From: Richard Aynsley Sent: Monday, 24 August 2009 10:42 AM To: Environment and Resources Committee Subject: IQ01 Issues Paper

Dear Mr Hansen,

Here are some thought for the paper.

## **Economic and Evironmental Cost**

The BCA's requirements, to increase roof insulation and the government subsidy of the cost, is not rational. The greatest insulation benefit is from some initial modest insulation as greatly increasing the amount of insulation follows the law of diminishing returns with the extra costs not achieving anywhere near proportional benefits. In climate zones 1 and 2 below 300m elevation, more emphasis is needed on control of radiant heat by radiant barriers. These not only drastically reduce heat transfer down through the roof during sunshine hours, but accelerate loss of heat to the night sky after sundown.

A much greater benefit would come from legislation on design of land subdivision that encourages optimum solar orientation (longest walls facing north/south). However developers want business as usual to ensure the maximum yield of allotments regardless of solar orientation. And HIA home builders want to be able to orientate designs that are supposed to suit all sites at any orientation.

## **Potential Barriers**

Government policy is clearly driven by lobbying by the large building industry groups (HIA, Insulation Industry, Land Developers etc). While they claim to be increasing energy efficiency the result is basically "business as usual". Any competent designer can design a carbon neutral home and they should be encouraged to do so.

Design professionals such as architects are prevented from pursuing really energy efficient homes by the inability of design assessment instruments such as ACCURATE (which is anything but accurate). The software is inadequate in assessing natural ventilation, and cannot assess indoor thermal comfort because it cannot accommodate indoor mean radiant temperature. Provisions must be provided to allow truly energy efficient (carbon neutral) buildings to be properly assessed. More focus is needed on real energy efficiency assessment based on ACTUAL building performance using tools like NABERS not the fictitious rating by ACCURATE.

## **Potential Policy Options**

In climate zones 1 and 2 below 300m elevation, more emphasis is needed on control of radiant heat by radiant barriers. These not only drastically reduce heat transfer down through the roof during sunshine hours, but accelerate loss of heat to the night sky after sundown.

A simple carbon tax on all industry without concessions would result in screams and threats from the oil and coal industries but it would also see huge investment and employment in alternative renewable energy sources. Clean cost-effective alternative technologies such as base-load solar thermal exist in Europe and USA (Spain & California).

## Role of Carbon Pollution Reduction Schemes and Energy Efficiency

Politicians around the world have taken the path of least resistance to appease the big polluters such the coal and oil industries. The coal and oil industries have made their way for too long and it time for them to die in order to save our planet. A simple carbon tax on all industry without concessions would result in screams and threats from the oil and coal industries but it would also see huge investment and employment in alternative renewable energy industries. Clean cost-effective alternative technologies such as base-load solar thermal exist in Europe and USA (Spain & California). Australia has more solar exposure and space than Europe for such facilities but current policy is for huge handouts to the coal

industry. Also the true costs of the oil and coal industries on public health, and water pollution are rarely considered.

Provisions must be provided to allow truly energy efficient (carbon neutral) to be properly assessed. More focus is needed on real energy efficiency assessment based on ACTUAL building performance using tools like NABERS not the fictitious rating by ACCURATE.

Yours sincerely,

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