

20 November 2003

Dr Anna Dacre
Inquiry Secretary
Parliament House
Canberra ACT 2600

Dear Dr Anna Darce,

Sustainable Cities 2025

Thank you for the opportunity to provide comment to the Inquiry into what makes a sustainable Australian city. The issue of sustainability - how it should be defined and measured, how it can be achieved and how the sustainable growth of our cities should best be managed - is a major concern for the housing industry, particularly given the inconsistent, ad hoc regulatory approach that has thus far been applied to the issue.

As Australia's leading national industry association, HIA has a strong commitment to sustainable development and environmentally responsible building practices. Having established *HIA GreenSmart*, a voluntary industry-driven initiative over 4 years ago, HIA has actively promoted sustainable building practices within the broader industry. Many HIA members, including leading builders and manufacturers and suppliers have undertaken GreenSmart training to obtain their GreenSmart professional status. These companies now have environment programs in place to design efficiently, minimise waste and reduce energy consumption.

The Standing Committee seeks to inquire into and report on issues and policies relevant to the development of sustainable cities to the year 2025, particularly:

1. The environmental and social impacts of sprawling urban development;
2. The major determinants of urban settlement patterns and desirable patterns of development for growth of Australian cities;
3. A 'blueprint' for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure;
4. Measures to reduce the environmental, social, and economic costs of continuing urban expansion; and
5. Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement.

The scope of the Inquiry is very broad. Rather than attempt to answer all of the Committee's questions related to the above topics, the following submission will focus on those issues which are most relevant to the housing industry's ability to deliver a sustainable built environment in a practical, cost-effective manner.

It is important from the outset, however, to comment on what appears to be a principal concern of the Committee, viz. the “impacts of sprawling urban development” and “the problems faced by expanding cities”.

HIA’s analysis of urban growth pressures in each of Australia’s capital cities, undertaken as part of HIA’s submission to the Productivity Commission’s current Inquiry into First Home Ownership, has revealed that all of our major cities are facing increased population pressures. Sydney, for example, grows by 50,000 persons per annum, buoyed by immigration levels and natural increases. A further 1 million residents are expected to inhabit the city by 2026. Sydney’s rate of growth is comparable to Perth’s, whilst Melbourne is growing at a slightly faster rate (at 1.5 per annum). The South East Queensland region (encompassing Brisbane City) has historically experienced a much higher rate of growth (at greater than 2% per annum). The salient point being that our major cities are currently experiencing the strongest period of sustained population growth since the 1960s, and that the continued attractiveness of our major cities as centres of employment, global trade, culture and opportunity is somewhat inevitable. It follows that any artificial constraint on city land supply markets will have serious affordability implications that potentially denigrate the social inclusiveness of our cities.

In HIA’s view an appropriate policy response to this growth pressure would be to not ignore it. Indeed, governments are obliged to manage this growth positively to ensure that it may contribute largely to the development of a city’s social fabric and economic prosperity. This of course does not mean that cities should be allowed to grow out-of-step with servicing capacity or at densities that are insufficient to support service delivery. It does require, however, that governments commit to the planning of new residential areas to ensure that they can be developed without significant impact on our resources. An expose of the newer greenfield housing estates from around the country provides ample evidence that, with proper planning mechanisms in place, our new suburbs now function as resource-efficient residential nodes providing a sustainable housing choice for many Australians. The role of planning therefore takes on an important function in terms of achieving sustainable built outcomes – it must consider, from a metropolitan perspective, the urban capability of land, the densities at which it should be developed and how its servicing can best be arranged and funded. HIA believes this to be the proper domain of the planning profession and that planning should not be involved in the regulation of building practice, other than from a ‘locational’ point-of-view.

HIA has been a willing contributor to the environmental and regulatory debate and has assisted with the development of regulatory reforms both nationally and at a state/territory level. In this context, HIA is firmly of the opinion that building regulation should serve to eliminate worst practice and that best practice endeavours are best encouraged through broader community education, market incentives and industry initiatives such as *HIA GreenSmart*.

HIA also considers that regulation relating to the design and construction of buildings must be contained within the Building Code of Australia (BCA). This includes design issues relating to sustainability. The BCA remains the only mechanism to deliver national consistency and uniformity in this area and has the greatest potential to minimise affordability impacts due to differential building regulations. As a national organisation, HIA is uniquely placed to assist the Commonwealth to maintain the currency and ability of the BCA to deliver a more sustainable built environment.

The following submission provides further commentary on these and other issues that operate as barriers to the delivery of sustainable cities. For your information also, I have enclosed for you a copy of:

- HIA's GreenSmart Strategy;
- HIA's policy on planning reform, *Better Living Environments*;
- HIA's GreenSmart consumer magazine;
- HIA's *Housing* magazine featuring the 2003 GreenSmart Award winners and GreenSmart builders; and
- HIA's submission to the Productivity Commission's *Inquiry into First Home Ownership*, October 2003 which provides commentary on the affordability implications of a constrained land supply and includes recommendations for the proper management and servicing of urban land.

Should you require further information, please do not hesitate to contact me on 02 8878-0404.

Yours sincerely
HOUSING INDUSTRY ASSOCIATION LTD

A handwritten signature in black ink, appearing to read 'Wayne Gersbach', written in a cursive style.

Wayne Gersbach
Executive Director
Planning and Environment



**Submission by the
Housing Industry Association Ltd
November 2003**

**House of Representatives – Standing
Committee on Environment & Heritage**

Sustainable Cities 2025

Submission by the Housing Industry Association - November 2003 - for:

House of Representatives – Standing Committee on Environment & Heritage - **Inquiry into ‘Sustainable Cities 2025’**

1. Managing Sustainable Urban Growth

Government planners responsible for managing the supply of residential land have been influenced by a myriad of studies that have examined the ‘cost’¹ of fringe development compared with development in the established parts of cities. For example the 1991 National Housing Strategy assumed that substantial subsidies were involved in fringe development. The 1993 Industry Commission study, however, could not find any evidence of subsidies being applied².

The alleged total ‘cost’ of fringe development has helped coin the description ‘urban sprawl’. More recent reviews have questioned the degree of accuracy associated with these claims³ and point to the inevitability of outward growth to accommodate a substantial portion of expected population increases – at least one quarter of long term housing demand in our fastest growing cities. The term ‘urban sprawl’ is often an emotive response to the aesthetics of fringe development that highlights location (or perceived isolation) above all other factors in weighing up the cost of development. It fails to take into consideration the benefits that well-planned development can provide.

HIA subscribes to the view expressed by the Industry Commission’s report of 1993⁴ :

“it is about what people want from their cities, and ensuring that decisions about where and how they live reflect the wider costs and benefits.”

New approaches to the supply and pricing of residential infrastructure are an essential element of a strategy to improve housing affordability and achieving more sustainable outcomes. However, these moves can be supported and enhanced through action to make the planning system more responsive to the shifting composition of housing demand.

In its recent paper for the Western Australian Planning Commission, SGS Economics and Planning⁵ considered the most appropriate urban form for metropolitan Perth. SGS’s proposals for the financing of urban settlement are summarised below:

¹ The costs of urban development include environmental and social costs as well as the financial costs associated with infrastructure provision.

² *Taxation and Financial Policy Impacts on Urban Settlement*, Industry Commission, 1993.

³ Some authors point to increased social, educational and transport infrastructure costs associated with higher density living, whilst others identify infrastructure sequencing, rather than location, as a key to its cost-effective provision. A useful comparison of various density, urban form and sequencing options is provided in *Costs of Urban Form*, SGS Economics & Planning, Discussion Paper, May 2003 (prepared for the Western Australian Government). Importantly SGS conclude that it is possible to supply a ‘traditional’ suburban lifestyle package in smarter ways which will reduce both direct costs to consumers and longer term externalities based on somewhat higher densities (eg at 15 dwellings per hectare), careful sequencing of development and application of transit oriented urban design.

⁴ *Taxation and Financial Policy Impacts on Urban Settlement*, Industry Commission, 1993.

⁵ *Costs of Urban Form*, Discussion Paper, SGS Economics and Planning, May 2003 (prepared for Western Australia Planning Commission).

- there must be recognition that a substantial proportion of a city's growth will be accommodated in new release areas;
- infrastructure cost savings can be achieved by lifting net residential densities in fringe locations to 15 dwellings per hectare. This more compact form of suburban development can be readily achieved through a greater mix of dwelling types rather than a uniform reduction in lot sizes, thereby not compromising traditional suburban lifestyle values;
- significant savings can be made by managing or sequencing the release of new urban land to optimise capacity in infrastructure, especially social infrastructure;
- savings might be available by accommodating households in established areas rather than on the fringes of cities. However, much depends on the capacity of existing infrastructure which can vary between locations;
- a large proportion of suggested savings can arise from the extension or augmentation of 'physical' infrastructure – water, sewer, drainage, roads, power and telecommunications. Wherever this infrastructure is provided on a user pays basis, there is little policy reason to be concerned with where development occurs – i.e. provided the pricing regimes for these services are appropriate, household preferences should determine location;
- pre-emptive or precautionary curtailment of outward growth is not the best way to manage the issue of hard infrastructure costs.

HIA contends that the acceptance of these conclusions by planners in managing residential land supplies (in addition to its recommendations in relation to planning reform and infrastructure pricing⁶) could make a major contribution to restoring housing affordability and driving more appropriate urban form. Planners need to make a paradigm shift from believing that urban fringe development is *prima facie* a bad thing, to considering it as something that is manageable and preferred by many households. Planners do not typically have a good understanding of the underlying resource costs of land use (in both in-fill and greenfield situations) and are not well skilled in determining outcomes that help to guide an efficient use of resources.

A positive planning approach to greenfield residential development is demonstrated by the recently announced Second Ponds Creek development in Sydney's west. Australand, a HIA member and national GreenSmart leader, has been awarded preferred tender status for the first stage of this greenfield housing estate. Australand will adopt a triple bottom line approach for its development – encouraging positive economic, environmental and social outcomes for the project, incorporating initiatives such as its strategy for all homes to use 70% less potable water, as well as addressing energy conservation, salinity and stormwater management and the provision of public transport.

In Melbourne, a new GreenSmart Village has recently opened in Point Cook, providing home buyers a valuable demonstration of 5-star energy-efficient housing. HIA has committed to providing further GreenSmart Villages in each of Melbourne's growth corridors.

In Perth, HIA's largest GreenSmart Village, at Harvest lakes, will soon demonstrate energy-efficient housing and practical subdivision layout principles to consumers.

⁶ See HIA's submission to the Productivity Commission's *Inquiry into First Home Ownership*, October 2003.

2. Defining Sustainability for Implementation

Sustainability is now a key public policy objective across all areas of government, particularly in relation to energy, resources and environmental governance. Traditional ‘substantive’ definitions of sustainability are called up by both national and state legislation and policy, identifying the significance of the issue. However, these definitions are far removed from the operational processes of development and building approval where legislation requires “ecologically sustainable development” to be encouraged.

A consistent, clear ‘operational’ definition that contains information or concepts that directly relate to, or can be applied by, decision-makers in the field of development or building control is yet to emerge. Pursuant to the whole-of-government approach promoted by the sustainability cause, such a definition must relate to existing governance and regulatory frameworks. The approach to defining sustainability for implementation must distinguish between *sustainable urban growth*, traditionally the role of the planning system, and *sustainable building performance*, typically addressed through technical building and plumbing regulation.

There is a worrying trend to “load” the development approval process with an ever-growing list of considerations, including sustainability. This trend is wrongly based on the assumption that the DA process is the panacea for correcting any imperfections in the major resource allocation decisions which lead to land development and which precede the DA. In this environment the sustainability objective is presently being applied as an ‘after-thought’, often causing significant frustration for all stakeholders. Planning systems were not designed to apply sustainability policy, or any other public policy initiative, in this manner. Planning systems are not capable of achieving all of the desired sustainability outcomes through a misguided focus on development assessment.

Indeed, across the country, planning systems are regarded as being in crisis. This crisis is fuelled by an increase in the number of proposals that now require development approval, a lack of experienced planning staff and high turnover rates in councils, lengthy referral processes which add little value to built outcomes and an increasing capacity for ‘objections’ to stifle timely decision-making. The resultant inefficiencies have developed to a point where a simple application now takes far longer than any set statutory timeframe and is well beyond what most people (including builders and their clients) would regard as reasonable. There is widespread industry distrust and user dissatisfaction with our planning systems.

A recent Victorian government paper⁷ that investigates the role of planning systems in delivering sustainable built outcomes concludes that:

Focusing the planning system on the prescription of outcomes traditionally associated with building, plumbing or other regulations can potentially undermine the capacity of all of these systems to achieve sustainable outcomes and has been a source for concern and inconsistency.

An integrated approach to implementing sustainability means that strategic planning, development control, building and plumbing regulatory systems should complement each

⁷ *Sustainability in the Built Environment*, Department of Sustainability and the Environment, September, 2003

other and not duplicate requirements.

A consistent approach is also required in determining what requirements should be mandated through regulation, with appropriate consideration being given to affordability implications and the often confused role of regulation to eliminate worst practice rather than drive best practice. In most jurisdictions, sadly, there has been a distinct lack of broad stakeholder consultation to determine the correct regulatory mix for achieving sustainability and its correct focus.

Implementing sustainability in the built environment requires state and local policy to clearly place proposed development and land use changes in their broader spatial context and to consider their impacts on resource consumption and distribution within this context. This is the proper focus of ‘planning’ in managing our urban environments, provided of course that planning policy is used to supplement and encourage a more efficient use of resources (including land) rather than pre-empt and curtail the effective operation of market forces.

Implementing sustainability also requires consistency and clarity in terms of mandating how buildings should be constructed and fitted-out. It is important, however, that any regulatory approach does not embrace ‘environmental best practice’ as its basis. The role of legislation is to define an acceptable community standard that is practical and cost-effective. Legislation should therefore aim to eliminate worst practice, but at the same time be delivered in an information framework that guides best practice and encourages a positive, informed market response to it.

3. Sustainability and the BCA

The initial push for sustainability measures in buildings was concentrated on energy efficiency. The handling of the introduction of energy efficiency measures has not given industry or some State governments confidence that the current arrangements for the Australian Building Codes Board will be able to deliver the consistency that the industry is seeking on the other sustainability measures which are currently being considered, including:

- Water conservation
- Stormwater management
- Waste minimisation
- Materials selection
- Indoor air quality
- Noise attenuation
- Accessibility and adaptability of buildings
- Durability
- Appliance selection
- Urban salinity
- Maintenance

There is undeniable potential for this array of sustainability measures to be approached in different ways, in different timeframes, and delivered through different regulatory systems with differing degrees of industry and public consultation (such as has been demonstrated by the proliferation of planning regulation at the state and local government

level and the emergence of a whole range of environmental rating tools designed to measure environmental performance, albeit at differing stages of product or housing development, e.g. NatHERS, NABERS, BASIX, LCAid etc). This inconsistency poses enormous risks to the efficiency of the building industry and the affordability of its product.

In the rollout of the energy efficiency requirements through the Building Code of Australia (BCA) it became apparent that while the BCA is the most effective means of delivering a nationally consistent approach to a building issue, it suffers from a lack of regulatory teeth and government commitment.

If States and Territories (who are 50% shareholders in the ABCB) object to the solutions delivered in the BCA they can simply choose to ignore them, as occurred with the energy regulations. Moreover individual local authorities in most State have the capacity to override the BCA by introducing alternative or additional requirements through their planning schemes.

While the ABCB and its State and Territory constituents have very successfully delivered a nationally consistent and robust set of technical building provisions, its structural weaknesses have been exposed on the more political issues surrounding energy efficiency.

Given there is an existing mechanism requiring Commonwealth-State cooperation on building matters, the ABCB, HIA is of the view that wherever possible, the BCA should be the vehicle for any technical regulation on building sustainability. This may require changes to the legislative structure and scope of the current Australian Building Codes Board. This view is shared by the building products industry, as represented by the Building Products Innovation Council (BPIC)⁸.

The performance of the building and construction industry has significant efficiency impacts on the rest of the economy. With 2004 representing the Year of the Built Environment, both HIA and BPIC have recently called for the support of the COAG Ministerial Council in delivering a more consistent and coordinated approach to achieving a sustainable built environment.

4. HIA's GreenSmart Initiative

GreenSmart is an example of how an industry can develop programs that encourage the uptake of environmentally sustainable practices in a manner that makes commercial sense.

GreenSmart is a practical approach to building that focuses on educating builders, designers, product manufacturers and consumers about the benefits of environmentally responsible housing.

⁸ BPIC members include the Australian Glass and Glazing Association, Australian Steel Institute, Australian Window Association, Bureau of Steel Manufacturers of Australia, Cement and Concrete Association of Australia, Clay Brick and Paver Institute, Concrete Masonry Association of Australia, Insulation Manufacturers Association of Australia, National Association of Forest Industries, National Association of Steel Framed Housing, National Precast Concrete Association Australia, Plantation Timber Association of Australia, Steel Reinforcement Institute of Australia, The National Manufacturers Council of HIA, Timber Development Association, Building Designers Association of Australia (affiliate).

GreenSmart is an industry-driven initiative that aims to encourage a mainstream application of its principles to today's housing. As a voluntary initiative, it provides appropriate market recognition for environmental endeavours in the residential construction industry.

The HIA GreenSmart initiative entails:

- GreenSmart training and accreditation for the industry;
- Promotion of GreenSmart via the world wide web – www.greensmart.com.au;
- Recognition of the environmental efforts of the industry through the GreenSmart Awards;
- The demonstration of GreenSmart to consumers through GreenSmart Villages and the GreenSmart consumer magazine; and
- The highly successful GreenSmart Corridor at the HIA Home & Building Expo.

5. Energy Management – a case study of an inefficient policy framework

The recent experience with the proliferation of energy efficiency requirements in local government planning schemes is a case study of the inefficiency and inadequacies of the current regulatory approach to sustainability.

Even though the Australian Building Codes Board has been given the charter to introduce a nationally consistent approach to energy efficiency in the Building Code of Australia, the principal barrier to uniform implementation of the BCA's recommended provisions has proven to be the inconsistent environmental/planning regulatory approaches between and within States. In NSW in particular, whilst the state government deliberates over whether to apply energy measures through planning or building regulation, scores of local planning jurisdictions have acted unilaterally to develop their own versions of energy efficiency controls for residential buildings, leading to:

- Unpredictable results across local government boundaries;
- Wastage of resources through the reinvention of the codes in each jurisdiction;
- Scant regard for the impacts of the codes in the affordability of homes; and
- Complex and rigid rules that are not universally applicable.

To overcome the difficulty, it is necessary for the Commonwealth to develop an implementation strategy that addresses the issues of consistency and affordability. Financial rewards and incentives should also be encouraged to assist in balancing public and private costs. Incentives result in industry moving beyond the minimum mandatory standards towards focusing on minimising the environmental impact of the building process and of the homes they construct. HIA also advocates further funding of its GreenSmart initiatives, such as training and accreditation, villages and the website, to educate the consumer and professional on a whole range of environmental issues.

A new approach to planning is urgently needed. HIA has produced *Better Living Environments*, a policy on planning reform, to guide this approach. The key recommendations of *Better Living Environments* include:

- Giving the Building Code of Australia legislated pre-eminence over State or Local Government planning legislation, as currently applies in Tasmania. This will

assist HIA's push to have more issues like energy efficiency, that are currently incorporated in planning controls, included in the BCA;

- Containing "planning creep" through delivering a clear distinction between matters inside the boundaries of a residential development that should be the province of building codes and matters external to the property and those affecting neighbourhoods that should remain the province of planning; and
- Requiring all changes to planning and environment legislation, at all levels of government, to be accompanied by a housing affordability impact statement.

Recently, state governments have raised the issue of pressure on energy producing infrastructure as a consequence of consumption in the residential sector, yet the dominant concern of regulators and industry in this field thus far has been "environmental gain" i.e. the need to reduce greenhouse gases that are attributable to the burning of fossil fuels.

Even with infrastructure capacity now raised as an issue, governments have focused solely on how energy is used in the residential sector and not on how energy is produced or distributed. Also, the focus of regulatory interest is on energy use in the residential sector, and not on levels of use in the commercial or industrial sectors.

Whilst there are obvious correlations between environmental gain and infrastructure capacity, it is necessary for policy to clearly enunciate its purpose – are we saving energy to reduce greenhouse emissions or are we being asked to save energy to defer the commissioning of further coal-fired power stations, without addressing our reliance on heavily centralised, carbon-based generation and distribution networks?

The Australian Greenhouse Office (AGO) and CSIRO have estimated that the degree of energy use in residential buildings will increase from a 1990 base of 270 PJ/annum to 379 PJ/annum by 2010 (i.e. an increase of 40%) and that energy use in non-residential buildings will increase from 151 PJ/annum to 289 PJ/annum over the same period (i.e. an increase of 91%).

Comparative increases in projected greenhouse gas emissions are from 48.6 Mt/annum in 1990 to 56.7 Mt/annum in 2010 for residential buildings (an increase of 17%), and from 32.2 Mt/annum in 1990 to 62.8 Mt/annum in 2010 for non-residential buildings (an increase of 94%).

Thus the rate of increase in energy use and the potential for greenhouse gas emissions is far greater in non-residential buildings than in residential buildings.

This comparison does not excuse the residential sector from its obligation to reduce greenhouse gas emissions, as this is an obligation that falls on all business sectors and the whole of community. It merely demonstrates the need to put government policy and greenhouse strategies into perspective. There needs to be consideration of the practical and affordable limits that should be applied to energy efficient housing, particularly in consideration of the comparative energy use of commercial and industrial buildings. Housing should not be considered to be an easier target for government to tackle than commercial and industrial users.

A closer look at residential use and emissions reveals that an average dwelling's contribution to greenhouse gases (which approximates 8 tonnes of CO₂ per year) is made

up from:

- Cooking 9%
- Space Cooling 2%
- Space Heating 11%
- Water Heating 29%
- Electrical Appliances & Equipment 49%

The contribution of appliances and equipment may be further broken down as follows:

- Refrigeration 37% (or 18% overall)
- Lighting 16% (“ 8% “)
- TV, Video 10% (“ 5% “)
- Major appliances 21% (“ 10% “)
- Miscellaneous 16% (“ 8% “)

Quite clearly, despite a recent concentrated policy effort to address the thermal performance of the residential building fabric, some far more substantial gains in greenhouse gas abatement might be achieved if policy was directed at the major contributory sources. Measures that address the use of energy inefficient hot water systems and refrigerators would obviously be appropriate.

Whilst the efforts of state governments in seeking to address energy consumption might be admirable, it is HIA’s view that the various state-based strategies would be far more effective if harmonised nationally and related to a **national energy policy**. Such a policy should, inter alia,:

- Seek immediate support from COAG for a nationally consistent approach and policy on building sustainability, with a view to incorporate cost effective measures in the BCA;
- Establish the Australian Building Codes Board (ABCB) as a statutory commission, the Australian Building Commission, underpinned by mirror national and state legislation and with a revamped Board and strategic Ministerial Council in order to achieve national technical and administrative consistency;
- Reinforce the role of the Building Code of Australia as the pre-eminent regulatory mechanism for residential construction in Australia;
- Support the extension of the BCA to address other sustainability criteria by applying required resources and setting realistic timeframes;
- Develop appropriate strategies and incentives that encourage the voluntary energy-efficient retrofit of existing residential buildings; and
- Consult the Building Products Innovation Council in regard to the potential for product research and development.