	0-994	1-015	0-994	1-015	1-015	1-015	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
23. Thirrupu	14-34	37-13	3-00	1-015	1-015	1-015	1-015	1-304	1-015	1-304	1-304	1-304	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
24. Waitara	6-44	21-07	2-19	1-779	1-779	1-779	1-779	2-084	1-074	1-779	1-779	1-779	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
25. Westport	6-06	22-41	2-19	1-779	1-779	1-779	1-779	2-084	1-074	1-779	1-779	1-779	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
26. Whakatane	5-36	16-52	1-98	1-97	1-97	1-97	1-97	1-025	0-907	1-025	1-025	1-025	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
27. Whanganui	8-37	24-97	3-13	2-846	2-846	2-846	2-846	3-244	0-986	2-846	2-846	2-846	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
28. Whangarei	19-35	62-86	3-44	1-141	1-141	1-141	1-141	2-063	0-986	2-063	2-063	2-063	0-774	11-71	0-117	1-147	6-78	1-147	41-74	17	
Totals	10-40	32-91	2-91	0-654(b)	0-654(b)	0-654(b)	0-654(b)	1-071(d)	..	3-54(d)	10-98(k)	..	480-03(m)	..	..	65-82(n)	..	..	5-72(p)	..	
1. Kaponga	
2. Mangaweka	
3. Munuau	
Totals	
1. Kaponga	
2. Mangaweka	
3. Munuau	
Totals	

(For notes see page 32.)

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TABLE XIII.—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31ST MARCH, 1941—*continued.*

Supply Authorities.	Capital Outlay.			Revenue from Sale of Electricity.						Working-costs.			Capital Charges.			Total Costs.			
	Per Head of Population.	Per Consumer.	Per £ of Revenue.	Per Unit sold (Overall including Bulk Supply).	Par Unit sold (Excluding Bulk Supply).	Par Unit sold (Domestic Supply).	Par Head Population.	Per KW. Maximum Demand.	Per KW. Maximum Demand.	Per Route-mile of Line.	Per Unit sold.	Per kW. Maximum Demand.	Per Unit sold.	Per kW. Maximum Demand.	Per Unit sold.	Per kW. Maximum Demand.	Per Cent. of Maximum Demand.		
Other Local Authorities— <i>continued.</i>																			
1. Heathcote	£ 5.65	£ 18.32	£ 1.45	d.	0.977	0.977	£ 0.50	0.806	£ 0.176	£ 2.54	0.932	£ 14.18	Per Cent. No.			
2. Kaitakura	18.37	38.20	3.27	0.639	7.000	4.411	11.66	10.42	82.06	12.38	69.00	115.50	1			
3. Murchison	16.83	51.13	2.902	2.302	2.302	3.58	1.06	1.06	0.631	17.67	12.08	58.00	20.15	2		
4. Uava	3.90	17.72	1.36	14.582	14.582	2.04	1.466	2.035	50.02	0.710	6.10	11.15	3			
5. Waitamiro	5.71	10.82	2.58	0.763	0.763	2.21	13.00	9.056	34.30	0.814	10.61	44.92	15.92	4		
Totals	6.36	21.95	2.42	0.911	0.911	0.911	7.67	21.91	0.581	0.142	7.21	0.723	12.67	30.72	5	
Totals, other Local Authorities	12.72	38.36	3.29	..	0.911	0.911	0.911	9.056	..	..	..	..	..	..
Companies.																8.33(p)	..		
1. Kanieri Electric, Ltd.	27.76	87.31	5.26	0.746	0.746	1.830	3.36(e)	10.56	407.73	0.606	10.29	81.23	4.06	0.500	13.60	
2. Kohutaihi (I. Keys)	12.03	77.20	1.75	12.182	12.182	12.182	7.836	2.73	59.53	11.49	46.76	0.316	1.53	0.386	48.30	
3. Roffton Electric Light and Power Co., Ltd.	4.77	18.77	1.07	6.000	6.000	6.000	3.05	10.51	3.887	10.07	64.78	3.270	21.07	56.17	1	
4. Rawene Motors, Ltd.	2.71	14.80	1.07	7.111	7.111	7.111	2.57	13.87	3.556	31.04	9.16	20.27	6.395	10.55	3	
5. Wilson's (N.Z.) Fordland Cement, Ltd.	117.98	402.25	4.42	0.338	0.338	0.338	1.280	1.52	37.03	6.05	31.06	0.036	41.11	31.01	4	
6. Westland Power, Ltd.	20.06	217.71	1.51	1.280	1.280	1.280	1.541	1.52	76.44	1.445	20.36	0.122	5.44	2.77	56.92	
Totals	21.50	102.86	4.64	0.504	0.504	0.504	3.630	11.246	104.31	1.122	16.81	2.507	32.86	6
Grand totals, 1941:	26.31	93.96	5.24	0.95(d)	0.95(d)	0.95(d)	3.45(g)	11.74(e)	..	..	..	..	..	..	..
"	25.60	92.11	5.01	0.937	0.937	0.937	3.35	11.19	..	..	..	..	..	..	..
"	25.07	91.74	5.01	0.905	0.905	0.905	3.12	10.68	..	..	..	..	..	..	..
"	23.90	91.40	6.38	1.028	1.028	1.028	2.00	10.28	..	..	..	..	..	..	..
"	23.42	92.20	6.81	1.071	1.071	1.071	2.60	9.93	..	..	..	..	..	..	..

Average Revenue per Unit (kWh) sold for all Purposes for Year ended 31st March, 1941 : 0.902d.

Notes.—(a) Capital outlay divided by revenue from retail plus bulk sales. (b) Derived from Items 3 and 10, Table 4B, excluding fee Table 7A. (c) Total revenue from retail sales (£5,443,690) divided by total units sold retail (1,445,310,043). (d) Derived from Items 6 and 11, Table 7B. (e) Excludes revenue from dredging fees. (f) Gross revenue, excluding bulk sales and rates. (g) Derived from Items 2 and 11, Table 7B. (h) Revenue from retail sales, less revenue from large industrial and traction loads. (i) Derived from Items 8 and 10, Table 7B. (j) Revenue from retail sales plus bulk sales. (k) Derived from Items 12 and 14, Table 7B. (l) Includes Arapuni, Hororata, Mangahao, and Waiharomea Power Stations. (m) Derived from Items 12 and 14, Table 7B. (n) Includes Lake Coleridge, Wairakei, Monowai, and Arnold River Power Stations. (o) Board constituted 15th May, 1940; not yet actively functioning. (p) License delegated to Westland Power, Ltd. (q) Figures for domestic units and revenue not given separately.

TABLE XIII.
*Large Industrial and Traction Loads.—Units sold and Revenue received
for Year ended 31st March, 1941.*

Supply Authority.	Type of Load.	Units sold.	Revenue.	Units	—	Public Works Department.	Electric-power Boards.	Other Local Authorities.			Companies.	Totals, all Authorities.		
PUBLIC WORKS DEPARTMENT.								City Councils.		Borough Councils.	Town Boards.	Country Councils.	Total.	
North Island system ..	Gold-mining ..	19,574,890	\$1,018	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
	N.Z.R. Workshops, Petone (traction, etc.) ..	13,021,200	30,205	50,530	974,950	305,000	156,050	2,850	20,100	594,000	501,826	18,752,485	1,670,100	
South Island system ..	Gold-dredging ..	19,025,460	35,972	..	..	12,785	246,034	124,007	49,310	768	180,611	1,092	442,225
	N.Z.R. Workshops, Addington (traction etc.) ..	4,761,908	12,450	1,481,145,825	1,085,505,173	1,491,254,258	144,060,300	1,502,256	1,502,256	1,502,256	1,502,256	1,502,256	1,502,256	3,077,050,807
	Christchurch Tramways ..	8,802,560	16,617	10,210,562	884,824,247	829,764,131	121,233,461	1,602,256	13,862,744	470,352,640	12,016,015	1,448,310,033	2,702,091	1,318,510,039
	Alloy Steel (N.Z.), Ltd. ..	804,680	1,978	36,275,814	820,504,675	823,148,592	120,244,461	1,592,256	13,862,744	465,848,056	1,702,091	2,702,091	2,702,091	1,318,510,039
Totals .. ..	..	..	..	4,923	20,058	1,502	1,502	1,179	71	137	3,000	160	28,180
ENGINEERING-POWER BOARDS.						\$ (N.Z.)		\$ (N.Z.)		\$ (N.Z.)		\$ (N.Z.)		
Auckland ..	Traction ..	21,675,520	51,924	..	..	18,601,638	16,433,182	5,449,027	24,504	197,802	6,022,976	204,000	\$ (N.Z.)
Otago Central ..	Gold-dredging ..	7,162,074	12,923	..	..	1,905,718	3,281,773	1,242,944	62,625	1,843,774	33,466	41,552,608	41,552,608
Wanganui-Rangitikei ..	Gold-dredging ..	4,101,415	14,730	..	..	2,185,481	3,041,105	217,480	256,605	10,601	5,443,696	5,443,696	5,443,696
	Traction ..	1,213,560	2,688	..	..	165,653	3,588,068	1,460,454	576,578	52,616	2,090,382	2,090,382	2,090,382
Totals .. ..	..	..	..	34,229,569	82,260	..	..	1,201,267	530,601	9,714	52,625	1,800,327	22,308
CITIES AND BOROUGHS.						Gross revenue (excluding rates) bulk sales)		Gross revenue (less revenue from bulk sales)		Gross revenue (less revenue from bulk sales)		\$ (N.Z.)		
Dunedin ..	Traction ..	4,162,403	7,506	..	..	9,207,517	3,650,526	1,504,052	500,051	10,130	53,308	2,150,000	45,198
Invercargill ..	Traction ..	648,704	2,171	..	..	303,710	3,355,331	1,287,212	552,864	10,130	53,308	34,507	8,071,331
New Plymouth ..	Traction ..	889,054	1,800	..	..	802,049	2,242,995	1,037,229	40,842	1,473,715	10,082	4,547,016	6,507,120
Wellington ..	Traction ..	11,804,342	31,970	..	..	850,729	1,018,194	52,918	310,128	11,195	1,783,843	10,351	2,308,226
Totals	17,604,503	43,447	1,691,778	3,340,880	1,210,938	51,504	4,052,010	74,256	6,850,541
COMPANIES.						Companies.		Companies.		Companies.		Companies.		
Kauri Electric, Ltd., Wilson's (N.Z.) Portland Cement, Ltd. ..	Gold-dredging ..	..	..	..	..	3,478,080	6,046,404	5,484	5,484	5,484	5,484	5,484	5,484
Totals for above Supply Authorities ..	..	..	..	10,124,524	129,799,404	11,008	249,805	249,805	249,805	249,805	249,805	249,805	249,805

TABLE XIII.B.
Summary of Totals from Tables IX, X, and XI.

Supply Authority.	Type of Load.	Units sold.	Revenue.	Units	—	Public Works Department.	Electric-power Boards.	Other Local Authorities.			Companies.	Totals, all Authorities.		
PUBLIC WORKS DEPARTMENT.								City Councils.		Borough Councils.	Town Boards.	Country Councils.	Total.	
North Island system ..	Gold-mining ..	19,574,890	\$1,018	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
	N.Z.R. Workshops, Petone (traction, etc.) ..	13,021,200	30,205	50,530	974,950	305,000	156,050	2,850	20,100	594,000	501,826	18,752,485	1,670,100	
South Island system ..	Gold-dredging ..	19,025,460	35,972	..	..	12,785	246,034	124,007	49,310	768	180,611	1,092	442,225
	N.Z.R. Workshops, Addington (traction etc.) ..	4,761,908	12,450	1,481,145,825	1,085,505,173	1,491,254,258	144,060,300	1,502,256	1,502,256	1,502,256	1,502,256	1,502,256	1,502,256	3,077,050,807
	Christchurch Tramways ..	8,802,560	16,617	10,210,562	884,824,247	829,764,131	121,233,461	1,602,256	13,862,744	470,352,640	12,016,015	1,448,310,033	2,702,091	1,318,510,039
	Alloy Steel (N.Z.), Ltd. ..	804,680	1,978	36,275,814	820,504,675	823,148,592	120,244,461	1,592,256	13,862,744	465,848,056	1,702,091	2,702,091	2,702,091	1,318,510,039
Totals .. ..	..	..	..	4,923	20,058	1,502	1,502	1,179	71	137	3,000	160	28,180
ENGINEERING-POWER BOARDS.						\$ (N.Z.)		\$ (N.Z.)		\$ (N.Z.)		\$ (N.Z.)		
Auckland ..	Traction ..	21,675,520	51,924	..	..	18,601,638	16,433,182	5,449,027	24,504	197,802	6,022,976	204,000	\$ (N.Z.)
Otago Central ..	Gold-dredging ..	7,162,074	12,923	..	..	1,905,718	3,281,773	1,242,944	62,625	1,843,774	33,466	41,552,608	41,552,608
Wanganui-Rangitikei ..	Gold-dredging ..	4,101,415	14,730	..	..	2,185,481	3,041,105	217,480	256,605	10,601	5,443,696	5,443,696	5,443,696
	Traction ..	1,213,560	2,688	..	..	165,653	3,588,068	1,460,454	576,578	52,616	2,090,382	2,090,382	2,090,382
Totals .. ..	..	..	..	34,229,569	82,260	..	..	1,201,267	530,601	9,714	52,625	1,800,327	22,308
CITIES AND BOROUGHS.						Gross revenue (excluding rates) bulk sales)		Gross revenue (less revenue from bulk sales)		Gross revenue (less revenue from bulk sales)		\$ (N.Z.)		
Dunedin ..	Traction ..	4,162,403	7,506	..	..	9,207,517	3,650,526	1,504,052	500,051	10,130	53,308	2,150,000	45,198
Invercargill ..	Traction ..	648,704	2,171	..	..	303,710	3,355,331	1,287,212	552,864	10,130	53,308	34,507	8,071,331
New Plymouth ..	Traction ..	889,054	1,800	..	..	802,049	2,242,995	1,037,229	40,842	1,473,715	10,082	4,547,016	6,507,120
Wellington ..	Traction ..	11,804,342	31,970	..	..	850,729	1,018,194	52,918	310,128	11,195	1,783,843	10,351	2,308,226
Totals .. ..	..	..	..	17,604,503	43,447	..	..	1,691,778	3,340,880	1,210,938	51,504	4,052,010	74,256
COMPANIES.						Companies.		Companies.		Companies.		Companies.		
Kauri Electric, Ltd., Wilson's (N.Z.) Portland Cement, Ltd. ..	Gold-dredging ..	..	..	..	..	3,478,080	6,046,404	5,484	5,484	5,484	5,484	5,484	5,484
Totals for above Supply Authorities ..	..	..	..	10,124,524	129,799,404	11,008	249,805	249,805	249,805	249,805	249,805	249,805	249,805

TABLE XIV.—RETURN OF ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES CONNECTED TO ELECTRIC-SUPPLY SYSTEMS AS AT 31ST MARCH, 1941.

Supply Authorities.	Number of Consumers.			Ranges.			Water-heaters.			Milk-machines.				
	Domestic.	Commercial.	Total.	Under 5 Kilowatts,	5 Kilowatts and over.	Total Number.	KW.	Total Kilowatts.	Per Cent.	k.W.	Total Kilowatts.	Percentage of Total Number of Consumers.	Number.	Horse-power.
Puuring Works Department.														
1. North Island system ²	422	21	443	30	265	295	6,897	40·31	1,179	2,489	24·24	112	141	
2. South Island system ²	10,625	1,717	12,342	1187	1,758	1,876	12,608	69·10	23,764	35·45	35·23	700	1,050	
Totals ³	11,047	1,738	12,785	148	2,023	2,171	14,500	17·65	800	1,032	6·48	1,409	2,405	
POWER BOARDS.														
1. Ashburton	4,309	553	4,862	860 ⁸	N.A.	881	1,737	6,897	40·31	1,179	2,489	24·24	112	141
2. Auckland	55,113	12,322	67,435	157	19,538	19,538	136,766 ¹⁰	35·45	23,764	16,635	35·23	700	1,050	
3. Banks Peninsula	1,055	63	1,118	246	403	2,100	341	1,548	38·19	325	492	29·06	259	147
4. Bay of Islands	1,624	316	1,940	94	247	1,548	2,100	20·99	450	1,472	1,104	23·19	180	147
5. Bay of Plenty	2,042	336	2,378	90	698	788	4,762	38·58	..	..	61·90	738	946	
6. Buller ³	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Cambridge	1,590	250	1,840	27	368	395	2,303	94·84	870	784	47·28	426	520	
8. Central Hawke's Bay	1,813	380	2,193	122	541	663	3,973	36·66	618	670	28·18	144	212	
9. Central Waikato	6,709	677	7,386	438 ⁹	1,328	1,763	9,062	76·27	3,375	2,407	45·69	2,030	3,082	
10. Chalmers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Diannevirke	2,731	541	3,972	92	478	570	3,388	24·27	966	732	29·52	506	597	
12. Franklin	4,881	500	5,381	446	1,648	2,094	10,497	42·90	5,567	2,332	66·28	2,205	2,576	
13. Grey	451	83	534	70	54	124	780	4,575	155	100	29·00	112	97	
14. Hawke's Bay	4,245	685	4,930	191	589	780	4,499	27·49	495	567	10·04	48	54	
15. Horowhenua	8,229	904	9,133	113	2,813	2,926	24,909	35·45	3,047	2,761	33·36	365	460	
16. Hutt Valley	4,744	1,388	6,132	N.A.	1,638	1,658	10,554	34·52	2,100	1,413	34·24	1,344	1,144	
17. King-country ⁴	13,971	2,444	16,415	204	4,533	4,737	26,832	33·90	5,252	4,412	31·90	113	141	
18. Manawatu-Oroua	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19. Manaia	702	81	783	63	139	202	1,031	28·77	81	151	10·34	4	4	
20. Marlborough	5,698	245	5,943	3	1,539	1,542 ¹¹	10,810 ¹¹	27·06	2,521 ¹¹	1,977 ¹¹	42·41	1,522	2,159	
21. North Aotearoa	2,906	494	3,400	162	479	641	3,659	22·05	388	474	11·41	133	200	
22. North Canterbury	3,426	856	4,282	89	919	1,008	5,155	29·42	1,850	1,231	43·20	1,257	1,680	
23. Oparauake	3,314	330	3,644	292	547	839	4,750	26·31	608	1,054	16·68	181	163	
24. Otago	1,167	175	1,342	44	198	242	1,362	20·73	442	324	32·93	412	477	
25. Otago Central	4,023	1,045	5,008	39	470	509	3,244	12·65	450	551	8·87	147	223	
26. Poverty Bay	1,340	305	1,645	65	319	384	2,028	28·65	388	390	23·58	92	67	
27. Reefton ⁵	5,010	1,311	6,121	..	2,050	2,050	11,036	40·91	1,862	1,303	29·45	274	246	
28. South Canterbury	4,755	668	5,423	138	805	943	6,263	19·83	658	823	12·13	166	171	
29. South Taranaki	3,416	684	4,100	117	823	940	5,831	27·51	1,566	1,009	38·19	866	1,114	
30. Springs-Ellismere	2,700	264	2,964	238	499	737	3,860	27·51	667	963	22·50	262	275	
31. Taranaki ⁶	2,815	285	3,100	16	617	633	4,351	22·48	1,279	904	41·25	1,286	2,133	
32. Tararua	1,876	311	2,187	251	576	827	4,263	44·08	810	661	37·03	462	554	
33. Tauranga	2,304	140	2,444	115	857	972	6,198	42·18	1,775	1,226	72·62	822	1,079	
34. Te Awamutu	2,935	466	2,701	283	621	904	4,432	40·44	1,420	1,229	52·67	888	1,312	
35. Tirohia	370	90	460	26	186	212	1,288	57·29	1,177	145	38·47	2,426	2,426	
36. Thames Valley	9,452	966	10,418	77	3,054	3,311	23,096	33·12	5,778	4,609	55·46	145	64	
37. Whanaea	2,580	553	3,133	90	260	350	2,025	13·56	297	207	9·47	1,983	33·46	
38. Waitarapa	5,119	1,082	6,201	249	1,300	1,340	2,075	30·25	2,075	2,075	666	888	1,312	
39. Wairere	521	73	594	25	201	226	1,340	43·37	1,340	201	183	290	212	

TABLE XIV.—RETURN OF ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES CONNECTED TO ELECTRIC-SUPPLY SYSTEMS AS AT 31ST MARCH, 1941—*continued.*

Supply Authorities	Ranges.						Water-heaters.						Milking-machines.		
	Number of Consumers,			Ranges.			Water-heaters.			Milking-machines.					
	Domestic.	Commercial.	Total,	Under 5 Kilowatts,	5 Kilowatts and over,	Total Number.	kW.	Percentage of Number of Domestic Consumers.	Number.	Total Kilowatts.	Number.	Horse-power.			
40. Wairoa	463	84	Number.	51	103	154	.892	Per Cent.	202	1.25	248	H.P.	178	178	178
41. Waitaki	4,334	619	Number.	5,053	1,74	1,528	9,984	33.26	1,665	1,749	31.39	61	61	61	61
42. Waitomatā	15,213	1,103	Number.	16,316	61	5,037	5,098	35.25	33.51	4,651	3,595	28.50	1,796	1,796	1,796
43. Waitemata	1,501	418	Number.	1,919	80	734	814	5.052	54.23	901	729	46.95	351	351	351
44. Wangamuri-Rangitikei	9,852	2,245	N.A.	12,007	..	2,184	2,184	14.040	22.16	2,856	2,050	23.60	1,120	1,120	1,120
45. Westland ⁵	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	210,539	36,335	246,934	5,645	61,471	67,116	427,352	31.86	83,182	66,817	33.68	26,033	33,424	33,424	33,424
Other Local Authorities.															
1. Christchurch	28,898	5,393	34,291	642	13,589	14,231	96,260	49.24	10,623	10,335	30.97	38	46	46	46
2. Dunedin	24,219	7,299	31,518	844	2,694	3,538	19,342	14.60	5,885	6,382	18.67	190	286	286	286
3. Invercargill	5,945	1,097	7,042	126	120	246	896	4.13	240	.260	3.40	..	..	..	..
4. Nelson	2,733	910	3,643	..	..	..	..	..	..	..	..	..	..	..	..
5. Palmerston North	6,619	1,400	7,019	136	1,465	1,601	9,000	28.49	2,503	1,988	35.66	3	3	3	3
6. Wellington	30,215	10,879	41,094	382	3,571	3,953	25,654	13.08	7,519	9,653	18.29	17	17	17	17
Totals	97,629	26,978	124,607	2,130	21,439	23,569	151,242	24.14	26,770	28,618	21.48	248	352	352	352
Borough Councils.															
1. Bluff	488	108	596	6	7	13	53	2.36	..	..	..	..	..	..	..
2. Hamilton	4,385	1,429	5,714	50	490	540	3,370	12.60	1,004	1,041	1.34	1	1	1	1
3. Inglewood	978	72	450	5	53	58	388	15.34	..	..	..	..	..	..	..
4. Kaiti	474	68	542	70	80	150	739	31.64	61	48	13.55	2	2	2	2
5. Lyttelton	898	133	1,031	8	177	185	1,221	20.60	112	112	10.51	1	1	1	1
6. Napier	3,894	1,099	4,993	45	668	713	4,165	18.31	1,250	868	25.86	4	4	4	4
7. New Plymouth	6,396	1,109	7,505	352	1,983	2,335	11,037	36.50	2,370	1,618	31.67	793	793	793	793
8. Ohakune	460	133	593	31	17	48	155	10.43	35	31	5.90	9	10	10	10
9. Patea	376	124	490	38	105	143	803	38.13	126	86	25.25	24	24	24	24
10. Picton	366	86	452	2	1	3	14	0.82	..	..	..	..	..	..	..
11. Queenstown	220	72	292	3	12	15	70	6.81	3	3	1.02	..	..	..	..
12. Raetihi	336	117	512	21	22	43	216	10.88	72	58	14.06	57	57	57	57
13. Rangiora	705	112	817	5	133	138	916	19.57	171	190	20.93	..	..	..	..
14. Riccarton	1,757	148	1,905	45	772	817	5,324	46.49	792	641	41.57	..	..	..	..
15. Ross ⁶	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Rotorua (Tourist Department)	2,590	740	3,330	151	428	579	3,128	22.35	785	781	33.57	218	218	218	218
17. Stratford	965	273	1,238	9	293	302	1,746	31.39	287	1,681	23.02	3	3	3	3
18. Sumner	1,176	24	1,199	..	80	207	1,681	24.42	207	1,485	14.91	63	63	63	63
19. Taieri	496	185	681	13	61	74	74	..	..	..	..	..	..	..	..
20. Tauramaruni	955	265	1,220	40	40	139	715	14.55	111	111	9.25	3	3	3	3
21. Tauranga	1,202	310	1,512	160	715	875	6,232	72.79	878	462	9.09	51	51	51	51
22. Te Aroha	590	238	394	16	89	115	657	32.37	214	160	4.58	47	47	47	47
23. Te Puke	256	135	285	26	184	229	1,321	22.80	210	130	16.29	13	13	13	13
24. Thames	1,004	285	1,239	45	184	986	6,205	22.94	954	1,384	17.84	17.84	17.84	17.84	17.84
25. Timaru	4,297	1,050	5,347	..	..	..	..	..	..	..	..	..	..	..	..

(For notes, see page 36.)

TABLE XIV.—RETURN OF ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES CONNECTED TO ELECTRIC-SUPPLY SYSTEMS AS AT 31ST MARCH, 1941—continued.

Supply Authorities.	Number of Consumers.			Ranges.			Water-heaters.			Milk-machines.		
	Domestic.		Commercial.	Under 5 Kilowatts.		5 Kilowatts and over.	Total Kilowatts.		Percentage of Total Kilowatts.		Percentage of Total Number of Consumers.	
	Number.	Number.	Number.	Number.	Number.	Number.	Number.	KW.	Per Cent.	Number.	KW.	Per Cent.
OTHER LOCAL AUTHORITIES—continued.												
26. Waioea	623	246	869	Number.	270	1,915	45·90	318	36·59
27. Waitara	514	154	668	109	196	788	26·45	131	19·61
28. Westport	1,121	299	1,420	2	18	130	1·78	33	2·32
29. Whakatane	556	176	732	27	227	1,643	45·68	161	33·74
30. Whangarei	1,961	721	2,682	35	455	3,152	24·98	400	267
Totals	39,399	9,911	49,310	1,328	8,836	10,164	59,557	25·79	11,013
1. Kaponga Town Board.	367	73	440	16	60	76	462	20·70	138
2. Mangawatu	112	34	146	7	36	43	211	38·39	..
3. Manunui	159	23	182	..	..	..	..	..	..
Totals	638	130	768	23	96	119	663	18·65	173
1. Heathcote County Council.	1,045	4	1,049	102	510	612	3,179	58·66	..
2. Kaihauru	179	66	245	..	..	..	..	..	..
3. Murchison	169	21	190	15	12	27	92	15·97	30
4. Uawa	90	20	110	..	..	..	..	..	..
5. Waimairi	3,947	285	4,232	114	1,437	1,551	9,476	39·99	1,323
Totals	5,430	396	5,826	231	1,950	2,190	12,747	40·33	3,126
Totals, other Local Authorities	143,096	37,415	180,511	3,712	32,330	36,042	224,209	25·18	39,771
COMPANIES.												
1. Kanieri Electric, Ltd.	653	247	900	26	106	132	817	20·21	63
2. Kohukohu (I. Keys)	46	21	67	2	..	4	4·34	..	..
3. Reefton Electric Light and Power Co., Ltd.	301	88	389	..	..	..	..	1	..
4. Rawene Motors, Ltd.	35	20	55	..	..	..	2	3	..
5. Wilson's (N.Z.) Portland Cement, Ltd.	155	41	196	11	7	18	71	11·61	15
6. Westland Power, Ltd.	311	74	385	16	25	41	217	13·18	38
Totals	1,501	491	1,992	55	138	193	1,109	12·85	120
Grand totals	366,243	75,979	442,232	9,560	95,962	105,522	667,170	28·81	124,193
											107,417	28·08
												20,365
												38,338

NOTES.—¹ Includes Arnpud, Hornboro, Walkerton, and Mangahao Power-stations inter-connected. ² Board constituted 15th May 1940; not yet actively functioning. ³ Includes Lake Coleridge, Waihaki, Monowai, and Arnold River Power-stations inter-connected. ⁴ License delegated to Westland Power, Ltd. ⁵ No return received. ⁶ Estimated figure. ⁷ Includes Ohaken Aerodrome. ⁸ Not actively functioning. ⁹ Includes 787 heat-storage ranges. ¹⁰ Includes 36 heat-storage ranges. ¹¹ Includes 146 heat-storage ranges.

NEW ZEALAND.

EXTRACT FROM THE
PUBLIC WORKS STATEMENT,
AND
REPORT OF CHIEF ELECTRICAL ENGINEER,

1940.

(Together with additional Statistical Tables relating to all Electric Supply Authorities.)

HYDRO-ELECTRIC DEVELOPMENT.



WELLINGTON.
BY AUTHORITY: E V PAUL, GOVERNMENT PRINTER.

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