

# ANNUAL STATISTICS IN RELATION TO HYDRO-ELECTRIC DEVELOPMENT AND OPERATION

YEAR ENDED 31st MARCH, 1950

## GENERAL MANAGER'S REPORT

For full text of the above report, refer to State Hydro-electric Statement, 1950, Appendix A, pages 7 to 36 inclusive.

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, 1949-50

		1950	1949	Increase or Decrease
(a) Installed generating-capacity (main stations)	kW.	590,046	580,676	+ 3,370
(b) Installed generating-capacity (standby)	kW.	89,430	88,150	+ 1,280
(c) Total connected load (excluding bulk supply)	kW.	4,560,933	4,183,998	+376,935
(d) Consumers	No.	554,554	533,354	+ 21,200
(e) Units sold per head of total population	No.	1,256	1,216	+ 40
(f) Units sold per consumer	No.	4,335	4,271	+ 64
(g) Route-miles of main, distribution and service lines	R.M.	40,519	38,314	+ 2,205
(h) Consumers per route-mile of line (including service lines)	No.	13.69	13.92	— 0.23
(i) Sales (retail) per route-mile of line (including service lines)	Units	59,325	59,455	— 130
(j) Miles of conductor in service (including service lines)	Miles	*157,917	*150,593	+ 7,324
(k) Broken poles reported	No.	206	278	— 72
(l) Broken wires reported	No.	3,301	4,365	— 1,064
(m) Electrical fires reported	No.	30	35	— 5
(n) Electrical accidents reported	No.	54 (15 fatal)	58 (15 fatal)	— 4
(o) Electric-ranges installed	No.	221,181	200,692	+ 20,489
(p) Electric water-heaters installed	No.	256,201	234,309	+ 21,892
(q) Electric milking-machines installed	No.	38,738	37,079	+ 1,659

\* No returns received from Christchurch City Council and Auckland Electric Power Board.

### B. Summarized Results of Operations for the Year ended 31st March, 1950

Item		Water.	Steam	Gas.	Oil.	Total.
1. Number of main stations	No.	24	..	..	3	27
2. Installed capacity (main plant)	kW.	589,509	..	..	537	590,046
3. Number of standby plants	No.	18	6	2	17	43
4. Installed capacity (standby plant)	kW.	8,314	60,762	891	19,463	89,430
5. Units generated	No.	2,908,003,646	123,985,686	..	3,781,254	3,035,770,586
6. Units sold to consumers	..	..	..	..	..	2,403,797,597
7. Percentage of non-productive units	..	..	..	..	..	20.82%
8. Number of consumers	..	..	..	..	..	554,554
9. Connected load (excluding bulk supply)	..	..	..	..	..	4,560,933
10. Total operative capital (including distribution systems and standby plant)	..	..	..	..	..	£83,103,717
11. Total capital per kilowatt installed (including distribution systems, &c.)	..	..	..	..	..	£122.31
12. Annual working-costs (excluding cost of power purchased in bulk)	..	..	..	..	..	£3,898,966
13. Annual working-cost per unit under item 6	..	..	..	..	..	0.389d.
14. Annual capital cost (interest, sinking fund, and depreciation, &c.)	..	..	..	..	..	£3,770,295
15. Annual capital cost per unit under item 6	..	..	..	..	..	0.377d.
16. Annual capital cost as a percentage of capital	..	..	..	..	..	4.54%
17. Total annual costs (item 12 plus item 14)	..	..	..	..	..	£7,675,261
18. Total annual cost per unit under item 6	..	..	..	..	..	0.766d.
19. Total annual revenue (from retail sale of electricity)	..	..	..	..	..	£8,431,181
20. Average revenue per unit (from items 19 and 6)	..	..	..	..	..	0.842d.
21. Gross revenue (excluding rates and bulk sales)	..	..	..	..	..	£8,984,158
22. Net profit (item 21 less item 17)	..	..	..	..	..	£1,308,897
23. Ratio of working-costs to gross revenue (item 12 and item 21)	..	..	..	..	..	43.40%

### Tables

For reasons of economy in paper, the usual number of tables is not being published for the year ended 31st March, 1950, 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.—Government System: Capital Outlay and Results of Operation.

Table II.—Government System: Analysis of Capital Outlay.

Table III.—Government System: Working-costs.

Table IX.—Generating Plants, Voltages, Route-miles of Lines &c.

Table X.—Results of Generation, Distribution, &c.

Table XI.—Financial Results of Operation, &c.

Table XIII.—Averages derived from Tables IX, X, and XI.

Table XIV.—Populations, Consumers, Ranges, Water-heaters, and Milking-machines.

Table XVII.—Electrical Wiremen's Registration Board Statistics

TABLE I.—SUMMARY OF FINANCIAL AND OPERATING STATISTICS FOR GOVERNMENT ELECTRIC-POWER SYSTEM  
THE YEAR ENDED 31ST MARCH, 1950

NOTE.—“North Island” includes Arapuni, Karapiro, Mangahao, and Waikaremoana main stations and King's Wharf, and standby stations, all interconnected. “South Island” includes Coleridge, Waitaki, Monowai, Arnold (Kaimata), and Highba stations and Dobson standby station, all interconnected; also Cobb main station and Stoke standby station, not interconnected.

### A. Financial

	£	£		£
Capital outlay—			Net profit for year	6
Assets in operation ..	33,553,036			
Assets not in operation ..	17,330,619			
		50,883,655		
Total capital invested—including stocks of material, plant, motor vehicles and tools		52,822,448	Allocation of profits—	
Revenue for year		3,951,558	Taxation ..	2
Working costs		1,825,677	Loan redemption fund ..	3
Capital charges—			General reserve ..	1
Interest ..		1,149,566	Total ..	6
Depreciation ..		311,758		
Total ..		1,461,324	Balances at end of year—	
Total costs for year		3,287,001	Depreciation reserve ..	4,8
			Loan redemption fund ..	4,2
			General reserve ..	1

### B. Operating Results

	1940-50.		194
Maximum load (kilowatts)—		Revenue—	
North Island ..	404,900	Per kW. ..	£6
South Island ..	172,037	Per unit output ..	0
Total maximum load ..	*576,937	Per unit distributed ..	0
		Per unit sold ..	0
Average load (kilowatts)—		Working costs—	
North Island ..	224,964	Per kW. ..	£3
South Island ..	102,762	Per unit output ..	0
Average load factor—	Per Cent.	Per unit distributed ..	0
North Island ..	55.56	Per unit sold ..	0
South Island ..	59.73	Capital charges—	
Units output (generated and purchased)—		(Excluding taxation and sinking fund)—	
North Island ..	1,970,683,680	Per kW. ..	£2
South Island ..	900,194,486	Per unit output ..	0
Total ..	2,870,878,166	Per unit distributed ..	0
Units distributed—		Per unit sold ..	0
Units sold—		Total costs—	
North Island ..	1,767,082,669	(Excluding taxation and sinking fund)—	
South Island ..	787,822,243	Per kW. ..	£5
Total ..	2,554,904,912	Per unit output ..	0
Units unsold (used free of charge)—		Per unit distributed ..	0
North Island ..	12,688,276	Per unit sold ..	0
South Island ..	6,381,845	Total Costs—	
Total ..	19,070,121	(Including taxation and sinking fund)—	
Total units distributed—		Per kW. ..	£6
North Island ..	1,779,770,945	Per unit output ..	0
South Island ..	794,204,088	Per unit distributed ..	0
Grand total ..	2,573,975,033	Per unit sold ..	0
Line Losses—		Total Costs—	
Transmission and distribution—	Units	(Including taxation and sinking fund)—	
North Island ..	190,912,735	Per kW. ..	£6
South Island ..	105,990,398	Per unit output ..	0
	296,903,133	Per unit distributed ..	0
		Per unit sold ..	0
		Per Cent.	
		9.688	
		11.774	
		10.342	

\* Sum of North and South Island maximum loads—not simultaneous maximum demand.

TABLE II.—ANALYSIS OF GOVERNMENT CAPITAL OUTLAY AS AT 31ST MARCH, 1950

North Island.		South Island.		Combined Totals
Hydro-electric stations—		Hydro-electric stations—		
Land, fencing and roading—	£	Land, fencing and roading—	£	£
Arapuni	119,628	Cobb River	60,533	
Karapiro	366,814	Lake Coleridge	30,865	
Maraetai	345,876	Waitaki	48,090	
Whakamaru	25,211	Lake Tekapo	15,648	
Waikaremoana (Tuai)	18,214	Arnold	1,830	
" (Piripaua)	40,899	Highbank	18,247	
" (Kaitawa)	26,032	Monowai	12,226	
Mangahao	74,707	Roxburgh	103,553	
	1,017,381		290,992	1,308,373
Headworks—		Headworks—		
Arapuni	1,425,489	Cobb River	1,246,045	
Karapiro	2,205,817	Lake Coleridge	550,734	
Lake Taupo Control	195,045	Waitaki	1,098,270	
Maraetai	2,385,024	Lake Tekapo	1,593,523	
Whakamaru	238,223	Lake Pukaki Control	1,663,167	
Waikaremoana (Tuai)	201,128	Arnold	108,161	
" (Piripaua)	700,387	Highbank	332,470	
" (Kaitawa)	1,290,393	Monowai	86,660	
Mangahao	947,081	Roxburgh	631,677	
	9,588,587		7,310,707	16,899,294
Station buildings and village—		Station buildings and village—		
Arapuni	499,580	Cobb River	83,084	
Karapiro	586,341	Lake Coleridge	105,438	
*Maraetai	2,055,793	Waitaki	471,353	
Waikaremoana (Tuai)	297,110	Lake Tekapo	205,075	
" (Piripaua)	97,167	Arnold	10,767	
" (Kaitawa)	185,863	Highbank	94,621	
Mangahao	134,203	Monowai	49,066	
	3,856,057		1,019,404	4,875,461
Generating plant and machinery—		Generating plant and machinery—		
Arapuni	1,063,128	Cobb River	120,189	
Karapiro	948,850	Lake Coleridge	249,250	
Maraetai	1,404,540	Waitaki	564,724	
Waikaremoana (Tuai)	477,850	Lake Tekapo	351,275	
" (Piripaua)	223,713	Arnold	26,917	
" (Kaitawa)	323,211	Highbank	172,608	
Mangahao	249,719	Monowai	60,051	
	4,691,011		1,545,014	6,236,025
Fuel stations—		Fuel stations—		
King's Wharf	405,983	Stoke	39,508	
Penrose	66,438	Dobson	172,673	
	472,421		212,181	684,602
Transmission and distribution—		Transmission and distribution—		
Primary distribution—		Primary distribution—		
11 kV. lines	74,968	11 kV. lines	731,730	
33 kV. lines	76	33 kV. lines	58,970	
50 kV. lines	555,597	50 kV. lines	814,471	
66 kV. lines	3,237,653	66 kV. lines	558,181	
110 kV. lines	1,755,296	110 kV. lines	3,159	
220 kV. lines		220 kV. lines	400,299	
Secondary distribution		Secondary distribution		
	5,623,590		2,566,810	8,190,400
Substations—		Substations—		
11 kV.	16,822	11 kV.	8,375	
33 kV.		33 kV.	57,022	
50 kV.	842,491	50 kV.		
66 kV.		66 kV.	683,780	
110 kV.	2,821,243	110 kV.	845,921	
220 kV.	1,888,247	220 kV.	2,008	
	5,568,803		1,597,106	7,165,909
Communications	356,020	Communications	203,318	559,338
General—		General—		
Offices, stores, land and buildings	286,989	Offices, stores, land and buildings	60,180	
Surveys and investigations of other schemes	291,519	Surveys and investigations of other schemes	96,414	
Cost of raising loans	332,311	Cost of raising loans	542,843	
Interest capitalized during construction	2,336,420	Interest capitalized during construction	967,577	
	3,297,239		1,667,014	4,964,253
	£34,471,109		£16,412,546	£50,883,655

\* Includes Mangakino Village.

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TABLE III.—GOVERNMENT OPERATING OR WORKING COSTS FOR THE YEAR ENDED 31ST MARCH, 1950

	Cost	Cost per unit.		
		Generated.	Distributed.	Sold
(a) Hydro-electric stations .. .. .	£ 278,683	d. 0 0249	d. . . . .	
(b) Fuel stations .. .. .	245,304	1 2052	. . . . .	
(c) Auxiliary stations, power purchased and standby provision .. .. .	373,515	0 6720	. . . . .	
Generated and purchased .. .. .	897,572	0 0750	0 0837	0 0114
(d) Transmission .. .. .	121,951	0 0102	0 0114	0 0114
(e) Communications .. .. .	21,306	0 0018	0 0020	0 0020
(f) Substations .. .. .	173,969	0 0145	0 0162	0 0162
(g) Distribution .. .. .	54,683	0 0046	0 0051	0 0051
(h) System operation .. .. .	82,643	0 0069	0 0077	0 0077
(i) Administration costs and expenses .. .. .	473,553	0 0396	0 0442	0 0442
	1,825,677	0 1526	0 1702	0 1702
Units generated—				
Hydro-electric .. .. .	North Island. 1,817,784,536	South Island. 870,822,140	Total. 2,688,606,676	
Fuel .. .. .	47,830,554	1,034,830	48,865,384	
Purchased .. .. .	105,068,590	28,337,516	133,406,106	
Total .. .. .	1,970,683,680	900,194,486	2,870,878,166	
Units distributed .. .. .	1,779,770,945	794,204,088	2,573,975,033	
Units sold .. .. .	1,767,082,669	787,822,243	2,554,904,912	

TABLE IX.—STATISTICS OF GENERATING PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, TRANSFORMERS, &C., FOR THE YEAR ENDED 31st MARCH, 1950

Supply Authorities.	Sources of Supply.	Year when supply commenced.	Capacity of Generating Plant.						Total Capacity.	Static Head, in Feet.	Voltage.				Number.	kVA.	Route Miles of Lines.
			Water.	Steam.	Oil.	Main Plant.	Standby Plant.	Transmission.			Primary Distribution.	Secondary Distribution.	Distribution Transformers.				
			kW.	kW.	kW.	kW.	kVA.							kW.			
<b>E HYDRO-ELECTRIC DEPARTMENT</b>																	
North Island	G.N.	1921															
Arapua			157,800			180,000											
Kaipuro			90,000			100,000											
Mangahao			19,200			24,000											
Waikaremoana			124,000			144,000											
King's Wharf				31,050			38,000										
Penrose					3,750		4,050										
<b>South Island</b>																	
Arnold	G.S.	1915				3,000											
Coleridge			34,500			40,000											
Cobb			12,000			15,000											
Highbank			25,200			28,000											
Manawai			6,000			7,050											
Waikaki			75,000			83,333											
Dobson				5,700			7,200										
Stoke				2,350			2,937										
Totals			540,700	31,050	11,800	540,700	628,323	42,910	53,420	589,070	079,040						
<b>POWER BOARDS</b>																	
Ashburton	G.S.	1923															
Auckland	G.N.	1908															
Bonuss Peninsula	G.S.	1921		72				72	90		90						
Bay of Islands	G.N.	1939		110													
Bay of Plenty	G.N.	1928		200													
Ballar	G.S.	1949															
Cambridge	G.N.	1921					250										
Central Hawke's Bay	G.N.	1926															
Central Waikato	G.N.	1921															
Dannevirke	G.N.	1925															
Franklin	G.N.	1925		200													
Golden Bay	G.S.	1929															
Grey	G.S.	1926		100													
Hawke's Bay	G.N.	1927															
Horowhenua	G.N.	1924															
Hutt Valley	G.N.	1924															
King-country	G.N.	1946															
Ng. Makers	G.S.	1925															
Manawatu-Oroua	G.N.	1924															
Marlborough	G.S.	1927		1,000													
North Auckland	G.N.	1938															
North Canterbury	G.S.	1928															
Opunake	G.N.	1929		315													
Otago	G.S.	1926															
Otago Central	I. & B.	1923		2,770													

(For notes see page 7)

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TABLE IX.—STATISTICS OF GENERATING PLANTS, SYSTEM VOLTAGE, ROUTE-MILES OF LINES, TRANSFORMERS, &C., FOR THE YEAR ENDED 31ST MARCH, 1950—continued

Supply Authorities.	Year when Supply commenced.	Capacity of Generating Plant.						Statist. Head, in Feet.	Voltage.				Distribution Transformers.	Route Miles of Lines.	No			
		Water.		Oil.		Standby Plant.			Total Capacity.		Transmission.					Secondary Distribution.	Primary Distribution.	Generation.
		kW.	kVA.	kW.	kVA.	kW.	kVA.		kW.	kVA.	kV.A.	kV.A.						
Municipal Councils—continued	I. 1917	16	145 D.C.	90	90 D.C.	241	241 D.C.	270	480	..	..	..	..	18	461	7		
	I. 1917	376	350	96	120	470	470	380	0,600	..	..	..	..	9	1,095	8		
	G.S. 1916	..	..	52	65	65	65	..	400	..	..	..	..	37	4,950	9		
	G.S. 1916	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10		
	G.N. 1901	..	..	..	..	..	..	..	..	..	..	..	..	277	8,244	11		
	B. 1808	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12		
	B. 1913	160	..	225	225 D.C.	225	225 D.C.	30	510	..	..	..	..	4	450	13		
	G.N. 1924	425	..	425	500	425	500	25	3,300	..	..	..	..	40	3,222	14		
	I. & G.N. 1915	3,440	4,300	..	..	3,440	4,300	110	3,000	..	..	..	..	23	3,050	15		
	B. 1908	133	..	133	166	133	166	600	3,800	..	..	..	..	14	1,120	16		
	B. 1914	..	..	..	..	..	..	..	..	..	..	..	..	16	2,300	17		
	B. 1913	..	..	..	..	..	..	..	..	..	..	..	..	17	1,540	18		
	B. 1917	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19		
	B. 1925	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20		
	B. 1915	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21		
Totals	4,724	4,795	1,323	1,543	3,188	6,338	..	..	..	..	..	..	667	45,720	775			
TOWN BOARDS	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
B. 1916	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
B. 1916	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3		
Totals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4		
COMPANY COUNCILS	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5		
G.S. 1914	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6		
I. 1922	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7		
I. 1922	80	80	80	100	160	160	105	105	3,300	..	..	..	..	10	2,300	8		
I. 1925	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9		
I. 1925	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10		
Totals	80	472	80	100	552	674	..	..	..	..	..	..	..	..	..	11		
COMPANIES	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12		
I. 1921	1,500	1,950	150	187	1,710	2,137	100	2,400	11,000	..	..	..	..	8	1,975	13		
I. & G.N. 1916	3,000	3,750	..	..	3,000	3,750	130	5,500	..	..	..	..	..	40	1,197	14		
I. & G.S. 1928	845	929	..	..	845	929	260	8,400	..	..	..	..	..	71	1,830	15		
Totals	5,405	6,629	150	187	5,555	6,816	..	..	..	..	..	..	..	125	4,942	16		
GRAND TOTALS	597,823	600,762	20,801	110,809	679,470	790,228	..	..	..	..	..	..	..	27,795	1,077,982	40,510		

\* Includes Aranyul, Karapiro, Mangahua, main stations and King's Wharf and Penrose standby stations all interconnected. <sup>2</sup> Includes Colebridge, Waitaki, Arnold, Highbank, and Monowai main stations and Dobson standby station, all interconnected; also Cobb main station and Siale standby station not interconnected. <sup>3</sup> G.N. = Government Supply North Island; G.S. = Government Supply South Island; B. = Bulk supply from another supply authority; I. = Independent supply (own generating plant) and service lines. <sup>4</sup> Returns for year ended 31st December, 1949.

10/10/1949







TABLE X.—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31st MARCH, 1950.—continued

Supply Authorities.	Connected Load.		Maxi- mum Load on System.	Demand Factor	Annual Factor	Generated.			Net generated.	Purchased.	Net generated and purchased.	In Bulk for Resale.	Sold.		Per Head of Population	Per Consumer (excluding Bulk Supply)	Per Cent of Distribution of Capital <sup>1</sup>	Per Kilowatt- hour of Line <sup>2</sup>	Average Maximum Demand per Consumer.	No.											
	Includ- ing Bulk Supply.	Exclud- ing Bulk Supply.				Water.	Steam.	Oil.					Feed Back.	KWh.							KWh.	KWh.	KWh.	KWh.	KWh.	KWh.	KWh.	KWh.	KWh.	KWh.	KWh.
BOROUGH COUNCILS																															
Bluff	4,547	464	10-21/44-38																												
Ngaiwood	5,625	322	6-72/33-01																												
Kaipoi	5,020	519	10-33/59-73																												
Wairarapa	8,975	733	8-10/49-35																												
Wairarapa	8,975	733	12-40/53-37																												
Wairarapa	5,071	528	10-41/59-61																												
Wairarapa	1,662	181	10-80/41-48																												
Wairarapa	2,908	320	11-01/43-33																												
Wairarapa	7,008	694	9-80/59-72																												
Wairarapa	22,662	2,331	11-17/51-08																												
Wairarapa	31,510	3,310	10-51/54-08																												
Wairarapa	17,251	1,007	5-84/54-29																												
Wairarapa	6,364	776	12-19/53-50																												
Wairarapa	17,483	3,098	17-72/76-82																												
Wairarapa	6,333	690	10-50/55-58																												
Wairarapa	7,414	1,017	13-72/53-50																												
Wairarapa	9,008	486	9-80/49-19																												
Wairarapa	8,350	486	9-23/47-03																												
Wairarapa	10,271	948	7-74/34-10																												
Wairarapa	32,446	2,510																													
Totals	210,406																														
TOWN BOARDS																															
Kayunga	3,270	403	14-13/50-10																												
Maitavaka	628	107	17-08/80-82																												
Totals	3,904																														
COUNTY COUNCILS																															
Heathcote	12,289	1,300	11-07/52-20																												
Kaitiaki	773	120	15-52/40-10																												
Murchison	606	140	20-12/43-51																												
Uawa	108	N.A.	N.A.																												
Totals	13,806																														
COMPANIES																															
Kanieri Electric Ltd. <sup>1</sup>	5,211	1,480	28-24/76-43																												
Wilson's (N.Z.) Portland Cement	7,201	3,200	8-07/73-46																												
Westland Power Ltd. <sup>2</sup>	39,647	420	15-79/88-00																												
Totals	52,059	5,100																													
Utility Private Plants <sup>3</sup>	15,102																														
GRAND TOTALS	4,500,033																														

Units sold per head of population 1.256  
 Units sold per head of population in area of supply 1.275  
 Units sold per consumer 4.335

Total population of Dominion as at 31/3/50 was 1,914,120. Ratio of total population in area of supply to total population of Dominion = 98.524 per cent.

<sup>1</sup> Includes Arapuni, Karapiro, Manakopu, and Waikaremoa main stations and King's Wharf and Penrose standby stations all interconnected.  
<sup>2</sup> Includes Coleridge, Waitaki, Arnold, Highbank, and Monowai main stations and Dobson standby station all interconnected.  
<sup>3</sup> Includes private plants (including adjusted units for Westland Power, Ltd., and Kanieri Electric Co., due to different financial periods).  
<sup>4</sup> Total units sold (bulk plus retail) divided by total units sold (bulk plus retail) multiplied by 100.  
<sup>5</sup> Total units sold (bulk plus retail) divided by total units sold (bulk plus retail) multiplied by 100.  
<sup>6</sup> Total units sold (bulk plus retail) divided by total units sold (bulk plus retail) multiplied by 100.  
<sup>7</sup> Total units sold (bulk plus retail) divided by total units sold (bulk plus retail) multiplied by 100.  
<sup>8</sup> Total units sold (bulk plus retail) divided by total units sold (bulk plus retail) multiplied by 100.  
<sup>9</sup> Percentage of total units generated.  
<sup>10</sup> Transfer from Teviot Electric Power Board.

Based on total units sold to ultimate consumers (2,403,797,597).

1,376,175,000

1949



TABLE XI.—CAPITAL OUTLAY, FINANCIAL RESULTS OF GENERATION, DISTRIBUTION, AND OPERATION FOR THE YEAR ENDED 31ST MARCH, 1950—continued

Supply Authorities.	Capital Outlay.		Loan Liability.		Revenue.			Working Costs.				Capital Charges.					Net Results.		No. Deficiency.																
	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)																	
																				Sales of Energy.		Feed-back and Standby Charges.	Trading Account Profit.	Other Sources (excluding Rates).	Total.	Transmis-sion and Distribu-tion <sup>1</sup> .	Management and General.	Total.	Interest.	Sinking Fund.	Depreci-ation.	Other.	Total.	Total Annual Costs.	Surplus. Deficit.
																				£(N.Z.)	£(N.Z.)														
BOROUGH COUNCILS	17,645	1,500	10,708	48	11,475	2,075	1,407	8,084	58	300	1,440	200	8,760	2,706	8,410	1,409	1	1																	
	11,232	60	7,659	208	7,838	1,067	821	4,707	10	10	1,440	70	8,568	1,492	8,410	1,409	2	2																	
	18,039	4,015	7,015	523	9,538	2,273	958	7,902	212	288	154	70	9,568	2,607	9,568	2,607	3	3																	
	22,838	1,304	18,408	673	14,540	4,430	948	10,047	72	278	473	466	13,933	2,607	13,933	2,607	4	4																	
	10,237	6,049	10,882	45	10,909	1,584	1,262	8,082	211	0	476	1,773	7,032	2,607	7,032	2,607	5	5																	
	27,800	12,731	10,861	45	10,456	1,727	1,517	8,682	406	158	100	1,773	10,639	2,607	10,639	2,607	6	6																	
	17,084	7,353	9,063	300	9,803	850	686	9,705	353	500	100	1,087	10,639	2,607	10,639	2,607	7	7																	
	45,444	13,850	8,343	8	8,707	2,112	1,976	4,181	633	789	111	1,087	12,938	2,607	12,938	2,607	8	8																	
	14,014	2,102	13,433	204	13,688	3,282	2,447	20,869	93	106	1,087	1,087	20,998	1,390	20,998	1,390	9	9																	
	82,015	26,900	30,477	804	31,388	4,834	3,447	26,900	902	978	1,087	1,087	30,501	1,390	30,501	1,390	10	10																	
	192,872	182,872	98,161	1,400	99,561	22,394	6,381	54,047	0,227	978	0,008	3,270	16,543	18,021	18,021	5,439	11	11																	
	54,863	28,845	28,845	81	29,400	1,493	2,764	13,478	1,157	1,924	1,762	1,762	4,543	19,047	19,047	5,439	12	12																	
	28,107	4,050	13,850	20	12,700	2,170	1,810	8,663	1,411	1,320	1,004	1,004	8,100	19,177	19,177	5,439	13	13																	
	80,203	31,539	31,030	245	28,706	3,018	2,846	16,950	1,411	2,030	304	304	17,000	20,343	20,343	5,439	14	14																	
	210,200	90,002	12,907	5,775	13,038	3,018	2,846	16,950	1,411	2,030	521	521	17,000	20,343	20,343	5,439	15	15																	
	25,763	3,892	12,907	139	23,745	2,344	1,042	14,788	340	661	1,559	1,559	17,000	20,343	20,343	5,439	16	16																	
	37,508	13,353	22,907	640	23,745	2,280	2,940	14,788	340	661	2,817	2,817	17,000	20,343	20,343	5,439	17	17																	
	20,858	8,144	20,431	85	20,752	4,297	917	14,051	136	423	217	217	17,000	20,343	20,343	5,439	18	18																	
	21,354	2,100	10,743	111	17,988	3,562	1,750	12,101	983	1,400	1,147	1,147	15,631	20,343	20,343	5,439	19	19																	
	60,969	22,073	17,758	203	17,988	4,958	7,655	37,918	1,202	486	5,856	5,856	49,105	20,343	20,343	5,439	20	20																	
	179,813	73,716	52,425	4,528	57,156	4,958	7,655	37,918	1,202	486	5,856	5,856	49,105	20,343	20,343	5,439	21	21																	
Totals	1,197,699	537,810	410,467	4,427	451,802	71,043	51,443	301,238	19,593	15,911	11,067	25,305	373,164	79,464	373,164	79,464	1,101	1,101																	
TOWN BOARDS	25,718	8,597	10,508	121	10,646	2,075	1,377	8,274	388	583	920	1,307	9,581	1,065	9,581	1,065	170	170																	
	5,358	2,150	1,953	684	2,604	1,175	420	2,628	91	22	..	..	2,741	..	2,741	..	..	..																	
	Totals	31,106	10,747	12,461	815	13,340	3,250	1,797	10,902	486	605	920	1,420	12,322	1,065	12,322	1,065	47	47																
COUNTY COUNCILS	22,747	9,398	16,404	303	16,707	1,033	1,083	14,262	450	497	430	1,369	15,651	1,056	15,651	1,056	706	706																	
	15,273	5,201	7,087	..	7,087	798	603	6,279	347	..	1,080	1,307	7,580	1,01	7,580	1,01	..	..																	
	14,990	7,104	3,727	..	1,284	859	665	2,778	341	..	482	823	3,601	129	3,601	129	..	..																	
	7,376	1,819	1,914	..	2,050	483	53	1,939	..	..	..	..	1,939	87	1,939	87	..	..																	
Totals	60,362	23,582	29,792	415	30,147	3,743	2,404	25,258	1,044	497	1,078	3,519	28,777	1,370	28,777	1,370	..	..																	
COMPANIES	108,554	60,000	18,870	28	23,017	4,333	3,814	15,554	2,118	..	..	1,050	18,731	4,286	18,731	4,286	..	..																	
	116,464	73,414	12,751	34	20,182	2,508	1,543	10,633	..	..	..	1,340	17,973	11,508	17,973	11,508	..	..																	
	Totals	209,447	139,161	42,237	318	64,299	12,007	8,348	45,574	3,020	..	..	7,082	52,050	15,795	52,050	15,795	..	..																
GRAND TOTALS	83,103,717	59,311,178	8,431,181	3,917,070	327,248	64,358	161,371	12,801,237	932,073	932,073	..	..	876,825	8,770,296	11,610,841	997,537	7,141	3,000																	

<sup>1</sup> Excluding stocks, plant, motor-vehicles, and tools (see Table 1A). <sup>2</sup> Actual running-costs only, including fuel, wages, stores, repairs, and maintenance. <sup>3</sup> Includes cost of street lighting.

<sup>4</sup> Returns for year ended 31st December, 1949. <sup>5</sup> Generated. <sup>6</sup> Purchased. <sup>7</sup> Taxation (social security and income).

<sup>8</sup> Standby charges.

RECEIVED BY THE BANK OF NEW ZEALAND  
 1947 1948 1949 1949



TABLE XIII.—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31ST MARCH, 1950—continued

Supply Authorities.	Capital Outlay.				Revenue from Sale of Electricity.				Working-costs.				Capital Charges.			Total Costs.			No. of Distribution Capital.	
	Per Head of Population.	Per Consumer.	Per £1 of Revenue.	Per Unit sold (Overall, including Bulk Sales).	Per Unit sold (excl. Bulk Sales).	Per Unit sold (Domestic Supply).	Per Head of Population.	Per Retail Consumer.	Per kW. of Maximum Demand.	Per Route-mile of Line.	Per Unit sold.	Per kW. of Maximum Demand.	Per Cent. of Total Revenue.	Per Unit sold.	Per kW. of Maximum Demand.	Per Cent. of Capital Outlay.	Per Unit sold.	Per kW. of Maximum Demand.		Per Cent. of Distribution Capital.
<b>CITY COUNCILS</b>	12.11	38.26	2.94	0.658	0.458	0.562	4.14	13.40	10.27	349.00	0.52	81.22	6.11	0.075	1.17	3.87	0.017	9.03	31.86	1
Christchurch	27.83	90.77	0.01	0.640	0.670	0.476	4.96	14.00	10.27	349.00	0.38	6.11	0.38	0.104	3.04	0.583	0.104	9.15	27.42	3
Dunedin	5.97	19.86	1.71	0.934	0.934	0.748	3.45	11.02	10.05	974.37	0.613	12.44	0.087	0.47	3.04	0.630	0.087	12.07	41.07	3
Hamilton	8.48	26.76	2.35	1.179	1.179	1.125	3.62	11.41	17.76	616.16	0.823	12.44	0.165	0.46	3.51	0.823	0.165	13.05	42.05	4
Invercargill	0.06	20.92	3.00	1.005	1.005	0.800	4.38	14.03	17.29	500.46	0.733	14.85	0.087	0.40	3.40	0.803	0.087	18.24	40.38	5
Nelson	14.43	45.56	2.10	1.005	1.005	0.894	4.06	14.03	17.29	500.46	0.640	10.90	0.129	0.17	3.40	0.777	0.129	13.13	34.63	6
New Plymouth	13.46	50.56	3.26	0.826	0.826	0.685	4.82	15.02	17.81	355.64	0.580	12.64	0.162	0.19	3.50	0.748	0.162	10.13	59.30	7
Pauitangan North	8.57	43.00	3.35	0.844	0.844	0.612	4.82	13.01	15.25	1198.58	0.580	10.90	0.162	0.19	3.50	0.748	0.162	12.14	33.05	8
Tinianu	8.57	27.76	2.48	0.702	0.702	0.533	3.38	11.13	13.18	837.67	0.613	10.40	0.087	0.01	1.58	0.633	0.087	10.61	32.44	9
Wellington	13.22	43.44	3.04	0.776	0.776	0.492	4.40	14.20	12.09	833.67	0.570	8.97	0.110	0.110	1.85	0.605	0.110	10.82	36.42	10
Totals	14.87(m)	48.08(m)	3.51(c)	0.740(d)	0.750(e)	0.561	4.28(p)	13.63(r)	13.63(r)	551.76(j)	0.537(q)	73.06(k)	0.118(l)	0.118(l)	1.85	4.55(s)	0.055(t)	...	33.84(m)	...
<b>BOROUGH COUNCILS</b>	7.90	24.85	1.01	1.026	1.026	2.183	5.17	15.48	23.55	900.09	1.200	17.38	0.105	1.52	4.02	1.305	0.105	18.90	49.03	1
Bluff	8.10	20.80	1.46	1.384	1.384	0.904	3.04	14.16	23.70	544.03	0.870	14.90	0.294	1.52	4.38	1.164	0.294	10.03	57.48	2
Greymouth	6.88	20.52	1.70	1.291	1.291	1.257	3.83	12.33	18.30	787.28	1.023	14.52	0.124	1.75	5.03	0.601	0.124	10.54	45.10	3
Lyttelton	6.08	23.81	1.83	1.008	1.008	1.082	3.89	12.80	19.00	570.61	1.115	18.49	0.237	3.83	8.04	1.149	0.237	16.28	52.25	4
Ohakune	13.50	44.34	2.66	1.024	1.024	0.538	3.08	10.67	19.80	356.93	0.850	16.14	0.125	2.41	4.58	0.075	0.125	18.85	71.04	5
Patea	10.11	28.85	1.79	3.866	3.866	4.445	5.64	10.00	14.43	638.93	0.804	12.02	0.362	5.11	5.23	4.160	0.362	58.72	100.33	6
Picton	5.07	20.29	5.44	1.839	1.839	1.735	3.61	14.76	26.69	228.48	0.914	15.83	0.198	7.81	13.07	1.467	0.198	20.84	27.18	7
Raetihi	9.51	14.78	1.10	0.859	0.859	0.725	3.31	13.42	19.81	477.45	0.776	10.03	0.603	1.32	3.75	0.672	0.603	18.04	86.75	8
Rangiora	12.80	34.97	2.71	1.186	1.186	0.639	4.66	12.38	20.59	392.22	0.907	10.33	0.270	1.32	3.08	0.721	0.270	11.85	36.30	9
Riccarton	11.95	36.20	2.22	1.010	1.010	1.052	3.60	16.30	23.22	403.93	0.988	13.38	0.130	1.51	3.23	0.918	0.130	21.02	39.12	10
Rotorua Electric Supply	13.10	38.73	2.35	1.191	1.191	0.937	4.02	17.13	29.15	112.73	0.988	13.38	0.130	1.51	3.23	0.918	0.130	17.00	32.84	11
Tairāpiti	29.73	72.64	4.24	1.573	1.573	0.931	7.10	17.13	29.15	112.73	0.988	13.38	0.130	1.51	3.23	0.918	0.130	21.02	39.12	12
Talpahe	38.95	100.91	5.53	0.533	0.533	0.371	9.07	15.62	12.79	376.44	0.926	14.87	0.348	6.00	3.70	1.210	0.348	20.85	50.27	13
Tauranga	27.03	54.40	2.00	1.000	1.000	0.861	3.07	13.49	19.64	376.44	0.926	14.87	0.348	6.00	3.70	1.210	0.348	20.85	50.27	14
Te Aroha	8.23	24.40	1.69	1.218	1.218	1.303	3.21	14.44	21.82	396.01	0.745	11.07	0.108	1.57	3.08	0.890	0.108	15.65	48.63	15
Thames	6.66	21.11	1.01	1.073	1.073	0.946	3.52	20.90	16.98	396.01	0.745	11.07	0.108	1.57	3.08	0.890	0.108	15.65	48.63	16
Waikanae	7.04	22.98	1.99	1.213	1.213	1.045	3.85	11.30	22.72	682.97	0.781	11.08	0.159	3.13	18.24	0.898	0.159	10.72	54.28	17
Waikare	17.17	43.43	32.15	1.238	1.238	1.000	5.42	10.33	19.70	533.17	0.845	12.77	0.277	3.79	3.64	0.872	0.277	15.00	36.24	18
Whakatane	10.06	51.11	3.43	1.229	1.229	0.901	3.40	14.90	20.80	754.40	0.887	15.11	0.362	4.46	4.22	1.148	0.362	18.49	39.00	19
Whangarei	13.83(m)	41.40(m)	2.82(c)	1.052(d)	1.116(e)	0.902	5.03(p)	14.36(r)	14.36(r)	547.15(j)	0.738(q)	60.67(k)	0.178(l)	0.178(l)	1.85	6.00(s)	0.178(l)	...	38.41(m)	...
Totals	15.08	53.03	2.46	1.102	1.102	1.122	6.40	21.67	22.70	210.16	0.930	17.87	0.148	2.82	5.08	1.087	0.148	20.00	37.40	1
Kaponga	18.58	36.92	3.70	0.933	0.933	0.787	9.20	13.62	18.21	169.83	1.256	24.80	0.054	1.05	2.10	1.310	0.054	25.50	58.54	2
Mangaveka	10.12(m)	48.90(m)	2.50(c)	1.143(d)	1.149(e)	1.037	9.91(p)	19.62(r)	19.62(r)	200.08(j)	1.000(q)	...	0.130(l)	...	4.57(s)	1.130(t)	...	...	40.60(m)	...
Totals	10.12(m)	48.90(m)	2.50(c)	1.143(d)	1.149(e)	1.037	9.91(p)	19.62(r)	19.62(r)	200.08(j)	1.000(q)	...	0.130(l)	...	4.57(s)	1.130(t)	...	...	40.60(m)	...

(For notes see page 14.)

U.S. TIME 1946 1947 1948 1949





TABLE XIII.A.—SUMMARY OF TOTALS FROM TABLES IX, X, AND XI

No.	Item.	Other Local Authorities.						Companies.	Total, all Supply Authorities.	No.
		State Hydro-electric Department.	Electric-power Boards.	City Councils.	Borough Councils.	Town Boards.	County Councils.			
1	Population in area of supply	Number. 51,490	Number. 1,192,070	Number. 549,600	Number. 86,630	Number. 1,930	Number. 6,060	Number. 8,080	Number. 1,885,860	1
2	Number of consumers	..	335,066	169,958	28,932	635	1,851	1,650	554,554	2
3	Units generated	..	2,737,472,060	60,104,174	175,146,343	27,384,302	1,008,715	34,654,992 <sup>(1)</sup>	3,035,770,586	3
4	Units sold (retail)	..	118,929,614	1,428,775,264	741,352,812	89,531,597	6,341,269	16,249,885	2,403,797,597	4
5	Units sold (bulk plus retail)	..	2,554,904,912	1,580,433,555	755,901,641	96,761,280	6,341,269	35,934,200 <sup>(2)</sup>	..	5
6	Route-miles of lines (including service lines)	..	6,081	29,107	4,225	775	62	107	40,519	6
7	Capital outlay	£(N.Z.) 50,883,655	£(N.Z.) 22,458,689	£(N.Z.) 8,172,720	£(N.Z.) 1,197,699	£(N.Z.) 31,106	£(N.Z.) 60,992	£(N.Z.) 299,447	£(N.Z.) 83,103,717	7
8	Capital outlay on transmission and distribution system <sup>(3)</sup>	19,265,157	21,395,466	6,100,598	962,190	30,362	37,573	92,755	47,884,041	8
9	Revenue (retail sales)	381,218	5,233,111	2,316,965	416,457	12,461	29,732	42,237	8,431,181	9
10	Revenue (bulk sales)	3,515,381	257,606	15,219	7,585	..	..	21,288	3,817,079	10
11	Revenue (retail plus bulk sales)	3,896,599	5,490,717	2,331,184	424,042	12,461	29,732	63,525	12,248,260	11
12	Gross revenue (excluding rates)	3,951,558	5,632,250	2,657,841	451,802	13,340	30,147	64,299	12,801,237	12
13	Gross revenue (less revenue from bulk sales, feed-back, and standby charges)	436,177	5,348,721	2,350,069	435,445	13,340	30,147	43,011	8,656,910	13
14	Working costs (including cost of generating feed-back)	1,825,677	3,868,003	1,957,894	301,238	10,902	25,258	45,574	8,034,546	14
15	Working costs (excluding cost of generating feed-back)	1,498,429	3,855,530	1,692,486	297,675	10,902	25,258	45,574	7,425,854	15
16	Capital charges	1,992,348	1,328,338	371,722	71,866	1,420	3,519	7,082	3,776,295	16
17	Total costs (including cost of generating feed-back)	3,818,025	5,196,341	2,329,616	373,104	12,322	28,777	52,656	11,810,841	17
18	Total costs (excluding cost of generating feed-back)	3,490,777	5,183,868	2,064,208	369,541	12,322	28,777	52,656	11,202,149	18

NOTES.—<sup>1</sup> Includes generation figures of sundry private plants from Table X. <sup>2</sup> Includes bulk sales by sundry private plants from Table X. <sup>3</sup> Includes plant, stocks, motor-vehicles, and tools.

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TABLE XIV.—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES FOR THE YEAR ENDED 31ST MARCH, 1950

Supply Authorities.	Population Included in Area of Supply.	Ratio of Consumers to Population in Area of Supply.	Consumers.			Ranges.		Water-heaters.			Milk-machines.			Consumers Per Route-mile of Line. (%)	No.
			Domestic.	Commercial and Industrial.	Total.	Number. (%)	Total Kilowatts.	Per Cent.	Ratio of Ranges to Domestic Consumers.	Number.	Total Kilowatts.	Per Cent.	Ratio of Water-heaters to Total Consumers.		
<b>STATE HYDRO-ELECTRIC DEPARTMENT</b>															
1. North Island	51,490	29.79	506	18	524	462	2,904	91.30	504	639	96.18	5	4	0.26	1
2. South Island	51,490	29.79	13,399	1,939	15,338	4,111	24,407	30.68	3,252	3,826	21.20	1,814	2,743	3.78	2
Totals	51,490	29.79	13,905	1,957	15,862	4,573	27,311	32.89	3,756	4,465	23.68	1,819	2,747	2.61	
<b>POWER BOARDS</b>															
1. Ashburton	19,780	29.32	5,116	683	5,799	2,891	8,569	56.51	2,800	5,355	48.28	193	169	4.87	1
2. Auckland	289,700	29.29	70,742	14,096	84,838	41,589	298,271	58.79	44,171	33,024	52.07	1,037	1,037	38.03	2
3. Banks Peninsula	3,550	39.55	1,329	75	1,404	597	3,549	44.92	616	962	43.87	199	156	6.11	3
4. Bay of Islands	34,410	16.47	4,925	741	5,666	2,367	14,559	48.06	2,886	2,163	50.94	1,182	1,726	4.20	4
5. Bay of Plenty	18,650	17.46	2,798	458	3,256	1,551	9,321	55.43	2,272	1,863	69.78	885	1,233	8.99	5
6. Buller	10,620	18.24	1,552	385	1,937	43	329	2.77	98	73	5.06	32	16	33.12	6
7. Cambridge	7,580	29.06	1,807	296	2,203	747	4,842	39.17	1,386	1,615	62.91	473	571	9.08	7
8. Central Hawke's Bay	10,610	26.17	2,336	441	2,777	1,318	9,100	64.98	1,333	1,555	48.00	232	265	4.25	8
9. Central Waikato	35,650	29.57	9,579	963	10,542	3,822	23,566	39.90	6,017	4,963	57.08	2,336	3,476	6.68	9
10. Dannevirke	12,400	29.52	3,097	590	3,687	1,285	8,071	41.49	1,512	1,334	41.01	569	645	8.89	10
11. Franklin	25,600	27.20	6,351	6,962	3,414	5,787	4,266	83.12	2,765	4,266	83.12	2,765	3,129	7.93	11
12. Golden Bay	3,420	24.84	787	131	918	321	1,548	40.79	394	288	42.92	169	143	5.68	12
13. Grey	19,480	33.17	5,549	912	6,461	1,793	11,377	32.31	1,314	1,450	20.34	94	96	20.51	13
14. Hawke's Bay	40,540	29.78	10,776	1,295	12,071	6,520	58,680	60.51	6,357	6,357	62.66	448	472	19.01	14
15. Horowhenua	22,550	38.60	7,731	973	8,704	3,572	23,947	46.20	4,145	2,959	47.62	872	1,094	0.76	15
16. Hutt Valley	84,320	29.23	22,375	2,275	24,650	12,945	87,600	57.41	13,727	10,314	55.69	151	176	30.65	16
17. King-country	9,540	13.71	1,219	89	1,308	257	1,712	21.08	293	366	22.40	162	211	4.76	17
18. Malvern	4,690	21.05	863	124	987	258	1,246	29.90	165	294	16.72	14	11	4.79	18
19. Manawatu-Oroua	24,000	27.94	6,044	661	6,705	2,872	19,337	47.52	3,809	2,677	56.81	189	2,474	8.97	19
20. Marlborough	16,870	27.23	3,595	699	4,294	1,115	8,244	28.63	955	836	20.79	189	267	12.63	20
21. North Auckland	27,650	26.63	6,669	694	7,363	3,252	17,921	48.76	5,269	3,803	71.56	2,453	3,320	6.09	21
22. North Canterbury	15,190	32.82	4,510	475	4,985	1,837	10,411	40.73	1,733	2,648	34.76	306	275	4.89	22
23. Otago	5,960	26.07	1,363	191	1,554	748	4,404	54.88	1,110	948	71.43	549	768	7.23	23
24. Otago Central	25,660	26.29	6,745	1,171	7,916	2,888	11,886	20.88	1,186	1,579	17.58	231	297	7.41	24
25. Poverty Bay	8,450	32.02	2,380	326	2,706	814	7,336	20.88	885	902	32.71	72	36	16.49	25
26. South Canterbury	35,280	23.15	6,002	1,566	7,568	3,264	23,267	49.44	3,258	3,279	39.89	367	315	5.55	26
27. South Taranaki	25,940	25.45	5,821	781	6,602	1,614	10,593	27.73	1,431	2,107	21.68	339	253	5.55	27
28. South Taranaki	16,710	30.04	4,093	927	5,020	1,970	12,208	48.13	2,797	2,107	55.72	1,109	1,442	12.37	28
29. Springs-Ellesmere	14,680	26.32	3,563	358	3,921	1,928	10,494	49.00	1,893	2,290	49.00	402	323	8.68	29
30. Taranaki	14,510	25.49	3,466	233	3,699	1,230	8,306	35.40	2,180	1,750	58.94	1,583	2,528	7.13	30
31. Tararua	8,810	29.16	2,163	406	2,569	1,468	7,865	67.87	1,418	1,074	55.20	567	634	5.84	31
32. Tauranga	16,480	30.51	4,649	379	5,028	3,281	20,155	70.57	3,843	3,373	76.43	1,037	1,282	6.15	32
33. Te Awamutu	14,830	26.60	3,228	716	3,944	2,192	10,643	67.91	2,443	2,208	61.94	1,057	1,610	9.22	33
34. Teviot	2,260	28.36	458	183	641	350	2,114	76.42	306	285	47.74	5	3	8.17	34
35. Thames Valley	45,920	27.90	11,635	1,177	12,812	5,757	41,063	49.48	8,993	7,680	70.19	3,940	6,506	6.46	35

TABLE XIV.—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES FOR THE YEAR ENDED 31ST MARCH, 1950—continued

Supply Authorities.	Population Included in Area of Supply.		Ratio of Consumers to Population in Area of Supply.	Consumers.			Ranges.		Water-heaters.		MILKING-MACHINES.		No.			
	Number.	Per Cent.		Domestic.	Commercial and Industrial.	Total.	Number. (1)	Total Kilowatts.	Ratio of Ranges to Domestic Consumers.	Number.	Total Kilowatts.	Ratio of Water-heaters to Total Consumers.		Number.	Horse-power.	Consumers Per Route-mile of Line. (2)
Power Boards—continued																
37. Wairarapa	26,630	28.06	6,229	1,243	7,472	3,465	20,751	55.47	3,677	3,857	40.21	958	1,256	10.43	37	
38. Waikato	3,470	22.65	699	87	786	400	2,806	57.23	514	386	66.39	234	278	2.87	38	
39. Waikato	8,620	9.21	712	82	794	269	1,724	37.78	981	280	47.82	117	106	4.13	39	
40. Waikato	18,620	32.19	979	5,993	6,972	2,748	17,525	54.81	2,866	3,069	47.82	141	105	9.68	40	
41. Waikato	71,540	36.05	22,532	3,260	25,792	13,301	82,830	59.03	12,768	10,253	49.50	2,074	1,887	14.06	41	
42. Waikato	12,040	24.87	2,498	486	2,984	1,545	10,066	61.85	1,717	1,490	57.35	545	787	9.08	42	
43. Wanganui-Rangitikea	50,590	28.08	11,824	2,381	14,205	4,227	27,645	35.75	4,965	4,024	34.95	1,428	1,120	12.88	43	
Totals	1,182,070	28.40	289,818	45,848	335,666	148,600	984,465	51.20	168,118	144,017	50.08	34,503	42,783	11.53		
CITY COUNCILS																
1. Christchurch	153,550	31.64	42,142	6,440	48,582	26,288	183,765	62.38	25,029	22,727	51.52	188	145	26.88	1	
2. Dunedin	98,860	29.56	26,837	3,475	30,312	8,223	47,862	30.64	13,540	17,164	44.69	261	360	44.67	2	
3. Hamilton	24,470	30.66	5,630	1,603	7,233	1,540	10,063	27.35	2,411	1,566	33.33	..	..	41.09	3	
4. Invercargill	24,960	31.62	6,622	1,269	7,891	1,237	3,087	12.04	821	1,067	10.40	..	..	80.65	4	
5. Napier	16,950	30.30	4,093	1,042	5,135	1,237	8,897	30.22	1,975	1,656	38.46	..	..	42.09	5	
6. Nelson	15,000	31.67	3,875	875	4,750	812	6,900	20.95	1,987	1,823	41.83	..	..	71.63	6	
7. New Plymouth	29,320	30.57	7,744	1,220	8,964	4,827	25,654	62.33	6,197	4,300	57.98	887	1,405	22.97	7	
8. Palmerston North	29,820	31.97	8,140	1,392	9,532	3,554	21,571	43.66	4,498	3,199	47.19	..	..	92.10	8	
9. Timaru	20,750	29.80	5,042	1,142	6,184	1,840	11,852	36.49	2,024	3,151	32.73	1	..	83.84	9	
10. Wellington	135,920	30.44	33,604	7,771	41,375	7,131	48,340	21.22	14,269	17,373	34.56	32	84	58.32	10	
Totals	549,600	30.92	143,729	26,229	169,958	56,249	367,931	30.14	71,787	74,036	42.24	1,379	2,995	40.23		
Borough Councils																
1. Bluff	2,220	31.80	580	126	706	120	485	20.60	65	77	9.21	..	..	58.15	1	
2. Inglewood	1,390	38.78	404	135	539	184	1,256	45.55	180	147	33.40	4	..	38.43	2	
3. Kaapoi	2,050	35.66	626	105	731	280	1,887	44.73	289	304	30.53	..	..	44.55	3	
4. Lyttelton	3,320	33.52	948	165	1,113	313	2,100	33.02	292	384	26.24	6	..	65.39	4	
5. Otago	2,830	29.57	526	163	689	86	606	16.35	128	101	18.58	24	29	21.67	5	
6. Patea	2,050	30.44	496	131	627	302	2,025	60.89	310	203	49.44	33	40	21.35	6	
7. Picton	1,750	35.03	508	105	613	24	130	4.72	..	..	..	..	..	58.38	7	
8. Raetihi	2,390	23.68	451	115	566	53	426	11.75	105	89	18.55	32	40	20.21	8	
9. Rangiora	2,630	38.37	2,273	126	2,400	336	2,204	38.05	457	473	45.29	..	..	72.83	9	
10. Ranganui	8,680	27.50	2,387	114	2,501	1,358	9,063	59.75	1,470	1,191	61.58	..	..	90.93	10	
11. Rotoura Electric Supply	14,940	36.86	4,617	890	5,507	1,464	9,992	31.71	1,860	1,587	33.78	455	502	23.61	11	
12. Stratford	4,190	33.82	1,075	342	1,417	162	4,220	47.72	515	464	36.34	10	9	53.00	12	
13. Taihape	2,360	32.92	567	210	777	162	1,174	28.57	157	161	20.21	1	1	70.64	13	
14. Taumarunui	3,000	40.95	948	280	1,228	185	1,174	19.52	197	200	16.04	13	12	43.57	14	
15. Tauranga	5,630	36.43	1,627	424	2,051	1,277	8,371	78.40	1,382	742	67.38	15	..	29.83	15	
16. Te Aroha	2,640	36.14	696	258	954	332	2,324	47.74	360	278	37.74	15	26	22.60	16	

(For notes, see page 18.)

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TABLE XIV.—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, WATER-HEATERS, AND MILKING-MACHINES FOR THE YEAR ENDED 31ST MARCH, 1950—continued

Supply Authorities.	Population included in area of supply.	Ratio of Consumers to Population in area of supply.	Consumers.			Ranges.			Water-heaters.			Milk-machines.		Consumers Per Route-mile of Line. (*)	No.
			Domestic.	Commercial and Industrial.	Total.	Number. (1)	Total Kilowatts.	Ratio, Number of Ranges to Domestic Consumers.	Number.	Total Kilowatts.	Per Cent.	Ratio, Number of Water-heaters to Total of Consumers.	Number.		
<b>BOROUGH COUNCILS—continued</b>															
17. Thames	4,560	33.71	1,217	320	1,537	564	3,344	501	364	32.60	3	3	62.10	17	
18. Wairarapa	2,180	31.07	737	251	988	512	3,479	514	327	52.02	..	..	43.91	18	
19. Waitara	2,790	33.26	760	108	868	325	2,151	346	269	37.28	23	19	58.92	19	
20. Whakatane	3,320	31.64	832	215	1,047	452	2,742	471	472	44.99	7	4	31.49	20	
21. Whangarei	11,200	31.41	2,873	645	3,518	1,464	8,442	1,316	953	37.41	..	..	50.63	21	
Totals .. .. .	86,680	33.40	23,644	5,288	28,932	10,306	67,536	10,915	8,742	37.73	626	703	37.33		
<b>TOWN BOARDS</b>															
1. Kōpunga	1,640	29.57	395	90	485	161	1,084	312	260	64.33	193	296	9.70	1	
2. Mangaweka	290	51.72	108	42	150	56	285	55	40	36.67	10	7	13.04	2	
Totals .. .. .	1,930	32.90	503	132	635	217	1,369	367	300	57.80	203	303	10.33		
<b>COUNTY COUNCILS</b>															
1. Heathcote	3,570	30.87	1,096	6	1,102	751	4,175	855	932	77.59	3	5	14.28	1	
2. Pūkākura	1,290	29.38	285	94	379	17	44	2	3	0.53	4	3	43.31	2	
3. Maritison	770	30.78	209	28	237	15	90	39	35	16.46	55	50	13.94	3	
4. Uawa	430	30.93	110	23	133	..	..	..	..	..	..	..	33.25	4	
Totals .. .. .	6,060	30.54	1,700	151	1,851	783	4,309	896	970	48.43	62	58	17.30		
<b>COMPANIES</b>															
1. Kanieri Electric, Ltd. (1)	3,140	32.96	821	214	1,035	247	1,635	168	180	16.23	..	..	33.93	1	
2. Wilson's (N.Z.) Portland Cement, Ltd. (2)	1,220	6.89	71	13	84	46	298	62	51	73.81	36	65	2.18	2	
3. Westland Power, Ltd. (3)	3,720	14.27	471	60	531	100	642	132	138	24.86	110	140	5.76	3	
Totals .. .. .	8,080	20.42	1,363	287	1,650	393	2,575	392	369	21.94	146	205	10.23		
<b>GRAND TOTALS</b>	1,885,860	29.41	474,662	79,892	554,554	221,181	1,455,496	256,201	232,889	46.60	83,738	49,794	13.69		

NOTES.—(1) Only ranges requiring permits for connection to electric supply, therefore not comparable with statistics published prior to 1948. (2) For year ended 31st December, 1949. (3) Route-miles of lines now include service lines, therefore not comparable with statistics published prior to 1948.

TABLE XVII.—STATISTICS RELATING TO ELECTRICAL WIREMEN'S REGISTRATION BOARD FOR YEAR ENDED 31ST MARCH, 1950

(The figures in parentheses are for the previous year)

1. Number of Wiremen's Registration Board meetings: 15 (15).  
2. Registrations—

	During Year.	Total.	Current.
Inspectors .. .. .	50 (36)	1,005 (955)	437 (430)
Electrical wiremen .. .. .	293 (312)	5,837 (5,544)	5,052 (4,621)
Electrical servicemen, Class "D" .. .. .	25 (40)	266 (241)	244 (217)
Electrical servicemen, Class "E" (including radio) .. .. .	44 (78)	407 (363)	(..)
Electrical servicemen, Class "E" (excluding radio) .. .. .	1 (2)	39 (38)	(..)
Limited registration .. .. .	9* (11)	1,301† (1,292)	843 (840)
Provisional licences .. .. .	121 (75)	1,222 (1,101)	(..)
Registrations after periodical purging .. .. .	195 (192)	387 (192)	(..)
	Candidates.	Passed, Per Cent.	Highest Marks.
3. Examinations—			
Wiremen—			
Written .. .. .	772 (747)	38	97 (100)
Practical .. .. .	436 (467)	63	95 (94)
Servicemen—			
Written .. .. .	267 (370)	57	93 (96)
Practical .. .. .	145 (204)	54	90 (94)

4. Defective work reports: 12 (13); endorsements made, 3 (5); endorsements removed, 2 (3).  
5. Breach of Act reports: 40 (36); prosecutions authorized, 27 (29).

\* Includes luminous-discharge-tube installers, 2; servicemen (Supply Authority), 3; servicing refrigeration apparatus, 1; servicing refrigerating and washing-machines up to and including the plug top, 1; radio experimenter, 1; assembly and repair of apparatus offered for sale, 1. † Includes radio servicemen registered prior to the introduction in 1939 of examinations for Electrical Servicemen, Class "E," and includes other miscellaneous registrations.

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

OFFICE

STATE

LAND

MANAGEMENT

1. The following is a list of the lands owned by the United States in the State of Nevada, as of the date of the filing of this report:

Section	Township	Range	County	Acres
1	10 N.	10 E.	Clark	160
2	10 N.	10 E.	Clark	160
3	10 N.	10 E.	Clark	160
4	10 N.	10 E.	Clark	160
5	10 N.	10 E.	Clark	160
6	10 N.	10 E.	Clark	160
7	10 N.	10 E.	Clark	160
8	10 N.	10 E.	Clark	160
9	10 N.	10 E.	Clark	160
10	10 N.	10 E.	Clark	160
11	10 N.	10 E.	Clark	160
12	10 N.	10 E.	Clark	160
13	10 N.	10 E.	Clark	160
14	10 N.	10 E.	Clark	160
15	10 N.	10 E.	Clark	160
16	10 N.	10 E.	Clark	160
17	10 N.	10 E.	Clark	160
18	10 N.	10 E.	Clark	160
19	10 N.	10 E.	Clark	160
20	10 N.	10 E.	Clark	160
21	10 N.	10 E.	Clark	160
22	10 N.	10 E.	Clark	160
23	10 N.	10 E.	Clark	160
24	10 N.	10 E.	Clark	160
25	10 N.	10 E.	Clark	160
26	10 N.	10 E.	Clark	160
27	10 N.	10 E.	Clark	160
28	10 N.	10 E.	Clark	160
29	10 N.	10 E.	Clark	160
30	10 N.	10 E.	Clark	160
31	10 N.	10 E.	Clark	160
32	10 N.	10 E.	Clark	160
33	10 N.	10 E.	Clark	160
34	10 N.	10 E.	Clark	160
35	10 N.	10 E.	Clark	160
36	10 N.	10 E.	Clark	160
37	10 N.	10 E.	Clark	160
38	10 N.	10 E.	Clark	160
39	10 N.	10 E.	Clark	160
40	10 N.	10 E.	Clark	160
41	10 N.	10 E.	Clark	160
42	10 N.	10 E.	Clark	160
43	10 N.	10 E.	Clark	160
44	10 N.	10 E.	Clark	160
45	10 N.	10 E.	Clark	160
46	10 N.	10 E.	Clark	160
47	10 N.	10 E.	Clark	160
48	10 N.	10 E.	Clark	160
49	10 N.	10 E.	Clark	160
50	10 N.	10 E.	Clark	160
51	10 N.	10 E.	Clark	160
52	10 N.	10 E.	Clark	160
53	10 N.	10 E.	Clark	160
54	10 N.	10 E.	Clark	160
55	10 N.	10 E.	Clark	160
56	10 N.	10 E.	Clark	160
57	10 N.	10 E.	Clark	160
58	10 N.	10 E.	Clark	160
59	10 N.	10 E.	Clark	160
60	10 N.	10 E.	Clark	160
61	10 N.	10 E.	Clark	160
62	10 N.	10 E.	Clark	160
63	10 N.	10 E.	Clark	160
64	10 N.	10 E.	Clark	160
65	10 N.	10 E.	Clark	160
66	10 N.	10 E.	Clark	160
67	10 N.	10 E.	Clark	160
68	10 N.	10 E.	Clark	160
69	10 N.	10 E.	Clark	160
70	10 N.	10 E.	Clark	160
71	10 N.	10 E.	Clark	160
72	10 N.	10 E.	Clark	160
73	10 N.	10 E.	Clark	160
74	10 N.	10 E.	Clark	160
75	10 N.	10 E.	Clark	160
76	10 N.	10 E.	Clark	160
77	10 N.	10 E.	Clark	160
78	10 N.	10 E.	Clark	160
79	10 N.	10 E.	Clark	160
80	10 N.	10 E.	Clark	160
81	10 N.	10 E.	Clark	160
82	10 N.	10 E.	Clark	160
83	10 N.	10 E.	Clark	160
84	10 N.	10 E.	Clark	160
85	10 N.	10 E.	Clark	160
86	10 N.	10 E.	Clark	160
87	10 N.	10 E.	Clark	160
88	10 N.	10 E.	Clark	160
89	10 N.	10 E.	Clark	160
90	10 N.	10 E.	Clark	160
91	10 N.	10 E.	Clark	160
92	10 N.	10 E.	Clark	160
93	10 N.	10 E.	Clark	160
94	10 N.	10 E.	Clark	160
95	10 N.	10 E.	Clark	160
96	10 N.	10 E.	Clark	160
97	10 N.	10 E.	Clark	160
98	10 N.	10 E.	Clark	160
99	10 N.	10 E.	Clark	160
100	10 N.	10 E.	Clark	160