

Submission to Inquiry: Energy Consumption in Residential Buildings Inquiry.

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Confidentiality: **General submission** **Requested confidentiality**

Current building construction and planning practices are allowing homes to be built with incorrect orientation and poor shading control (no control of summer sun penetration); and poor insulation (resistance to heat absorption) and thermal mass (ability to store nthalpy); which cause them to grossly overheat in summer.

This results in a demand for air conditioning, as can be seen in that market growing 40% p.a. for the last 4 years.

This results in massive peak demand loads on the electricity grid, which that industry would prefer to solve by increasing capacity.

To do this would result in greater greenhouse emissions and unecessary growth of a costly industry.

It should be noted that in winter, the reverse effects are applied to the buildings, resulting in a demand for heating - this is satisfied by a wider variety of energy sources than electricity, with a lower greenhouse and capital cost. But these effects should still be considered.

A better solution would be to raise the thermal performance minimum standards required from the current 3.5 stars to 4.5 or 5 stars in either the Energy Smart Homes Policy (at planning approval stage) and/or the BCA (at construction certificate stage).

All subdivision and other land use master planning stages of all projects should be required to maximise solar access.

When the Energy Efficiency provisions of the BCA are adopted in NSW (May 2004) the current Energy Smart Homes Policy compliant councils should be encoyuraged to maintain the planning controls of that policy, such as solar access, orientation, layout and zoning of spaces, etc. Minor technical elements such as insulation should be covered by the BCA.