

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of an application by Meridian
Energy Limited for resource
consents for the Mokihinui Hydro
Project

**SUPPLEMENTARY EVIDENCE OF RAY WILLIAM BROWN ON BEHALF
OF MERIDIAN ENERGY LIMITED**

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1. **INTRODUCTION**

1.1 My full name is Raymond William Brown. I refer to my qualifications and the introduction given in my earlier statement of evidence.

1.2 Since my statement of evidence was prepared and circulated, two questions were asked which I now propose to address in this statement of evidence.

a. How will the people required for constructing the transmission line be dropped in by helicopter?; and

b. How often does an emergency shutdown occur.

1.3 I also take this opportunity to comment on the section 42A report.

2. **CONSTRUCTION OF THE TRANSMISSION LINE**

2.1 Generally a number of “heli-pad” sites would be selected along the line, where staff can be landed. These sites would be selected to be on bare rock or in areas without sensitive vegetation. The staff would then walk to the sites; preferably no longer than 15 – 20 minutes to the furthest site. It is likely that 6 – 8 “heli-pads”, each servicing about 12 pole sites, would be sufficient for this line. Each “heli-pad” would likely experience about 16 landings and take-offs through-out the construction of the line (8 drop-offs and 8 pick-ups).

2.2 If landing the helicopter is a problem in any area, then the staff can enter and exit the helicopter while it hovers just above the ground. Most staff are likely to require some tuition and trialing for this procedure. Specialist helicopter pilots are preferred for this procedure.

2.3 A suspended cage on a line from the helicopter is also accepted practice, however the general rule and policy for working on Transpower’s assets is that this method can only be executed using a twin engined helicopter, such as a Kawasaki BK 117, like the rescue helicopters. Some contractors have also adopted this policy for all helicopter work. Twin engine helicopters are ideal for this work but

are not as readily available as the single engine, and are double the cost.

2.4 The helicopter would ferry all materials and all plant and equipment to site without landing at the sites.

2.5 Some sites would be suitable for 4 x 4 bike access however this means of access would not be recommended for the more environmentally sensitive areas of the line.

3. FREQUENCY OF EMERGENCY

3.1 A question was asked as to how often such an emergency (as referred to in condition 94) would occur. An increase in the schemes flow in response to a grid emergency is expected to occur once every 60 months. A decrease in the schemes flow in response to a grid emergency is expected to occur 2.4 times every month¹.

3.2 It is proposed to amend condition 94 as follows:

94. Notwithstanding condition 93 during an grid emergency ~~condition~~ the consent holder may alter the outflow from the scheme during the Whitebait Season (1st September to 14th November). An grid emergency ~~condition~~ is defined to occur when an unplanned electricity grid event occurs (such as a generator or unit or Cook Strait Cable trip), equipment failure, or other unplanned event, (in accordance with the System Operator Guidelines for responses to changes in system frequency outside the band of 48Hz to ~~51.25~~ 50.5Hz).²

4. COMMENTS ON SECTION 42A REPORT

4.1 I refer to the Council's comments on the proposed conditions in Appendix 3 of the Section 42A Report.

4.2 Page 14 says "*The transmission poles, substation and the power house are to be designed and finished in colours that are muted and*

¹ Electricity Governance Rules, Part C, Section II, Paragraph 2.2.3

² Electricity Governance Rules, Part C, Schedule C3, Technical Code B, Paragraph 8.1 & 8.2

consistent with the colours of the surrounding landscape". This could be thought to mean the poles will be painted. The poles should not be painted as this could result in increased access requirements (due to the increased maintenance) and would therefore be detrimental to the environment. However steel poles could be anodised to dull their appearance.

- 4.3 Page 33 refers to sealing the heli pad. In my opinion there should not be a prescriptive condition requiring this. If significant dust might be created in an area where dust would have a negative impact; then the helipad should be sealed. It should not be sealed unless it is actually necessary as sealing may produce more negative environmental impact than leaving it unsealed.
- 4.4 Page 41 refers to the telecommunication towers. Installation by chopper would require significant vegetation clearance for the helipad and therefore may not be the best solution environmentally. An access track for the Stockton mine tower may be a better environmental solution. It is also unclear why helicopter installation would be necessary for the tower behind Seddonville when there is already 4WD access as the increased helicopter access could have negative impacts on the Seddonville community.
- 4.5 Page 42 - "The consent holder shall ensure that the generation discharge flow shall not be greater than $120\text{m}^3/\text{s}$, except when water is or would otherwise be passing over the spillway crest, at which time the generation discharge flow shall not exceed $139\text{m}^3/\text{s}$." This could be re-phrased as "*The consent holder shall ensure that the generation discharge flow shall not be greater than $120\text{m}^3/\text{s}$, except when water is or would otherwise be passing over the spillway crest, at which time the generation discharge flow will be limited only by the design limitations of the generation equipment.*"
- 4.6 Page 47 - "Comment: *Maintenance of line to be undertaken outside of kiwi and fernbird breeding season*". This should be re-worded to say "*planned maintenance*". If a problem occurs on the line then we need the flexibility to fix it immediately. Also it should only be limited to

those areas where kiwis and fernbirds might exist, as there is no reason to impose limits in the Stockton mine area.