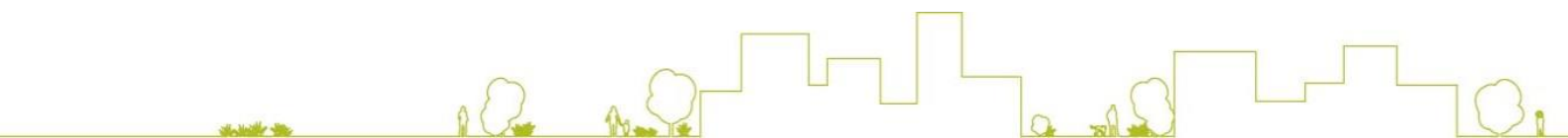


# 2013: A SUSTAINABLE AND RESILIENT BUILT ENVIRONMENT

Australian Sustainable Built Environment Council Policy Platform

June 2013





## A Sustainable and Resilient Built Environment for Australia

The Australian Sustainable Built Environment Council (ASBEC) is the peak body of key organisations committed to a sustainable built environment in Australia.

ASBEC's membership consists of 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, economic and environmental impacts of this sector.

Collectively, ASBEC's membership has direct reach to more 200,000 professionals in the built environment sector and represents an industry worth more than \$600 billion in value.

ASBEC is a non-profit volunteer organisation. Members commit their time, resources and energy to developing practical opportunities for a more sustainable built environment.

ASBEC's policy platform in 2013 calls for a sustainable, innovative, productive and resilient built environment in Australia through the following measures:

- **A Coordinated and Accountable Approach to Cities:** Ensure our cities are productive, sustainable, liveable, resilient and adaptable by measuring performance through indicators; broadening the role of Infrastructure Australia, and strengthening the Major Cities Unit.
- **A Framework to Improve Resilience:** Improve the resilience of the built environment in the face of climate change, with government working with industry to improve engagement, leadership, research, access to information and education, incentives, regulation, building codes and standards, planning systems and insurance and financial services.
- **Reduction of Energy Costs and Emissions:** Support households and businesses to unlock the full potential of a more efficient, productive building sector through tax incentives for green building retrofits; a national white certificate scheme; public investment in retrofits; modernisation and updating of higher standards in the Building Code of Australia; and enhancing Minimum Energy Performance (MEPs) standards.
- **A Framework for Sustainable Buildings:** Support a framework for improving the sustainability of buildings that includes measurable performance targets, with the aim of significantly improving economic and social value while simultaneously preserving natural capital.
- **A Roadmap for Net Zero Emission Homes:** In partnership with industry and stakeholders, develop a shared vision, policy, skills and a business case for Net Zero Emission Homes.

### ASBEC members

Air Conditioning and Mechanical Contractors'  
Association

Association of Building Sustainability Assessors

Australian Conservation Foundation

Australian Institute of Architects

Australian Institute of Building

Australian Institute of Quantity Surveyors

Australian Institute of Refrigeration Air

Conditioning and Heating

Chartered Institute of Building

Consult Australia

Energy Efficiency Council

Engineers Australia

Facility Management Association of Australia

Good Environmental Choice Australia

Green Building Council of Australia

Infrastructure Sustainability Council of Australia

Insulation Australasia

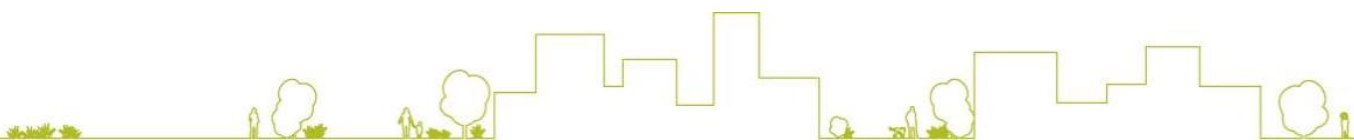
Planning Institute of Australia

Property Council of Australia

Royal Institution of Chartered Surveyors Oceania

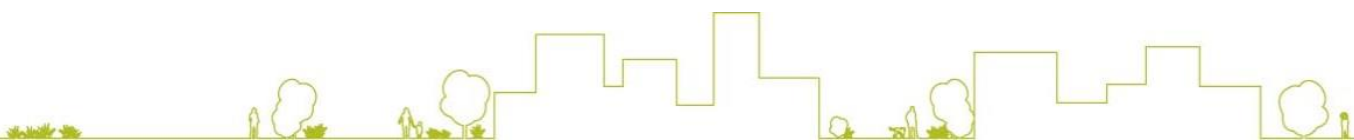
Shopping Centre Council of Australia

The Australian Property Institute



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## A Coordinated and Accountable Approach to Cities

Cities are powerhouses of Australia's productivity and population, generating 80 per cent of the nation's GDP and are home to three quarters of our citizens. More sustainable and more liveable cities will deliver a stronger economy and an enhanced lifestyle for all Australians.

The Australian Sustainable Built Environment Council (ASBEC) has developed a six-point plan for Australia's cities to ensure they are globally competitive, productive, sustainable, liveable, socially inclusive and able to meet future challenges, growth and wellbeing.

ASBEC calls on all political parties to embrace our six-point strategy to:

### Establish a Minister for Cities and Urban Development

Transform the Major Cities Unit, currently situated as part of the Department of Infrastructure and Transport, into a Department for Cities and Urban Development to provide a centre of excellence within the Australian Government, resourced to work across governments and portfolios to develop and implement policies supporting better cities. The Minister for Cities and Urban Development will be responsible for cities policy across portfolios.

### Adopt a National Approach to our cities with a strong Governance Framework

Implement a framework to inform public policy and decision-making; develop a set of national, evidence-based urban indicators to measure the performance of cities; adopt an integrated and accountable approach to governance, based on national competition policy, that encompasses all three spheres of government; and identify effective funding models to ensure urban infrastructure is adequately financed.

### Establish an Urban Infrastructure Fund

Increase the capital available to fund local community infrastructure focused on improving productivity, liveability and sustainability and linked to the Cities Governance Framework.

### Align Infrastructure Australia with National Urban Policy

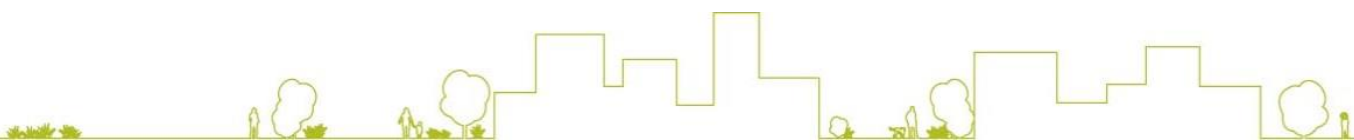
Ensure Infrastructure Australia can effectively interface with the Major Cities Unit and the National Urban Policy Forum, and better integrate infrastructure prioritisation and delivery with urban development policy and research.

### Deliver a quantum leap in Affordable and Sustainable Housing.

Implement a national framework for the delivery of affordable and sustainable housing. This framework should establish targets for new and existing buildings; identify barriers and provide strategies to overcome them; provide meaningful housing policies and supporting initiatives that offer incentives for developers, owners and tenants to convert industry leadership into standard practice; align voluntary standards with mandatory requirements; harmonise rating tools; and provide an implementation plan to convert the framework into action.

### Focus on adaptation and resilience.

Apply ASBEC's Built Environment Adaptation Framework to the development of a coordinated, well-resourced and nationally consistent suite of policies to better protect our cities from predicted climate change risks and maximise resource security.



## A Framework to Improve Resilience

A coordinated, well-resourced, and nationally consistent suite of policies is essential to ensure that the built environment – the location of most of our population and the platform for Australia’s economic prosperity – is protected from predicted risks.

ASBEC has developed a ten-point policy framework for government to work with all relevant stakeholder groups to deliver comprehensive adaptation strategies:

### Engage with industry

The Australian Government should establish a National Built Environment Adaptation Council, reporting directly to the Minister for Climate Change and including representatives of industry and the three spheres of government. The Council would provide a platform for dialogue on climate change adaptation and mitigation policy and strategies for the built environment, and supported by and appropriately resourced secretariat would facilitate the cross-jurisdictional exchange of information and collaboration on adaptation strategies. The Council would also 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.

### Lead by example

Governments should lead by example to promote leading practice and drive model behaviour across business and community. The three spheres of government should set benchmarks to measure their performance in implementing adaptation strategies and require the consideration of climate change impacts in all relevant tender documents. Governments should 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.

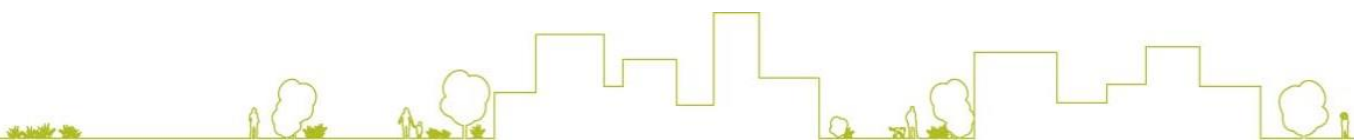
### Sponsor applied research

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

The Australian Government should support an appropriately funded research organisation to establish formal mechanisms to consult with, and act upon the advice of, industry, government, and the community on an ongoing basis. The National Built Environment Adaptation Council should 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.

### Provide better access to information and tools

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. The three spheres of government should work together, in consultation with industry, to share case studies of planning and building decisions and leading practice approaches to adaptation. Key performance indicators should be established 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 guidance prepared to help local governments consistently manage hazards in high risk areas.



## Invest in education

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 and support funding programs for education and training for local government staff and built environment professionals in climate change adaptation strategies.

## Provide incentives

The Australian Government should 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, alternative financing mechanisms, climate resilience assessments, 'green door' development application processes and a possible buy-back program of vulnerable properties in high risk areas.

## Reform and improve regulation

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.

## Review building codes and standards

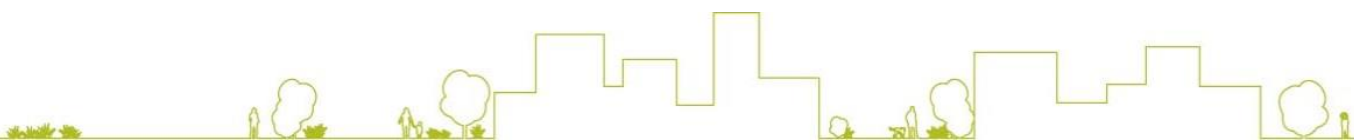
The Australian and State Governments should regularly review the content of the National Construction Code of Australia and its supporting standards to address climate change adaptation issues, improve and update the financial and logistical capacity of current building regulation and standards development processes to keep up with research, reinforce the need for performance based approaches to building regulation, 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.

## Improve planning systems and outcomes

The Australian Government should work with state, territory, local governments and communities to determine the appropriate coverage of climate change adaptation strategies within planning frameworks and promote development and implementation of nationally consistent planning principles, policies and strategies as well as innovative building and precinct designs to deal with future climate conditions. Climate change considerations should be integrated into strategic and precinct planning at the strategic planning and zoning stages, to provide certainty for industry and community.

## Improve insurance and financial services

The National Built Environment Adaptation Council should commission work to develop options for the insurance sector that clarifies the roles and responsibilities of insurers and government in providing coverage for areas at risk from climate change and increases transparency around insurance funding and risk assessment processes, while ensuring access to appropriate insurance for renters and low income residents. Options for the financial services sector should also be commissioned to improve investment and lending strategies and processes to value risk and adaptation activity appropriately.





## Reduction of Energy Costs and Emissions

Better performing commercial and residential buildings could reduce electricity bills, boost business competitiveness and cut greenhouse gas emissions. The ASBEC Second Plank reports in 2008 and 2010 found that there were significant benefits in terms of energy efficiency savings and reductions in greenhouse gas emissions from the implementation of energy efficiency measures. The technologies to deliver these savings are often highly cost effective, but market failures prevent the optimum level of investment. The right policies would support households and businesses to unlock the full potential of a more efficient, productive building sector:

### Tax incentives for green building retrofits

Eligible businesses that invest in improving the energy efficiency of their existing buildings should be eligible for a tax incentive, which would cover specified expenditure which is incurred as part of a retrofit of an existing income-producing building. NABERS Energy would be the appropriate tool to determine the energy performance of a building.

### A national white certificate scheme

A white certificate scheme helps overcome barriers in energy markets to aggregate and cost-effective energy efficiency. Commoditising 'energy savings' as a certificate enables savings to become tradable, placing a value on energy saved. Schemes are already in place, or in development, in NSW, Victoria, South Australia and ACT, and replacing these with a single national scheme would enhance their effectiveness and reduce red tape.

#### *Energy Market Reform*

Australia's energy markets, including the regulated part of the National Electricity Market, create the economic framework for investing in energy efficiency, demand management and distributed generation. The existing market structures have delivered benefits, but also create distorted price signals and impede cost-effective and aggregated investment in efficiency and distributed generation. Government should continue their current demand-side reforms and urgently review the barriers to distributed generation.

### Public investment in retrofits

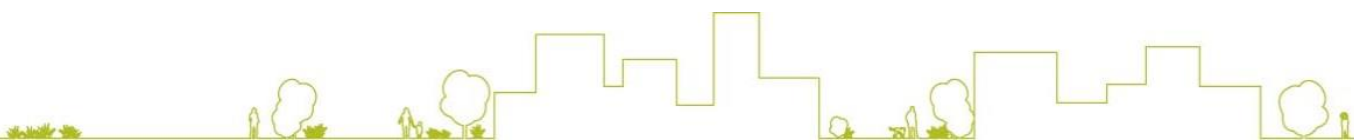
Public funding of building retrofit helps overcome the split incentive issues faced in both the residential and commercial sectors. Funding should be made available for and limited to, investment opportunities with a proven ability to reduce energy consumption.

Public funding would require a range of government-funded financial assistance mechanisms (i.e., grants, subsidies, rebates) for improvements undertaken by households and the commercial sector.

#### *Retrofitting public sector buildings*

Governments occupy around a third of the non-residential building space in Australia, and spend well over \$1 billion each year on energy and water for buildings including offices, hospitals, town halls and defence facilities. Retrofitting these buildings will save taxpayer dollars and support industry development.

Governments should adopt the approach taken by the award-winning Victorian Government's Greener Government Buildings Program, which will save the Victorian Government a significant amount.





### *Financing and facilitation*

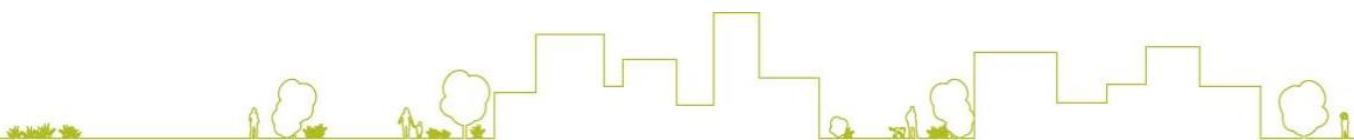
Investing in energy efficiency can deliver substantial savings, but it is challenging to access to the information and finance to undertake retrofits. The diverse nature of people and businesses that occupy buildings means that we need a range of financing tools, including Environmental Upgrade Agreements and Low Carbon Australia/Clean Energy Finance Corporation, along with facilitation to help them take up this financing.

## Modernisations and higher standards in the Building Code of Australia

The Building Code of Australia needs to be updated and modernised with higher standards on the design and materials of buildings. The existing Code offers compliance with minimum performance targets or more conventional construction which is 'deemed to comply' with the Code. This initiative would involve a combination of both approaches. This measure would raise the baseline for energy efficiency in new buildings or when new fittings and fixtures are applied and could provide a robust basis for directing investment into greater energy efficiency.

## Enhancing Minimum Energy Performance (MEPs) standards

Accelerating and increasing minimum standards for energy efficiency of appliances through MEPS would hasten energy efficiency gains. Compliance would be required for appliances that are sold in Australia and information about energy efficiency performance would be coupled with a consistent rating. Standards are necessary to remove certain inefficient but inexpensive products from the market – which cannot be achieved by labelling programs alone.



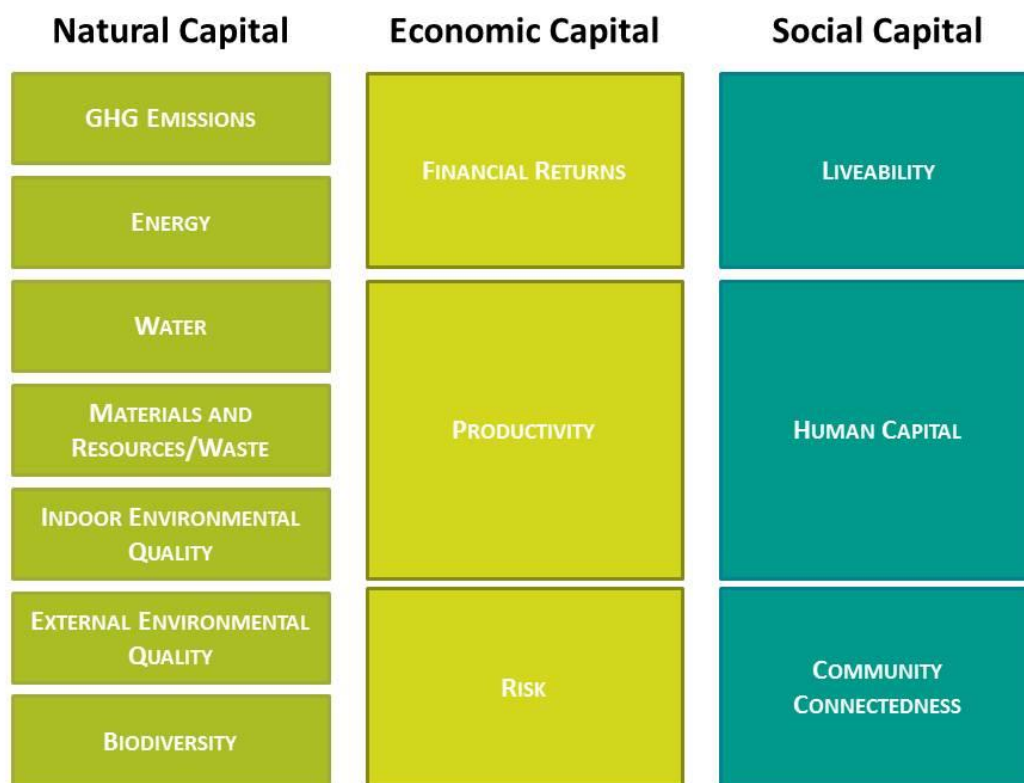
## A Framework for Sustainable Buildings

Globally, buildings account for more than 40 percent of primary energy use and 24 per cent of greenhouse gas emissions. A Sustainable Building Framework is proposed to reduce this impact. The defining proposition of ASBEC's approach to the framework is that sustainable buildings enhance economic and social value while simultaneously preserving (and potentially restoring) natural capital.

ASBEC calls on the Australian Government to support a Sustainable Building Framework, focussing on all buildings and users, addressing the entire lifecycle of buildings. The Government should play a strong role in assisting industry to develop and implement metrics and targets for sustainable buildings.

### Sustainable Building Metrics

ASBEC has developed a framework across three main dimensions of sustainable performance, Natural Capital, Economic Capital and Social Capital:

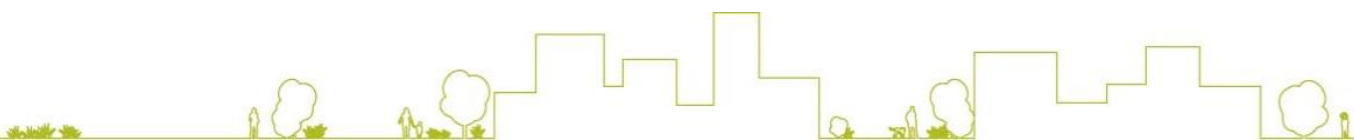


From the above list, the foundational metrics for a Sustainable Building Framework should include:

- Greenhouse Gas Emissions
- Energy
- Water
- Materials and Resources/Waste
- Financial Return
- Liveability
- Human Capital

### Framework development

Reliable performance metrics can be developed for all the above categories. These metrics should be tied to targets with quantifiable objectives, over a range of timelines, with the aim to implement through public policy, the community and private sector activity.



## A Roadmap for Net Zero Emission Homes

ASBEC is committed to more liveable, productive and innovative residential development, and calls for a national framework and plan for the delivery of sustainable housing.

This framework should establish targets; develop sustainable housing policies and supporting initiatives; harmonise rating tools; incentivise sustainability for developers, landlords and tenants to convert industry leadership into standard practice; align voluntary standards with mandatory requirements; identify barriers and provide strategies to overcome them; and set forward an implementation plan for more liveable, productive and innovative residential development in Australia.

As a first step ASBEC calls for the Government to engage with industry, community and stakeholders to progress a low carbon future for both new and existing housing through five key pathways:

### Delivering a vision

Develop a clear and consistent overarching framework:

- Work with industry and stakeholders to set a target for all residential buildings to be net zero carbon.
- Develop an industry-endorsed and government adopted definition of zero carbon homes and establish alliances to support collaboration.

### Setting the policy

A combination of voluntary and mandatory standards will encourage the increase of zero carbon homes:

- Coordinate the design and development of a new national home sustainability rating tool through the participation of industry and state/territory governments.
- Align voluntary standards with mandatory requirements.
- Strengthen mandatory requirements.
- Alignment with the National Building Framework.
- Implement a national design guideline for lot layout and solar access.

### Building industry capacity

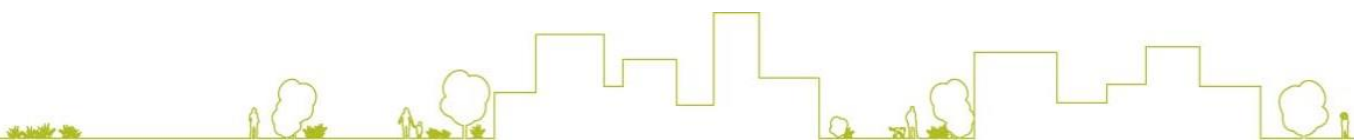
Identify gaps and capacity for building opportunities:

- Develop a skills development pathway, starting with a gap analysis of industry skills required to reach the zero carbon target, and assisting with development of necessary training and accreditation.
- Fund and support research on technologies that deliver zero carbon homes.

### Developing a business case

Improve the affordability of low and zero carbon homes:

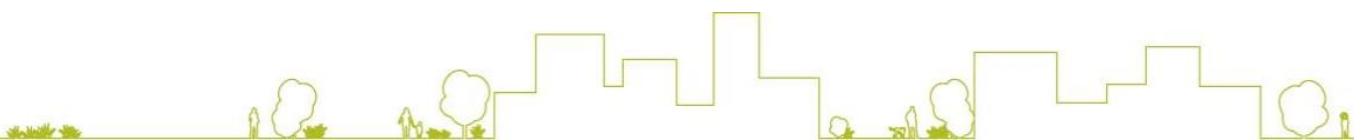
- Establish a methodology for net zero emission housing business cases.
- Develop a voluntary guideline outlining cost effective regulation and code improvement that minimises impact.
- Support development of innovative financing mechanisms.
- Create rebates for low carbon building material.
- Government-led demonstration projects for retrofitting of residential properties.



## Building a brand

As cost-effectiveness begins to improve, and low and zero carbon homes start to generate an increase in resale value, consumer knowledge of net zero homes will become increasingly important. The following initiatives are recommended:

- Market research that identifies niches where zero carbon homes are closest to widespread acceptance, opening up opportunities to develop technologies and practices in those niches before mainstream adoption.
- A zero carbon home web portal that includes information for builders and consumers on zero carbon homes, including definitions, the benefits of zero carbon homes and a database of useful building products, techniques and suppliers for building zero carbon homes in various climate zones.
- An awareness campaign, including initiatives that give consumers better feedback on their electricity use, such as smart metering with real-time feedback and energy bill benchmarking.



## Further ASBEC Work

In addition to the above positions, ASBEC members have a strong interest in jobs and skills and decentralised energy.

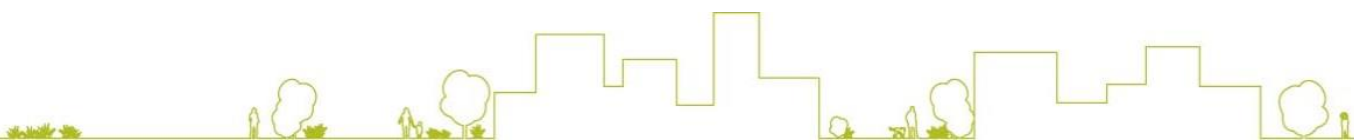
ASBEC members are currently finalising work in the following areas.

### Sustainability Skills Collaboration Framework

ASBEC's Jobs and Skills Task Group is finalising a framework that facilitates effective collaboration between industry, governments, education providers and other key stakeholders to ensure that the skills needs of the built environment sector are met. This framework aims to ensure clarity around roles and responsibilities, better flows of communication and information between stakeholders, and a stronger workforce focus on supporting the national sustainability policy agenda.

### Decentralised Energy

Decentralised energy, including cogeneration, trigeneration, district heating and cooling and renewable energy, can provide a resilient and affordable energy supply system while reducing carbon emissions. ASBEC's Micro Power Task Group will undertake analysis and develop recommendations to address the barriers to decentralised energy and support the uptake of these forms of energy.



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