

HYDRO-ELECTRIC DEVELOPMENT.

Since taking over the portfolio of Public Works I have continued the work in connection with this branch of the Department's activities on the general lines adopted by the preceding Government. It is my intention, however, when more urgent matters requiring attention in other directions have been cleared up, to give more special attention to this important section of the Department's activities.

The principal construction work being carried on is the installation at Arapuni of two additional units, each of 21,000 kw., which was commenced by my predecessor. The difficult work in connection with the foundations for the power-house extensions has been completed and the installation of the machines commenced. It is hoped that the first of the new units will be ready for operation before the peak loads occur in June of next year, and the second unit should be complete a few months later. The main transmission-line is being continued northward from the present terminus at Henderson to give supply at substations at Mareretu and Mangatapere to the North Auckland Electric-power Board, and power should be available to this area during the present year.

Before my taking over control of the Department it was considered desirable that the water leaving Lake Waikaremoana should be directly controlled, as by so doing the upper 400 ft. of fall between Lakes Waikaremoana and Kaitawa, which at present is wasted, may be developed, and also because the control of the outflow from the lake will increase the capacity of the present station and also that of a lower station which at some later date may be developed below the present station. As Waikaremoana forms part of the Government's main interconnected system, full control of the water there would also have quite a considerable influence on the methods of operation and degree of development of the other stations connected to the system.

The country through which the tunnel would have to be driven to obtain full control of the water is, however, of such a nature that I have suspended further work on it until the very fullest and most careful consideration has been given to all the factors of risk, cost, and value.

In the South Island a large amount of finishing and cleaning-up in connection with the Waitaki scheme, which went into operation during the previous year, has been carried on. Certain work in connection with the closing of the final three temporary sluiceways which were used during construction of the dam, and which was not successfully completed before the water rose over the dam crest in 1934, can now only be carried out in the low-water winter months. One of these sluices was closed last winter, and during the present low-water period a second one has been closed, and it is anticipated that the third and final one will be completed within the next few weeks.

Following, particularly, on increased activity in mining there has been a very much increased demand for electric power on the West Coast. The existing local plants have been quite unable to meet the ever-increasing demand, and the Department has had an investigation made of several possible sources of power in the area. After studying all aspects of the problem, it has been decided that the present position can best be met by connecting this district with the existing Government electrical system supplied from Lake Coleridge and Waitaki by means of an extra-high-tension transmission from Lake Coleridge via Arthur's Pass to a central point in the vicinity of Hokitika. From there additional lines will be built to connect with various points where load becomes available. The mining position has been thoroughly investigated in the area in conjunction with my colleague the Minister of Mines, and there is no question but that the provision of a reliable and adequate supply of power in this area will give a great stimulus to the mining industry there, and will also provide a profitable revenue for our hydro-electric-power system. Contracts have already been completed for supply to two large dredges, each using about 800 kilowatts, and negotiations are in hand in respect to others.

During recent months the indication of the approach of more prosperous times has given a great stimulus to the electrical industry, and everywhere there are indications of increasing demands. To provide for this, additional transformers and switch-gear will be necessary in many of the existing substations, and arrangements to secure the necessary plant are being made.