

11 June 2009

The Chairman
Board of Inquiry
Hauāuru mā raki Wind Farm Proposal
C/o Ministry for the Environment
PO Box 10362
Wellington 6143

Attention Kim Morgan

Dear Judge

Hauāuru mā raki - Engineering Investigation and Design Programme

In accordance with Section 1.1 (Appendix A) of the Board of Inquiry's decision of 28 May 2009, please find attached a table summarising the programme of investigation and design work that Contact proposes to undertake during the adjournment period.

We would also like to update the Board on the following matters referred to in Sections 2.0 - 4.0 of the Adjournment Actions document.

2.0 Ecology

A draft methodology for the upcoming (July/August 2009) radar-assisted monitoring of migratory and resident shorebirds, based on the Jan 2009-Feb 2009 survey, has been forwarded to the Department of Conservation and a meeting has been held on 10 June 2009 with the Conservator and Waikato Area Manager to discuss how the overall ecology programme will be progressed.

A meeting of technical experts is also planned to discuss survey methodology (i.e. refinement of that draft methodology, the process for analysis of the results, and the methodology to be employed for the population studies required under Action 2.5).

3.0 Consultation

A letter has been sent to all submitters offering to consult in respect of their concerns as set out in Action 3.3. Submitters who are also transmission landowners have received a tailored letter to incorporate the offer to narrow the corridor across their land in accordance with Action 1.9. Non submitter transmission landowners other than those who have given written approval to the project have also received an offer in terms of that action point.

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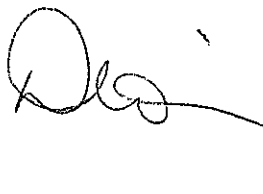
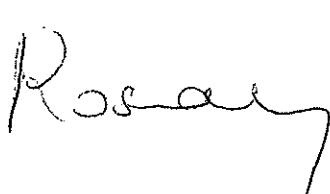
In respect of consultation with relevant hapu, the company considers it is important that this be discussed with the cultural advisor appointed by the Board and it is intended to liaise with Ms Morgan regarding the appointment of this advisor with the intention of holding a preliminary meeting with the person appointed to discuss consultation arrangements. Contact will write to the relevant hapu in accordance with Action 3.1 as soon as it can be sure it is not cutting across the cultural assessment to be prepared for the Board.

4.0 Landscape

We are in the process of commissioning a Landscape and Visual Assessment Peer Reviewer.

A copy of this letter and attached table has been sent to all the parties (i.e. all submitters who have given notice to be heard in the proceeding). We will update the Board and the parties on the Work Programme in the next Progress Report, due on 12 September 2009.

Yours faithfully
Contact Energy Limited



Rosemary Dixon
Legal Counsel

Hauāuru mā raki - Engineering Investigation and Design

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
1.0	Engineering Investigation and Design		
1.1	Programme	Produce and submit programme	12 June 2009
1.2	Produce a Ground Model based on 2009 aerial photography with 1m contours (photogrammetric mapping)		
		Fly-over, acquire digital aerial photographs	Complete
		Carry out ground control (referencing) to coordinate the aerial photography and Digital Terrain Model (DTM)	End June 2009
		Aerial triangulation of imagery over the site	End July 2009
		Produce DTM and new orthophotography, completed by cluster and other sections of the project	End Sep 2009
		The deliverable is new orthophotography and 1m contours for inclusion in the viewer and available to all consultants, completed by cluster and other sections of the project	End Oct 2009
		Peer review	End Jan 2010
1.3	Cadastral Boundary Verification		
		Acquire Survey plans	End June 2009

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
		Calculate cadastral boundaries from first principles along public roads and at key areas on site (i.e. where cadastral boundaries of neighbouring landowners are within 500 metres of proposed site works).	End Sep 2009
		Peer review	End Jan 2010
1.4	Geotechnical Investigations – wind farm	Site visits with Geotechnical & Civil Engineers to identify geological, seismic and geotechnical investigations required, completed by cluster of turbines and other sections of the project	Aug 2009
		Formulate scope and methodology between designers and peer reviewers	Aug 2009
		Engineering and geological mapping and field verification for representative samples of each geological terrain	Sep 2009
		Field (test pits & boreholes) and laboratory investigations of representative samples of each geological terrain	Sep 2009
		Analysis, reporting and briefing of civil designers	Sep 2009
		Peer review	Jan 2010
1.5	Wind Farm Civil Design Review and Refinement	Site visits with Geotechnical & Civil Engineers completed by cluster of turbines and other sections of the project	Aug 2009
		Update geological, seismic, geotechnical, archaeological, ecological, and boundary constraints	Dec 2009

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
		Overlay the constraints over new mapping	Dec 2009
		Three Inter-disciplinary workshops: Workshop 1 Workshop 2 Workshop 3	Aug 2009 Dec 2009 Jan 2010
		Iterative refinement and validation of the wind farm civil design	Jan 2010
		Erosion and sedimentation control plan and design for sample cluster of turbines	Jan 2010
		Peer review	Jan 2010
1.6	Preparation of deliverables		
		Fill sites design refinement	Feb 2010
		Refinement of maximum quantities and design parameters	Feb 2010
		Refinement of Turbine Consent Areas (TCA) with updated mapping	Feb 2010
		Refinement of roading and laydown area design with updated mapping	Feb 2010
		Refinement of earthworks design with updated mapping	Feb 2010

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
		Refinement of turbine foundation design	Feb 2010
		Production of updated maps showing works with overlays ¹	Feb 2010
		Update conditions with proposed management plan standards	Feb 2010
		Prepare Erosion and Sedimentation Control Plan for a sample cluster of turbines	Feb 2010
1.7	Design Peer reviews		
		Appoint Peer Reviewers	July 2009
		Undertake reviews	Feb 2010
1.8	Peer Review of external 220kV Transmission Line Notice of Requirement, including evaluation methodology		
		Appoint Peer Reviewer .	July 2009
		Undertake review ²	Oct 2009
1.9	Transmission Line Refinement		

¹ It is noted that it is not proposed to show all erosion and sediment controls (cut off drains, sediment retention structures, grit traps etc) on these overlays. Showing all such works over the whole project area would require a very fine level of engineering design over the entire project area that is not proposed to be undertaken at this point. However as noted, an Erosion and Sediment Control Management Plan for a representative turbine block will be prepared showing all erosion and sediment control works proposed for that block. This will provide a representative example of how erosion and sediment control will be managed over the project.

² Depending on the content of the Peer Review, further consequential actions may be required (e.g. application of a revised methodology)

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
		Advise Transmission Line Landowners of their ability to request further design	Complete
		Transmission Landowners' closing date for requests for further design	26 July 2009
		Landowner contact and liaison, agree access	Aug 2009
		Landowner consultation	Ongoing
		Initial electrical investigations	Sep 2009
		Site Walkover with landowner and Geotechnical and transmission engineers	Sep 2009
		Geotechnical Site Investigations	Dec 2009
		Produce General Arrangement of Structures	Dec 2009
		Structure Design - Foundations	Dec 2009
		Update transmission line design (where requested and access provided) to required accuracy	Feb 2010
		Produce Revised Structure Coordinates	Feb 2010
		Peg Out Structure Coordinates	Feb 2010
1.10	Specific engineering design for the transmission line corridor in the Te Umukaraka bush area ³		

³ Subject to peer review under 1.8

<u>Ref</u>	<u>Heading</u>	<u>Work to be undertaken</u>	<u>Completed no later than</u>
		Prepare specific design detailing construction and maintenance effects in this area	Dec 2010
		Include specifications as condition in notice of requirement conditions	Feb 2010
1.11	Notice of Requirement	Modify Transmission Line Notice of Requirement (where requested and access provided)	Feb 2010