

SPEECH OF SENATOR THE HONOURABLE PENNY WONG, MINISTER OF CLIMATE CHANGE AUSTRALIA, AT GREEN DESIGN FORUM, KL CONVENTION CENTRE, 3 JANUARY 2009

It is a great pleasure to be here. This is my first speech as Australian climate change minister in Malaysia. I accepted this invitation because I am a lawyer and now obviously a politician. We have a lot of architects in our family. It is a bit worrying when you speak to an audience with your family members who know far more than you about the subject matter.



I was thinking and considering what I would say, what can a minister from Australia say to an audience of Malaysian architects who know much more about architecture than she does. The answer to that probably lies in considering two things: the first is, what place architecture can have and does have in influencing how we live, how we interact and how we view the world. Second: to consider and to comprehend the scale of climate change, its ongoing effect and growing effect on all of us.

In relation to the first issue, I did ask about the place of architecture and I am sure there are those in the audience who know more about the philosophical understanding of architecture than I do. I asked my younger brother over dinner last night, how he would explain about what architecture is, what is important about it. One of the thing he said that architecture is not just about how it looks, how things look, but how you experience it. I thought that was an interesting thing to say because what he speaks of is the notion about the way the space influences our behavior, how it influences our interaction with each other and with the external world, with our environment.

If we think about it, about the legacy you live as an architect, the decision you make today affects and influences so much in the years to come, in terms of how our building operates, how our house operates, what is its carbon foot print looks like, what is its energy efficiency looks like, the broader urban design issues around transportation, wastes and so forth.

You can choose for example to ignore the energy uses of relevant considerations when you design your buildings; many people don't. But I think what is important is to recognize when you are making these decisions, you are in fact making decision not just about today but about tomorrow and tomorrow. You are making decisions about energy requirements about that dwelling, that commercial space into the future for many years to come.

We know the topic of this seminar, sustainability and green buildings, is the issue that governments and communities around the world are increasingly concerned with. That is demonstrated by many governments and many nations and also by the work that PAM is undertaking.

One reason why the building sustainability is high on the agenda is that communities, businesses and governments are seeking solutions to climate change because this is one of our most pressing global challenges. So just contemplate for a moment some of the figures that both Malaysians and Australians speak of when they talked about the impact of the built environment. According to the Australian Sustainable Built Environment Council responsible for a quarter of our green house gas emissions from energy use, and Malaysia's submission to the UN body in charge of climate change with negotiation to the climate change – quite the same figure for building in 1997 that is 20 percent of carbon emission from this country some 11 years ago. But the second issue arise – why should you care about climate change? I have a very simple answer to that and may be I don't need to explain it to this audience. But the reason architects should be clear about the climate change is because we all have to, we all should.

In governments, there is always a policy area which you can identify as being areas specific – social policy, environmental policy and economic policy. Then there are some areas of government policy or there are some issues which have genuinely the capacity to affect the structure of our economies, the way which we live our lives as well as our environment. And climate change is one of those, and increasingly the world is becoming aware of this.

If there is anyone in the audience who doubts the scale of what we are confronting, I really invite you to consider 3 things: the first is to read the summary of inter-governmental panel on climate change report which concludes unequivocally that the world is warming, and unequivocally that human beings are contributing to that. It paints a really stark picture of what awaits. It is not so much on this generation although we are already experiencing it but those who are to come. It tells us what could happen if we allow the climate change to continue unmitigated. The second fact I want to quote is from the UK. That 11 of the 12 hottest years in history have all occurred in the last 12 years. 11 of the 12 hottest years in recorded history.

In Australia, the way which most Australians understand the climate change is in my other portfolio, which is the portfolio of water. One of the areas I am responsible for is the Murray-Darling basin which is the largest river system in Australia. In the year we were elected, the two years prior to that with the lowest two years of inflow into the Murray-Darling and they were 43 percent lower than the previous low. We continue to set new low in terms of inflow, historic low with an enormous steep down in rainfalls as a result of climate change. What is most frightening about is, it is precisely what the scientists told us would happen as a result of climate change. So just in that, my portfolio was spending about 12 billion Australian dollars trying to restructure that aspect of Australian industry, that aspect of Australian geography, that aspect of Australian agriculture in order to cope with the future where we know we would have less rain.

So these are some of the reasons why the Rudd Labour Government takes climate change so seriously. The first official act of Prime Minister Kevin Rudd after being sworn in was to ratify the Kyoto Protocol and we have to find our policy approach to climate change based on 3 pillars: The first, we now have to reduce the Australia's green house gas emission, we are on a very high per capita a meter. Australia needs over time to reduce its emission and to restructure its economy to enable us to do that. The second is we have to adapt to the climate change we cannot avoid. The third is we have to help develop a global response.

On 15th of December the Prime Minister announced our emission trading scheme which we called the Carbon Pollution Reduction Scheme. What is that? This is a scheme which will enable us for the first time to place a cap on the amount of emission our economy produces. We will issue permits up to the level of that cap. Those permits can be traded. This scheme would be central to the way which Australians will make its obligations to reduce our green house gas emission. There are a lot of technical issues associated with the scheme, but I just want to take a step back to reflect on what we are actually doing. Because until now, what we have done is we have poured carbon dioxide, another green house gas emission into the atmosphere without any regard for the cost and without any limit. But we know there were costs and we are starting to pay them. Those costs are reflected in the climate change that we are seeing and would be increasingly borne by our children and by our grandchildren.

This scheme is in effect seeking to trap at least a proportion of the cost of climate change into the economic transaction that we make today. Instead of pretending and operating on the illusion that there was no cost to green house gas emission, now we have to input some of the cost into the economic decisions today whether they are in consumption, production or investment. We have to try and recognize the cost of climate change in the economic decisions we make today.

That is the scheme we are proposing to introduce. If the government is able to achieve the result through parliament, it will ensure that we start this scheme in 2010 and it would transform the Australian economy for the first time for the cost on green house gas emission which would encourage major polluting industry to lower their emission. We will use the fund that we gain from the scheme through the auction of permit to help the most emission intensive industry transition to a lower pollution in the future. We will use the fund to assist the household because the scheme would mean the Australian households would pay more for energy. We have a substantial assistance program in place to ensure families are not being asked to bear the full burden of the change for climate change. Finally it would drive investment into renewable energy. It would be matched by the government's policy to drive further investment into renewable energy including our target of achieving a 20 percent renewable energy in Australia by 2020.

We have made a number of commitments to meet our international obligations. That ranged from reduction in green house gas emission of -5 to -15 percent by 2020, which given Australia very high per capita emission, given our highly coal intensive industry, it

would be a significant reduction. For example -15 reduction of 2000 level for Australia, would mean Australia have to reduce its per capita emission that is how much green house gas emission for every Australian by 41 percent between 1990 and 2020. That would require a revolution in our energy sector because one of the core things Australia has had of comparative advantage is access to a very large quantity of relatively cheap coal and what we need to do is to change over time our energy mix.

We believe we can deliver on this reduction without compromising the need to maintain economic growth. The economic modeling that the Government has done through the Australian treasury demonstrates that not only Australia but the world can continue to prosper, can continue to grow while cutting our green house gas emission. The reality is that now we in Australia contribute, I think some 1.5 percent of the world's emission. Ultimately the future of all of us, and the legacy we leave for the next generation in terms of climate change will be determined by what agreement can be reached between all the nations of the world. This by definition is a global problem; it requires a global solution to respond to it.

Let us now turn to buildings for a moment, and just to say this: putting a price on carbon through our emission trading scheme, would draw a lot of behavior change. It would start to mean that in terms of consumption decision, Australian would start to reflect the cost of climate change. It would mean those goods and services which contribute more to climate change would cost relatively more for the first time. But there is something the price on carbon would not completely alter, would not completely fix. So we now have other policy, what we call complementary policy to drive this sort of policy change, and one of the areas with that is in the built environment. We know that we do need complementary measures to drive changes in the way we build buildings, the way we design buildings, because lower carbon price would drive incentives to pursue more efficient use of energy. That is not always going to be sufficient in terms of design decisions that are made by people like yourselves, as well as future tenants and other end-users.

So improving building energy efficiency, for a range of reasons, is sound both economically and environmentally good. For example in the Australian context alone, the Centre for the International Economic Report for an efficiency gain from the Australian building sector alone, could increase our Gross Domestic Product by approximately 38 billion dollars annually. At present our built environment is responsible for approximately 20 to 23 percent of our green house gas emission based on our recent figure. So the root cost saving begins by thinking about energy efficiency early. Analysis by our building code boards shows that expenditure on the energy saving measure outlined in the Australian building code is repaid almost five times in saved energy costs.

As previously discussed, if you are aware of our green star rating, builders and building owners can voluntarily have their building assessed for energy efficiency and for environmental credentials. The green star rating system recognizes that the energy efficiency of a building should be considered at the outset of a building lifetime, and the time to think about the sustainable building is at the design stage. This really reiterates

what I said earlier, to understand, as I am sure all of you do, the legacy that you leave as architects in terms of the carbon footprint, the sustainability of the buildings that you designed.

To complement the efforts of the building council, the Government is implementing a range of policies. Green Business Australia is an initiative which would provide assistance to small and medium size businesses that are developing green building materials, by providing grants to cover up to a third of the cost of these projects. We have also implemented minimum energy performance standards for buildings and plants. This means new houses, new electrical plants must comply with a base level of efficiency. And that of course, save us energy.

We are also looking at ways for homes to use clean, renewable energy. One of the policies that we were elected with, was increasing the energy renewable target. This is a legislative target which requires wholesale operators in the electricity sector to purchase a proportion of energy through retail use from renewable sources. Currently there is a very low percentage of it. Our policy is to increase that to 20 percent by 2020. That is a massive four folding increase in Australia's renewable energy over decades. What we want to have happened is to have drive in investment in cleaner forms of energy such as wind. We already have that in my home state in South Australia, quite a bit of wind energy, but we also need investment in areas such as wave, particularly in West Australia where it is ongoing.

And geothermal, which is one of the most exciting new energy sources, even if it is underground, tapping into the hard rocks which lie beneath the earth surface with thousands of degrees centigrade and tapping that energy into steam turbines for instance. There is a lot of research going on in the northern part of South Australia desert and that would provide, if we are able to deploy and commercialize, access to clean base load energy. At the moment much of the world base load and Australia's base load, comes from coal which is highly carbon intensive. We cannot achieve major reduction in our energy use, in our green house gas emission, unless we change our energy mix. Geothermal is obviously one option. Solar thermal is another technology Australia is putting a lot of money into and a lot of resources into. And finally there is carbon capture storage. I am going to talk just briefly about this.

Carbon capture storage is a way to hold carbon that is produced when you burn coal. This is sometimes a controversial issue among some environmental movements. What I always say about that is this: in a foreseeable future, certainly in a lifetime of everybody in this room, the major source of energy around the world, both in the developed and more importantly in the developing economy, would continue to be coal because it is cheaper. So if we are serious about tackling climate change then humanity has no choice other than to try and find a lower emission technology for coal. We cannot achieve the objective of sustainable development plus reducing our green house gas emission over time, unless we find a lower emission technology for coal. That is why the Australian Prime Minister has put his weight behind the global carbon capture storage institute, so

there is a hub for the world to work on developing carbon capture storage technology because we all need it now and into the future.

The Australian Government is also putting in place what we call our solar cities program. This is a program which combines solar energy efficiency as well as market reform to lay foundation for a sustainable energy future. On this program we are trialing in Australian household, Australian industry, Australian energy governance, energy companies, ways in which we can reduce greenhouse gas emission. Urban sites are selected to receive grid connected solar technology to try new sustainable model for electricity supply and electricity use.

The major policy challenge came up in the discussion just prior to me coming here today, is of course the legacy of the existing building. What is it that we do with those buildings which have already been constructed, which are not energy efficient, which are not order efficient, which are not sustainable. I think one of the major policy issue ... We can fix two things in terms of built environment: we can get all of you designing sustainable building that deals for the future, but we also need to address the legacy of our existing housing stock, our existing commercial stock. The question is: who would bear the cost of that?

Certainly what we do in Australia is looking at different ways to retrofit, try to improve the efficiency of the existing stock. We provide substantial assistance to businesses through a green building fund which is looking at improving the energy efficiency of the existing buildings. So this is the competitive and merit based grant program, aiming to reduce our greenhouse gas emission by reducing the energy consumed in our offices and commercial space. We also provide direct assistance to Australian households. For example we have a solar hot water rebate program, which would assist around a quarter of million Australian households, which will enable them to install solar and heat pump hot water system in their homes to replace the very greenhouse intensive hot water. We have a solar home and community plan which provides cash rebate to the installation of photovoltaic system on homes and on community buildings. We also have the green loan program, which provides reduced interest finance to households implementing energy saving measures.

One of the other things we want to do is to improve people's capacity to actually measure and manage their own energy use and their greenhouse gas emission. We develop a program whereby Australian household would be able to access a high quality and subsidized expert assessment of their home energy and water use. One of the things when I am traveling around Australia, people often say to me they would like to know more about what they can do, what they should switch off, what are the plants they should have to make their home more energy efficient. So we are working to enable a tailor made assessment, subsidized assessment for Australian households to enable them to do that. This would also enable the Australians to receive assistance in a number of areas, and they will immediately enjoy the water and energy assessment provided. Most importantly household will understand that more changes can make such an enormous difference in terms of saving energy and water.

To conclude, I want to talk a little bit about your green building index and to say how impressive it is, that your undertaking is, to congratulate PAM on the work and those participated in the works. I asked Chor Wah beforehand what drove this. He said it is the end-users. Quite a number of your end-users were asking for this sort of rating system, this sort of sustainability measure. Can I say it is also for architectural user because you do have such an enormous responsibility to finish where I started which my brother was talking about that architecture is not just how it looks but how it is experienced. So many of the decisions you make will have implications for the energy use of those places, whether commercial or residential, in the years to come. So you do have the capacity now to shape so much of the sustainability factors in the years to come. There are some professions where we really operate on a much smaller time frame; you operate genuinely on longer time frames. You have the capacity to influence into the future far more than many of us, sometimes, arguably, perhaps more than some politicians; depending on the politicians.

It is very important we consider that because one of the things that is most difficult about climate change policy is this: Most voters, most populations, most electorates think about the present and that's reasonable – We want to make sure our children go to school, we are set up financially, we can put food on the table, we have shelter and so forth, we want to improve the lives for our children and grandchildren. We genuinely focus on the present. This is a policy area where these politicians and our government have to introduce to the Australian people: We are asking you to do something today – to pay more for your electricity, to pay more for certain goods and services in the hope that this would reduce the costs for the next generations. That is a very difficult thing sometimes for politicians to ask of people, to ask people to do something today that would cost them more in the hope that it will improve something for those who come after us. But it is that kind of inter-generational issue that in fact is present everyday in the work that you do; and you can make choices about what it is you bequeath to the next generations; and what it is you try to convince your clients to do in terms of achieving that responsibility. You have an opportunity to make sustainable living practices directly relevant to the individuals that you are working with.

In reality, it is climate change and the efforts that we all are making around the world towards the sustainable living and low carbon economy – these will increasingly cause a revolution in the way we live. They will require innovative ideas, pragmatic solutions and most of all, a willingness to look beyond the present. It demands that you design not just for today but with an awareness of tomorrow.

So I congratulate you on your green building index and its launch. I commend you for it. It has the potential to make a significant contribution not just to climate change but also supporting that very important thing, which is continuous and sustainable economic development. And wish all of you every success. Thank you very much for your hospitality today.