covers a wide system of distribution, and New Zealand is to be congratulated if a general distribution throughout New Zealand can be effected at the same cost per horse-power.

It is claimed in the same paragraph that a general supply of electricity made available to all, wherever situated, exposes private enterprise to unfair competition. But, if we except a few gas undertakings in the principal towns, what private enterprise needs and is loudly clamouring for is a general and abundant supply of cheap electricity; and even in the case of the gas companies Mr. Lowe has adduced evidence to prove that the gas interests survive and flourish even in Toronto, where the supply of electricity is obtained from the State in bulk.

In Reply to a Report by James Lowe, A.M.I.C.E., Engineer and Manager, Auckland Gas Company (Limited).

Paragraph 1.

This paragraph contains a summary of the Lake Coleridge accounts for the year ending 31st March, 1917, taken from the Public Works Statement; and, as the result for a second year of working, would be regarded as most satisfactory by any power-supply authority in the world.

Paragraphs 2 and 3.

In these paragraphs comparison is made between the actual expenditure incurred on the Lake Coleridge works up to the end of the financial year in March, 1917, which is at the rate of £45·8 per horse-power of plant installed, with an estimate of £23·2 per horse-power made by the Hon. R. McKenzie during the second reading of the Water-power Bill in October, 1910.

The Hon. R. McKenzie's estimate, as is evident on the face of it, provides only for headworks, power-house, transmission to Christchurch, and a substation in Christchurch, but does not provide for a general distribution system to enable a supply to be given to the surrounding districts.

The expenditure for the year ending 31st March, 1917, covers not only a plant of 6,000 kilowatts, but headworks and buildings for double this capacity, as mentioned in the annual report; it includes interest during construction; it includes also the cost of a distribution system in an area of about 300 square miles, which supplies, in addition to the Christchurch City Council, the following local authorities, directly or indirectly: the boroughs of Riccarton, Spreydon, Woolston, New Brighton, Sumner, Lyttelton, and Kaiapoi; the counties of Halswell, Waimairi, Springs, Paparua, Heathcote, and Eyre; the Christchurch Tramway Board, Cashmere Hills Sanatorium, Sunnyside Asylum, Prison at Templeton, the Christchurch Meat Company at Islington, the Canterbury Meat Company at Belfast, Borthwick's Freezing-works at Belfast, the North Canterbury Farmers' Freezing-works at Kaiapoi, and a number of flour-mills and dairy companies. The total also includes expenditure upon local reticulations in districts where the local authorities are unable to undertake the work themselves.

Briefly, Mr. Lowe compares the expenditure on a partial development of headworks, an extended system of distribution, and a measure of local reticulation with an estimate for a full development of headworks, no distribution, and no reticulation.

In spite of this, the figure of £45·8 per horse-power of plant installed is well within our estimates for a general supply system, having regard to the limited scale upon which we are working. The figure, however, will inevitably be exceeded—with very great advantage to the community—when the system is more generally extended so as to serve every householder and settler in the area of supply, which is the ultimate object of the scheme. It is evident from the discussion in the House that at the time the Hon. R. McKenzie submitted the estimate referred to the immediate object seems to have been to supply the principal towns in the same way as Dunedin is now supplied, and the expenditure by the Dunedin Corporation on headworks, power plant, transmission-lines, and substation appeared to have been adopted as a basis of estimate. It is clear that a universal system of distribution throughout the country districts was not then in contemplation. The estimate submitted by the Hon. R. McKenzie is a very fair one, having regard to the extent of the work covered by the estimate.

Paragraphs 3, 4, 5, and 6.

In these paragraphs, after quoting the deficit on the Lake Coleridge working of £11,956 for the year ending 31st March, 1917, it is remarked that the annual report does not indicate how the deficit is met, and indicates for our benefit how the accounts should be kept, and how to charge for the power supplied.

A reply to these questions is to be found by reference to Table 5, printed in the Public Works Statement for 1917, which appears to have escaped Mr. Lowe's notice.

In answer to paragraphs 3 and 4: The annual deficit is carried forward to the debit of profit and loss in the hydro-electric accounts (see pages 13 and 14 of the Public Works Statement, 1917).

In answer to paragraph 5: The accounts are treated on a strictly business basis, on sound business principles, and on lines approved by Parliament.

In answer to parargaph 6: The intention is that the deficits inevitable in the early years of the undertaking shall be paid out of future surpluses, after providing for depreciation, sinking fund, and a limited reserve; and an Act was passed last session authorizing the procedure.

As regards the suggestion that after the undertaking is properly started such a price should be charged for current as will make the undertaking self-supporting, this is putting the cart before the horse. The procedure adopted by the Department is the more businesslike one of determining what prices will enable power-users to compete with the lowest prices obtainable elsewhere or in any other part of the world, and to design the works on such a scale and at such a cost as will enable the prices so determined to be charged and to make the business ultimately self-supporting. Briefly put, the