

BOARD OF INQUIRY
HAUĀURU MĀ RAKI WIND FARM PROPOSAL

In the matter of the Resource Management Act 1991

And

In the matter of resource consent applications by Contact Wind Limited in respect of the Hauāuru mā raki Wind Farm Proposal

And

In the matter of notices of requirement and a resource consent application by Contact Energy Limited for transmission infrastructure related to the Hauāuru mā raki Wind Farm Proposal

REBUTTAL EVIDENCE OF ANDREW KERLEY

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Introduction

1. My name is **Andrew Kerley**. I am a **wind engineer** and lead the Resource Modelling Capability team of the Renewables Group at **Parsons Brinckerhoff Australia Pty Ltd**.
2. I refer the Board of Inquiry to the statement of my qualifications and experience in my evidence in chief. I reaffirm my commitment to comply with the code of conduct for expert witnesses in the Environment Court.
3. The purpose of this brief of evidence is to respond to the evidence of Lester Wright and Howard Spencer (on behalf of Sunset Views) relating to the impact of shadow flicker on the Sunset Views property.

Lester Wright and Howard Spencer of Sunset Views – shadow flicker at property boundaries

4. The submissions of Lester Wright and Howard Spencer both assert that shadow flicker will have an impact at the boundaries of the Sunset Views property. Wind turbines are proposed to be located near the southern boundary of this property.
5. There are no residences on this property within 1 km of the nearest indicative wind turbine location. The shadow flicker impact at all Sunset Views residences (N041, N042, N045, N046, N047 and N049) has been assessed in the report dated June 2008, entitled “Proposed Hauāuru mā raki Wind Farm – Shadow Flicker Assessment” (Exhibit AK1 to my evidence in chief). Only N042 is expected to experience any shadow flicker, at a “realistic” estimate of 2.26 hours per year, which is significantly less than the recommended limit of 30 hours per year.
6. Due to the lack of residences on the Sunset Views property boundary, it appears reasonable that much shadow flicker will go unnoticed, since no observer will be in the affected zones during the times when shadow flicker is being observed on that portion of the property.
7. Moreover, it is significant that any shadow flicker experienced at the property boundaries will be experienced when the observer is outside, within the rotating shadow of the wind turbine. As discussed in paragraph 30 of my evidence in chief, the effect of shadow flicker is minimised by the high levels of ambient light when the observer is outdoors, such that shadow flicker is unlikely to cause annoyance or disturbance to observers when outdoors. This would be the case with any shadow flicker observed at or near the Sunset Views property boundaries.

A. Kerley