

With these figures in mind, and considering the arguments above in regard to costs in relation to interest rates, it is evident that the best results to the country will be obtained by holding back as much of this expenditure as is possible at the present time; and then, when conditions are more favourable, embarking upon a concentrated and vigorous scheme of construction, on carefully considered plans, that will give the country a supply of electricity that will not be loaded for years to come with high charges consequent on the abnormal costs of construction at the present time.

This is applicable not only in the case of large generating-stations proposed by the Government, but also to various alternative local schemes proposed at various times, which in the aggregate would amount to an even larger expenditure than is involved in the Government proposals, and which if rushed into now would only load the country with unduly expensive power for years to come.

Construction work at the Mangahao scheme, which is to supply power to the Wellington District, has been actively pushed on during the year. The necessary roadworks have been completed, and considerable lengths of each of the two tunnels excavated. It is hoped during the coming summer to start active construction work on the two dams. Some difficulties were experienced in connection with the foundations of these, but new designs have been prepared which will overcome these and give absolutely satisfactory structures, though at increased cost. Tenders were received for the main pipe-lines, but owing to the very high prices ruling at the time it was decided to invite fresh offers, which are closing in November, and we will undoubtedly save several thousand pounds on this item alone, consequent on the fall in prices that has occurred. Tenders for the main generating plant have been invited, and will be opened and considered shortly. At Arapuni, the proposed main supply for the Auckland Province, a vast amount of information has been collected during the year, and the results of this were submitted to a commission of engineers who visited and inspected the site of the proposed dam. These gentlemen decided that to make the dam doubly safe it would be advisable to amend the design somewhat, with a resulting increase in cost. The question of alternative sources was again very carefully gone into by my expert advisers in the light of revised costs, but the conclusions reached were that with any type of dam Arapuni was undoubtedly the most suitable source of power to develop for the Auckland District. At Waikaremoana contracts have been let for the supply of a plant of 1,000 horse-power capacity, and delivery of most of this plant is expected by the end of this year, and it is hoped to have it in operation before the end of 1922. This plant is part of the main generating plant, and will be used in part for the construction of the main scheme when started, and part for the supply of the Wairoa Power Board.

For the general supply to the whole of the South Island a complete scheme has not yet been laid down. Schemes of supply from new proposed generating-stations at Lake Hawea or at the Teviot River have been considered in detail, but it has been decided that for some time to come the supply to Otago, Southland, and Canterbury can best be met by linking up and developing to their economic limit the existing developments at Monowai (Southland Power Board), and Waipori (Dunedin City Corporation), with the Government scheme at Lake Coleridge. Negotiations are now proceeding with the Dunedin City Council under which, if satisfactorily completed, they will further develop Waipori, and sell power in bulk to the Department for transmission to the various Power Boards proposed in the Otago District, and to join up with the Department's supply from Lake Coleridge at Timaru.

For the supply to the northern end of the Island surveys have been made on the Clarence River, Waihopai River, Rotoroa (Gowan River), and Rotoiti Lakes, and other minor sources, and preliminary reports on these schemes prepared. Pending further survey and investigation work to be done in the Buller and Westland districts it is impossible to definitely lay down a general scheme, but the indications are that as soon as sufficient load develops a fairly economical scheme for the supply of Nelson and Marlborough can be developed on the Gowan River, the outlet of Lake Rotoroa.