Senate Standing Committee on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600
21 November 2012

Dear Dr. Holland,

Re: Inquiry into the proposed Renewable Energy (Electricity) Amendment (Excessive Noise from Wind Farms) Bill 2012

I wish to respond to comments made at the hearing in relation to the scientific understanding of the nocebo effect.

My name is Fiona Crichton and I am currently a PHD candidate at the University of Auckland, undertaking research considering psychological mechanisms which may explain the relationship between sound produced by wind turbines and the reporting of adverse health effects.

When asked by the Chair about the nocebo effect, Dr Niseenbaum stated that "In our context, there is no evidence that this is occurring." When asked by the Chair whether he agreed with the statement that some of the effects reported could be due to a nocebo effect, Dr Hanning clearly stated "No, I do not agree."

I have recently completed an experimental study considering the relationship between symptom expectations and symptom reporting during exposure to infrasound and sham infrasound. The research has just completed passage through a rigorous peer review process and has been accepted for publication by Health Psychology, the official scientific publication of the American Psychological Association's Division 38 (Health Psychology). This journal has an ISI Impact Factor of 3.9. The paper is expected to be published in early 2013.

As is the practice, the copyright for the article now sits with the publisher. As such I have attached a **confidentia**l final copy for the Committee. However, the abstract of the paper is set out below.

ABSTRACT

***Objective*:** The development of new wind farms in many parts of the world has been thwarted by public concern that sub-audible sound (infrasound) generated by wind turbines causes adverse health effects. Although the scientific evidence does not support a direct pathophysiological link between infrasound and health complaints, there is a body of lay information suggesting a link between infrasound exposure and health effects. This study tested the potential for such information to create symptom expectations, thereby providing a possible pathway for symptom reporting.

Design: A sham controlled double blind provocation study, in which participants were exposed to ten minutes of infrasound and ten minutes of sham infrasound, was conducted. Fifty-four participants were randomised to high or low expectancy groups, and presented

audiovisual information, integrating material from the internet, designed to invoke either high or low expectations that exposure to infrasound causes specified symptoms.

Results: High expectancy participants reported significant increases, from pre-exposure assessment, in the number and intensity of symptoms experienced during exposure to both infrasound and sham infrasound. There were no symptomatic changes in the low expectancy group.

Conclusion: Healthy volunteers, when given information about the expected physiological effect of infrasound, reported symptoms which aligned with that information, during exposure to both infrasound and sham infrasound. Symptom expectations were created by viewing information readily available on the internet, indicating the potential for symptom expectations to be created outside of the laboratory, in real world settings. Results suggest psychological expectations could explain the link between wind turbine exposure and health complaints.

I would be free to discuss this matter with the committee.

Yours sincerely,

Fiona Crichton *LLB MSC (Hons) PHD Candidate*