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I would like to begin by acknowledging the traditional owners of the land on which we meet, and pay my respects to their elders, past and present.

For the Boonerwung, Woiworung, Taungurong, Djajawurrung and the Wathaurung which make up the Kulin Nation, Melbourne has always been an important meeting place and location for events of social, educational, sporting and cultural significance.

Introduction

So it's a distinct pleasure to speak at this gathering; the world's foremost event in sustainable building, SB08.

I've recently met and engaged with Australia's built environment industries, earlier this month at Built Environment Meets Parliament in Canberra, and of course last night at the World Green Building Council Gala Dinner.

So it's especially pleasing today to see those industries showcased on the world stage, sharing our considerable local expertise, and learning from the rest of the world, some 3,000 delegates from 60 nations, who are in Melbourne today.

Together, we are in the pole position, ready, I know, to make real headway 'towards a connected, viable and livable planet', as the plenary topic refers.

I want to acknowledge members of the seven -nation Asia-Pacific Partnership on Clean Development and Climate. Its Building and Appliances Task Force is meeting here in Melbourne this week.

The connections you will all make over the coming days, the collaboration and the shared knowledge, are critically important.

Because at a time of unprecedented global challenges, including as we set about the task of addressing dangerous climate change, we need to bring global solutions, many also unprecedented, to the fore.

I have previously emphasised that the built environment, with its palpable contributions to greenhouse emissions and its significant economic weight and capacity for innovation, has a significant role to play in addressing climate change,

because it presents opportunities for creating a sustainable future on a very immediate and very human scale.

I'd like you to consider for a moment a Victorian State Government information campaign known as 'black balloons'.

Simply and strikingly, it shows a series of black balloons inflating and silently rising from empty households, from appliances like fridges and TVs, each balloon representing around 50 grams of carbon pollution.

As the black balloons find their way out of open windows and mass across the suburban skyline, the message is very clear – that simple actions we take and choices we make every day, in our homes and in our buildings, contribute to something much greater; something we don't always think about.

This message reminds us that the built environment, on a human scale, presents us with immediate opportunities to reduce our use of energy, save money and reduce our environmental impact.

You could imagine a similar campaign, with not just small party balloons, but great hot-air balloons, emerging from commercial office building HVAC systems, shopping centres and industrial estates.

It's a striking image, and wrapped up in that image is a real opportunity, as we set about creating a sustainable commercial building sector.

That's the opportunity I want to talk to you about today.

Climate change

The challenge of addressing dangerous climate change is one which Australians are coming to understand all too well.

As the driest inhabited continent on earth, with a vulnerable environment and an already highly variable climate, our nation will be one of the hardest and fastest affected by climate change.

Our water supply, our agriculture, our tourism and our construction practices - all will be subject to climate change impacts.

For the 80 per cent of us who live in coastal towns and cities, higher temperatures, changes in rainfall and rising sea levels will have major impacts on our built environment.

Our buildings, roads and infrastructure will be at risk of floods, bushfires, storms and cyclones.

Australia's response

Australia now has a Government that recognises the science and understands the risks.

With the climate change debate reaching high levels of intensity prior to the Federal Election last November - and some commentators have now referred to it as the first 'climate change election' - I was particularly keen for Labor to respond in a way which reflected the seriousness of the challenge we face, and also to bring forward a range of programs that would allow a new Government to hit the ground running, moving resolutely to make up for 12 years of neglect from our political opponents.

And that's exactly what we've done.

Through climate change Minister Penny Wong, we have set out the Government's preferred design for a Carbon Pollution Reduction Scheme, scheduled for introduction in 2010.

This emissions trading scheme will be the centerpiece of our efforts as we set about meeting the Government's commitment to reducing Australia's carbon pollution by 60 per cent by 2050.

And the comprehensive approach this Government is advancing, centred around the Carbon Pollution Reduction Scheme, leaves us on the cusp of a very different landscape.

We will witness a transformation of our households, industries and businesses; from boardrooms to kitchens, our built environment will be front and centre.

We will, for the first time, recognise the real costs of using fossil fuels, and by implication, the very real benefits of switching to clean and renewable energy, enhancing energy efficiency and being smarter in the way we design, plan and build.

Incentives to pollute will be replaced with incentives to innovate – the kinds of innovations which those of you here today are already providing.

In Australia, we will see a departure from the approach of the last 12 years; 12 years of policies that were ad-hoc, fragmented and in every sense inadequate to the climate change challenge.

And one of the areas where that departure is already clear is in the Government's approach to energy efficiency.

Energy Efficiency

The Prime Minister recently stated that after the Carbon Pollution Reduction Scheme, energy efficiency represents the 'second plank' in a comprehensive response to reducing Australia's emissions at least-cost.

That is, while the Scheme will be the centerpiece of our mitigation efforts, we recognise the need for complementary measures to address market failures and remove obstacles to the uptake of energy efficiency.

The fact is many of these obstacles will persist, particularly through the early years of our adjustment to a low carbon economy.

I know these challenges are familiar to many of you in the sustainable building sector; obstacles like the split incentive between tenants and landlords, the length and complexity of the building supply chain and information asymmetries.

If we're going to effectively address these market failures and barriers, this will require changes to entrenched practices within the building sector.

A significant increase in the skills and capacity of industry will also be essential.

However, those individuals and businesses that invest early in their capacity to deliver energy efficiency results will also clearly benefit.

And the economic opportunity - the business case for energy efficiency – is increasingly well understood.

I note the International Energy Agency said last year:

'Improving energy efficiency is the most cost-effective concrete action governments can take in the short-term to address climate change.'

This was an unambiguous statement of both priority and opportunity, something I hope is becoming more widely appreciated.

Now add a carbon abatement cost curve for Australia produced earlier this year by global management firm McKinsey & Company, suggesting that potential abatement from building energy efficiency improvements could be achieved at negative cost, and the potential pay-off is self evident.

It's this capacity to reduce the overall cost of tackling climate change that makes energy efficiency an absolute priority for the Australian Government.

That's why we're bringing forward a national strategy on energy efficiency, to provide the coherence and national leadership in this area that has been lacking for the last 12 years.

A Sustainable Built Environment

I know this message is well understood by many of you here today.

In fact, I see the Australian Sustainable Built Environment Council has taken the opportunity to release a report titled 'The Second Plank', with a quote from the Prime Minister on the cover.

The ASBEC report reminds us of analysis from the Centre for International Economics, suggesting that efficiency gains from Australia's building sector alone could increase our GDP by approximately \$38 billion annually by 2050.

At present, the commercial building sector is responsible for around 23 per cent of Australia's carbon pollution.

It's also been calculated that around the world, buildings consume 12 per cent of our water and produce 40 per cent of waste going to landfill.

This is a significant contribution, and it also represents a significant opportunity for actions that are economically responsible and environmentally effective.

Minimum building standards

One crucial part of this opportunity is in the new buildings we create.

Many of you would be aware that energy efficiency requirements for commercial buildings were first introduced into the Building Code of Australia in 2006.

These requirements apply to the thermal performance of external walls and glazing, the efficiency of artificial lighting and the appropriate installation of heating, ventilation and air-conditioning.

With a benefit-to-cost ratio of close to five to one – that is, a payback of five times the investment for minimum energy efficiency requirements - the Building Code reads like a business case for how much more we can and should be doing to create sustainable buildings.

Quite simply, we should be building in eco-efficiency at the design stage, as a first principle, instead of something which is bolted-on after the fact.

Life Cycle Assessment Design

And today I'm pleased to launch an exciting Australian innovation that will help achieve exactly that, through the world's first real-time environmental impact calculator.

LCADesign - Life Cycle Assessment Design - measures the environmental values and risks of materials in commercial buildings.

It is the first calculator that works directly from the building designer's model, allowing architects and engineers to optimise the best environmental outcome in real time or 'on the fly'.

There is growing momentum in the market for greener buildings, and this software will provide industry with the information necessary to design buildings that are more ecologically and economically sustainable.

The LCADesign software was developed over the past six years by a team led by the Brisbane-based Cooperative Research Centre for Construction Innovation, working with the Queensland University of Technology, Royal Melbourne Institute of Technology, Queensland Department of Public Works, CSIRO and other leading research and industry partners.

The CRC for Construction Innovation's LCADesign tool – available to industry globally from today - is a great example of innovation, and a compelling concept – being able to estimate and adjust the environmental impacts of a project at the design stage, before it leaves the drawing board.

Green Building Fund

But as we know, over the years, plenty of Australian buildings have left the drawing board without the benefit of sustainable design.

It's a legacy that leaves us with a very significant opportunity to increase the energy efficiency of our existing commercial building stock.

In many ways, this is a new area for Commonwealth policy – a sector where until the election of the Rudd Labor Government, there was no national leadership.

At the last budget, the Government committed \$90 million towards the Green Building Fund. The primary purpose of this fund is to provide grants to improve the energy efficiency of existing office buildings.

It will help Australian businesses implement cost-saving energy-efficiency measures by subsidising 50 per cent of the cost for energy efficiency aspects of retro-fitting and retro-commissioning existing commercial office buildings.

A second component of the Green Building Fund involves grants for industry training and capacity building.

It's an exciting initiative – as I've said, unprecedented in terms of Australian Government action – and my colleague Minister Kim Carr will be announcing further details in the near future.

Mandatory disclosure

Another commitment we took to the last election was for the mandatory disclosure of energy or environmental ratings for appropriate types of commercial buildings.

This commitment is about tackling market failures head-on, ensuring both parties in a transaction have access to sufficient information about a building's sustainability performance.

Properly implemented, disclosure schemes complement a Carbon Pollution Reduction Scheme by assisting potential building purchasers and lessees to act upon the carbon price signal.

We recognise that the framework for mandatory disclosure of building energy efficiency should be transparent and nationally consistent.

This work is being carried out in conjunction with the states and territories under the National Framework for Energy Efficiency and in consultation with industry.

A Concept Report, finalised in March this year, identified the key issues clearing the way for the Government to prepare a draft Regulation Impact Statement and a draft Regulation Document.

The thresholds and key parameters will be determined after rigorous economic and regulatory analysis and continuing industry consultation.

We plan to have a draft Regulation Impact Statement and draft Regulation Document available for public comment next month.

For residential buildings, COAG will consider the next step in implementing a nationally consistent framework for mandatory disclosure of energy efficiency and sustainability.

Industries for the Future

I've outlined some important steps that we're taking already – steps that will involve working closely across all levels of Government, and with industry – including many of you in this room.

But there is clearly much more to be done to maximise the opportunities for a sustainable built environment.

We can put in place all the frameworks we want, but unless there is industry capacity, and a critical mass of expertise, we simply won't deliver the transformations needed in the commercial built environment.

As with the broader adjustment to a low-carbon economy, we face the prospect of challenges coupled with opportunities.

This was highlighted in a recent CSIRO report, *Growing the Green Collar Economy*, which calls for nothing less than a skills revolution.

The report projects that employment in sectors likely to have a high environmental impact will grow by more than 10 per cent over 10 years.

Employment in construction and transport sectors is projected to grow significantly faster than the national average.

But the report argues we will also need a massive mobilisation of skills and training – both to equip new workers and to enable the three million workers already employed in these key sectors to influence our environmental footprint.

I'm pleased to say that some skills development is already underway.

For example, the Heating, Ventilation and Air-Conditioning High Efficiency System Strategy – that's a program name that obviously didn't emerge from a focus group – is helping build important industry capacity.

Delivered through the National Framework on Energy Efficiency, the program aims to reduce the energy used by heating, ventilation and air-conditioning systems,

including by improving the technical and management skills of the people involved from design to operation.

We're also working more broadly through the National Framework on Energy Efficiency to improve the training and accreditation of professions on the front-line of sustainability.

Some of the professions targeted include electricians; heating, ventilation and air-conditioning installers; facility managers and engineers.

Learning from experience

Now, when it comes to skills development and learning, we shouldn't stop at our own borders.

And a great benefit of this week's convention is the opportunity for Australia's sustainable building industry practitioners to learn more about best-practice around the world.

We have our showpieces - for example, the six-green star Council House Two here in Melbourne. Our Prime Minister acknowledged the importance of this building this year, when he named one of its creators - Professor Rob Adams - Australia's Environmentalist of the Year.

But buildings like Council House Two should be the norm for us – as they are increasingly in places like California, where the 'Title 24' code for improved energy performance has been well established since the early 1990s.

As a result, California has achieved substantial population and economic growth with very little associated growth in net energy demand.

When I visited California in June, I was impressed by how green building features are now central to so many construction and renovation projects.

Buildings like the CalPERS headquarters, for example [that's the California Public Employees' Retirement System, in Sacramento], have every element of sustainable design covered – from passive architectural systems, solar power and waste heat recovery to the use of bamboo floors, recycled products, and locally manufactured materials, recycling of 75 per cent of construction waste along the way.

Building connections

Before I close today, I'll return briefly to the theme of connectivity – and the importance of working together.

I recently undertook a series of national roundtables with community groups and industry on the practical actions households can take to save energy, save money and reduce their environmental footprint.

A consistent message in these discussions was that Australians are keen to act – and that we have the technology and the solutions. But people need better access to clearer information.

We'll be addressing that need for householders early next year with the one-stop green shop – a web portal leading people to practical solutions and information on energy efficiency from all levels of Government.

And we're also creating connections at a whole-of-development and a whole-of-city level.

Earlier this month, I launched the *Your Development* web portal, a fantastic resource that brings together designers, developers, planners and builders – anyone involved in creating new neighbourhoods - providing advice and information on best practice in sustainability.

And through my colleague, Minister Albanese, we have established the Major Cities Unit to bring a coordinated and integrated approach to urban development.

The Major Cities Unit will be responsible for progressing the Government's urban policy objectives, including:

- Ensuring our major cities have a sustainable future economically, environmentally and socially;
- Reducing urban congestion and improving the movement of people and goods;
- Through national leadership, ensuring a more integrated and coordinated approach to urban policy development across all levels of government; and
- Building partnerships between the public and private sectors.

For cities to grow to their full potential, we require visionary and smart collaborative policies on issues such as infrastructure, planning, transportation, housing, water and energy efficiency.

The Major Cities Unit will be critical in identifying opportunities where federal government leadership can make a difference to the prosperity of cities and their communities – the kind of leadership, it must be said, in which the previous Liberal government had no discernible interest.

Importance of the built environment

I began this address referring to the Victorian Government's campaign on energy efficiency, and the imagery of black balloons, carrying carbon pollution from our buildings into the atmosphere.

I conclude by saying wouldn't it be fantastic if in the future we could take the same striking images, and play them in reverse.

That is, instead of balloons of carbon pollution rising from our suburbs and cities, they would be sinking downwards, drawn into office blocks, developments and communities that aren't just carbon neutral – but carbon positive.

To some, that may sound like a distant ambition.

But as we face the unprecedented global challenge of climate change, we need to be ambitious and we need to take responsibility now.

We need the expertise, the skills and the vision of those of you at this conference.

We need the connections you are building, the shared knowledge and the creativity.

In short, we need to take the opportunity for a viable and liveable built environment.

On that note, I wish you all the very best over the coming days of this conference and for your time here in Australia.

Thank you.