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I appear before this committee as an individual. My professional duties include representing the Master Builders Association NSW and Newcastle as well as providing consulting and training services for various organisations including SEDA, Councils, Universities and private enterprises. I am a member of the HMB steering committee and BRAC Energy Efficiency Sub-committee and also a director of a refrigeration R & D company. The views I express today are my own and do not necessarily represent the policy of any organisation that I am associated with.

I began my involvement with sustainable building when I began my carpentry apprenticeship about 25 years ago. I've seen this field undergo a spectacular evolution from being a counter-culture hobby horse to being a major driver in current economic development.

Adopting sustainability by mainstream industry presents an enormous challenge. It implies embarking on one of the most significant processes of change that industry has had, and will have to, go through.

Sustainability in general, and energy efficiency in particular, do not pose a threat to industry – failing to achieve sustainability does. The limit to growth will be the effectiveness of our management of our environment and natural resources. The barrier to building new homes will increasingly be the availability and the cost of supplying materials, water, sewerage treatment, waste disposal and energy.

Sustainability has evolved from being an ethical commitment to being a matter of economic rationality. The last few years has seen a significant sea change in attitudes by industry to sustainability. It has been accepted, largely, as a necessary objective.

## **Infancy**

Whilst the new objectives have been recognised by industry as well as regulators and consumers, effective strategies for achieving the new objectives are in the earliest stages of development. A significant process of change must occur but there is uncertainty about how to proceed. Sustainability is in its infancy – real solutions will no doubt be developed over the next 5, 10, 50 years. Accepting, with some humility, that we are in an early, experimental phase of development of new strategies may help avoid costly errors caused by over-confidence and arrogance. It might also help set our sights on strategies that have proven substance, not just appealing appearance.

There are, unfortunately, numerous example of strategies implemented in haste, only to be contradicted by more sophisticated understanding developed through time and experience. For example, millions of dollars has been spent on providing on-site detention tanks with controlled release. This strategy is now quite out of favour by current experts. Oops.

## **A comprehensive approach**

I don't believe that there is any single strategy that will deliver better energy management or sustainability in general. The environmental performance outcomes of a building is the result of many variables:

- the products and technology available to builders;
- design;
- regulations;
- the builder's skills and training;
- consumer expectations and occupant behaviour.

Any attempt to deliver change must address each link in this chain. For example, for a new regulation to be effective it should ensure that:

- the products are available and affordable;
- builders and designers understand the objective and have the training and skills; necessary to achieve it;
- consumers will utilise and appreciate the innovation.

This implies co-ordination of programs not simply launching policies in isolation.

There are good examples of this approach being proven to be very effective, and examples of not adopting this approach being costly and ineffectual.

The implementation of requirements for Energy Smart Water Heaters was a good example. Industry was engaged in the proposal. Ample evidence of the proven merit of the innovation was available. Government provided significant rebates that offset the high cost. We negotiated good deals from the manufacturers and ensured adequate supply. Training, focused on a clear, specific issue was delivered to trades people. Consumers were offered plenty of material that explained the environmental and cost benefits. Ongoing information and support services were provided.

On the other hand, the introduction of mandatory water tank policies by some Councils has been problematic. The environmental benefits of the policy are disputed and contradicted by experts and regulators. The cost is disproportionate to any savings. There is inadequate supply of necessary products and poor understanding of correct installation and operation requirements. Many consumers would rather not have them and are unlikely to make good use of them.

Another example of inadequate implementation of a comprehensive approach is the current concern over the increase in residential air-conditioning. The blame for this trend has been placed on poor design and construction of new homes. I believe that is wrong. The Energy Smart Homes policy required a significant improvement in building thermal performance. The reason that most new homes are installing air conditioners is that their price has dropped considerably and they have been aggressively marketed. Consumer expectations have changed. They now want air conditioned comfort – 22 degrees all year round. Without the improved thermal performance of the building the AC units would be bigger and use more energy. We could require 6 star homes and people will still install AC.

Controlling AC use requires a comprehensive approach:

- improved building envelope thermal performance to facilitate lower energy consumption with incentives for exceptional performance;
- pricing controls to influence consumer behaviour that might, for example, include carbon tax on ACs and separate metering and high tariffs for ACs;
- education of consumers and builders about the importance of minimising AC use;
- mechanical controls that simply shut down or cycle ACs during peak demand periods.

We need a body that can co-ordinate comprehensive campaigns – addressing issues that are manageable and proven to be effective. Such a body could pool the resources, expertise and influence of various government departments such as development regulators, science, industry and development as well as private enterprises represented by manufacturing and professional organisations.

I believe SEDA has been a decent example of such a model, combining regulatory, training and promotional activities. Its shortcomings were probably attributable to inadequate funding and lack of history and experience to draw on.

Builders have no problem at all implementing new requirements if they are proven to be effective and affordable and if they have been given the necessary training to feel confident

with new practices. There is great annoyance, however, with impractical, expensive or difficult requirements.

Instead of co-ordination of new strategies, progress is currently hampered by competition between various program developers, vying for funds and scarce funding. The most virulent critics of any particular program seem to be the developers of similar programs, defending territory from intrusion by other initiatives. This just undermines the credibility of all involved and causes duplication and dissipation of resources. This negative tendency is probably symptomatic of the absence of strong, well funded, broadly supported initiatives.

### **Process**

Sustainability is about process, not just policy. A paternalistic, regulatory approach can deliver resentful compliance with minimum standards. A process based on consultation, engaging and empowering stakeholders, can develop ownership and commitment to an objective.

### **Innovation**

We need new products, practices and technology. Yet there are significant structural barriers that prevent the construction industry from being innovative.

There has never been an allowance built into the pricing structure of the industry, that allows for research and development. The cost of failure of new innovations is unacceptable. The prevalence of small, under-capitalised businesses has meant that there has been no accumulation of capital that can be applied to R & D. This is in stark contrast to other industries, such as automobiles or whitegoods, that are dominated by a small number of large businesses.

The building industry relies on innovation from component suppliers – large manufacturers of building products. This generates an uneven, unmanaged process of innovation. Innovation of whole building design and construction needs to be resourced by a well funded, independent body that can take on the risk of developing and testing new strategies then deliver them to the industry.

New building regulations may increase building costs by \$1,000 or \$10,000. That represents billions of dollars over a decade or so. Yet little or no funding is applied to developing new technology and practices, testing, proving and promoting them.

### **Government commitment**

State government ministers recently made headlines with an announcement of plans to introduce regulations in that will deliver a 25% reduction in greenhouse gas emissions from new homes from June 2004, with a 40% reduction required the following year.

The 25% reduction target had already been achieved by the Energy Smart Homes program, launched by the premier over four years ago. Rather than building on this policy, the state government is currently undermining its achievements. The Energy Smart Homes program included a \$500 rebate on environmentally friendly water heaters for new home builders. The State government has suspended this rebate.

Water heaters account for one-third of residential greenhouse gas emissions. Energy Smart water heaters, such as gas, solar and heat pumps, can reduce those emissions by two thirds – an instant reduction in household emissions of around 20%. The barrier to installing these heaters has been the high up-front cost, so the State Government rebate has been crucial to their affordability.

The suspension of the rebate is hypocritical. The government has not had the courage or courtesy to state whether the rebate is cancelled or to be resumed. It has been left in limbo, making it impossible for builders and home owners to determine how much the greenhouse friendly water heaters will actually cost. Industry accepts that the rebate may have to be

fazed out over time, but the current suspension of the rebate and uncertainty over its future sends the wrong message to builders and their clients.

## **BASIX**

I also have increasing doubt about the Government's ability to deliver workable regulations that will achieve their stated greenhouse reduction targets, given the minimal timeframe and resources allocated to the task. Making press statements is easy – developing practical, affordable solutions is hard.

The proposed regulation, the Building Sustainability Index (BASIX), has been under development for a couple a years and is meant to be enforced in June next year. It is being developed by the Sustainability Unit of the Department of Industry Planning and Natural Resources. The two or three enthusiasts that make up this unit are able to give very seductive presentations about the *concept* of BASIX but, as yet, will not or cannot deliver any detail as to the actual regulatory impacts. They are already a year behind previous deadlines and have postponed many of the sustainability objective originally adopted. They have yet to even complete a scope of works for their key energy regulations, let alone resolve the devils that lie in the detail.

Their current deadline for release of the regulations for public comment is February next year. Even if this deadline is met, it allows no time for industry to undergo the necessary training, source new products and change plans and construction practices.

Of great concern is the intention to include BASIX in the Development Application process. Assessment of Development Applications is in crisis. Councils are already overstretched. The new requirements will add further delays and stress on a system that is already struggling. Instead of simplifying the DA process, BASIX will create another set of hoops to jump through, on top of existing development controls that may have conflicting or additional requirements.

BASIX is avoiding third-party assessment that would require specifically trained and accredited people to provide certified assessments. This strategy has been proven to be very successful in simplifying the DA process and ensuring credibility and competence of assessors.

Rather than building on current sustainability regulations, BASIX is competing for center stage and is actively undermining more modest initiatives.

NSW was to introduce simple changes in the Building Code of Australia in May next year, which would have embedded improved thermal performance into all new homes across the state. The Regulatory Reform Unit of DIPNR has worked closely with representatives from industry and other government departments for the last year to achieve a workable outcome. This package was recently finalized, awaiting approval from the DIPNR executive, when the BASIX crew announced it wanted to scrap it, without even providing a concrete proposal for the alternate regulations they were proposing – just more concepts. So, like the rebate on Energy Smart water heaters, the BCA amendment is now also in limbo, creating uncertainty and confusion.

The BASIX developers are the most vocal critics of exiting government greenhouse strategies, which does little to inspire industry confidence in government ability to develop and maintain environmental programs. This government is establishing a record for hastily launching new programs in a blaze of glory but then walking away from them when shortcomings become apparent.

The Sustainability Unit has flatly refused to provide industry with detail of their proposal. They're happy to provide presentations of the big picture, but not any indication of the actual building requirements. They appear to engage in extensive consultation with a Coalition of the Willing – individuals who offer enthusiastic support for BASIX, but not industry

organizations that represent the majority of the construction industry and who have raised legitimate concerns over the capacity of the Sustainability Unit to deliver on its promises.

The Sustainability Unit's actions have been worse than failing to consult. They have sat back while industry and other government departments have spent hundreds of hours working on other regulatory initiatives, only to intervene at the end of that process to veto finalized proposals.

Industry supports the government's greenhouse reduction objectives. Representatives from the major building associations have suggested including improved building thermal performance and low greenhouse water heaters in the Building Code of Australia. That would deliver an immediate reduction in greenhouse gas emissions from new homes across the state of 20 to 30%. The regulations are already drafted and the skills and products required are already well established. It builds on current, successful programs. It would not impact on the DA process, being assessed by better resourced Certifying authorities at construction stage. This highly logical, readily achievable proposal seems to have fallen on deaf ears.

The potential for BASIX is being compromised by poor management and inappropriate haste required to meet an arbitrary deadline. Due consideration is not being given to consultation, impact assessment, validation, trialing and education.

There is a significant gulf between the BASIX concept that is being promoted and the delivery of the detail. The concept is excellent. It could be an invaluable tool for progressing sustainability. But obvious difficulties in the delivery of the detail are being glossed over. BASIX is being spruiked up. We're witnessing a sales job complete with exaggeration and smooth talking when sincerity and mature negotiation is needed.

BASIX is being consciously misrepresented. I make this statement with full awareness of its gravity and risk my own credibility by being emphatic and outspoken on this issue. I appreciate that this may not be the most appropriate forum for raising these concerns, but I am concerned that other avenues are being frustrated. No circuit breakers are going off.

Statements that industry and councils have been consulted and are supportive are simply not true. The concept is supported but no detail is available to consider. Councils I have spoken to haven't got a clue what will be involved in implementing BASIX.

Industry organisations are being alienated from the development of BASIX, possibly because of concerns that industry will not be supportive. This is a self-fulfilling prophecy – the alienation is causing significant concern and lack of faith amongst industry.

The transcript of a recent submission by Mr Taper to this committee implied that the BCA was being changed to accommodate BASIX, and that this was supported by those involved. That is not true. The BASIX developers simply vetoed the current BCA proposal. Every member of the Energy Efficiency sub-committee had significant problems with this.

There is currently a joint industry submission to DIPNR being developed which is intended to attempt to salvage the BCA process. This may be available to committee members if a more detailed understanding of the current BCA /BASIX dilemma is required.

### **A positive partnership**

Industry realizes that environmental sustainability is critical to the life of our industry. All that is asked is that this process of change be properly managed, with adequate resourcing and reasonable timeframes. Builders want to work with government in developing the most practical, affordable strategies that deliver real environmental benefits. We have proven our commitment to sustainability and our ability to work constructively with numerous government programs.

If the government is committed to building sustainability it needs to apply serious resources to the development, trialing and implementation of long term comprehensive strategies. Builders want to be partners in this process, not spectators or guinea pigs.