

Ecological Architects Association
PO Box 29
Pennant Hills 2120

Ph: 02 9484 9209
Fax: 02 9484 5977
Gareth Cole [gareth@archinet.com.au]

Submission to the
PRODUCTIVITY COMMISSION

How are performance measures and the information gained from performance measures, incorporated into management processes for the design, construction and operation of buildings?

... To date there is no industry wide benchmarking for measuring the environmental performance of buildings. It is suggested that a scheme be developed that enabled buildings to be scored along the a range of environmental performance indicators. Such a scheme may take on the form of a point score system similar to NatHER¹s, or be modelled on the food labelling systems currently in use.

... The scheme would then need to be supported by legislation to ensure that it was widely adopted. Minimum performance standards should then be improved over the coming years to enable industry to adjust to the changes.

... The selection of criteria to be included in such a scheme would need to be the result of careful study but should include: energy use, resource use, aesthetic impacts, maintenance, & transport.

Do owners, managers or tenants routinely consider environmental aspects of building performance? What particular aspects of environmental performance are considered, and how do they fit into the broader performance framework?

... The built evidence in Sydney would have to suggest that environmental performance is not routinely considered to be an important aspect of commercial building design.

... The dominant type of commercial building in Sydney, reliant on air-conditioning, and with poor sun control, does not display a sensitivity towards Sydney's climate.

... The climate in Sydney is such that for a majority of the year $\text{\textcircled{C}}\text{comfort}^1$ can be achieved without the inputs of large amounts of energy, however we design buildings that perform so badly that they are hotter in summer and colder in winter than they could be if they were better designed.

... We have become so accustomed to life in our poorly designed buildings that we fail to imagine that life could be better simply through better design.

... A belief in the power of technology has created a belief that solutions to complex problems require complex and by their nature expensive solutions.

... Few people have experienced life in a $\text{\textcircled{C}}\text{green building}^1$, and do not realise their possibilities.

... Air-conditioning is accepted by most people, but to many it is also considered a necessity.

... Many would say that they'd like to be able to open a window for fresh air, but cannot imagine surviving a summer in Sydney without air conditioning.

Do owners, managers or tenants measure and/or assess energy consumption in buildings? Do firms measure and/or assess water consumption and waste disposal in buildings? Once obtained, how is such information used?

... A look across the spectrum of new office buildings would show that it is the $\text{\textcircled{C}}\text{marble}^1$ culture of expensive materials, $\text{\textcircled{C}}\text{tasteful}^1$ design and an excellent location that dominate discussions about a buildings design.

... The advertising for these new buildings is indistinguishable from the likes of personal investment funds, in that they sell the $\text{\textcircled{C}}\text{image}^1$ of the lifestyle rather than the mundane reality of life in the actual building.

Associations with images of happy couples, a close up of a cappuccino, nice food and a sporty car are the new indicators of a buildings success.

... Sales literature for Olympic Village makes little mention of the environmental performance of the

buildings even though they are in many ways above average.

... Information about a buildings environmental performance is not routinely measured by architects, as post occupancy analysis of buildings is rarely undertaken, and to some extent architects are poorly qualified to undertake such research, or to analysis the results of such research.

... There are in fact few green commercial building in Sydney. There is a need for encouraging these buildings so that people have the chance to experience them. There should be full disclosure of the results of building costs and performance.

... The need for green buildings needs to be created so that the market can begin to respond to the changes.

How do firms use life cycle costing in the design and evaluation of buildings? Is it an important component of the design process? Are there particular stakeholders who are more likely to use the life cycle costing technique?

Are there impediments or constraints on using life cycle costing for commercial buildings?

... LCA currently not possible for most practitioners due to the huge costs and a lack of resources.

... The costs of LCA mean that results are not shared among practitioners, as they have a resultant commercial value. This divides the architectural community, further advantaging firms that have the resources to undertake LCA, and isolating firms that do not.

... There is another practical impediment to the use of LCA in that clients will rarely pay for it

... A lot of the information required for a thorough LCA is commercially sensitive and as such inaccessible.

Are there other methodologies used instead of life cycle costing for commercial buildings?

... More information needs to be made publicly available to reduce the commercial value of such information.

... Industries that stand out as performing poorly in an LCA analysis would be forced to act if information became more widely available as there is a certain

political correctness related to being green, and it is difficult to sell poor environmental performance.
... The government could take a role in publicising alternatives to poorly performing products.

The Commission is interested in receiving information on It's and the use of them in the design, construction and on-going operation of commercial buildings.

What are the major input costs for building construction and their ongoing operation? How is the energy efficiency of buildings measured?

... The built evidence of Sydney indicates that IST's are rarely considered as part of commercial building design

... Architects are poorly trained to provide data to quantify savings that could be made through the use of IST's, as we do not have the economic or engineering backgrounds to quantify savings & costs.

... The employment of quantity surveyors is standard on commercial projects, however they do not provide information relating to energy use.

... The employment of consultants to deal specifically with IST's is uncommon