

25 January 2013

Committee Secretary  
Senate Standing Committees on Environment and Communications  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Dear Committee Secretary

**RECENT TRENDS IN AND PREPAREDNESS FOR EXTREME WEATHER EVENTS:  
ASBEC CLIMATE CHANGE ADAPTATION FRAMEWORK**

The Australian Sustainable Built Environment Council (ASBEC) welcomes the Senate Inquiry into recent trends in and preparedness for extreme weather events.

ASBEC is the peak body of key organisations committed to a sustainable built environment in Australia. ASBEC's membership consists of 36 industry and professional associations, non-government organisations and government observers who are involved in the planning, design, delivery and operation of our built environment, and are concerned with the social and environmental impacts of this sector.

An increase in general temperatures, due to climate change, has been predicted for Australia, with an ensuing upsurge in extreme weather events. Australia is already experiencing this effect, highlighted by the 'Special Climate Statement on Extreme January heat', released by the Bureau of Meteorology on 14 January 2013.

Australia's high vulnerability to extreme weather events such as bushfires, drought, storms and floods means that the continuing prosperity of the nation is dependent on resilience to these events. With an overall replacement cost for Australia's built environment estimated by Geoscience Australia to be in excess of \$5.4 trillion, the economic, social and environmental risks are significant.

Last year, ASBEC's Climate Change Task Group (Task Group) developed a ten point framework to guide climate change adaptation in the built environment with a supporting report entitled *Preparing for Change: A Climate Change Adaptation Framework for the Built Environment*. We were very appreciative that a number of ASBEC members, including government members contributed funds for the research. The Adaptation Framework was adopted unanimously by ASBEC's Council at their meeting in June 2012. A copy of the *Built Environment Adaptation Framework* and the *Preparing for Change* Report are enclosed.

The Adaptation Framework was developed in response to the Task Group's assessment that currently adaptation is being undertaken piecemeal across the country. Furthermore, the Australian Government and industry's focus in relation to climate change over recent years appears to have been predominately focused on climate change mitigation at the expense of adequately addressing climate change adaptation.



Additionally, our new buildings and suburbs are being built based on past climate information not on predicted future climate change. This risks leaving a legacy of urban communities being underprepared for future climate change impacts.

It is incumbent upon all levels of government, industry, community and other stakeholders to work together to enhance the resilience of our built environment and community to extreme weather events and predicted future climate change impacts.

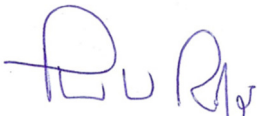
ASBEC's climate change adaptation activity is relevant to several of the Terms of Reference for the Senate Standing Committees on Environment and Communications Inquiry into recent trends in and preparedness for extreme weather events. We enclose a submission outlining these matters.

ASBEC is calling on the Australian Government to undertake the following immediate steps, as outlined in the *Preparing for Change* report:

- Recognise the significant risk of climate change to the built environment and identify the sector as a climate change adaptation policy priority,
- Establish a National Built Environment Adaptation Council,
- Commission research into the true costs and benefits of climate change adaptation,
- Increase funding for climate change adaptation projects,
- Publicly commit to responding to ASBEC's Framework and Report.

We would be happy to attend a Committee hearing, should the Committee wish to discuss ASBEC's Adaptation Framework further.

Yours Sincerely



The Hon. Tom Roper  
**President, ASBEC**



Kirsty Kelly  
**Chair, ASBEC Resilience Strategy Task Group**  
**CEO, Planning Institute of Australia**

## **Submission to Senate Standing Committee on Environment and Communications on Recent Trends in and Preparedness for Extreme Weather Events**

In 2012, ASBEC's Climate Change Task Group developed a ten point framework to guide climate change adaptation in the built environment and a supporting report entitled *Preparing for Change: A Climate Change Adaptation Framework for the Built Environment*.

ASBEC's climate change adaptation work is relevant to several of the Terms of Reference for the Senate Standing Committees on Environment and Communications Inquiry into recent trends in and preparedness for extreme weather events, as outlined below.

### **Terms of Reference Item 'E': The current roles and effectiveness of the division of responsibilities between different levels of government (federal, state and local) to manage extreme weather events**

While some adaptation activity in the built environment is occurring, it is happening piecemeal across the country, without a sufficient nationally coordinated policy. This current fragmented approach risks duplication, wasted resources and increases cost of doing business for organisations operating across borders. It also risks a legacy of urban communities being underprepared for future climate change impacts.

ASBEC is therefore calling for a strategic approach to ensure that Australia is prepared to respond to these changes and ensure the nation's ongoing prosperity and social viability beyond the twenty-first century. Recommendation 1 of ASBEC's Adaptation Framework calls for the Australian Government to establish a National Built Environment Adaptation Council, to improve coordination between the different levels of government and also industry. This National Built Environment Adaptation Council would:

- report directly to the Minister for Climate Change;
- be comprised of representatives of industry and the three spheres of government;
- be supported by a dedicated and properly resourced secretariat that can coordinate cross-jurisdictional and cross-departmental action as appropriate;
- provide a platform for dialogue on climate change adaptation and mitigation policy and strategies for the built environment using this Framework as the basis for action;
- facilitate the exchange of information and closer collaboration on adaptation strategies;
- sponsor research into the impacts of climate change on the built environment and appropriate adaptation measures; and
- develop mechanisms for community engagement on adaptation needs and actions.

### **Terms of Reference Item 'F': Progress in developing effective national coordination of climate change response and risk management, including legislative and regulatory reform, standards and codes, taxation arrangements and economic instruments;**

Effective national coordination and industry efforts to address adaptation are hampered by factors including a lack of accessible information and tools to assist decision making, a lack of incentives, and regulatory systems not adequately addressing climate change adaptation.

ASBEC's Adaptation Framework identifies a number of mechanisms to facilitate effective coordination:

#### *Legislative and regulatory reform*

Policy setting at the Australian Government is poorly coordinated, with several different agencies and Ministers often developing their own statutes and reporting regimes. ASBEC has identified over ninety policies, programs and initiatives within the federal sphere covering the built environment (see



Attachment A). Adaptation activity across state, territory, and local governments is similarly inconsistent and uncoordinated, leading to wasted resources and higher costs for business.

Compliance with such a range of government activities prevents practitioners in the built environment from responding to climate change adaptation in a coordinated, effective manner.

Of course, dealing with climate change requires more than just regulation, because built environment adaptation is complicated by a variety of factors, including the ownership, use, age, construction, and climatic location of Australia's buildings.

Australia needs a coordinated suite of policy initiatives with clear cross-jurisdictional adaptation strategies, guided by nationally agreed objectives and principles which would provide a consistency of approach allowing for differences in local climates.

Recommendation 7 of ASBEC's Adaptation Framework calls for reform and improvement of regulation as follows. The three spheres of government should work together to:

- review all existing climate change regulation relating to the built environment to minimise duplication and red tape while improving outcomes; and
- identify regulations that might be improved to rectify barriers to climate change adaptation.

Recommendation 9 calls for the improvement of planning systems and outcomes, through the federal, state, territory, and local governments working together to:

- determine, including through community consultation, the appropriate coverage of climate change adaptation strategies within planning frameworks;
- promote the development and implementation of nationally consistent planning principles, policies and strategies;
- promote innovative building and precinct designs to deal with future climate conditions; and
- integrate climate change considerations into strategic and precinct planning at the strategic planning and zoning stages, to provide certainty for industry and community.

### *Standards and codes*

Recommendation 8 of ASBEC's Adaptation Framework calls for a review of building codes and standards. The Australian Government should:

- regularly review the content of the National Construction Code of Australia and its supporting standards to address climate change adaptation issues;
- improve the financial and logistical capacity of current building regulation and standards development processes to keep up to date with research and to ensure that potential climate change risks are continuously being addressed;
- reinforce the need for performance based approaches to building regulation to encourage innovations in products, building techniques, and design; and
- ensure through rigorous cost/ benefit analysis processes that any changes to building regulations are reasonable, necessary, and cost- effective, and appropriately value climate change adaptation.

### *Taxation and Economic Instruments*

Recommendation 6 of ASBEC's Adaptation Framework calls on the Australian Government to work with industry and its state, territory, and local counterparts to develop a suite of incentives to encourage early action on adaptation within the built environment, which might include:

- financial incentives for retrofitting existing building stock to greater resilience standards, such as:
  - targeted, interest-free loans;
  - grants;
  - accelerated depreciation;
  - stamp duty and land tax exemptions for buildings in high-risk areas that are being upgraded; and

- assistance to reduce vulnerability for residents and businesses in high-risk areas;
- alternative financing mechanisms;
- climate resilience assessments for buildings;
- 'green door' development application processes for householders or businesses implementing adaptation initiatives and green design elements (an example is the City of Chicago's Green Permit Program); and
- a possible buy-back program of vulnerable properties in high-risk areas where authorities might wish to discourage development or redevelopment.

**Terms of Reference Item 'G': Any gaps in Australia's Climate Change Adaptation Framework and the steps required for effective national coordination of climate change response and risk management**

ASBEC's Adaptation Framework identified a number of additional important issues that need to be addressed, relating to leadership, tools, research and education.

*Practical Leadership*

Recommendation 2 urges the public sector to lead by example to promote leading practice and drive model behaviour across business and community. Australia's three spheres of government should:

- set benchmarks to measure their performance in implementing adaptation strategies for their own operations;
- require the consideration of climate change impacts in tender documents for all relevant contracts;
- make all site relevant information, such as mapping, readily available through procurement processes, to support the assessment of climate change risks;
- streamline procurement processes to ensure there is minimal cost arising from any additional requirements;
- commit to undertaking adaptation work within their own facilities;
- work with private property owners to improve adaptation within properties leased by government, through the use of demonstration projects or 'green' lease clauses; and
- report annually on their performance against adaptation benchmarks.

*Robust Research*

Recommendation 3 calls for the sponsorship of applied research to inform the community and facilitate appropriate responses.

More applied research is needed, guided by formal feedback from stakeholders about their requirements, to create a reliable and accurate picture of what the community might expect.

Whilst ASBEC recognises that some government funding has been allocated to encourage such research in the past, such as the CSIRO's Climate Change Adaptation Research Facility and the National Climate Change Adaptation Research Facility (NCCARF), there is an ongoing need for detailed research and continued government funding and support is a necessity.

The Australian Government should:

- under new funding arrangements, direct an organisation such as the National Climate Change Adaptation Research Facility (NCCARF) to:
  - establish formal mechanisms to consult with, and act upon the advice of, industry, government, and the community on an ongoing basis about their applied research needs and the practical application of existing and future research projects;
  - conduct an annual review of leading local and international climate change adaptation policies, approaches, and solutions for the built environment, including: regulation and regulation reform; tools and techniques; innovative incentives; and education strategies; and
  - develop a robust assessment of the nature, timing, impact, and consequences of climate

change for the built environment, including mapping the ongoing hazard exposure to identify priority areas for intervention and preventative hazard mitigation;

- commission the National Built Environment Adaptation Council to work with Australian and State/Territory Treasury and Finance departments to develop cost benefit methodologies that appropriately value climate change adaptation; and
- work with the developers of existing building rating tools to identify opportunities to recognise adaptation activity.

### *Information and Tools*

Recommendation 4 calls for better access to information and tools to enable industry and the community to adapt effectively to the impacts of climate change.

Finding information about the risks of climate change and the costs and benefits of adaptation is a hit-and-miss exercise. While some material already exists, it can be difficult to find.

There is presently no single location to access consolidated guidance material or information about the likely impacts of climate change in Australia and how governments expect to respond. This is compounded by a dearth of tools supporting adaptation in the built environment.

The Australian Government should:

- develop a national climate change risk allocation framework for the built environment to help governments, businesses and communities recognise, understand, and manage the risks they face. This will clarify:
  - what government predicts the biggest risks are likely to be and in what timescale;
  - how climate change risks are currently identified and managed; and
  - who will bear the cost of disasters caused by extreme weather;
- establish a 'one stop shop' climate change adaptation web portal and make it freely available. This will:
  - provide information on national climate change data, such as expected temperature changes, flooding risk and other hazards, to facilitate adaptation decision making;
  - help people keep up-to-date with the most recent advice and data provided to government;
  - allow built environment professionals and communities to understand the predicted impacts of climate change for their local areas and to take appropriate action to enhance resilience; and
  - give stakeholders access to information, case studies and tools to help with adaptation;
- work with state, territory, and local governments, in consultation with industry, to prepare case studies of planning and building decisions and leading practice approaches to adaptation;
- work with organisations such as Green Cross on national programs to encourage residents in high risk areas to assess and manage environmental risks;
- establish key performance indicators for measuring adaptation and resilience for all sectors of the community as part of a framework for monitoring and evaluating performance in the built environment; and
- prepare guidance to help local governments consistently manage hazards in high risk areas, including flooding, bushfires, coastal inundation, cyclones and storm surge.

### *Education*

Recommendation 5 calls for appropriate investment in education.

Building practitioners and the broader community will need to be better informed and trained if they are to implement effective adaptation strategies. These strategies could include public education campaigns and better investment in climate change adaptation training programs. Adaptation skills training will give built environment professionals the expertise they need to respond to the challenges posed by climate change.

To ensure adaptation is embedded throughout the education process, governments will need to coordinate with tertiary and vocational educational institutions, as well as professional associations, to create dedicated training modules.

The Australian Government, in consultation with the National Built Environment Adaptation Council, should:

- institute a public education campaign on the likely impacts of climate change, such as increased extreme weather events, to encourage people to take adaptation action; and
- support funding programs for education and training for local government staff and built environment professionals in climate change adaptation strategies.

#### **Terms of Reference Item 'H': Any related matter**

##### *Early adaptation benefits*

Buildings, settlements, and infrastructure were identified early on as areas which might benefit most from early adaptation planning, given their high value and the length of time they are likely to be occupied. Early adaptation is expected to deliver tangible benefits and savings over the longer term, including:

- reduced risks and liabilities from considering climate change in planning and management decisions;
- higher future asset values due to lower ongoing operational costs;
- lower repair and maintenance expenses, with a reduced need for retrofits;
- demonstrated due diligence for risks such as property damage and community health and safety;
- minimised investment in high risk areas;
- potentially, lower insurance premiums due to a reduced chance of damage to premises from climate change impacts; and
- decreased energy costs for assets that have been adapted to long-term temperature changes.

##### *Funding*

ASBEC is disappointed by the Government's current resource commitments to climate change adaptation. Funding for the Climate Change Adaptation Program was slashed in the 2012/13 Budget, from \$126 million over five years in FY07, to a mere \$3 million for FY13 financial year, with any further expenditure on adaptation predicated on the outcomes of the Productivity Commission's inquiry into Barriers to Effective Adaptation.

This decrease has implications for many existing programs, including the National Climate Change Adaptation Research Facility and the Local Government Adaptation Pathways Program.

Deferring future funding based on outcomes of the Productivity Commission is not acceptable, as the Government has argued that climate change is happening now and several reports have already highlighted the need for adaptation activity.

##### *Insurance and Financial Services*

The financial services and insurance industries play significant roles in climate change adaptation. Together they can provide the funding and support needed to help the community implement changes and ensure that buildings are protected against the risks.

There are significant potential consequences for the insurance industry in particular, arising from climate change. If larger, more frequent losses occur, due to extreme weather events, insurers would need more capital or be compelled to purchase reinsurance to cover payments, most likely a difficult exercise with the uncertainty around climate change.



Recommendation 10 of ASBEC's Adaptation Framework calls for the improvement of insurance and financial services. It outlines that the proposed National Built Environment Adaptation Council should commission work to develop options for:

- the insurance sector that:
  - recognise the roles and responsibilities of insurers and government in providing coverage for areas at risk from climate change;
  - increase transparency around insurance funding and risk assessment processes;
  - provide plain English information about risks and the potential to obtain coverage;
  - ensure that renters and low income residents have access to appropriate insurance; and
  - examine the appropriateness of a reinsurance pool or other government-backed mechanisms to encourage insurers to insure properties in flood, cyclone, storm surge, or bushfire prone areas; and
- the financial services sector that improves its investment and lending strategies and processes to value risk and adaptation activity appropriately.



