[Received by email]

Reform of Building Regulation

Sirs.

The Building Regulations and codes have become so complex as to be self-defeating. One might presume that the long term goal is not only to establish a minimum standard of safety and provision, but also to lead to sustainable practices.

The compliance costs of some recent decisions - the Disability Access requirements when applied to all of Australia's building stock - have been estimated to cost $26bn by the ABCB's own financial impact assessment. These cost will be passed on of course.

The idea of descriptive rather than prescriptive regulation - whilst good in theory - has resulted in great uncertainty: This uncertainty is resolved only when an independent certifier can be found to 'sign-off' proposals. This is because the means of verification are in the most cases uncertain and tentative. This leads to the most conservative 'deemed-to-satisfy' solutions being employed - stifling innovation.

The Draft Energy Code for use classes 2, 3, & 4 is actually impossible to verify by simulation. The requirement is for 'hourly weather data' at the proposed building site. Not only is there little chance of this data being available as it is not measured, but the proposed legislation doesn't say what sort of data has to be included (eg. hourly values of temperature, humidity, wind speed and direction, precipitation, wind pressure?)

Legislation probably intends the use of BESTTEST 'validated' computer programmes for simulation. These are not those commonly used by industry - or indeed Universities and research institutions.

In summary, the transaction costs of meeting the legislation is not only too high in terms of time and expertise needed, but also forces client to employ those few engineers and consultants who understand the rules and are prepared to sign-off on proposals.

As a member of the committee that drafted NZS 4243:1996 Energy Efficiency for Large Buildings, I am well aware of establishing codes which require Olympian levels of preparation in order to clear a bar set at six-inches above the ground. Do not repeat our mistakes.

If you are interested you will find a couple of relevant papers:

Problems with Descriptive Energy Efficiency standards (NZS 4243:1996), in Szokolay.S (Ed) Sustaining the Future Proceedings of the Passive Low Energy Architecture Conference (PLEA'99), Brisbane, Sept 22nd-24th. pp.759-763

A Source of Error in thermal Simulation Programs, in Szokolay.S (Ed) Sustaining the Future Proceedings of the Passive Low Energy Architecture Conference (PLEA'99), Brisbane, Sept 22nd-24th. pp.609-611

Yours sincerely,

Dr David Leifer, Registered Architect, Incorporated Engineer.
Coordinator of the Graduate Program in Facilities Management
School of Architecture
The University of Sydney