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Committee Secretary  
Senate Standing Committees on Environment and  
Communications  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600      by email: [ec.sen@aph.gov.au](mailto:ec.sen@aph.gov.au)

Dear Sir / Madam,

**Alstom Limited response to the Renewable Energy (Electricity) Amendment  
(Excessive Noise from Wind Farms) Bill 2012**

Further to Alstom's submission and our representative's (Josef Tadich) participation by telephone at the hearing on 14 November, as requested we herewith provide some further information concerning the WHO recommendations for noise limits when measured outside the residence. These are specified in paragraph 4.3.1 of the World Health Organisation's "Guidelines for community Noise" below.

**WHO 1999 original text.**

*"To protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55 dB LAeq for a steady, continuous noise. To protect the majority of people from being moderately annoyed during the daytime, the outdoor sound pressure level should not exceed 50 dB LAeq. These values are based on annoyance studies, but most countries in Europe have adopted 40 dB LAeq as the maximum allowable level for new developments (Gottlob 1995). Indeed, the lower value should be considered the maximum allowable sound pressure level for all new developments whenever feasible.*

*At night, sound pressure levels at the outside façades of the living spaces should not exceed 45 dB LAeq and 60 dB LMax, so that people may sleep with bedroom windows open. These values have been obtained by assuming that the noise reduction from outside to inside with the window partly open is 15 dB."*

It should be noted that sound levels inside the residence will be significantly less, so this is a very conservative value. Alstom as a matter of practice uses this value in international markets where no legislative limit is in place as part of responsible engineering practice.

Yours faithfully

**Chris Raine**  
**CEO**  
**Alstom Australia & New Zealand**

World Health Organisation's "Guidelines for community Noise" 1999 :available electronically here: <http://www.who.int/docstore/peh/noise/guidelines2.html>