

75. Is the question of the distance the power has to be carried very important?—240 or 250 miles is about the longest, but it is not the limit of distance.

76. *Mr. Hornsby.*] How much is lost in transmission?—Not much—10 or 15 per cent. We reckon under New Zealand conditions that it pays to develop 20,000 horse-power rather than exceed 150 miles in transmission.

77. *Mr. Hudson.*] So far as domestic requirements are concerned—cooking, &c.—how does electricity compare with coal?—I think there is a saving in it. It is like every other agent of the kind: you have to look after it, otherwise it may cost a good deal more.

78. It is suitable for the working-man for cooking purposes?—Yes; I think it is essentially a working-man's power. It is not so important to a man who can pay higher prices.

79. For the working-man who has to study economy?—He cannot afford to use any other power.

80. In connection with the working of railways, how many miles would it be practicable to transmit the power for that purpose?—Are you referring particularly to our scheme?

81. You referred to the Rocky Mountains and said that electricity was used on certain sections, and that steam was used on one link. Could the power be used for this purpose all over the North Island—could it be transmitted from one centre?—We would provide such a system of distribution that they could get a supply practically every thirty miles, because the substations are already established for general requirements.

82. Would it be necessary to have a supply every thirty miles?—No, it would not be necessary.

83. Every forty or fifty miles?—Yes, they could do the transmission themselves; but if the transmission is available every thirty miles they would prefer to get it every thirty miles, or oftener if they could.

84. In connection with taking the power all over the country, will cables be used?—No; all overhead.

85. *Mr. Sidey.*] I understand that the chief difficulty as to the early completion of this work is the want of tunnel-workers?—Yes, skilled men of all kinds.

86. Would you recommend the Government if they cannot get the work done by that class of skilled labour to import labour to get the work done?—I would rather not answer that. I think that is outside my province altogether. Other countries are short of labour, more so even than New Zealand.

87. *Mr. Luke.*] Do you think the railways of New Zealand will be electrically controlled eventually?—I think it will be a very long time before that comes about.

88. Would our water-power provide for the electrification of our railways as well as provide for the domestic needs?—Yes, quite sufficient; it will be a very long time before all the railways are supplied.

89. We want the benefit of your knowledge, as you are leaving us?—I see no intention in other countries of electrifying the main lines, except mountain sections and long tunnels.

90. Take the question of the electrification of the Otira Tunnel: is it intended to electrify the tunnel and adopt steam at both ends of the tunnel?—I have presented a report dealing with four different schemes, taking different lengths of electrification, but in all probability the Government will confine itself—and wisely too—to just the tunnel and the approaches.

91. Would that apply to the Lyttelton Tunnel too?—No; in the opinion of the Railway Department the greatest need is to enlarge the tunnel and double the line. If the line is electrified now it is thought that that will be an obstacle to enlarging the tunnel.

92. *Mr. Hornsby.*] If that tunnel were electrified, would not that enormously increase the facilities?—I think it would. I do not know whether it would be enormous or not, but it would materially increase the traffic capacity.

93. *Mr. Luke.*] What is the limit of distance of transmission for a paying concern?—There is no need to consider that. I have not really considered it. We have the sources near at hand.

94. I thought there were some difficulties in the North Island?—I would like to see 50,000 or more horse-power in the neighbourhood of Mangahao, so as to avoid transmitting from Waikaremoana or Waikato.

95. *The Chairman.*] What is the minimum size of the scheme that might be gone on with?—About 50,000 horse-power, I should think.

96. *Mr. Luke.*] With regard to the treatment of the ironsand at New Plymouth, do you think that is going to be a commercial success by electrical treatment?—I think the only way to treat the ironsands is by electricity.

97. *Mr. Craigie.*] In regard to the North Island scheme and the linking-up of the big sources, how far would that go north of Auckland?—We provide for the whole of the Island. We would go right up to the far North. My scheme provides for New Zealand for all time, because there are further resources to draw upon.

98. Taking our position—trying to help the Government to push along our industries—seeing that the utilization of this power is going to help us to pay our way, do you not think the sooner this work is done the better?—Yes; and I would go a little further than that. I say the industries will come—you do not need to foster them. Nobody can tell beforehand what industries will develop until you first provide the power.

99. Would the reticulation amount to much for the local bodies? What would be the relative cost of the reticulation—the substations to the head stations?—I could give you fairly sound figures if you postponed the answer to that question till this afternoon.

100. Would it not be better for the Government to nationalize the whole affair, and install all these headworks?—Undoubtedly that is the best way of doing it.

101. There would be two advantages: it would be done quicker, and the State would be able to finance it better?—Yes, I think the State is the right body to undertake all that work.