

1886.
NEW ZEALAND.

THE TELEPHONE EXCHANGES

RETURN SHOWING REVENUE AND EXPENDITURE IN CONNECTION WITH WORKING OF, WITH
MEMO. BY DR. LEMON.)

Laid on the Table by the Hon. Sir Julius Vogel, with the Leave of the House.

RETURN showing the Capital Cost, Working Expenses, Income and Revenue, of the Telephone Exchanges, Year by Year, from the date of their Establishment.

Exchange at	Date of Establishment.	Number of Connections.	Revenue.		Capital Cost for Instruments, Wire Poles, Labour, Freight, Superintendence, &c.		Working Expenses.							Net Revenue, i.e., Balance of Revenue over Working Expenses.	Annual Rate per Cent. Yielded by Net Revenue on Capital Cost.
			Received during Year.	Annual Rate at Close of the Year.	Average for each Connection.	Total for all Connections.	Salaries and Allowances of Clerks, &c.	Lineman and Battery Materials.	Repairs, Wear and Tear, &c. 10 per cent.	Rent Fuel, Light, Power, Printing, Bindings, &c.	Total.				
											£	s. d.	£		
Auckland	Oct. 24, 1881	396	£ 3,240 4 7	£ s. d. 3,479 0 0	£ s. d. 0 24 4 8½	£ s. d. 9,597 4 6	£ s. d. 549 14 0	£ s. d. 811 0 0	£ s. d. 959 14 5	£ s. d. 5 100 0	£ s. d. 0 1,920 8	£ s. d. 511,558 11 7	16-23		
Napier	Sept. 24, 1885	73	£ 252 17 8	£ s. d. 610 0 0	£ s. d. 0 24 11 6½	£ s. d. 1,794 2 6½	£ s. d. 142 0 0	£ s. d. 83 0 0	£ s. d. 179 8 3	£ s. d. 5 50 0	£ s. d. 0 454 8 3	£ s. d. 155 11 9	8-63		
Wellington	March 1, 1883	279	£ 2,028 9 6	£ s. d. 2,187 0 0	£ s. d. 0 21 2 6½	£ s. d. 5,894 9 1½	£ s. d. 504 4 0	£ s. d. 805 0 0	£ s. d. 589 8 10	£ s. d. 10 100 0	£ s. d. 0 1,498 12 10	£ s. d. 638 7 2	10-82		
Nelson	Nov. 1, 1884	67	£ 490 3 3	£ s. d. 538 5 2	£ s. d. 0 16 9 3½	£ s. d. 1,108 2 6½	£ s. d. 120 0 0	£ s. d. 83 0 0	£ s. d. 110 6 3	£ s. d. 5 50 0	£ s. d. 0 363 6 3	£ s. d. 174 18 9	15-77		
Christchurch	Oct. 1, 1881	239	£ 1,796 5 2	£ s. d. 1,962 0 0	£ s. d. 0 21 15 6½	£ s. d. 5,204 14 5½	£ s. d. 433 15 8	£ s. d. 300 0 0	£ s. d. 520 9 6	£ s. d. 10 100 0	£ s. d. 0 1,354 5 2	£ s. d. 607 14 10	11-66		
Timaru	Oct. 16, 1885	58	£ 208 11 6	£ s. d. 486 0 0	£ s. d. 0 14 7 11½	£ s. d. 835 1 7	£ s. d. 140 0 0	£ s. d. 83 0 0	£ s. d. 83 10 2	£ s. d. 5 50 0	£ s. d. 0 356 10 2	£ s. d. 129 9 10	15-44		
Oamaru	Nov. 25, 1884	43	£ 356 15 11	£ s. d. 322 0 0	£ s. d. 0 19 6 11½	£ s. d. 831 19 2½	£ s. d. 100 0 0	£ s. d. 63 0 0	£ s. d. 83 3 11	£ s. d. 5 50 0	£ s. d. 0 296 3 11	£ s. d. 25 16 1	9-03		
Dunedin	April 26, 1882	431	£ 3,359 4 8	£ s. d. 3,530 5 0	£ s. d. 0 22 7 1½	£ s. d. 9,635 10 10½	£ s. d. 699 7 7	£ s. d. 310 0 0	£ s. d. 963 11 1	£ s. d. 10 100 0	£ s. d. 0 61,982 18 8	£ s. d. 11,547 6 4	10-03		
Invercargill	Nov. 7, 1883	67	£ 486 14 10	£ s. d. 479 10 0	£ s. d. 0 14 8 7½	£ s. d. 966 17 10½	£ s. d. 120 0 0	£ s. d. 83 0 0	£ s. d. 96 13 10	£ s. d. 5 50 0	£ s. d. 0 349 13 10	£ s. d. 129 16 2	13-35		
Wanganui	March 15, 1886	57	£ 124 14 6	£ s. d. 453 0 0	£ s. d. 0 25 11 0½	£ s. d. 1,456 9 4½	£ s. d. 130 0 0	£ s. d. 83 0 0	£ s. d. 145 12 11	£ s. d. 5 50 0	£ s. d. 0 408 12 11	£ s. d. 44 7 1	3-01		
Total for year ended the 31st March, 1886	..	1,710	£ 12,294 1 2	£ s. d. 13,997 0 0	£ s. d. 0 20 8 6½	£ s. d. 37,319 12 1	£ s. d. 2,849 1 2	£ s. d. 31,704 0 0	£ s. d. 3,731 19 2	£ s. d. 700 0 0	£ s. d. 0 8,985 0	£ s. d. 55,011 19 7	13-42		
Total for year ended the 31st March, 1885	..	1,075	£ 10,008 3 6	£ s. d. 10,008 3 6	..	£ s. d. 23,461 17 6	£ s. d. 1,770 0 0	£ s. d. 1,590 0 0	£ s. d. 2,346 0 0	£ s. d. 0 475 0	£ s. d. 0 06,181 0	£ s. d. 03,827 3 6	16-31		
" " " " 1884	..	715	£ 7,746 16 7	£ s. d. 7,028 7 4	..	£ s. d. 15,604 17 6	£ s. d. 695 0 0	£ s. d. 770 0 0	£ s. d. 1,560 0 0	£ s. d. 0 350 0	£ s. d. 0 03,375 0	£ s. d. 03,658 7 4	23-41		
" " " " 1883	..	379	£ 5,014 9 2	£ s. d. 6,809 8 8	..	£ s. d. 8,271 13 6	£ s. d. 595 0 0	£ s. d. 595 0 0	£ s. d. 827 0 0	£ s. d. 0 900 0	£ s. d. 0 02,317 0	£ s. d. 04,492 8 8	54-31		
" " " " 1882	..	116	£ 613 5 2	£ s. d. 1,170 16 0	..	£ s. d. 2,531 14 0	£ s. d. 285 0 0	£ s. d. 275 0 0	£ s. d. 253 0 0	£ s. d. 0 150 0	£ s. d. 0 963 0 0	£ s. d. 207 16 0	8-17		

Dr. LEMON to the Hon. the COMMISSIONER.

THE attached return gives all the particulars required. The percentage on capital is not excessive when the following contingencies are taken into consideration :—

1. There is no precedent to guide me in making provision for a telephone system. Up to within a year or two telegraph men have had their operations and experience confined to the running of, perhaps, twenty or thirty wires for trunk lines of telegraph, and the arrangements for such have been met with little or no difficulty. In the case of a telephone system the wires are connected by hundreds, and the consequence is—through the growth, an arrangement that might answer for a small system would not be applicable to one of large and increasing dimensions; thus continued alterations add considerably to the expense of a system.

2. It will be noticed in the return that 10 per cent. is allowed for wear and tear. This is little enough, for it might so happen that some radical improvement might be made in the apparatus which would render the present instruments to a certain extent obsolete. The public would naturally demand to be supplied with the newest type, and thus all the stock in hand and in use would be valueless.

3. Although it has been decided by the evidence given before a Select Committee of the House of Commons that to force all the telephone wires into underground cables would practically put a stoppage to the extension; yet there is no doubt that, as the systems extend, the introduction of aerial cables, as now obtains to a limited extent, will become more general. This in itself will increase the wire expenditure from a trifle over 6d. per chain to 3s. per chain at the very lowest computation.

4. The profits to the Government have been materially increased from the fact that no superior staff—such as General Manager, Superintendent, inspectors, electricians, and mechanics—has been necessary; the present staff, without any increased remuneration, has been able to absorb this. If a private company had undertaken the introduction of the system into New Zealand, at the very lowest computation an additional expenditure of £2,500 per annum would have to be added.

5. The rates now in force in New Zealand are as low as in any part of the world, and in most cases quite 50 per cent. under.

6. The rates now in force in New Zealand do not act as a deterrent; at the present time the exchange in Wellington has more than twelve new connections in course of completion, and the public seem well satisfied with the charge and make no objection to the rate.

7. There is not a business man who uses the telephone but makes or saves more than double the amount of his subscription in the year.

8. To the business man the telephone has become a necessity—in fact, one of the adjuncts for the carrying on of his business.

9. To the private-house subscriber it can never be more than an article of luxury, and its use by the private-house subscriber tends to interfere with those who use it for the legitimate requirements of business. In most cases of private-house connections it is simply used as a means of interchanging friendly communications.

10. There is no analogy between the telephone and the penny postage; if the telephone charges were reduced to a minimum it would still leave thousands out to whom its acquirements, outside of its being a luxury, would not be the slightest use whatever.

11. The lowering of the rates would tend to destroy its usefulness to the *bonâ fide* user. The annunciators which indicate the call of the subscriber to the attendant at the exchange are as small now, so far as width is concerned, as to practically prohibit any further reduction in size, and as a material consequence, beyond a certain number of clerks, it is not possible to utilize the services of any more.

12. I consider this is one of the legitimate sources from which revenue should be drawn, and cannot recommend any reduction in the present rates, more especially when some of the contingencies which I have enumerated in the foregoing paragraphs are taken into consideration. A reduction of rates might land the department in a deficit, and then either that would have to be provided from other sources or rates increased to cover the deficit; such a proceeding, without doubt, would be most unpopular. There is no call throughout the colony for a reduction of rates. The telephone must and always will be, to a certain extent, an article of luxury, and on that ground alone should more than pay its cost.

General Post Office, Wellington, 27th July, 1886.

C. LEMON.

P.S.—The following copy of an extract from the Melbourne *Argus* on telephony in Melbourne and elsewhere will, in a measure, endorse what I have already advanced in the foregoing memorandum: “I may here be allowed a word or two in allusion to the common error of supposing that the larger the telephone exchange the greater the proportionate profit. That this is not the case has been recently pointed out by Mr. Byron Moore in a letter to the Postmaster-General. Mr. Moore shows that the work of an exchange increases geometrically. ‘In an exchange of fifty subscribers,’ he writes, ‘there are 2,500 possible calls; in an exchange of 1,000 subscribers there are 1,000,000 possible calls. Extending this sum to the 3,000 subscribers, who may yet use the Melbourne Telephone Exchange, we arrive at the cheerful total of 9,000,000 calls—a contingency of usage where the Californian system of payment per call would result in gigantic fortune for the company and exhausted coffers to the subscribers.’ But instead of making fortunes there are telephone companies that barely pay their way. As the Bell report already quoted from has it, ‘With longer experience the telephone companies have learned that the cost of maintaining and reconstructing their plant has been generally under estimated, and many of them have in consequence been forced to recognize that the profits upon telephone business are less than they had expected and believed.’”

—C. LEMON, 27th July, 1886.

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