

# ANNUAL STATISTICS IN RELATION TO ELECTRIC POWER DEVELOPMENT AND OPERATION

YEAR ENDED 31 MARCH 1960

## Condensed Statistics for the Combined Development and Operations of the New Zealand Electricity Department and Distributing Electrical Supply Authorities

No.			Water	Steam	Oil	Total	No.
1	Generating stations .. .. .	No.	40	4	11	55	1
2	Installed capacity .. .. .	kW	1,197,096	297,895	14,384	1,509,375	2
3	Generation .. .. .	kWh	5,487,163,950	872,304,176	1,213,383	6,360,681,509	3
4	Maximum load .. .. .	kW	..	..	..	1,277,200	4
5	Retail sales .. .. .	kWh	..	..	..	5,273,931,616	5
6	Consumers .. .. .	No.	..	..	..	802,927	6
7	Population .. .. .	No.	..	..	..	2,370,166	7
8	Capital outlay, generation, transmission, and distribution .. .. .	£	..	..	..	278,454,554	8
9	Revenue retail sales of electricity .. .. .	£	..	30,031,508	..	..	9
10	Revenue from other sources .. .. .	£	..	581,242	..	..	10
11	<b>Total revenue</b> .. .. .	£	..	..	..	30,612,750	11
12	Working costs .. .. .	£	..	30,772,052	..	..	12
13	Capital charges .. .. .	£	..	15,456,443	..	..	13
14	<b>Total costs</b> .. .. .	£	..	..	..	26,228,495	14
15	Net profit .. .. .	£	..	..	..	4,384,255	15
16	Working costs per kWh sold retail .. .. .	d.	..	0.4902	..	..	16
17	Capital charges per kWh sold retail .. .. .	d.	..	0.7034	..	..	17
18	<b>Total costs per kWh sold retail</b> .. .. .	d.	..	..	..	1.1936	18
19	Total revenue per kWh sold retail .. .. .	d.	..	..	..	1.3931	19
20	Revenue retail sales of electricity per kWh sold retail .. .. .	d.	..	..	..	1.3666	20
21	Generation per head of total population .. .. .	kWh	..	..	..	2.684	21
22	Retail sales per consumer .. .. .	kWh	..	..	..	6.568	22
23	Capital outlay per kW installed capacity .. .. .	£	..	..	..	184.48	23
24	Ratio of capital charges to capital outlay .. .. .	%	..	..	..	5.551	24
25	Electrical fires reported during year .. .. .	No.	..	..	..	292	25
26	Fatal electrical accidents during year .. .. .	No.	..	..	..	14	26
27	Electric ranges .. .. .	No.	..	..	..	459,028	27
28	Electric water heaters .. .. .	No.	..	..	..	519,089	28

TABLE I—NEW ZEALAND ELECTRICITY DEPARTMENT ONLY  
Summarised Gross Revenue, Net Revenue, and Appropriation Accounts for Year Ended 31 March 1960

	£	Revenue—	£
Working costs .. .. .	5,021,637	Sales of energy .. .. .	17,005,944
Capital charges—		Rent and miscellaneous receipts .. .. .	119,978
Interest .. .. .	7,194,262		
Depreciation .. .. .	2,644,079		
Loan capital repayments .. .. .	1,106,889		
	10,945,230		
<b>Total costs (see table IV)</b> .. .. .	15,966,867		
Transfer to Reserve Fund .. .. .	1,159,055		
	17,125,922		17,125,922

TABLE II—NEW ZEALAND ELECTRICITY DEPARTMENT ONLY  
Summarised Balance Sheet as at 31 March 1960

	£		£
Loan liability .. .. .	176,987,252	Completed works .. .. .	164,472,443
Sundry creditors, etc .. .. .	1,800,407	Works under construction .. .. .	31,619,458
Reserves—		Plant, motor vehicles, and tools .. .. .	805,292
Depreciation .. .. .	18,921,732	Stocks of materials .. .. .	2,536,160
Loan capital repayments .. .. .	9,220,499		
Reserve Fund .. .. .	2,069,192	Capital outlay (see table V) .. .. .	199,433,353
Stores insurance reserve .. .. .	15,032	Sundry debtors, etc. .. .. .	9,660,761

TABLE III—OPERATING RESULTS: NEW ZEALAND ELECTRICITY DEPARTMENT ONLY

		1959-60		1959-60	
<b>Maximum load (kilowatts)—</b>				<b>Revenue—</b>	
North Island†	.. .. .	854,100		Per kW of maximum load	£14.0325
South Island†	.. .. .	357,800		Per unit output	0.666d.
		*1,211,900		Per unit sold	0.735d.
<b>Average load (kilowatts)—</b>				<b>Working costs—(including administration)—</b>	
North Island	.. .. .	498,257		Per kW of maximum load	£4.1436
South Island	.. .. .	198,935		Per unit output	0.197d.
<b>Average load factor—</b>		<b>Per Cent</b>		Per unit sold	0.217d.
North Island	.. .. .	58.34			
South Island	.. .. .	55.60			
<b>Unit output (generated and purchased)—</b>				<b>Capital charges—</b>	
North Island	.. .. .	4,376,686,859		Per kW of maximum load	£9.0315
South Island	.. .. .	1,747,446,170		Per unit output	0.429d.
Total	.. .. .	6,124,133,029		Per unit sold	0.473d.
<b>Units sold—</b>				<b>Total costs—</b>	
North Island	.. .. .	4,001,431,201		Per kW of maximum load	£13.1751
South Island	.. .. .	1,549,315,897		Per unit output	0.626d.
Total	.. .. .	5,550,747,098		Per unit sold	0.690d.
<b>Units unsold (used free of charge)—</b>					
North Island	.. .. .	30,679,912			
South Island	.. .. .	23,198,338			
Total	.. .. .	53,878,250			
<b>Line losses—</b>					
Transmission and distribution—					
	Units	Per Cent			
North Island	344,575,746	7.87			
South Island	174,931,935	10.01			
Total	519,507,681	8.48			

\*Sum of North and South Island maximum loads - not simultaneous maximum demand.  
† See footnote, table VII, for maximum load for total public supply.

TABLE IV—NEW ZEALAND ELECTRICITY DEPARTMENT ONLY  
Analysis of Operating Costs for Year Ended 31 March 1960

	(a) Working Costs	(b) Administration Costs	(c) Capital Charges	(d) Total Costs	Total Cost per kWh	
					(e) Output	(f) Sold
Hydro-electric stations	£ 761,869	£ 310,498	£ 5,795,985	£ 6,868,352	d.	d.
Thermal stations	1,735,084	190,436	2,155,370	4,080,890	0.3179	
Power purchases	220,252	4,405		224,657	1.1326	
Generated and purchased					0.7280	
Transmission	2,717,205	505,339	7,951,355	11,173,899	0.4379	0.4831
Substations	380,583	155,106	1,416,268	1,951,957	0.0765	0.0844
Communications	556,394	226,757	1,358,259	2,141,410	0.0839	0.0926
Retail distribution	70,432	28,704	66,014	165,150	0.0065	0.0071
System operation	98,643	105,171	153,334	357,148	0.0140	0.0154
	125,966	51,337		177,303	0.0069	0.0077
Totals	3,949,223	1,072,414	10,945,230	15,966,867	0.6257	0.6904
Administration (see column b)	1,072,414					
	5,021,637					
<b>SUMMARY</b>						
			Working costs	3,949,223	0.1548	0.1708
			Administration costs	1,072,414	0.0420	0.0464
			Capital charges	10,945,230	0.4289	0.4732
			Total costs	15,966,867	0.6257	0.6904

TABLE V—NEW ZEALAND ELECTRICITY DEPARTMENT ONLY  
Analysis of Capital Outlay as at 31 March 1960

	Headworks	Station Buildings and Village	Generating Plant and Machinery	Total	Grand Total
<i>Completed Works</i>					
Hydro-electric stations—	£	£	£	£	£
Karapiro .. .. .	2,574,442	603,356	956,752	4,134,550	
Arapuni .. .. .	1,525,698	555,998	1,095,683	3,177,379	
Maratai .. .. .	6,087,326	1,669,825	1,773,379	9,530,530	
Whakamaru .. .. .	6,939,381	1,323,770	2,226,499	10,489,650	
Atiamuri .. .. .	6,746,737	1,418,928	1,552,501	9,718,166	
Lake Taupo Control .. .. .	205,165	..	..	205,165	
Kaitawa .. .. .	1,208,910	188,385	314,906	1,712,201	
Tuai .. .. .	275,344	335,622	483,752	1,094,718	
Piripaua .. .. .	756,567	107,849	212,709	1,077,125	
Lake Waikaremoana Control .. .. .	464,915	..	..	464,915	
Mangahao .. .. .	979,637	192,344	320,521	1,492,502	
Cobb .. .. .	4,129,445	405,824	398,429	4,933,698	
Arnold .. .. .	109,996	10,767	26,567	147,330	
Lake Coleridge .. .. .	552,479	179,793	250,204	982,476	
Highbank .. .. .	333,788	129,216	179,901	642,905	
Lake Tekapo .. .. .	2,560,397	509,759	441,887	3,512,043	
Lake Pukaki Control .. .. .	2,309,684	..	..	2,309,684	
Waitaki .. .. .	1,743,126	1,524,274	1,163,356	4,430,756	
Roxburgh .. .. .	15,635,527	2,513,943	2,506,375	20,655,845	
Lake Wakatipu Control .. .. .	208	2,642	..	2,850	
Lake Hawea Control .. .. .	2,394,835	4,500	..	2,399,335	
Monowai .. .. .	128,340	63,991	63,534	255,865	
	57,661,947	11,740,786	13,966,955		83,369,688
Thermal stations—					
King's Wharf .. .. .	..	165,170	259,243	424,413	
Meremere .. .. .	1,695,796*	3,096,151	12,103,909	16,895,856	
Wairakei .. .. .	5,441,249†	2,462,397	509,606	8,413,252	
Evans Bay .. .. .	..	77,066	221,484	298,550	
Stoke .. .. .	..	12,341	66,961	79,302	
Dobson .. .. .	..	43,988	94,648	138,636	
	7,137,045	5,857,113	13,255,851		26,250,009
Transmission system—					
33 kV lines .. .. .	..	..	..	84,449	
50 kV lines .. .. .	..	..	..	834,528	
66 kV lines .. .. .	..	..	..	2,275,570	
110 kV lines .. .. .	..	..	..	7,915,424	
220 kV lines .. .. .	..	..	..	9,261,704	
Substations—					
33 kV .. .. .	..	..	..	30,745	
50 kV .. .. .	..	..	..	1,111,609	
66 kV .. .. .	..	..	..	2,029,152	
110 kV .. .. .	..	..	..	9,466,796	
220 kV .. .. .	..	..	..	6,898,963	
Communications .. .. .	..	..	..	..	19,537,265
Distribution system .. .. .	..	..	..	..	949,549
Offices, stores, land, and buildings .. .. .	..	..	..	..	2,205,574
Cost of raising loans .. .. .	..	..	..	..	727,250
Interest during construction on completed works .. .. .	..	..	..	..	832,153
Completed works .. .. .	..	..	..	..	10,229,280
					164,472,443
<i>Works Under Construction</i>					
Hydro-electric stations—					
Atiamuri .. .. .	..	..	40,796	40,796	
Waipapa .. .. .	4,293,732	1,280,929	1,168,162	6,742,823	
Maratai II .. .. .	747,529	..	49,215	796,744	
Ohakuri .. .. .	5,731,799	913,862	1,601,626	8,247,287	
Aratiatia .. .. .	319,671	..	6,566	326,237	
Matahina .. .. .	266,799	..	4,537	271,336	
Benmore .. .. .	5,065,784	..	10,219	5,076,003	
Roxburgh .. .. .	..	727,978	1,288,215	2,016,193	
Additions to completed stations .. .. .	..	12,128	138,083	150,211	
	16,425,314	2,934,897	4,307,419		
Thermal stations—					
Wairakei .. .. .	2,589,286†	12,829	13,909	2,616,024	
Additions to completed stations .. .. .	..	..	2,637	2,637	
	2,589,286	12,829	16,546		
Transmission system—					
33 kV lines .. .. .	..	..	..	120,544	
50 kV lines .. .. .	..	..	..	22,885	
66 kV lines .. .. .	..	..	..	..	
110 kV lines .. .. .	..	..	..	258,793	
220 kV lines .. .. .	..	..	..	1,867,404	
500 kV d.c. lines (survey) .. .. .	..	..	..	36,519	
Substations—					
33 kV .. .. .	..	..	..	44,856	
50 kV .. .. .	..	..	..	3,021	
66 kV .. .. .	..	..	..	64,503	
110 kV .. .. .	..	..	..	537,417	
220 kV .. .. .	..	..	..	383,173	
Communications .. .. .	..	..	..	11,926	
Distribution system .. .. .	..	..	..	9,498	
Offices, stores, land, and buildings .. .. .	..	..	..	68,179	
Interest on works under construction .. .. .	..	..	..	29,715,009	
Surveys and investigations of other schemes .. .. .	..	..	..	244,892	
				1,659,557	
					31,619,458

TABLE VI—STATISTICS OF GENERATING PLANTS, SYSTEM VOLTAGES, ROUTE-MILES OF LINES, TRANSFORMERS, ETC., FOR THE YEAR ENDED 31 MARCH 1960

No.	Supply Authorities	Source of Supply	Year When Supply Commenced	Capacity of Generating Plant						Static Head, in Feet	Generation	Voltage		Distribution Transformers		Route Miles of Lines
				Water	Steam	Oil	Total Capacity	Transmission	Distribution			Number	kVA			
1	NEW ZEALAND ELECTRICITY DEPARTMENT															
	North Island	G.	1921	kW 157,800 kVA 180,000	kW .. kVA ..	kW .. kVA ..	kW 1,031,895 kVA 1,179,364	kVA .. kVA 1,179,364	175 81	{ 11,000 6,600 }	{ 270,000 110,000 50,000 }	{ 11,000 6,600 3,300 }	151	46,242	3,367	
	Arapuni	..	..	63,000 70,000	22,000 27,500	..	..	..	..	..	..	..	..	..	..	
	Evans Bay	..	..	90,000 100,000	27,000 33,800	..	..	..	..	..	..	..	..	..	..	
	King Wharf	..	..	19,200 24,000	..	..	..	..	..	..	..	..	..	..	..	
	Mangahao	..	..	180,000 200,000	..	..	..	..	..	..	..	..	..	..	..	
	Maracora	..	..	..	180,000 211,764	..	..	..	..	..	..	..	..	..	..	
	Meremere	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Waikaremoana	..	..	124,000 144,600	..	..	..	..	..	..	..	..	..	..	..	
	Waikare	..	..	..	68,895 76,700	..	..	..	..	..	..	..	..	..	..	
	Whakamaru	..	..	100,000 111,000	..	..	..	..	..	..	..	..	..	..	..	
2	South Island	G.	1915	kW .. kVA ..	kW .. kVA ..	kW .. kVA ..	kW 399,070 kVA 449,092	kVA .. kVA 449,092	.. 42 1,940 490	{ 11,000 6,600 3,300 400 }	{ 270,000 110,000 66,000 33,000 }	{ 11,000 6,600 3,300 }	3,975	291,624	5,283	
	Arnold	..	..	3,060 3,600	..	..	..	..	..	..	..	..	..	..	..	
	Coleridge	..	..	37,000 37,222	..	..	..	..	..	..	..	..	..	..	..	
	Doon	..	..	34,500 40,640	..	..	..	..	..	..	..	..	..	..	..	
	Highbank	..	..	25,200 28,000	..	..	..	..	..	..	..	..	..	..	..	
	Manawa	..	..	6,000 7,050	..	..	..	..	..	..	..	..	..	..	..	
	Roxburgh	..	..	160,000 177,777	..	..	..	..	..	..	..	..	..	..	..	
	Stoke	..	..	25,200 28,000	..	..	..	..	..	..	..	..	..	..	..	
	Tekapo	..	..	105,000 116,666	..	..	..	..	..	..	..	..	..	..	..	
	Wairaki	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Totals	..	..	1,124,960 1,268,555	297,895 349,764	8,110 10,137	1,430,965 1,628,456	..	..	..	..	..	..	..	..	
1	POWER BOARDS															
1	Ashburton	G.	1923	..	..	..	..	..	..	..	..	..	1,724	26,663	1,424	
2	Auckland	G.	1908	..	..	..	..	..	..	..	..	..	1,868	351,863	2,033	
3	Banks Peninsula	G.	1921	..	..	..	..	..	..	..	..	..	299	4,405	304	
4	Bay of Islands	G.	1939	88	..	..	88	92	134	400	..	..	1,747	25,730	2,109	
5	Bay of Plenty	G.	1928	..	..	..	..	..	..	..	..	..	865	24,393	579	
6	Buller	G.	1949	200	..	..	200	250	430	420	..	..	83	6,370	141	
7	Cambridge	G.	1921	..	..	..	..	..	..	..	..	..	233	9,453	310	
8	Central Hawke's Bay	G.	1925	..	..	..	..	..	..	..	..	..	920	13,892	1,095	
9	Central Waikato	G.	1921	..	..	..	..	..	..	..	..	..	939	54,205	2,034	
10	Daunearke	G.	1925	..	..	..	..	..	..	..	..	..	557	11,892	533	
11	Franklin	G.	1925	..	..	..	..	..	..	..	..	..	801	24,744	1,025	
12	Golden Bay	G.	1929	200	..	..	200	250	330	400	..	..	246	8,350	270	
13	Grey	G.	1926	..	..	..	..	..	..	..	..	..	371	23,141	436	
14	Hawke's Bay	G.	1927	..	..	320	320	400	..	3,000	..	..	1,165	62,416	1,890	
15	Horowhenua	G.	1924	..	..	..	..	..	..	..	..	..	451	34,544	1,177	
16	Hutt Valley	G.	1924	..	..	..	..	..	..	..	..	..	755	159,509	1,208	
17	King Country	G.	1946	..	..	..	..	..	..	..	..	..	520	7,304	747	
18	Malvern	G.	1925	..	..	..	..	..	..	..	..	..	435	4,180	378	
19	Manawatu-Oroua	G.	1924	..	..	..	..	..	..	..	..	..	930	38,513	895	
20	Manawatu-Oroua	G.	1927	1,000	..	1,450	2,450	..	100	..	..	..	..	..	..	

TABLE VI—STATISTICS OF GENERATING PLANTS, SYSTEM VOLTAGES, ROUTE-MILES OF LINES, TRANSFORMERS, ETC., FOR THE YEAR ENDED 31 MARCH 1960—continued

No.	Supply Authorities	Source of Supply <sup>1</sup>	Year When Supply Commenced	Capacity of Generating Plant				Static Head, in Feet	Generation	Voltage		Distribution Transformers		Route Miles of Lines	
				Water	Steam	Oil	Total			Transmission	Distribution	Number	kVA		
21	Power Boards—continued														
21	North Auckland	G.	1936									1,878	41,899	2,775	21
22	North Canterbury	G.	1928									1,279	17,072	1,515	22
23	Opunake	G.	1923	315			315	6,600				302	5,390	293	23
24	Otago	G.	1926									1,875	28,511	2,217	24
25	Otago Central	I. & G.	1923	5,310			5,310	6,600 3,300 400			33,000	644	11,265	849	25
26	Poverty Bay	G.	1912				980	6,600				1,113	48,239	1,032	26
27	South Canterbury	G.	1925	556			1,042	5,500				2,132	29,609	1,859	27
28	South Taranaki	G.	1929									44	29,100	483	28
29	Springs Eilersmere	G.	1922									912	29,102	695	29
30	Taranaki	G.	1927	4,800			4,800	6,600				876	15,868	758	30
31	Taranaki	G.	1925									742	10,402	647	31
32	Tauranga	G.	1926									861	27,459	1,287	32
33	Te Awamutu	G.	1921									514	17,922	512	33
34	Teviot	I. & B.	1924	750			750	3,300				197	2,437	98	34
35	Thames Valley	G.	1921	250			250	400				1,146	66,700	2,598	35
36	Waimea	G.	1933	770			770	3,300				653	25,147	850	36
37	Wairarapa	G.	1923	1,400			1,400	3,300				1,038	25,995	1,116	37
38	Waikare	I. & G.	1925									521	5,696	570	38
39	Waikare	G.	1923									303	5,366	398	39
40	Waikare	G.	1926									919	29,763	838	40
41	Waitemata	G.	1926									1,482	101,890	3,269	41
42	Waitemata	G.	1926									660	22,354	802	42
43	Wanganui-Rangitikei	G.	1924									1,547	60,082	1,740	43
44	Westland <sup>4</sup>	I. & G.	1959	1,560			1,560	2,300 2,200 400			11,000	8	1,515	59	44
	Totals			17,199	20,889	4,006	24,895					37,494	1,560,355	46,447	
1	Christchurch	G.	1903									876	190,118	1,696	1
2	Dunedin	I. & G.	1907	44,600			44,600	6,000				1,399	130,081	837	2
3	Hamilton	G.	1913									59	15,700	234	3
4	Invercargill	G.	1914									94	19,240	162	4
5	Napier	B.	1913									54	11,375	148	5
6	Nelson	B.	1923									53	11,295	73	6
7	New Plymouth	G.	1906	3,750			3,750	6,600				114	26,092	473	7
8	Palmerston North	B.	1924									114	28,350	324	8
9	Timaru	B.	1908									75	21,125	110	9
10	Wellington	G.	1888									253	160,866	725	10
	Totals			48,350	59,368	2,400	62,308					3,391	614,232	4,782	

(For notes see page 6.)

TABLE VI—STATISTICS OF GENERATING PLANTS, SYSTEM VOLTAGES, ROUTE-MILES OF LINES, TRANSFORMERS, ETC., FOR THE YEAR ENDED 31 MARCH 1960—continued

No.	Supply Authorities	Source of Supply <sup>1</sup>	Year When Supply Commenced	Capacity of Generating Plant						Static Head, in Feet	Voltage			Distribution Transformers		Route Miles of Lines	No.
				Water	Steam	Oil	Total	Capacity	Generation		Transmission	Distribution	Number	kVA			
1	Borough Councils																
2	Bluff	B.	1903														16
3	Inglewood	B.	1905														18
4	Kaipara	B. & G.	1917														3
5	Lyttelton	B. & G.	1917														4
6	Ohakune	G.	1914														5
7	Rangiora	I. & G.	1917	250			250										6
8	Riccarton	G.	1916				52										7
9	Rotorua Electric Supply	G.	1901														8
10	Stratford	B.	1898														9
11	Talbot	B.	1913														10
12	Taurarunui	B.	1924														11
13	Taupo	I. & G.	1952	425			425										12
14	Tauranga	I.	1915	3,440			3,440										13
15	Tu Arona	B.	1906														14
16	Thames	B.	1914	100			100										15
17	Wairoa	B.	1915														16
18	Waikare	B.	1917														17
19	Whakatane	B.	1922														18
20	Whangarei	B.	1915														19
	Totals			5,190	6,456	65	5,242	6,521									20
	Town Boards																
1	Karanga	B.	1916														1
2	Mangawaka	B.	1913														2
	Totals																
	County Councils																
1	Heathcote	G.	1914														1
2	Kaikoura	I. & G.	1922														2
3	Murchison	I. & G.	1922	200			200										3
4	Mickencze	G.	1957														4
	Totals			200	250	605	756	935									
	COMPANIES																
1	Amelyst Power Ltd.	I.	1954	225			225										1
2	Kanieri Electric Ltd. <sup>2</sup>	I. & G.															2
3	Westland Power Ltd. <sup>3</sup>	I. & G.	1928	972			972	1,064									3
	Totals			1,197	1,304	1,304	1,197	1,304									
	GRAND TOTALS			1,197,056	1,556,042	17,893	1,509,375	1,724,499									

Notes—<sup>1</sup> G. = Government supply; B = Bulk supply from another supply authority; I = Independent supply (own generating plant).

<sup>2</sup> Return for year ended 31 December 1959.

<sup>3</sup> Taken over by Westland Electric Power Board, 31 July 1959.

<sup>4</sup> Commenced operation, 1 August 1959.



TABLE VII—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31 MARCH 1960—continued

Supply Authorities	Maximum Load	Annual Load	Generated			Net Generated	Purchased	Net Generated and Purchased	In Bulk for Resale	Sold		Percentage Non-productive	Per Head of Population	Units Sold (Average)				Average Maximum Demand per Consumer	
			Water	Steam	Oil					Retail to Consumers				Per Cent of Distribution	Per Route-mile of Line	Per Consumer (Excluding Bulk Supply)	Per Cent of Distribution		Per Route-mile of Line
										Domestic	Non-domestic								
CITY COUNCILS																			
Christchurch	106,991	50,259				472,648,927	472,648,927	48,820	304,567,793	126,133,791	41,899,523	2,280	6,650	253,965	1,652	1			
Dunedin	79,060	46,663				323,812,332	323,812,332		181,346,288	116,191,262	26,274,782	2,796	7,772	353,362	2,065	2			
Hamilton	9,492	59,011				49,203,240	49,203,240		24,187,023	20,973,233	4,061,927	2,019	3,762	273,726	1,005	3			
Invercargill	12,420	44,544				48,594,000	48,594,000		25,700,281	16,161,212	2,386,520	2,220	5,619	268,770	1,148	4			
Napier	6,150	60,115				32,432,940	32,432,940		17,389,593	12,167,217	2,386,520	2,220	5,619	203,973	1,148	5			
Nelson	7,376	50,577				37,949,530	37,949,530		22,995,904	10,298,524	4,655,102	2,105	5,509	454,792	1,220	6			
New Plymouth	16,574	61,911				91,661,666	91,661,666		57,532,000	24,442,000	9,867,666	2,212	6,653	173,312	1,377	7			
Palmerston North	7,376	61,911				77,768,688	77,768,688		54,278,137	16,696,439	7,130,904	1,916	5,378	219,206	1,308	8			
Timaru	10,272	58,700				50,260,560	50,260,560		30,469,866	14,044,437	5,746,317	2,200	6,083	405,819	1,404	9			
Wellington	73,350	40,002				318,442,080	318,442,080		176,632,500	119,817,375	21,992,115	2,553	6,575	409,009	1,640	10			
						1,503,378,955	1,503,378,955	49,820	895,168,997	477,167,392	130,693,746	2,333	6,153	287,042*	..	..			
Borough Councils																			
Bluff	1,426	41,993				5,252,352	5,252,352		1,941,747	2,533,573	777,032	1,381	4,358	279,804	1,388	1			
Edgewood	714	57,664				3,627,574	3,627,574		2,157,720	1,079,900	403,934	1,811	4,422	79,966	0,979	2			
Kaipara	1,048	56,011				5,155,800	5,155,800		3,876,220	1,852,960	432,620	1,969	4,499	273,726	1,005	3			
Lytelton	1,772	59,916				6,700,000	6,700,000		3,630,507	2,147,399	322,014	1,330	2,963	229,309	1,077	4			
Ohakune	670	54,400				3,201,696	3,201,696		1,673,658	1,071,538	456,110	1,940	2,963	201,708	6,723	5			
Raetihi	446	75,722				976,612	976,612		1,332,275	954,458	679,801	953	3,406	24,490	0,680	6			
Rangiora	1,523	50,633				7,578,900	7,578,900		5,550,400	1,443,520	504,890	2,033	5,251	392,922	1,444	7			
Riccarton	4,707	54,239				21,194,240	21,194,240		12,255,816	7,204,674	1,733,750	3,454	7,528	319,024	1,820	8			
Rotorua Electric Supply	12,977	63,906				56,916,596	56,916,596		31,600,360	19,580,915	5,727,321	1,523	4,479	59,953	1,053	9			
Stratford	1,970	63,906				11,068,393	11,068,393		6,587,996	3,795,125	603,272	2,077	5,430	324,282	1,030	10			
Tairāhema	1,042	40,003				4,451,700	4,451,700		2,665,137	1,405,853	300,710	1,572	4,579	214,263	1,172	11			
Taumarunui	1,751	49,300				7,593,900	7,593,900		3,572,237	3,110,540	901,203	1,920	4,609	196,975	1,296	12			
Taupo	2,350	52,553				2,352,600	2,352,600	983,360	5,599,624	2,954,546	1,343,042	1,279	3,535	51,631	0,974	13			
Tauranga	4,488	50,981				23,251,152	23,251,152	2,315,300	11,244,586	6,059,059	3,632,207	2,874	6,359	344,192	1,619	14			
Te Aroha	1,216	54,300				5,800,529	5,800,529		5,623,477	1,742,714	434,338	1,748	4,453	114,174	1,009	15			
Thames	1,990	63,388				11,023,350	11,023,350		6,770,337	3,806,733	446,280	2,011	5,659	295,041	1,059	16			
Waikato	2,272	49,344				9,847,628	9,847,628		5,562,570	2,600,700	1,284,458	2,900	6,975	245,091	1,593	17			
Waitara	1,238	52,229				3,686,794	3,686,794		1,916,700	1,344,061	504,373	1,800	5,793	245,197	1,043	18			
Whakarewa	2,706	56,066				13,467,740	13,467,740		7,448,729	3,934,061	1,504,373	1,797	5,226	224,612	1,310	19			
Whangarei	6,418	40,006				27,093,230	27,093,230		17,473,363	7,448,729	2,171,190	1,797	5,226	244,750	1,346	20			
						31,937,765	31,937,765	3,298,660	140,678,817	73,834,393	24,937,692	1,751	5,004	117,064*	..	..			
Town Boards																			
Kaipara	925	56,261				4,571,481	4,571,481		2,155,005	1,936,921	470,605	2,189	6,984	30,520	1,578	1			
Mangaweka	158	51,071				708,160	708,160		431,004	180,224	96,952	1,746	3,868	51,150	0,999	2			
County Councils																			
Heathcote	3,119	55,333				15,157,760	15,157,760		9,171,740	4,616,010	1,360,000	3,155	9,540	169,343	2,160	1			
Kaitiaki	342	47,700				687,866	687,866		739,753	59,110	11,738	1,095	2,239	17,033	0,384	2			
Murchison	333	62,666				308,460	308,460		600,100	600,100	463,563	1,095	4,239	25,240	1,031	3			
Mackenzie	253	44,611				993,430	993,430		791,476	5,063	196,088	1,286	16,965	6,273	5,394	4			
						17,225,316	17,225,316		11,302,161	5,776,415	2,341,370	1,934	6,316	51,441*	..	..			

(For notes see page 9.)



TABLE VII—RESULTS OF GENERATION, DISTRIBUTION, AND CONSUMPTION FOR THE YEAR ENDED 31 MARCH 1960—continued

Supply Authorities	Maximum Load kW	Annual Load Factor	Generated							Net Generated kWh	Purchased kWh	Net Generated and Purchased kWh	Sold				Units Sold (Average)				Average Maximum Demand per Retail Consumer kW	No. of Retail Consumers							
			Water		Steam		Oil		Feed Back kWh				In Bulk for Retail kWh	Retail to Consumers		Non- productive kWh	Percentage Non- productive <sup>1</sup>	Per Head of Population <sup>2</sup> kWh	Per Consumer (Excluding Bulk Supply)	Per % of Distribution <sup>3</sup> kWh			Per Route-mile of Line <sup>4</sup> kWh						
			kWh	%	kWh	%	kWh	%						Domestic	Non-domestic									kWh	%	kWh	kWh	kWh	kWh
Companies	275	48.21	952,840	95.28	840	84.00	..	..	952,840	..	952,840	575,584	134,138	243,118	25.32	1,419	5,388	63	24,058	1.772	..	..	..	..	..	..	..		
Electric Ltd. <sup>1</sup>	473	54.80	5,516,800	55.17	800	80.00	..	..	5,563,520	46,720	5,563,520	1,734,881	778,341	607,508	14.00	1,093	5,252	90	31,944	1.448	..	..	..	..	..	..	..		
Electric Ltd. <sup>2</sup>	1,179	..	4,325,820	..	..	..	..	..	1,345,260	1,345,260	5,675,080	1,638,200	2,436,890	685,940	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
private plants <sup>3</sup>	..	..	10,795,460	..	..	..	..	10,795,460	1,395,980	12,191,440	12,191,440	4,148,665	3,349,360	1,546,566	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
TOTALS	1,277,200	..	3,998,630	7,597,336	..	..	..	..	..	..	..	3,122,347,164	2,151,584,452	1,086,749,893	17.09*	2,238	6,568	42	84,609†	..	..	..	..	..	..	..	..	..	
			5,487,163,950	872,304,176	1,213,383	..	..	..	..	..	..	6,360,681,509	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Units generated per head of total population .. .. . 2.684  
 Units sold retail per consumer .. .. . 6.568

Maximum load for public supply: North Island, 862,900 kW, South Island, 414,300 kW.  
 Annual load factor: North Island, 58.31 per cent, South Island, 53.34 per cent.

Notes—<sup>1</sup> Includes generation by electrical supply authorities for own use and is the sum of North Island 862,900 kW and South Island 414,300 kW. <sup>2</sup> Return for year ended 31 December 1959.  
<sup>3</sup> Includes adjusted units for Westland Electric Power Ltd. and Kanieri Electric Co. due to different financial periods. <sup>4</sup> Total units sold (bulk plus retail) divided by route-miles of lines.  
<sup>5</sup> Case of individual supply authorities including units from transmission and distribution, units used free of charge, units supplied to station auxiliaries, also - where applicable - losses occasioned by supply in bulk to other electrical supply authorities. <sup>6</sup> Total units sold (bulk plus retail) divided by capital expenditure on transmission and distribution system including *pro rata* allocation of miscellaneous expenditure. <sup>7</sup> Total units sold retail divided by route-mile of line. <sup>8</sup> Percentage of total units generated. <sup>9</sup> Percentage of net units generated and purchased. <sup>10</sup> Units sold retail divided by population in area of supply. <sup>11</sup> Transfer to New Zealand Electricity Department. <sup>12</sup> Transfer to Teviot Electric Power Board. <sup>13</sup> Transfer from Otago Central Electric Power Board. <sup>14</sup> Taken over 31 July 1959 by Westland Electric Power Board. <sup>15</sup> Commenced operation, 1 August 1959.



TABLE VIII—CAPITAL OUTLAY, FINANCIAL RESULTS OF GENERATION, DISTRIBUTION, AND OPERATION FOR THE YEAR ENDED 31 MARCH 1960—continued

Supply Authorities	Capital Outlay* £(N.Z.)	Loan Liability £(N.Z.)	Revenue				Working Costs				Capital Charges				Total Annual Costs £(N.Z.)	Net Results		Appropriation of Capital Works £(N.Z.)				
			Sales of Energy		Feed-back, Standby Charges, and Refund of Costs £(N.Z.)	Trading Account Profit £(N.Z.)	Other Sources (Excluding Rates) £(N.Z.)	Total £(N.Z.)	Cost of Power		Transmission and Distribution £(N.Z.)	Management and General £(N.Z.)	Total £(N.Z.)	Interest £(N.Z.)		Sinking Fund and Principal Repayments £(N.Z.)	Depreciation £(N.Z.)		Renewals Paid out of Revenue £(N.Z.)	Total £(N.Z.)	Surplus £(N.Z.)	Deficit £(N.Z.)
			Retail £(N.Z.)	Bulk for Resale (Excluding Feed-back) £(N.Z.)					Generated* £(N.Z.)	Own Use £(N.Z.)												
City Councils—continued																						
Leamington	327,141																					
W. Plymouth	696,509																					
Meriton North	674,621																					
Maru	291,276																					
Blington	3,258,791																					
	17,846,384	6,754,887	7,405,720	196	48,810	30,424	56,953	7,542,103	10,974	95,064	4,166,918	1,022,637	395,000	5,690,593	175,500	227,956	316,146	845,403	6,535,996	1,066,107	370,139	
Household Consumers																						
Atterwood	60,344																					
Atterwood	31,150																					
Atterwood	49,615																					
Atterwood	51,306																					
Atterwood	65,256																					
Atterwood	70,846																					
Atterwood	64,407																					
Atterwood	164,633																					
Atterwood	1,123,676																					
Atterwood	141,601																					
Atterwood	34,823																					
Atterwood	130,295																					
Atterwood	341,765																					
Atterwood	58,445																					
Atterwood	72,599																					
Atterwood	46,677																					
Atterwood	64,610																					
Atterwood	177,430																					
Atterwood	284,803																					
Atterwood	3,371,556	1,562,097	1,390,429	5,058	12,295	5,761	14,474	1,428,017	5,186	14,995	711,405	182,287	132,861	1,046,734	53,307	41,778	41,806	202,843	1,249,577	178,440	103,756	
Town Boards																						
Wanganui	67,327																					
Wanganui	7,024																					
Wanganui	74,351																					
Country Councils																						
Teitote	63,850																					
Teitote	123,827																					
Teitote	39,107																					
Teitote	81,819																					
Teitote	368,611																					
Teitote	19,426																					
Teitote	91,145																					
Teitote	110,573																					
Teitote	278,454,554,009,493,683,90,091,508	16,508,739	157,432	121,337	459,905	47,270,915	16,731,743	4,854,807	3,150,572	27,438,217	3,392,627	3,112,070	3,181,500	770,096	15,456,443	42,894,660	4,387,447	3,192	1,879,509	4,387,447	3,192	
TOTALS																						
NET REVENUE AND COSTS																						

Notes— Return for year ended 31 December 1959.  
 \*Actuals from sources other than New Zealand Electricity Department or supply authorities.  
 †Now includes all stocks and materials.  
 ‡Commenced operation, 1 August 1959.

\*Actuals comprise costs only, including fuel, wages, stores, repairs, and maintenance.  
 †Includes cost of street lighting.  
 ‡Purchased.  
 ‣Taken over by Westland Electric Power Board, 31 July 1959.

\*Excludes management, general, and capital charges.

\*Purchased.  
 †Taken over by Westland Electric Power Board, 31 July 1959.

\*Purchased.  
 †Taken over by Westland Electric Power Board, 31 July 1959.

TABLE IX—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31 MARCH 1960

No.	Supply Authorities	Capital Outlay		Revenue from Sale of Electricity						Working Costs			Capital Charges			Total Costs		
		Per Head of Population	Per Consumer	Per Unit (Including Bulk Sales)	Per Unit (Retail Sales)	Per Unit (Domestic Supply)	Per Unit (Non-domestic Supply)	Per Head of Population*	Per Retail Consumer	Per Maximum Demand	Per kW. Requirement of Line	Per Unit Sold	Per Cent of Total Revenue	Per kW. Maximum Demand	Per Cent of Capital Outlay	Per Unit Sold	Per kW. Maximum Demand	Per Cent of Distribution Capital
		£(N.Z.)	£(N.Z.)	d.	d.	d.	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	£(N.Z.)	%	£(N.Z.)	%	d.	£(N.Z.)	%	
1	NEW ZEALAND ELECTRICITY DEPARTMENT	...	...	0.735	1.157	1.302	1.075	...	...	...	1,965.96	29.32	0.473	5.49	0.690	...	30.64	
2	Ashburton	51.25	153.19	1.369	1.369	1.038	2.704	13.18	39.41	30.44	1,965.96	65.73	0.324	7.21	1.250	27.80	23.53	
3	Auckland	32.72	97.01	1.247	1.247	1.013	1.556	12.11	35.41	23.68	2,012.27	78.81	0.167	3.16	1.154	21.84	34.26	
4	Banks Peninsula	73.09	137.38	1.939	1.939	1.087	2.116	16.88	31.73	30.69	2,112.27	69.42	0.384	9.25	2.009	31.79	23.99	
5	Bay of Islands	42.10	155.92	1.775	1.775	1.490	2.186	10.88	40.30	36.83	1,693.88	70.85	0.353	11.05	1.789	37.12	26.14	
6	Bay of Plenty	31.87	156.53	1.123	1.123	1.139	1.197	13.82	67.85	27.40	814.95	70.85	0.139	3.40	0.949	27.14	40.27	
7	Buller	84.31	78.50	1.477	1.477	1.562	1.390	10.12	32.69	27.33	727.27	75.37	0.185	3.52	1.296	44.70	40.83	
8	Cambridge	40.02	101.50	1.615	1.615	1.361	2.073	13.87	40.93	29.35	365.01	69.46	0.180	3.26	1.321	24.00	41.83	
9	Central Hawke's Bay	49.20	108.60	1.692	1.692	1.420	2.873	14.31	43.83	31.64	185.09	65.92	0.411	7.70	1.521	23.73	26.96	
10	Central Otago	32.00	107.60	1.327	1.327	1.274	1.880	11.82	40.76	27.17	353.95	70.31	0.310	5.49	1.401	24.75	23.89	
11	Dannevirke	41.99	131.38	1.753	1.753	1.506	2.333	12.22	38.25	31.43	321.99	67.26	0.282	5.06	1.498	26.62	24.84	
12	Franklin	41.72	129.86	1.468	1.468	1.219	1.889	13.44	41.82	29.68	402.25	66.91	0.358	7.23	1.350	27.29	29.67	
13	Golden Bay	65.00	206.99	0.942	0.942	1.204	0.854	23.65	73.22	20.24	361.16	77.63	0.116	2.56	0.858	18.85	35.01	
14	Grey	37.30	116.44	1.526	1.526	1.345	1.644	13.20	42.20	29.70	613.96	74.57	0.151	2.92	1.293	24.98	29.97	
15	Hawke's Bay	39.31	107.22	1.233	1.233	1.142	1.969	12.73	36.53	28.70	569.69	78.45	0.184	3.48	1.170	22.09	36.51	
16	Horowhenua	37.35	86.71	1.494	1.494	1.233	2.104	13.27	29.23	28.74	369.69	70.14	0.297	6.71	1.359	26.16	30.68	
17	Hutt Valley	22.02	72.62	1.384	1.384	1.061	1.986	13.11	43.23	21.80	1,386.37	81.47	0.127	2.01	1.265	19.93	54.42	
18	Kaitiaki	48.76	246.29	2.266	2.266	1.836	2.834	9.57	43.27	29.21	1,963.36	60.46	0.436	7.01	1.593	24.60	19.91	
19	Kaitiaki	44.61	166.15	2.031	2.031	1.853	3.124	9.99	37.22	33.71	1,434.46	50.57	0.511	6.45	1.801	29.89	47.32	
20	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
21	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
22	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
23	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
24	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
25	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
26	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
27	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
28	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
29	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
30	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
31	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
32	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
33	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
34	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
35	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
36	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
37	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
38	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
39	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
40	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
41	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
42	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
43	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	
44	Manawatu-Oroua	40.11	129.69	1.671	1.671	1.095	1.658	14.56	45.89	21.41	745.45	79.63	0.133	2.75	1.451	29.96	47.32	

(For notes see page 14.)



TABLE IX—AVERAGES DERIVED FROM PREVIOUS TABLES FOR THE YEAR ENDED 31 MARCH 1960—continued

No.	Supply Authorities	Capital Outlay			Revenue from Sale of Electricity						Working Costs			Capital Charges			Total Costs										
		Per Head of Population	£(N.Z.)	Per Head of Population	Per Unit Sold (Including Bulk Sales)	Per Unit Sold (Retail Sales)	Per Unit Sold (Domestic Supply)	Per Unit Sold (Non-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 Capital Outlay	Per Unit Sold	Per kW. of Maximum Demand	Per kW. of Maximum Demand	Per Cent of Distribution Capital‡								
1	Ameihyva Power Ltd.	38.86	£(N.Z.)	152.98	d.	2.379	1.788	d.	4.913	£(N.Z.)	14.07	£(N.Z.)	31.27	£(N.Z.)	230.47	d.	0.905	£(N.Z.)	11.86	%	38.02	d.	0.564	£(N.Z.)	19.30	%	38.33
2	Kameri Electric Ltd.	23.31	111.97	1.411	1.282	1.697	1.684	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
3	Westland Power Ltd.	25.07	117.51	1.411	1.282	1.697	1.684	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	Average for all supply authorities*	118.15	346.80	1.367	1.100	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	Averages for 1959	108.83	323.75	1.394	1.134	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1957	101.53	305.27	1.114	0.964	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1956	92.18	279.75	1.121	0.976	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1955	83.02	258.65	1.121	0.976	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1954	76.46	239.79	1.128	0.976	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1953	69.43	222.33	1.107	0.894	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1952	62.04	200.27	0.894	0.894	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1951	54.74	178.41	0.869	0.869	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		
	" 1951	49.40	163.60	0.838	0.838	1.742	1.604	1.604	1.697	47.23	9.93	64.51	33.54	253.72	253.72	0.722	0.722	79.75	79.75	70.10	0.057	0.057	0.739	29.42	62.70		

NOTES—\*Return for 31 December 1959. †Excludes sundry private plants (table VII) who do not furnish returns. ‡Retail sales. †Revenue from total units sold (bulk plus retail). ‡Excludes cost of generating feed-back. †Includes cost of generating feed-back. ‡Commenced operation, 1 August 1959.

TABLE X—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, AND WATER-HEATERS FOR THE YEAR ENDED 31 MARCH 1960

No.	Supply Authorities	Population Included in Area of Supply	Ratio of Consumers to Population	Consumers			Ranges		Water-heaters			Consumers Per Route-mile of Line	No.
				Domestic	Commercial	Total	Number	Per Cent	Number	Per Cent	Number		
1	New Zealand Electricity Department	62,650	31.60	855	2,533	857	805	94.15	859	100.23	0.25	1	
2	North Island	62,650	..	17,263	2,535	19,796	8,832	51.16	7,920	40.01	3.75	2	
	South Island	..	..	18,118	..	20,653	9,637	53.15 <sup>a</sup>	8,779	42.51	2.39	..	
1	Ashburton	23,320	33.46	6,894	908	7,802	5,133	74.46	7,183	92.07	5.48	1	
2	Auckland	338,390	33.73	100,263	13,874	114,137	69,907	69.72	77,839	68.20	56.15	2	
3	Banks Peninsula	3,810	53.20	1,917	110	2,027	1,207	62.96	1,167	57.57	6.66	3	
4	Bay of Islands	36,800	27.00	8,594	1,342	9,936	5,683	66.13	6,679	67.22	4.71	4	
5	Bay of Plenty	31,060	20.36	5,447	878	6,325	4,010	73.62	4,880	77.15	10.92	5	
6	Buller	10,130	30.97	2,595	542	3,137	384	14.80	389	12.40	22.25	6	
7	Cambridge	9,090	33.88	2,750	330	3,080	2,000	72.73	2,470	80.19	9.41	7	
8	Central Hawke's Bay	14,160	32.65	3,991	632	4,623	3,559	89.18	3,229	69.85	4.22	8	
9	Central Waikato	60,900	29.00	16,031	1,629	17,660	10,423	65.02	12,740	72.14	8.68	9	
10	Dannevirke	14,040	31.96	3,847	640	4,487	2,702	70.24	2,834	63.16	8.42	10	
11	Franklin	30,630	32.13	8,743	1,097	9,840	6,501	74.36	8,673	88.14	9.60	11	
12	Golden Bay	4,130	31.40	1,151	146	1,297	664	57.69	825	63.61	4.79	12	
13	Grey	20,290	32.03	5,445	1,054	6,499	3,065	56.29	2,459	37.84	14.90	13	
14	Hawke's Bay	59,160	34.80	17,849	2,737	20,586	15,242	85.39	14,873	72.25	10.89	14	
15	Horowhenua	32,730	45.39	12,793	2,062	14,855	9,048	70.73	9,681	65.17	12.63	15	
16	Hutt Valley	127,790	30.32	35,569	3,171	38,740	27,831	78.25	29,639	76.51	32.07	16	
17	King Country	13,860	19.80	2,527	217	2,744	1,036	41.00	1,026	37.39	3.68	17	
18	Manawatu	5,430	26.85	1,302	156	1,458	633	50.15	601	41.22	3.85	18	
19	Manawatu-Oroua	31,090	30.30	8,549	870	9,419	6,404	74.91	7,273	77.26	10.53	19	
20	Marlborough	24,620	30.98	6,459	1,169	7,628	3,290	50.94	3,382	44.34	12.62	20	
21	North Auckland	37,000	33.91	11,339	1,208	12,547	7,688	67.80	9,981	79.55	4.52	21	
22	North Canterbury	19,220	35.90	6,313	587	6,900	4,043	64.04	4,305	62.39	4.55	22	
23	Opunake	6,770	27.90	1,716	173	1,889	1,123	65.44	1,638	86.71	6.45	23	
24	Otago	28,690	36.33	9,178	1,246	10,424	3,284	35.78	3,490	33.48	4.70	24	
25	Otago Central	11,450	40.41	3,883	744	4,627	1,916	49.34	2,261	48.87	5.45	25	
26	Poverty Bay	42,900	31.40	10,807	2,664	13,471	7,299	67.54	7,345	54.52	13.06	26	
27	South Canterbury	31,560	31.62	9,294	684	9,978	4,516	48.59	4,152	41.61	5.37	27	
28	South Taranaki	21,190	32.44	5,741	1,132	6,873	4,029	70.18	5,262	76.56	14.23	28	
29	Springs Eylesmere	24,530	29.06	6,624	505	7,129	5,292	79.89	6,088	85.40	10.26	29	
30	Taranaki	15,310	29.18	4,085	392	4,467	2,523	61.76	3,665	82.05	5.89	30	

(For notes see page 17.)

TABLE X—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, AND WATER-HEATERS FOR THE YEAR ENDED 31 MARCH 1960—continued

No.	Supply Authorities	Population in Area of Supply	Ratio of Consumers to Population	Consumers			Ranges		Water-heaters		Consumers Per Route-mile of Line	No.
				Domestic	Commercial	Total	Number	Ratio, Number of Ranges to Domestic Consumers	Number	Ratio, Number of Water-heaters to Total Number of Consumers		
31	Power Boards—continued	Number	Per Cent	Number	Number	Number	Per Cent	Number	Per Cent	Number	Number	31
32	Taranaki ..	9,890	35.34	2,969	526	3,495	90.50	2,687	74.51	2,604	5.40	32
33	Tairāngia ..	32,550	34.60	10,032	1,231	11,263	87.38	8,766	84.72	9,542	8.75	33
34	Tc Awamutu ..	20,030	30.28	4,877	1,189	6,066	96.25	4,694	76.31	4,629	11.64	34
35	Teviot ..	2,640	31.78	697	142	839	67.00	487	58.40	480	8.54	35
	Thames Valley ..	68,240	34.48	21,778	1,752	23,530	60.75	13,231	70.49	16,587	9.06	36
36	Waimea ..	27,320	31.48	7,818	782	8,600	77.85	6,086	76.27	6,559	10.12	37
37	Wairarapa ..	32,580	35.23	9,776	1,702	11,478	81.16	7,934	69.84	8,016	10.28	38
38	Waikare ..	4,850	28.97	1,213	192	1,405	69.99	849	73.17	1,028	2.46	39
39	Waioa ..	8,200	20.73	1,600	100	1,700	55.19	883	55.82	949	4.27	40
40	Waitaki ..	23,160	39.59	7,767	1,402	9,169	69.32	5,394	57.68	5,289	10.94	41
41	Waitemata ..	120,550	43.94	47,470	5,505	52,975	70.39	33,414	64.08	33,945	16.21	42
42	Waitomo ..	23,490	26.05	5,340	778	6,118	64.40	3,439	64.65	3,955	7.63	43
43	Wanganui-Rangitikei ..	59,830	33.31	17,200	2,727	19,927	64.87	11,157	60.70	12,095	11.45	44
44	Westland <sup>a</sup> ..	3,200	35.81	910	236	1,146	54.18	493	39.09	448	21.52	
		1,567,870	33.31	461,143	61,153	522,296	69.38	319,939	67.42	352,165	11.24	
1	Christchurch ..	188,890	34.29	57,419	7,351	64,770	79.49	45,643	74.39	48,182	38.19	1
2	Dunedin ..	106,410	35.98	33,764	4,520	38,284	51.58	17,414	62.98	24,111	45.75	2
3	Hamilton ..	22,350	41.18	6,884	2,320	9,204	45.48	3,131	46.44	4,274	39.25	3
4	Invercargill ..	30,740	36.22	9,677	1,458	11,135	31.66	3,064	27.13	3,021	68.70	4
5	Napier ..	13,560	39.51	4,237	1,121	5,358	52.25	2,214	54.87	2,940	36.30	5
6	Nelson ..	15,820	38.20	4,887	1,157	6,044	39.45	1,928	60.32	3,646	82.56	6
7	New Plymouth ..	37,060	33.25	10,684	1,640	12,324	74.38	7,947	79.46	9,793	26.05	7
8	Palmerston North ..	37,050	35.62	11,270	1,927	13,197	63.92	7,204	65.55	8,651	40.76	8
9	Timaru ..	20,230	36.17	6,042	1,276	7,318	64.80	3,915	57.99	4,244	66.71	9
10	Wellington ..	116,130	38.82	36,598	8,487	45,085	31.41	11,495	50.93	22,963	62.20	10
		588,240	36.16	181,462	31,257	212,719	57.29	103,955	61.97	131,825	44.48	
1	Bluff ..	3,240	31.70	793	234	1,027	35.94	285	19.08	196	62.83	1
2	Inglwood ..	1,780	40.95	549	180	729	69.40	381	49.52	361	40.47	2
3	Kaipoi ..	2,830	34.13	847	119	966	69.78	591	61.49	594	55.98	3
4	Lytelton ..	3,340	34.10	943	196	1,139	56.10	529	52.59	599	57.82	4
5	Ohakea ..	2,920	31.71	696	230	926	28.74	200	30.35	281	9.58	5
6	Racitihi ..	2,400	27.33	508	148	656	26.97	137	30.79	202	7.03	6
7	Rangiora ..	3,440	36.72	1,122	210	1,332	66.31	744	69.07	920	74.83	7
8	Riccarton ..	7,930	32.60	2,370	215	2,585	71.35	1,691	79.03	2,043	42.38	8
9	Rotorua Electric Supply ..	33,610	34.00	9,507	1,921	11,428	64.15	6,099	53.00	6,057	13.38	9
10	Stratford ..	5,000	36.24	1,509	403	1,912	71.50	1,079	55.13	1,054	59.72	10

(For notes see page 17.)



TABLE X—STATISTICS OF POPULATION, CONSUMERS, ELECTRIC RANGES, AND WATER-HEATERS FOR THE YEAR ENDED 31 MARCH 1960—continued

No.	Supply Authorities	Population included in Area of Supply	Ratio of Consumers to Population	Consumers			Ranges		Water-heaters		Consumers Per Route-mile of Line	No.
				Domestic	Commercial	Total	Number	Per Cent	Number	Ratio, Number of heaters to Total Number of Consumers		
<b>Borough Councils—continued</b>												
11	Tairāpapa ..	2,590	34.32	673	216	889	353	32.45	359	40.38	46.79	11
12	Tairāpapa ..	3,480	41.67	1,140	310	1,450	468	41.05	430	29.66	42.77	12
13	Tairāpapa ..	6,690	36.17	2,165	255	2,420	1,086	50.16	909	37.56	13.61	13
14	Tairāpapa ..	6,020	45.20	1,971	750	2,721	1,758	89.19	1,879	69.06	47.74	14
15	Tairāpapa ..	3,070	39.25	901	304	1,205	629	69.81	649	53.86	25.64	15
16	Thames ..	5,260	35.53	1,535	334	1,869	1,107	72.12	1,031	55.16	39.77	16
17	Wairoa ..	4,140	34.44	1,084	342	1,426	996	91.88	949	66.55	40.81	17
18	Wairua ..	4,240	31.98	1,148	208	1,356	745	64.90	737	54.35	63.33	18
19	Whakatane ..	6,630	31.15	1,663	402	2,065	1,479	88.94	1,523	73.75	38.24	19
20	Whangarei ..	13,870	34.38	3,744	1,025	4,769	3,065	81.86	2,884	60.47	46.84	20
		122,480	35.00	34,868	8,002	42,870	23,422	67.17	23,657	55.18	23.55	
<b>Town Boards</b>												
1	Kaponga ..	1,870	31.34	492	94	586	329	66.87	505	86.18	5.52	1
2	Mangaweka ..	550	45.14	109	49	158	79	72.48	80	50.63	13.74	2
		2,220	33.51	601	143	744	408	67.89	585	78.63	6.32	
<b>County Councils</b>												
1	Heathcote ..	4,370	33.04	1,419	25	1,444	1,139	80.27	1,436	99.45	17.00	1
2	Kaikoura ..	2,590	34.36	732	158	890	147	20.08	46	5.17	13.48	2
3	Murchison ..	1,250	25.84	257	66	323	118	45.91	169	52.32	5.95	3
4	Mackenzie ..	620	7.58	45	2	47	50	111.11	62	131.91	0.37	4
		8,830	30.62	2,453	251	2,704	1,454	59.27	1,713	63.35	8.14	
<b>Companies</b>												
1	Amethyst Power Ltd.	500	25.40	109	18	127	38	34.86	80	62.99	4.31	1
2	Kanieri Electric Ltd. <sup>1</sup>	3,910	20.82	711	103	814	175	24.61	265	35.01	5.22	2
3	Westland Power Ltd. <sup>1</sup>	4,410	21.34	820	121	941	213	25.98	365	38.79	5.08	3
	<b>GRAND TOTALS</b> ..	2,356,700	34.07	699,465	103,462	802,927	459,028	65.63	519,089	64.65	12.88	

Total population of Dominion as at 1 April 1960 was 2,370,166. Ratio of population in area of supply to total population of Dominion, 99.43 per cent.

<sup>1</sup>Returned for year ended 31 December 1959.

<sup>2</sup>Taken over by Westland Electric Power Board, 31 July 1959.

<sup>3</sup>Commenced operation 1 August 1959.

TABLE XI—STATISTICS RELATING TO ELECTRICIANS REGISTRATION BOARD YEAR ENDED 31 MARCH 1960  
(The figures in parentheses are for the previous year)

1. Number of board meetings: 15 (16).

	During Year	Total	Current
2. Registrations—			
Inspectors .. .. .	49 (43)	725 (676)	578 (557)
Electricians .. .. .	403 (373)	7,813 (7,410)	7,730 (7,349)
Electrical servicemen .. .. .	21 (16)	394 (373)	367 (354)
Electrical (Radio) servicemen .. .. .	122 (120)	1,195 (1,073)	1,171 (1,055)
Limited registration <sup>1</sup> .. .. .	237 (178)	1,720 (1,483)	1,564 (1,373)
3. Provisional licences <sup>2</sup> .. .. .	299 (382)	2,242 (1,943)	..
4. Permits to assist .. .. .	177 (126)	910 (733)	..
5. Application for ruling on experience .. .. .	258 (146)	..	..
	Candidates	Passed, Percentage	Highest Marks
6. Examinations (two examinations)—			
Electricians written .. .. .	643 (758)	58 (52)	99 (97)
Electricians practical .. .. .	432 (532)	80 (82)	99 (98)
Electrical servicemen and limited registration (written) .. .. .	653 (445)	78 (74)	100 (98)
Electrical servicemen and limited registration (practical) .. .. .	568 (378)	78 (68)	98 (94)

7. Defective work reports, 11 (9); endorsements made, 1, (nil); endorsements removed, nil (1).

8. Breach of Act reports, 33 (33); prosecutions authorised, 23 (29).

9. Appeals, nil (nil).

NOTES.—<sup>1</sup>Includes: New Zealand Broadcasting Service, 22; supply authority work, 48; refrigeration servicemen, 24; Civil Aviation Administration (extended limits), 17; Civil Aviation Administration (radio servicemen's limits), 7; calculating machines and like office appliances up to and including the plug top, 62; radio interference suppression, 3; electrical wiring for radio sets, 1; Post Office (telephone exchange technician), 3; Post Office (radio technician), 24; Post Office (telegraph technician), 1; automatic telephone and impulse signalling equipment, 4; radio experiments, 8; assembly and repair of portable appliances, 3; assembly and repair of portable domestic appliances, 2; operation of motion and sound pictures, 1; replacement of fuse links, connection and replacement of flexible cords, earthing of appliances, 2; luminous discharge tubes, 1; assembly and repair of teletypewriter machines and associated equipment, 2; wiring in connection with the assembly and repair of apparatus other than radio sets, 1; repair and maintenance of electrical instruments and process control equipment whilst employed by Tasman Pulp and Paper Co., Kawerau, 1. <sup>2</sup>Sixty-seven were issued to apprentices.