- 28. Mr. Sidey.] What are the chief sources of supply in the South Island?—There is Tekapo, which Mr. Hay gives at 130,000 horse-power. There is a very big development there. It is rather costly. There is a smaller development at the mouth of Tekapo—20,000 horse-power continuous, which is an economic development. There is another 20,000 available at Pukaki, utilizing the water as it leaves the lake. And there is one at Ohau, and there are several on the Waitaki. And there is a big power between Wanaka and Hawea—90,000 horse-power—that will be easily developed. There is another on Hawea itself, by running a race some distance down the plains. That is in the neighbourhood of 100,000 horse-power. That is a possible source, and a water-race and irrigation-channel at the same time.
- 29. Mr. Hudson.] What is the most northern source in the South Island?—The Clarence River—a very big source, and it will be very easily and economically developed; and it could easily be linked up with Lake Coleridge in the South; and they would serve the Nelson and Blenheim districts, and would serve Westport as well.
- 30. Mr. Sidey.] What about the southern Sounds?—They are not suitable for utilization for our purposes. In all probability, so far as I can see, these complex ores obtained in Tasmania and Australia will probably be shipped to the West Coast Sounds in the course of time—to a place where there is power and which is adjacent to a deep-water harbour.
- · 31. The Chairman.] With regard to local schemes, where the Government is unable to supply power within a reasonable time, what is approximately the cost per horse-power that they would be justified in paying !—I take it they would have Lake Coleridge as a model.

32. That cost £50 per horse-power?—£45, or thereabouts.

33. But would different districts be justified in expending up to £50 per horse-power in order to get the power they require?—Yes, they would be justified in expending up to £100.

34. Mr. Sidey.] What horse-power do you think is available in the North Island?—At page 11 of my report in regard to the North Island—D.-la—particulars are given in regard to that. 160,000 horse-power is the plant capacity we are providing for at the outset of this scheme, on the understanding that we may obtain more if required.

35. What is the horse-power you will have in reserve?-64,000 at Arapuni, 98,000 at Wai-

karemoana, no more at Mangahao—possibly less as time goes on.

36. In regard to the South Island, are your plans sufficiently far forward to say what power can be developed under your scheme?—I could not say at present, but it will be on the same basis one-fifth horse-power per head of the population.

37. Mr. Hornsby.] The Huka Falls: is that a payable proposition?—We would combine Huka

and Aratiatia, and make one scheme of it if we undertook to develop this source.

38. The Chairman.] I am not quite clear about the cost per horse-power that districts might be justified in expending. Do I understand from you that it would be advisable to expend as much as £100 per horse-power in carrying out small local schemes?—Some of the small local schemes have cost as much as £150 per horse-power for headworks and generating plant.

39. You would not recommend an expenditure of over £100 as a profitable undertaking?—
I think that is getting towards the limit. I would put it in this way: the headworks, the generating-stations, the pipe-lines—we limit them to £20 per horse-power. Actually they vary considerably. Arapuni is estimated at £8.64 per horse-power; the others run up to £10 or £12. If they are liable to cost more than £20 we reject them. Anything from £9 or £10 to £20 for large sources; £20 or £30 more per horse-power for transmission and substations. There is a town reticulation, and a country reticulation on top of that, which might run up to another £25. That makes a total of £70 per horse-power. That would bring it up to £90 in some cases.

40. Do you suggest that where the capital cost per horse-power is over £100 that the people should wait perhaps ten years or twenty years for a supply, as the case may be?—I think they

should go ahead.

41. Even if it costs more?—Not if it costs more than £100. Local authorities undertaking local business also undertake the retail work, so that £100 includes that

42. Judging from your experience of public-works activities in connection with this question, how long will it be, in your opiniion, before these works can be put in hand and completed?-One of the difficulties we are up against is labour, and the right class of labour. Sixteen thousand men have been killed in the war, and a large number of others have been disabled. have to wait for a generation before the country gets back to the same position it was in before the war.

43. The trouble is we cannot wait?—That affects the rate of progress.
44. We would like some suggestions from you as to the best methods of getting over the difficulty and of getting on with the development of these schemes. You admit that the difficulties are great !-- I could not agree to do more than the preparatory work at the present time-that is, to carry out the roadwork and the exploration-work. I would not care to tackle the works themselves—not the tunnel-work, &c., at the present time. If you start on wrong lines you can never bring it back on the right lines again.

45. There are serious difficulties in the way of doing extensive works at the present time. Do you suggest that the Government should confine itself to one source of power in the meantime, and complete it rather than spread its energies over a number of different propositions?—That is somewhat difficult to answer. Take Mangahao, it is so dependent on the Waikaremoana source: if you proceed with Mangahao first it will be almost necessary before very long-within two years,

say-to make a start with the other as well.

46. Would it be possible for you to furnish us with a written report making suggestions with regard to the works to be proceeded with, considering the difficulties in front of us?-Yes, I think I could promise that.