

1904.
NEW ZEALAND.

NEW ZEALAND WATER-POWERS, ETC.

(REPORTS ON), FOUNDED ON AN EXAMINATION MADE DURING OCTOBER, NOVEMBER, AND DECEMBER, 1903, BY MR. L. M. HANCOCK, M.A.I.E.E., ELECTRICAL ENGINEER AND GENERAL SUPERINTENDENT OF THE TRANSMISSION DEPARTMENT OF THE CALIFORNIA GAS AND ELECTRIC CORPORATION.

Presented to both Houses of the General Assembly by Command of His Excellency.

PRELIMINARY REPORT.

SIR,—

Auckland, New Zealand, 25th December, 1903.

In regard to the examination of the water-powers of your colony, having in view electric transmission of energy, I beg to make the following preliminary report:—

Arriving in Auckland the 5th day of October last, I was met by your Mr. P. S. Hay, and upon consulting with him I found that practically no complete surveys had been made of any of the localities where it was thought that power could be developed, so that it was evidently best to visit the localities selected and make preliminary measurements to determine whether it were necessary or advisable to secure complete surveys, and while visiting power-locations to examine at the centres of industry the conditions bearing on location of works, material for construction, special designs necessary, labour, climate, and any other local peculiarities that might crop up.

From the conditions presented in maps and otherwise, and from study of the localities, it was evident that it would be suitable for transmission purposes to district the colony, and the following outlines are suggested: (1) Wellington, including Palmerston North and Masterton; (2) Auckland, including Cambridge and Thames; (3) Napier, including Gisborne and Hastings; (4) New Plymouth, including Wanganui; (5) Christchurch and Lyttelton; (6) Dunedin and Port Chalmers; (7) Invercargill; (8) Timaru and Oamaru; (9) Greymouth and Hokitika; (10) Westport; (11) Nelson; (12) Blenheim. These are selected as natural centres for the first calculations, expecting that they would be found on full investigation to be suitable centres, around which would grow systems that would supply the adjacent territory.

Although the possibilities opened up at a marvellous rate as we looked the situation over and the future of the whole colony seemed gloriously bright, yet it is evidently wise to select for initial development some few places where power can be developed at the lowest cost possible and with the least delay, also under the most favourable conditions for hydraulic development and for transmission to a centre of industry that could make the quickest use of and was in the greatest need of the energy. With this in view we commenced our tour.

Leaving Auckland on the evening of the 5th October we went to Whangarei and thence to the Wairua Falls, where we found that much more power can be developed than was at first thought.