

BEFORE THE BOARD OF INQUIRY

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a Board of Inquiry appointed under s146 of the Resource Management Act 1991 to consider an application by Mighty River Power Limited for resource consents to construct, operate, and maintain a wind farm at Turitea

**MIGHTY RIVER POWER'S COMMENTS RESPONDING TO
THE BOARD'S MEMORANDUM OF 30 MAY 2011**

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INTRODUCTION

1. These comments made by Mighty River Power Limited (*Mighty River Power*) respond to the Board's Memorandum of 30 May 2011. By way of that Memorandum, the Board has asked Mighty River Power to:
 - (a) advise the Board as to the feasibility of an alternative route for the internal transmission line crossing the Turitea Reserve suggested by Mr Shilton in his comments on the Board's Draft Report;
 - (b) advise the Board of details of a possible transmission line from Turitea to Puketoi referred to in the McBride's comments on the Board's Draft Report; and
 - (c) respond to the Board on the request in submitters' comments on the Draft Report that if for any reason Mighty River Power elects to decommission an individual turbine (or turbines) ahead of the decommissioning of the overall wind farm, those turbines should be removed within a specified time period from their decommissioning (suggested as being 2 years).
2. Each of these requests is accordingly addressed in turn below, followed by two brief additional matters.

FEASIBILITY OF ALTERNATIVE TRANSMISSION ROUTE

3. The possible alternative transmission routes referred to in Mr Shilton's comments on the draft report are shown in more detail in the email and plan he has provided to Mighty River Power attached as **Appendix 1**. As noted in Mr Shilton's comments, Mighty River Power has (rightly) indicated a willingness to consider suggestions regarding possible alternative transmission routes, where these would further reduce the project's effects and remain within the scope of Mighty River Power's current applications.
4. Mighty River Power has accordingly instructed both its ecological and civil engineering experts to consider the merits of Mr Shilton's possible alternative transmission routes. Unfortunately, the outcome of this assessment is that none of the three transmission solutions Mr Shilton has suggested are viable or feasible options, for the following reasons.
5. First, all three alternatives (marked "*Alternative new crossings*" and "*Current crossing route but shifted at Western End to avoid visible impact on Game Ridge*" respectively on Appendix 1) would result in adverse, and unacceptable, ecological effects. In particular, all the suggested routes would cross (at least to some extent) the best core area of tawa-dominant forest within the Turitea Reserve. For this reason alone, similar routes were previously considered and rejected by Mighty River Power relatively early in the process of developing the Turitea project.

6. Mighty River Power also has concerns regarding possible impacts from construction of the two northern-most of Mr Shilton's proposed alternative routes, as a result of their proximity to Palmerston North City Council's water supply reservoir.
7. Finally, all three alternative routes proposed by Mr Shilton (although particularly that immediately to the north of the present alignment) also present increased and more complex constructability challenges than those associated with the present alignment. This is because generally, for all three alternative proposed routes:
 - (a) access increases in difficulty both in terms of construction and maintenance, as the structure locations are deeper into the Reserve and further from existing access roads (both in distance and elevation);
 - (b) the terrain is steeper and more pronounced than that of the present alignment necessitating significantly longer (perhaps unachievable) spans and many larger structures; and
 - (c) the connections for the internal transmission line into the Browns Flat substation, and from there to Linton, would be limiting relative to the present alignment. For example, under Mr Shilton's proposed connection arrangement the entire wind farm (rather than only part) may have to be taken offline during maintenance of the substations. Similarly, there is an increased chance that a fault on those lines would affect the whole (rather than just part) of the wind farm. Without moving the Browns Flat substation, there would also be two lines running in parallel in the Browns Flat area, which would make for congested views with a high number of towers/poles in close proximity.

POSSIBLE PUKETOI TRANSMISSION LINE

8. The Puketoi Wind Farm project remains under development, through a process which includes investigating various options for a transmission line connecting that wind farm to the national grid. Ultimately this transmission line might connect other wind farms adjacent to the Puketoi Wind Farm that are proposed by other generators in the east, and into the Turitea project in the west, thus avoiding a plethora of transmission lines. Mighty River Power has had preliminary discussions with PNCC to this effect, and is hopeful that the opportunity to have a combined transmission line would potentially minimise environmental effects for all the projects involved, including Turitea and Puketoi.
9. With this in mind, Mighty River Power has (as is appropriate best practice) been consulting with landowners and the wider community regarding a number of transmission solutions for the project. Information regarding the project, including the proposed transmission line, has also been made available at public open days. For the Board's information, a copy of the

information provided in most recent public newsletter regarding the Puketoi transmission route is attached as **Appendix 2**.

10. As noted in the newsletter, proposed transmission route options have been developed through a process of landowner consultation, assessment and refinement. However, no final decisions have yet been made in this regard, including exactly where this line would connect to the national grid. Mighty River Power will of course apply for all necessary resource consents for the Puketoi transmission line in due course, and once the most appropriate route has been determined through fulsome consultation and expert assessments.
11. In light of the above, it is not possible for Mighty River Power to provide the Board with specific “details” regarding the possible transmission line from Turitea to Puketoi, as requested. It is further noted that any necessary consent applications for Mighty River Power’s Puketoi project have not yet been lodged, let alone granted. As such, it does not form part of the existing environment for the Turitea project. It is therefore outside the Board’s jurisdiction with respect to, and irrelevant to its consideration of, Mighty River Power’s present applications.

DECOMMISSIONING CONDITION FOR INDIVIDUAL TURBINES

12. Mighty River Power has considered the submitters’ comments regarding the possibility of individual turbines being decommissioned ahead of decommissioning of the overall wind farm. By way of response, the company proposes that a new draft condition be included immediately after Condition 23 of Schedule 1 in the 12 May 2011 version of the draft conditions, as follows:

“If, prior to the overall wind farm ceasing operation or being decommissioned in accordance with condition [23], any turbine or turbines cease operation for a continuous 24-month period, or are decommissioned, then that turbine or turbines shall be removed and the associated turbine footings covered and re-vegetated in accordance with a rehabilitation management plan prepared by a suitably qualified and experienced ecologist.”

PALMERSTON NORTH CITY COUNCIL’S RESPONSE DATED 16 JUNE 2011

13. Mighty River Power is surprised that by way of its response dated 16 June 2011, Palmerston North City Council has sought to challenge and re-litigate several of the matters already determined by the Board in its Memorandum of 30 May 2011.
14. Mighty River Power wishes to record its overall disagreement with the majority of issues raised in that response, many of which it believes are erroneous and/or irrelevant. For natural

justice reasons, it would therefore wish to be heard by way of reply should the Board be inclined to consider any of these matters further.

MINOR CORRECTION TO LOCATION OF ADDITIONAL TURBINE FOR REVISED LAYOUT

15. Due to a technical error in GPS coordinates, new turbine zone 104A has been incorrectly located in Drawing RK-605 attached to Mighty River Power's comments on the Board's draft report dated 12 May 2011. It should have been located approximately 160m to the north-west. A revised Drawing RK-605, showing the correct location, is attached as **Appendix 3**. This turbine cannot be seen from Palmerston North either in its original or revised position.

DATED at Auckland this 20th day of June 2011

APPENDIX 1

EMAIL AND PLAN OF ALTERNATIVE TRANSMISSION ROUTES PROVIDED BY MR SHILTON

Subject: FW: Turitea Transmission route
Attachments: Turitea Transmission line 2.PNG

From: Shilton, Andrew [<mailto:A.N.Shilton@massey.ac.nz>]
Sent: Thursday, 2 June 2011 12:41 p.m.
To: Mike Omer
Cc: Mark Henry; turiteacallin@mfe.govt.nz
Subject: RE: Turitea Transmission route

As requested by the BOI please find attached draft drawings of alternative transmission routes.

I have shown several options for the routes. They converge at the east/west crossing point – these is critical as it is the only saddle that is screened from the city by a ridge line. It is very obvious how well this would work when you see it on site.

Sorry but with the very short notice that you needed this today I had to use a very poor software package to draw it up and so it looks rather crude. This exercise really needs some hours of professional time put into it by your engineering team to design the routes more accurately as I was limited to doing this from my desk over lunchtime using your map and Google Earth to see contours. Obviously a little bit more work would improve the route locations to their most optimal location.

I am happy to meet and explain further on site if that would be helpful to your or the BOI.

Kind regards

Andy Shilton

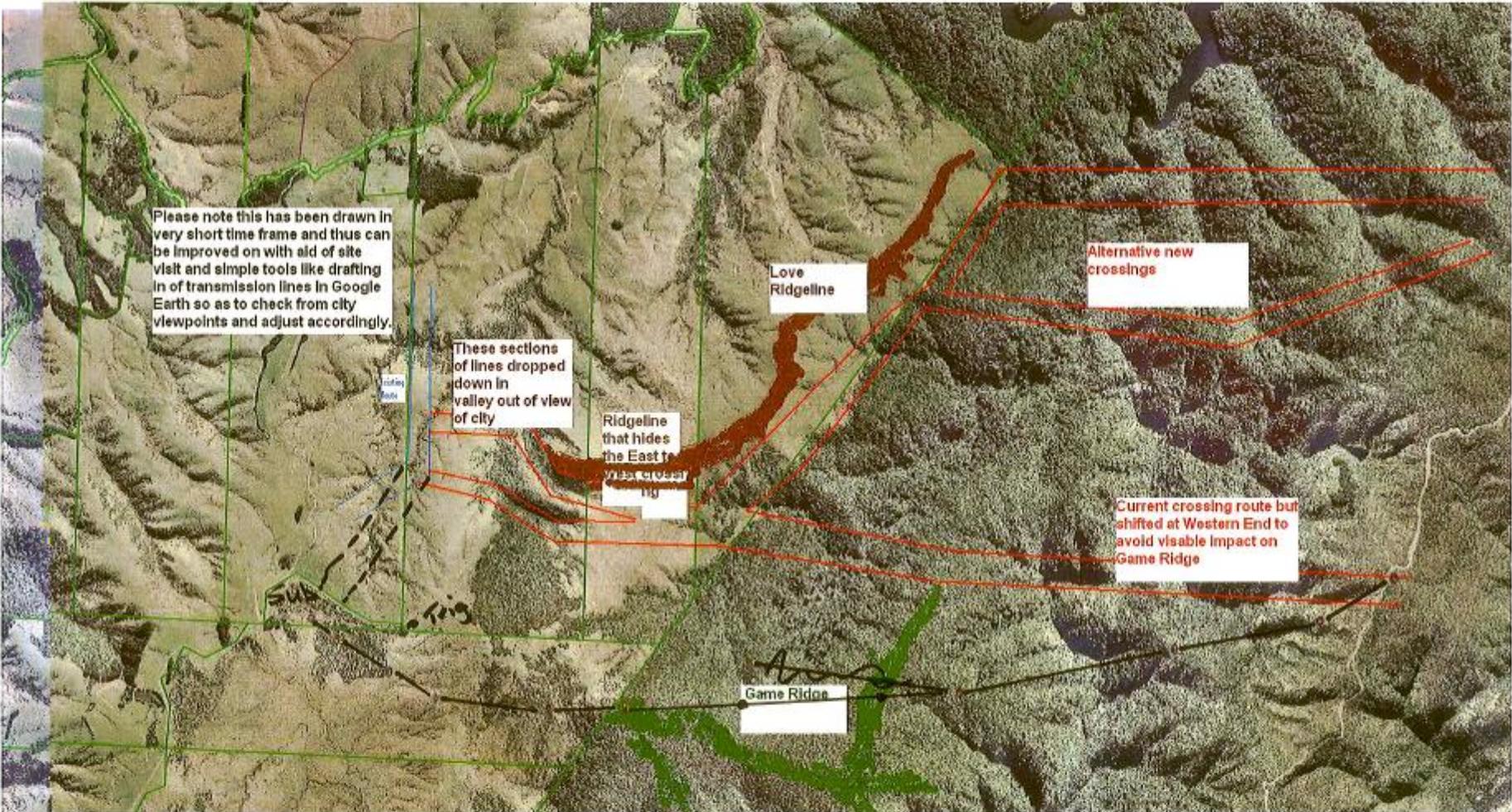
From: Mike Omer [<mailto:Mike.Omer@mightyriver.co.nz>]
Sent: Tuesday, May 31, 2011 9:27 AM
To: Shilton, Andrew
Cc: Mark Henry
Subject: RE: Turitea Transmission route

Good morning Andy,

The BOI has requested Mighty River to comment on the feasibility of the alternative transmission route mentioned in your submission to them. So that we have a clear picture of your alternative route could you please draw on the attached map your proposed route and send it back to me. Give me a call if you require any more detail.

Thanks
Mike

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Please note this has been drawn in very short time frame and thus can be improved on with aid of site visit and simple tools like drafting in of transmission lines in Google Earth so as to check from city viewpoints and adjust accordingly.

These sections of lines dropped down in valley out of view of city

Ridgeline that hides the East to West crossing

Love Ridgeline

Alternative new crossings

Current crossing route but shifted at Western End to avoid visible impact on Game Ridge

Game Ridge

SUN

219

APPENDIX 2

INFORMATION FROM LATEST PUKETOI NEWSLETTER REGARDING TRANSMISSION ROUTE

13

Transmission

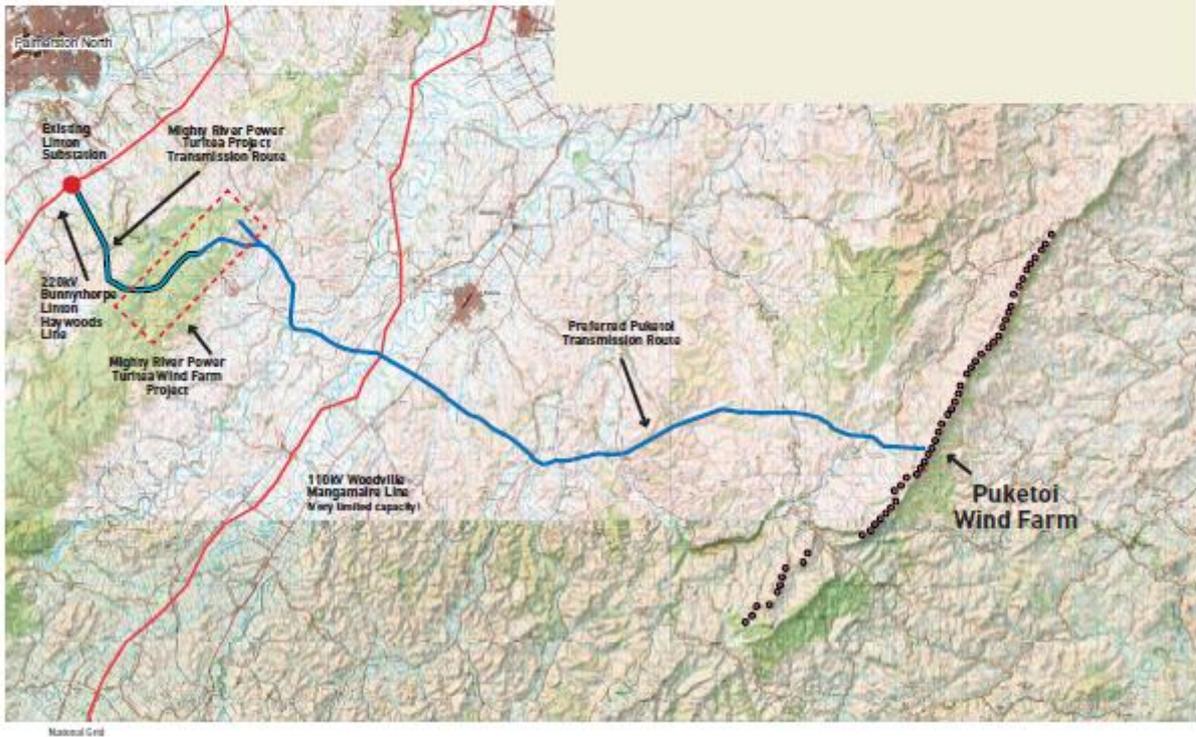
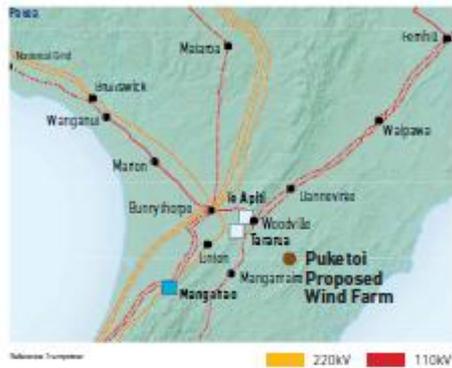
How will power get to homes?

A new 37km transmission line will be needed to carry the power from the wind farm to the National Grid. Mighty River Power has been working with landowners for 2½ years to establish a transmission corridor that minimises disruption and potential effects.

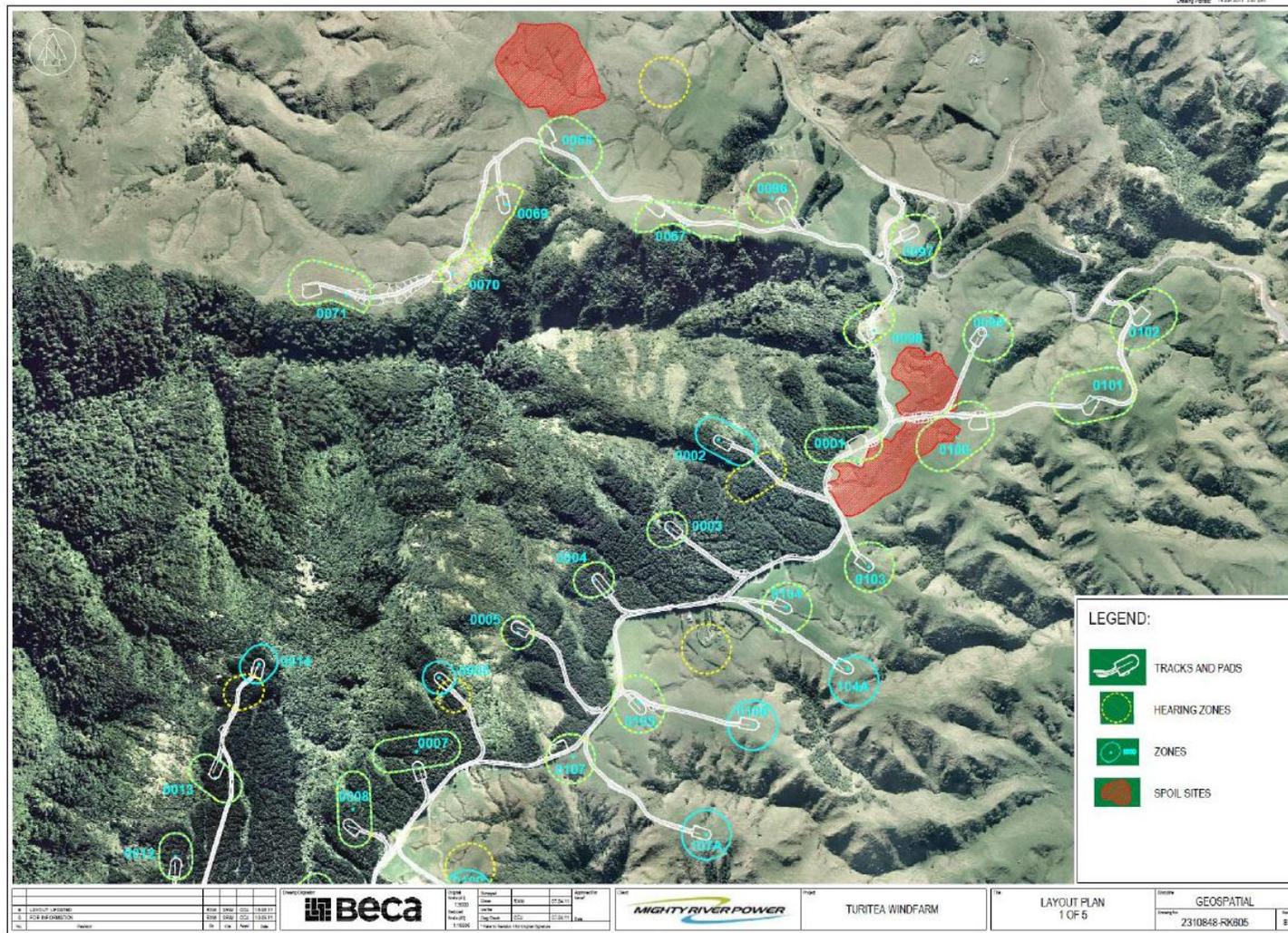
Mighty River Power has also worked closely with landscape architects, ecologists and engineers to ensure that the route chosen will minimise the visual and other effects of the new transmission line.

The 37km Puketoi transmission route has been planned to connect to Mighty River Power's Turitea wind farm project near Palmerston North. This project recently received a draft resource consent, and provides for a transmission route to the National Grid at Linton nearby.

Transpower Transmission Infrastructure Map



APPENDIX 3
REVISED DRAWING RK-605



NO.	DATE	BY	CHKD.	DESCRIPTION
1	15/08/2023
2
3

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MIGHTY RIVER POWER

TURITEA WINDFARM

LAYOUT PLAN
 1 OF 6

GEOSPATIAL
 2310848-RK605

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