The CPRS (Carbon Pollution Reduction Scheme) Is it right for Australia?

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Professor Tim Flannery

Thank you very much Fiona [Reynolds]; and could I just particularly thank *The Examiner* for its contribution in gathering us all here in this splendid venue, which I haven't been in before but it has to be one of Australia's great historic venues – a fantastic hall. I must say I was a little bit scared about coming this evening. I have been to Launceston many times before but realised on consulting my calendar that I was going to appear here one week before a State election and I was sure that the place would be empty with everyone scrambling to do whatever they do before elections and wouldn't be the least bit interested in hearing about climate change; but anyway I am very, very grateful to you all for being here this evening.

When I reflect on our progress towards understanding and addressing climate change, what I guess I personally experienced is an enormous roller coaster ride. I think back now five years to before the release of *An Inconvenient Truth* by Al Gore and if we imagine that time back in 2005 what our awareness of climate change was then, what the political relevance of climate change was way back there in 2005, you see that we have come a very long way in many, many areas of our understanding, and our policies have come a long way. But if you then consider what's happened just over the last 12 months you can see the way we, as a global society and as a nation, deal with these issues. It's a bit like the tides: there is a head of interest that builds up and then it tends to wane away as other issues become more relevant. It is very, very difficult to sustain the level of commitment and activity required to address climate change over the long period. In part, that is because climate change is such an enormous challenge that affects us at so many different levels in society that it can almost become overwhelming. And I think people become a bit mentally exhausted by dealing with the issue and turn off and decide to go and deal with something a bit easier like health or forestry or something else. I don't know what it is, not that any of those are easy, mind you. But they can seem easy when you have been knocking your head against the wall of climate change for a long time.

So what I wanted to do here this evening was just reflect – particularly on the last six months or so in terms of what's happened globally, what's happened in Australia, where are we today in terms of this enormous climate challenge? I would like to give just a little bit of background about where I am coming from with this, because it will help perhaps in understanding of what I am going to say. For the last three years I have given my life to chairing a thing called the Copenhagen Climate Council; and I decided to do that in 2007 when it became very clear to me that the one thing we really needed if we were going to address this issue was an effective global treaty to deal with climate change. I happened to be in Denmark the very week that the Danish Government heard that it had won the right to host the fifteenth session of the Conference of the Parties (COP 15) meeting. That's the climate meeting that happened in Copenhagen last December 2009.

At that stage, things weren't looking very promising. The Government was a fairly right- wing government. It had a Prime Minister who was very uncertain about whether climate change was real or not; that was Anders Fogh Rasmussen who is now the head of the North Atlantic Treaty Organization (NATO). It had a Treasurer who was openly sceptical about climate change, but it had a great Environment Minister, a

woman called Connie Hedegaard, who was very clear in her understanding of the issue and who was certain that Denmark could play a significant role in addressing climate change at the global level. She had very little support in Cabinet once the announcement had been made that Denmark was hosting the meeting. And so she turned to some of her friends in Scandinavia to ask for some assistance and I happened to be working with one of those friends, a man called Erik Rasmussen – you will hear of many Rasmussens in this story. I have got to just have an aside here: a very common surname in Denmark, but the Danes have had three Prime Minister Rasmussens in a row. Could you imagine if we had three Howards in a row? You know, John, Jack and Fred! Well they have had exactly that: they have had three Prime Minister Rasmussens in a row and a fourth Rasmussen was my friend who was working with Connie Hedegaard. So he came to me in Denmark and said 'So how about we try to establish a group who will support the Environment Minister and the Danish Government in achieving a successful outcome at this very important meeting?'

The way we decided to do that was to establish a Business Council and that Business Council we thought we would try to fill with not only some of the world's leading business figures through our developing technologies to address climate change, but some really good policy people and some really good scientists. So we managed to attract to our Council people such as Sir David King, who was the British Science Adviser to the Prime Minister; and Lord Michael Jay, who is probably the most experienced climate diplomat anywhere; and a number of great business people. People like Sir Richard Branson; Jim Rogers from Duke Energy in the United States; Paul Otellini the head of Intel; and Sam DiPiazza head of PricewaterhouseCoopers globally. It was a pretty interesting Council to work with for the last three years and we felt we were making some progress. But you know, you realise after spending three years of intensive effort trying to support the Danish Government, get some clarity around the issue about what we wanted from a business perspective, from the politicians, you realise in the end it is very difficult to measure your effectiveness in doing all of that. Just because human enterprises are of that nature, once you come to a great meeting such as in Copenhagen where there are over 100 heads of government from around the world, 45,000 participants from elsewhere as well. It is impossible to predict or effectively influence the outcome. Those sorts of great circuses, if you want, take on a life of their own and I will come back to that a little bit later in this talk.

So that was our effort. At the same time of course there were other forces marshalling on the other side of this debate. There were other people who were determined not only to make sure Copenhagen was not a success but that the science behind the meeting, if you want, the very reason the meeting was being held, they felt should be discredited as well. The attack on climate science really broke out on November 20th last year when, on websites around the world, emails appeared that had been stolen from the University of East Anglia and posted on different websites around the place. It turns out that computer hackers had stolen about 160 megabytes of the Climate Research Unit's private email traffic. Now, I am hopeless with computers, but someone out there is going to know how big 160 megabytes is. I imagine it is huge. They stole all of those emails and posted them on the Web. They were initially posted on a Russian climate sceptic website but then mirrored widely across the Web. A message accompanied those illegally-obtained emails, and it said:

> We feel that climate science [in the current situation] is too important to be kept under wraps. We hereby release a random selection of correspondence, code and documents. Hopefully it will give some insight into the science and the people behind it.

That was reported in *The Guardian* on November 20th. Of course the email selection that appeared on the Internet was hardly random. The emails had been very carefully

chosen and the attempt was certainly to destroy the reputation of some of the world's leading climate scientists. In my view, they were the victims of an old-fashioned frame-up perpetrated in cyber space. When you get down to the emails that were released, there is very little of substance in them; and I am astonished in fact that in 160 megabytes of email traffic from a large institution like a University, there wasn't some more incriminating material. There were some attempts by some scientists to suppress the work of others, or evidence of that sort; there were some hot-headed comments from some scientists about others; and there was some technical language which could easily be misinterpreted to make things look a little bit shady. Nevertheless, I guess in anybody's cyber email traffic there would be things as bad as that. As it turned out that was a highly successful tactic, even though there was virtually nothing behind it. The selective release of those emails did create considerable uncertainty in the public mind; particularly given they were released just ten days before this global meeting. So the world is focused on politicians coming together to address this issue just before that, as the seed of doubt is sown in people's minds. Perhaps the science isn't quite right!

There are three investigations which are current into this incident. One of them is headed by Sir Muir Russell, who is in Britain, and that will investigate the University and the climate scientists, but extraordinarily – at least so far – it will not investigate the theft and illegal publishing of the emails which is the only crime that has been committed in that whole episode; that has been at least detected in that whole episode. The University and the United Nations (UN) are mounting their own enquiries. But all of this comes a bit too late to combat the intent of the thieves, which was to create public doubt on climate science by the Copenhagen meeting. In the months following the meeting, a pattern of attack on the scientists emerged. This time the protest is directly on the Intergovernmental Panel on Climate Change (IPCC) which is the international body represented by the world's climate scientists who are trying to bring together and synthesize information about climate change. In January an error in their findings, their fourth assessment report, was widely publicised. It concerned the rate in which the Himalayan glaciers are melting and the source of the error was with the World Wide Fund for Nature. I am on the international board of WWF and we have had discussions about how this happened and I can tell you that our position is that it was a typographic error. Instead of the glaciers melting in 2350, it was reported that they were melting in 2035; so there had been an error. Nevertheless it had been incorporated in to the IPCC's work, something that should never have happened. This was the nature of the press criticism of the IPCC. Jean-Pascal van Ypersele, who is the vice-chair of the IPCC, said at the time that that mistake was detected but it did nothing to undermine the large body of evidence that showed that climate was warming and that human activity was largely to blame. To quote him, he said: 'I don't see how one mistake in a 3,000 page report can damage the credibility of the overall report.' But then a few weeks later it was reported that the area of Holland subject to inundation from sea level rise also had been miscalculated by the IPCC. It turns out that the data had been supplied to the IPCC by the Dutch Government itself and so that one didn't fly very far.

In the last few days there have been further attempts to discredit climate science. *The Guardian* reported just two or three days ago that the Institute of Physics in Britain had issued a criticism of the East Anglia climate scientists. It turns out, however, that that criticism was organised by a sub-committee of the Institute of Physics chaired by Mr Peter Gill who remarkably turns out to be the head of an energy consultancy company. So that is the sort of company that might be selling their services to the ExxonMobils of the world, for all we know. Gill has previously in writing been dismissive of climate science, and the possibility of influence from the fossil fuel industry remains very real in this instance.

I just want to take you back now through that history and look at it through a slightly different lens. You could see it as a random series of findings that have just happened and perhaps they are bad luck that they add up to a discrediting of climate scientists. I don't believe that is the case. Instead what I see is something that I am very familiar with from the media. It is an age-old method well-known in the print media. I am sure *The Mercury* doesn't do it, but many other papers do, when they want to discredit someone or some issue. Basically the strategy is this: publish on a Friday a teaser on page one something that introduces someone but provides relatively very little information. That gets people's attention. Then on Saturday you will publish a long critique, usually on page three, outlining the details of your charge or allegation and you do that on a Saturday because people have got the luxury of time to read. And then on Monday you might do just a short sharp little reinforcement on page five; you do that just to make sure people don't forget. That is very much the strategy that we have seen in the attack on climate science. Just before the big meeting, short sharp, then during January when many people are taking a bit of a break the longer and more substantial allegation and then the reminder, and it really has worked. I don't believe that the IPCC has really understood this. Jean-Pascal van Ypersele, I think, misunderstood the nature of the threat that this represents by assuming that that one mistake might be suggested as saying that the whole 3,000 page report of the IPCC is wrong. That is not the point at all; the point is simply to damage the credibility of climate scientists in the public's eye. And that has been somewhat effective. We have seen the credibility of climate science decrease from various polling results; we have seen that that has actually worked and that there are now more sceptics than there were twelve months ago, as far as climate science goes.

So, has the science actually changed? Was the IPCC wrong? In its estimate of the rate of Himalayan glacial melt the IPCC was certainly wrong, but now we have had the chance to revisit the science in the 2007 report. This was done just in advance of the major meeting in Copenhagen by a group of scientists in March last year who revisited the projections of the IPCC to see whether or not they reflected changes in the real world from 2005, when the data stopped being collected, through to 2009. What they discovered in case after case is that what we see in the real world is tracking the upper margin of the probabilistic assessment of the IPCC. Now, please bear with me while I try to explain this, because it is a little bit complicated. Climate scientists never try to predict anything; what they do is try to project how things might develop in future. We don't just have a single projection line. We have a range of probabilities. All of the IPCC data is like this; there is a range of probabilities from a low impact through to a relatively high impact. If we take sea level rise as an example of this, the fourth assessment report had a range of probabilities for the rate of sea level rise from 2005 onwards for a relatively low level to quite a high level. The real world data has been tracking sea level rise at that high level, about 3 mm per year, right, so we are right at the upper margin of the assessment report. As far as the accumulation of greenhouse gases in the atmosphere goes, they have been beyond the worst case scenario of the IPCC in the real world since 2005. In terms of overall warming, again towards the upper end of the range of the IPCC projections. What that tells us is that the IPCC has not been entirely correct. They have been too conservative in their estimates, at least for the early part of the projection curve. Things may change back in future; we can't know that, but for the early part of the projection curve the IPCC has been a little too conservative. Nevertheless the IPCC remains by far our best guide as to how earth's climate may change in future. There simply is no body of data which goes anywhere near the IPCC in terms of its comprehensiveness; its accuracy of its projections; and just the sheer volume of scientific data behind it. You can look at Ian Plimer's *Heaven and Earth,* or whatever, that is the result of a simple person writing a book and make of that what you will. It is not the work of the world's body of climate scientists as a whole,

carefully working through the data and trying to work out what the data in their area of expertise actually means.

I guess the real issue now is whether or not we can ever re-establish the credibility of climate science with the general public. My guess is that we can; and I just want to tell you a little story here about the challenges that I face in my life trying to do this because it may make it a little bit clearer. I chair a committee for the Federal Government looking at coastal impacts of climate change, particularly sea level rise around the Australian continent. Our view of the science is that we would be best prepared if we assumed that in the next century or so sea levels will rise about a metre. So, they may not rise entirely by a metre; they may rise by a bit more. But in terms of trying to prepare our society for future change that is a reasonable level to be looking at and as we go around Australia discussing with Councils and people around the country what this might mean, we get quite a variety of input. When I was in Adelaide recently, we were at a big meeting and we had one gentleman stand up who was from the North Coast of New South Wales and he said something like, 'Well my name is Jack Bloggs and I have lived by the beach, (wherever it was), my whole life and I am now 75 years old and I haven't seen any sea level rise, so I don't think it is happening.' It is very difficult at that point to sort of try to convince someone like that that the climate scientists have a point. When I thought about what he said, it wasn't Jack Bloggs, it was Bruce someone or other. But I thought, you know, in one way he is absolutely right. He hasn't seen anything and he is being absolutely honest with us; he hasn't seen any impacts of sea level rise because so far sea level rising in this area might have been only a centimetre over his lifetime. But what we as climate scientists know is that there is a real possibility of an acceleration of sea level rise in future either through thermal expansion of the ocean (heat being absorbed into the ocean) or, more dangerously, through the collapse of a major ice shelf. We have seen these collapses and we know that there are very large unstable shelves in the Antarctic and in Greenland that may lead to more substantial impacts. So how do you convince someone like that that they should be taking this issue seriously?

The only way that I could do that at that meeting was by telling a story about me and I said to Bruce, 'Look, it's a little bit like this. I can only explain it by analogy. I went to the doctor a few years ago and he said to me "by jove, you have got high blood pressure!" and I said, "that's interesting, I feel great, I feel really fit." "No," he said, "you have got high blood pressure and if you continue on as you are you are likely to have a heart attack or a stroke or something." I just repeated "well I feel fine." He said "well it doesn't matter," he said, "what you have got to do every day of your life from now on until you die; you have got to take one of these pills." Which is a bit of a shock for someone who feels pretty fit. I wasn't quite ready for this news you know, so I just said to him, "well what are the warning signs?" and he said, "this is the warning sign. I have told you: you have high blood pressure, you have to take the pills," and it just brought home to me the fact that I can't see everything going on in my own body. I might feel fine but there is a dangerous trend under there which I am unaware of. I have to respect the doctor who tells me that. Now I could have gone out and got 100 more opinions until I could find some doctor somewhere who would say "Don't worry about the pills mate; just go on and have your pie and beer and she will be right."' But that wouldn't quite be the right thing to do!

And the same is true with climate change that in some way we have to re-establish our respect for those experts who can perceive things that we can't. They can perceive things because they have a global database; they have the most sophisticated satellite imagery. They can see what is happening in ice shelves in Greenland that are just invisible to us. They can see how much the sea level is rising globally and where it is rising and so forth and it is critical that we re-establish that respect because there is no way that our everyday observations of our world can inform us sufficiently about the

nature of this climate threat to respond appropriately. So that is a huge job in front of everyone in the climate science community and I think it can only really be addressed if we approach the issue with real respect and understand that people who put a perspective are not necessarily trying to be obstructionists. They are simply telling us what their experience is and that is a valid perspective and yet it must be balanced by something else. I don't need to repeat I guess, in front of this audience, but I should say that despite all of these recent controversies and problems that have been brought out about climate science, the facts about climate science remain the same. Every major Academy of Science on earth supports the basic climate science, the rate of greenhouse gas emissions continues to increase, ice continues to melt and seas continue to rise. The last decade, despite everything we have said, has been the hottest decade since modern record keeping began. For all these reasons the issue of climate change won't go away, and the longer we delay action the more drastic will be the actions that are required.

I would like now to turn from that science to how we have been going globally as we attempt to address this issue. I turned up in Copenhagen in early December 2009 full of high hopes that the Council had done great work over the previous three years. We held the world's largest business meeting about climate change in Copenhagen in May that year. We had been an integral part of the UN's Climate Change Summit in New York in September that year where we had a hundred heads of government, the biggest meeting of heads of government ever to that date coming together to discuss climate change; and our Chief Executive Officers (CEOs) were leading round-table discussions with those heads of government on various aspects of climate change. The week after that UN climate meeting in September, the G20 nations meeting in Pittsburg issued a communiqué that said something like they will spare no effort at coming to an effective arrangement to deal with climate change in Copenhagen. Our hopes were rising very high and perhaps were not entirely in accord with what was really feasible. The head of the United Nations Framework Convention on Climate Change (UNFCCC), Ivo de Boer, said shortly after that meeting in September that there was no hope of a treaty being brokered and I think we perhaps should have listened a bit more carefully. Instead we went about organising activist events, whether it be the 350 campaign or whatever else, raising hopes even higher so that when we got to the meeting in Copenhagen the thought of failure was very daunting. I suspected we were in trouble from fairly early on.

Our good friend Anders Fogh Rasmussen had gone off to head at NATO. Anders was an enormously experienced Danish politician – tremendous experience in the national arena and would have been a very capable chair for that climate meeting in December in Copenhagen. Instead he was replaced by Lars Løkke Rasmussen, another Danish Rasmussen Prime Minister, who is a splendid fellow and a wonderfully competent national Danish politician, but with almost no experience on the international stage. When you come to chairing a meeting of that nature, with well over a hundred heads of government there in the framework of the UNFCCC, where a nation, if they play carefully, play cleverly, can obstruct progress, we enter a very perilous position. Things were hardly improved in the week before the meeting when Amnesty International called upon the Danish government to arrest President al-Bashir of Sudan – for crimes against humanity – when he stepped on to Danish soil; he had all of the problems in Darfur and so forth. The trouble was that Sudan then held the chair of the G77 nations, the single largest block in the whole negotiating process. Needless to say the President himself didn't turn up but the delegate he sent in his place had one single objective in mind, in my view, which was to wreck the negotiations and with a weak chair he was in a very powerful position to do that. He kept on making comments that any sort of agreement that the world might reach to address climate change was tantamount to genocide; and helpful things like that.

Then we had the United States President Obama, one of our great hopes and in fact a very important player in the meeting, who was forced to turn up without the domestic policy agenda. He had been unable to get a cap-and-trade bill through the US Senate and therefore had no way of ensuring, or reassuring, the rest of the world that whatever target he would suggest could be achieved. He simply had no policy mechanism to achieve the target and therefore had reduced credibility. Then President Wen of China arrived with a retinue of 800 and it was quite something to see that particular event. We have four Chinese Councillors on our Copenhagen Climate Council and we note that the Chinese arrived hoping to be seen as heroes in this process; after all they had a very aggressive domestic policy. They had been working with the G77 all around the world to achieve things, and turned up expecting to be not quite bowed to, but at least to be greatly respected.

Two things happened to the Chinese initiative. The first was that on the very day they arrived, Todd Stern – the US Special Envoy on Climate Change – made a speech which emphasized the importance of accountability and transparency in achieving targets. Now this is very important as part of the global treaty or the global deal. The problem is that the Chinese, for reasons of national sovereignty, had long resisted that issue and saw that as a particularly pointed insult to them from the American delegation. Secondly, a huge rift had developed in the G77. Countries such as Vanuatu were arguing that we needed to limit the temperature rise to just 1.5 degrees; otherwise they would be swamped by a rising ocean. They and many smaller countries had very grave concerns about China's reluctance to commit to such low levels of global greenhouse gases. This for China was an emerging catastrophe. After all, China is extracting resources from the poorest countries on the planet at an unprecedented rate. There is reputed to be a standing army of about a quarter of a million Chinese in Africa alone to help try to guard facilities and so forth. So a rift in the G77 was for China one of the greatest catastrophes imaginable. So that was the situation that the Chinese faced.

Given the unexpected chaos of that engagement, Premier Wen simply retreated into the Palace and did not come out to negotiate, instead he sent out underlings, who were largely obstructive. The only way we managed to get a deal was from President Obama basically gate-crashing a meeting between the Prime Minister of India, the Premier of China and the Presidents of South Africa and Brazil. As a result of that particular event, we got a thing called the Copenhagen Accord. I will come to that in a minute. Could I just say that a lot of the chaos of the meeting was pretty predictable?

First of all there were far too many people there; you couldn't get through the door. All of that sort of stuff perhaps could have been dealt with. Some really smart sociologists who developed a game theory experiment had actually modelled the outcome of the climate meeting in a very simple way and, even given the best possible scenario and circumstances, the chances of getting any sort of deal out of such a meeting were extremely limited. We knew that to be the case.

The Copenhagen Accord, the thing that finally emerged about twenty-four hours after the meeting was supposed to have shut down in the middle of a very wintry Copenhagen evening, is an extraordinary document. It is five pages long, three pages of which are largely blank. There is a title page then two empty appendices. There are only really two pages of commitment. There is very little of substance in those two pages; there is a commitment certainly to a large funding stream for developing countries of about 100 billion dollars. It is the two blank pages at the end that are particularly important. They represent one appendix which is to be filled in by the developed countries, Australia being one of those or the signatory effectively, and then a second page that is going to be filled in by all the other countries: the Chinas, the Indias, the Brazils, the South Africas and so forth. The two appendices are rather different because, for the developed countries, what is required is a commitment to a

target for emissions reductions; and they are now being slowly filled in, or supposed to be done by the 31 January 2010. It has leaped on beyond that but nevertheless we now have well over a hundred countries committed to the Accord who are putting in their targets. So that's important, that is a continuation, if you want, of the Kyoto process. So all those who are committed under Kyoto are continuing to commit.

It is the second appendix that is really new and is at the heart, I think, of the importance of the Accord. For the very first time we are seeing places like China and India and other major emitters commit to emission reductions under a particular formula which we will all agree on as part of a global deal. The method that is being used to create that commitment is a thing called National Schedules of Action and it comes really from trade negotiations. In trade negotiations, countries commit to a series of actions that will free up trade to a pre-determined extent. In this particular case, countries are committing to a number of actions to reduce the greenhouse gas emissions to a pre-agreed extent. There will not be an absolute reduction but there will be a reduction in intensity. So that is new and what that means is really that the Copenhagen Accord, for all of its messy birth and all of its faults and its limits, for the first time represents a truly global agreement. Sure, there may be some minor countries that are not in it but all of the major polluters are going to be represented. Well over two thirds of the nations of the world are going to be represented on that Accord so, for the first time we are moving together as a species to address this issue. Far too slowly, far too uncoordinated in many ways, but we are moving forward.

Those who wish to see us fail in our efforts to address climate change have portrayed the Copenhagen meeting as an abysmal failure. I have tried to explain to you why I believe that is not the case. It is a success, but a limited success, but the limits of that success have made it very difficult for countries such as Australia and the US to create a framework that will allow them to honour the targets they have committed to. In part, that is, because of this rearguard action being fought by those who don't wish to see this issue addressed and who still remain very powerful. Perhaps the best way for me to really cover this is to look first at a country that is actually doing very well and then to look at Australia as a specific example.

The country that is moving fastest, I think, in the world to address climate change is South Korea. A country very much dependent on manufacturing in intense competition with Japan and China but must find a niche means to allow itself to survive. Remember forty years ago South Korea was one of the poorest countries on the planet; today it is utterly transformed. Here is what President Lee Myung-bak said just a few weeks ago of the country's efforts to address climate change. He said it is essential that we find a more sustainable path to growth. A path that will strengthen our energy security, ensure continued growth and combat climate change. For years those who believe that addressing climate change would be a burden on the economy have dominated the debate in Korea. Most business and government leaders argued that we must delay taking action to combat climate change in order to ensure global competitiveness as though global inaction in the long run would be in Korea's interest. Today Korea is spending two per cent more than any other country of its Gross Domestic Product (GDP) in promoting green growth policies; and some of those initiatives, I believe, represent a threat to the traditional Australian way of making its way in the world and things we should be very much aware of. Just one single example: Korea is now pioneering the use of hydrogen as a reductant in steel making. Carbon is the traditional reductant. In Australia we use coking coal and we export coking coal around the world. Hydrogen, however, or the use of hydrogen as a reductant, decreases greenhouse gas emissions from steel-making by over eighty per cent. If Korea is successful in developing these technologies, the bottom will fall out of our coking coal export industry very quickly.

We in Australia need to recognize that we operate in a changing world. Our old polluting industries simply will not have a future in the longer term and we need to frame our policies around that reality. As President Lee of South Korea says, there needs to be strong political will and leadership to make the transition to a new paradigm, nothing is more critical to our future. They are the words of the South Korean President on this issue.

In Australia and the United States the policy tool that we have used is a thing called cap-and-trade. It is what was developed and deployed successfully to fight other pollutants in the United States and has been used successfully in places like Europe to reduce greenhouse gas emissions as well; and I want to put to you that Australia's Cap-and-Trade Bill is indeed an effective way of dealing with climate change. Like the Copenhagen meeting, it won't reduce emissions most likely as fast as many of us would like to see but it is nevertheless a significant tool, a very powerful weapon to secure our future. Under a cap-and-trade deal, a government sets a cap on the total amount of greenhouse gas pollution permitted into the atmosphere, so that cap is a very important thing. The Government says we are going to reduce by five per cent or beyond existing levels. If you don't make that, you face a very stiff fine which will make it very much worthwhile for companies to abide by that particular cap. The Government issues permits to the polluters, and there are various ways of doing that and we will come to that in a second. A company that finds it difficult to reduce pollution can buy permits from a company that finds it easier to do so. So what the Cap-and-Trade Bill does is unleash the power of the market to deal with this problem. I am not a particularly political person; I don't favour one side of politics over the other, although I am passionate about policies that deal with climate change. What I can tell you is that in the Chicago Climate Exchange and in Europe there is very good evidence that market-based solutions are the most cost effective way of reducing pollution. Now the situation when you put a uniform tax on people, say carbon emissions, is that everyone has to pay that tax: those who find it very difficult to do as well as those who find it easy to do so. Under a trading scheme you make it much more cost effective just because those who find it easy to reduce pollution can sell their permits to those who find it very difficult to do so, and so buy some time for those who find it difficult to make the adjustment.

The Carbon Pollution Reduction Scheme is working very well in Europe. Europe has reduced its emissions by eight per cent over the Kyoto commitment period and now is emboldened to reduce its pollution scheme by twenty per cent or possibly thirty per cent if the world joins in. I just know from my Council that I chaired that this is effective. One of our partners, one of our Councillors is the Danish Energy Company – DONG Energy – and they made an announcement in December that they were immediately reducing or moving to reduce their dependency on coal for electricity by twenty-five per cent as a result of a Cap-and-Trade Bill and other things that were happening. So show me an Australian energy company that is reducing its dependency on coal by anything like that. It doesn't happen because we don't have the regulations right in this country. In Europe it does happen.

The Australian scheme is exceptionally broad and well considered in my view. It will apply only to the 1,000 largest polluters so individuals will not pay any sort of carbon tax; it is only 1,000 large businesses that will pay the impost. And seventy per cent of the permits to industry to pollute will have to be purchased at auction so they are not given away. The polluter will have to pay under the scheme and that is what we need to see. It would cap our emissions at ninety-five per cent at a minimum about 2000 level of pollution or a lower level if other nations make similar efforts. The most important thing about cap-and-trade is that once it is established it's difficult for governments to abolish. It is not like a tax; you can put a tax on a particular activity or entity and the next government can come along and remove that tax so that is not a

very strong, loud and clear legal message to a company. I know from my engagement with businesses that boards of large companies take much more notice of cap-and-trade bills than they do of taxes for that simple reason. Once you have created the cap-and-trade in the market, it won't go away until it has done its job of eliminating that pollution because you have invested property rights in that particular activity. And that is why cap-and-trade has been so fiercely opposed in places like Australia and the US, simply because it's so effective that for the enemies of dealing with climate change it is the last thing they want to see.

I would like briefly to compare the Cap-and-Trade Bill proposed by the Labor Party, by the Government, with the Opposition's plan to deal with climate change. We only have the word of experts in a Department of Climate Change to go on in terms of an assessment of the Government's plan, but their advice is that rather than reduce emissions we will see emissions actually increase under the Opposition's attempt to deal with climate change. So we will see more greenhouse gas pollution, not less. Rather than achieve the minimum five per cent emission reduction target, you may see them increase by thirteen per cent above 2000 levels; that's the advice of the Department. The cost of the Opposition's policy will be around 10 billion but in order to achieve a five per cent reduction target the bill under that particular scheme will need to be 26 billion. And I must say I find it astonishing that the Liberal Party, the party of free enterprise, has stepped away from a market approach to dealing with the problem. And I don't say this lightly, but the only way I can explain it is that the party of the free market has stopped being that sort of party and become instead the polluters' party. It has been captured by special interest groups within that party, very unfortunately, who would even shift away from their adherence to a free market approach, dealing with problems rather than to seeing this issue addressed.

We have to remember that, up until Malcolm Turnbull was deposed late last year as leader of the Liberal Party, both major parties in Australia supported the cap-and-trade legislation as did many other businesses, not necessarily the big polluters. But many other business groups and even some of the big polluters saw the wisdom in engaging with the bill at this stage, so it's been a great tragedy that we came within a single vote in the Liberal Party room of having that bill passed. It is a moment that I don't think I will ever forget and I believe I will regret it for a very long time because I can now see the momentum slowly drifting away. This Government that we have at the moment was elected at a time when a record number of Australians cared about climate change and the policies reflect that. I am not sure that the Government after the next election, whatever colour it may be, will have the same legal opinion simply because commitment in the public as a whole has started to drift downwards.

There is one other moment that I regret greatly over the last twelve months and that was that moment when we had two very brave Liberal Senators cross the floor to vote with the Government's bill, and we could have had the bill passed if five other Senators had stood up and moved to vote for the bill. There are five Green Senators in the Australian Parliament and I don't know what their thoughts were on this issue, but I believe again in years to come their conscience will be greatly worried by the fact that they sat in their seats rather than vote with that bill. I have spoken to some Greens politicians and I understand that they want a more effective approach to dealing with climate change and I empathize with that, but I know from my work in the international arena how very difficult it is to make any progress at all in this regard. My personal view is we must take what gains we can and then build on them as we go and I think that our country would have been in a far stronger position to deal effectively with climate change had we managed to get the Cap-and-Trade Bill in place and then built upon that basis to produce a more effective approach in years to come.

The climate problem is very difficult. It is going to be with us for many years and by its very nature I believe it has to be tackled, as I have said, one step at a time. The longer

we leave the climate without addressing its fundamental nature; it is a bit like my going without my blood pressure pills. You know I might feel good for another year, for another ten years, who knows but sooner or later the day of reckoning is likely to come and that is very true in terms of climate as well. My great personal fear is that one day, maybe next month, maybe next year, maybe not for a century, but that one day we will see a collapse of one of the world's great ice shelves then we will see an abrupt rise in sea level of several metres. At that point our economies and our societies will be so stressed because our cities will be going under water that we simply will lose the capacity to deal with the issue. A bit like someone who is suffering a heart attack. I presume at that point the doctors don't try to get your blood pressure under control by giving you pills. They have to address the symptoms and our society may well be in that position if we don't move to deal with climate change. We do have some time in my view to forge effective policy but there is not a moment to be lost and we can't be in a position in my view where we have the Greens effectively doing the same thing as the most conservative climate deniers in our society. We need to be more effective than that. I don't have any answers as to how that can happen, but we need to work together on this issue to take the gains we can as we move through dealing with this complex issue.