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- TRANSCRIPT -

Thanks Minister. A couple of people at lunch have said “shouldn’t you be back in your office writing your draft report – three months to go?” and very soon I’ll have to draw the line and change the ratio of talking to others, to writing. Thanks Minister for that introduction and thanks to Victoria for hosting the Secretariat for the Climate Change Review.

In the middle of last year we began our work initially as an exercise supported by the States, all of the States and Territories contributed financially and have contributed in other ways as well and we decided to set up the headquarters of the Secretariat here, but with some people working from other States, the background to the review was that the States were then within COAG had raised the question I understand, 18 months or a couple of years ago of the Federation – Federal and State Governments together doing a major exercise reviewing the impact of climate change and climate change policies and took that to COAG, sought the participation of the Commonwealth Government. At the time this wasn’t a matter of priority for the Commonwealth Government so the States went ahead anyway – invited the Commonwealth to join at any stage if it wished. The then Leader of the Opposition said he would so wish if he became Prime Minister.

So from the beginning of this year it is a joint Federal/State exercise and in addition to the part of our Secretariat based in the Premier’s Department here, but independent of it, we have a Secretariat based in Canberra, housed in the Department of Climate Change but independent of it. From afar as someone deeply interested in Australian public policy and matters of the Federation and the health of the Federation as part of that interest, I’ve always had a high regard for public policy processes; the public service, the Government’s approach to public policy in Victoria and all of those positive views from afar have been confirmed by the work I’ve been able to do here since the middle of the last year. So, thanks Minister and thanks to the Victorian Government.

I thought the Premier introduced the day this morning in a very appropriate way, with a strong emphasis on climate change as an important subject for innovation, when as part of this review, Ron Ben-David [Head of Review Secretariat] and I were in the United States late last year and called in the headquarters of one of the top, or maybe the top, electrical engineering corporations in the United States. The top executives began by saying “we love climate change – some people think we’re the world’s best producer of nuclear electricity generators, some think we’re the best producers of coal-based generators, some think we’re the best in the world at wind-based generators; we think we’re all of those things, but that’s not our business – our business is innovation in the engineering space and when the game is innovation, then we’re going to win and we’re

going to make money out of it". And I think that's the right mindset to take to this issue; it's a mindset that was reflected in the Premier's speech this morning. Australia and in particular Victoria, are well placed in this space and that is a fact of great importance as Australia looks to the adjustments that need to be made associated with climate change.

Just a word about why we should bother about climate change. There are still some people who think that it's not a concern; that it's just a furphy and if you hold that view, the right thing to do is definitely nothing. The cost of mitigating climate change is too high if that's the view that you hold. No matter what the scientific community thinks about the likely costs of climate change, if that's your mindset then there's no point in carefully calibrating estimates of the cost of mitigation against the costs of climate change that you might be able to avoid because you don't believe that there is a problem. And to hold that mindset, and quite a few Australians still do and some in prominent places still hold that view – you are not a sceptic; you are a person of deep belief. I see myself as a climate change sceptic and a sceptic looks at the evidence and bases conclusions on the evidence rather than on belief. To hold the view that this is not an issue that you need to do something about, to hold the view that it's all a furphy takes belief.

In the face of the clear majority view of the scientific community of Australia in the universities, in the CSIRO, in the great professional academies of science and technological sciences – if you take the majority view of the great scientific academies in the United Kingdom or the United States or Canada or Japan or China or India, then someone who is not a scientist on the basis of the evidence, cannot think that this is just a furphy. You will only think that it is not a problem if you hold strong belief independently of the evidence. I think a sceptic like myself looks at the evidence and says "On a balance of probabilities, this is a problem that we need to take seriously and that we should be prepared to invest something in insuring ourselves against."

Since the beginning of our work in the middle of last year, we've come to the conclusion that the risks of dangerous climate change on the basis of the evidence of the majority science is coming towards us at a faster rate than the conventional scientific analysis suggested. And why we've come to that conclusion has nothing to do with re-evaluation or second-guessing the science; it has everything to do with our having a closer look at the economic analysis around the growth of emissions – greenhouse gas emissions – and these emissions are growing much faster than the science of the IPCC, the International Panel of Climate Change, which amongst other things was the basis of Nick Stern's costing of climate change and the costs of mitigation was based. All of this earlier scientific work was based on what realistically and on the base of sceptical analysis, tells us was an optimistic view of the business as usual rate of growth of emissions, where emissions are growing much faster than a lot of the early scientific work suggested.

First, because global economic growth in the early 21st Century is more rapid than had earlier been anticipated and there are good reasons to think that the fly wheels of growth in the places which have been growing most strongly have great momentum. China of course, also India, part of South East Asia and parts of the world which had been growing slowly until the early 21st Century, including – wonderfully for those of us who are interested in global development – Africa. The concentration of global economic growth in these developing countries has meant that the energy intensity of that growth is much higher than had been anticipated in the standard projections upon which the basic science was based. And it happens that the supply of energy in the countries which have been responsible for most of the growth - first of all China and India, but also Indonesia – the world's third biggest emitter of greenhouse gases – has been strongly biased towards the use of coal. The cheapest and fastest way to develop new energy

resources in those places is to use coal. So for all of these reasons, the rate of growth of emissions has been substantially higher than earlier anticipated and we will be working this through our analysis in our review. One implication of that is that we've got no time to lose. If you accept the majority science in all the countries of great scientific accomplishment, then you accept that there are dangerous ... there are high risks of dangerous climate change and if you accept that the realistic view of Asian and global economic growth which we will be embodying in our review, then those dangerous points are coming towards us faster than earlier anticipated.

It is a simple fact of life on earth that there is going to be no successful mitigation of the climate change problem without a truly global effort. All developing countries or all major developing countries have to be part of that and accept substantial constraints on greenhouse gas emissions. Nick Stern, following discussions with us, said in his early lecture opening the annual Economics Association Conference in Louisiana a couple of months ago, he said then that he had been wrong in his report; that actually things are much more serious and urgent than he thought and he mentioned in that speech that China's emissions under business as usual, under reasonable expectations of economic growth – China's emissions between now and 2030 will be as large as the industrial world's up to the present. Arithmetic is formidable.

But there's going to be no solution – global solution – unless the developed countries take major steps first. If you have a conversation with a senior Indian policy maker or even scientist – and I've had many – including since this exercise began and you say India's got to be part of this solution, they say "yes, but your per capita CO₂ emissions are 13 times ours, and it's only reasonable - who you've built your standard of living on past emissions – it's only reasonable that we should do some catching up." We do, if we want a global solution, we have to listen to the perspectives of others and we have to search for a set of principles that can reconcile the need for a global agreement with the realities of each individual country's interests and perspectives. We will be seeking to do that in our review report and we made a start on that in the interim report.

What we do about mitigation has to add up in that global context. We have to have a set of principles in which our doing our part fits alongside principles that are acceptable to others and will see them doing their part and the whole lot adding up to mitigation that reduces the risks of dangerous climate change to acceptable levels. You might not like the conclusions. We presented some simple arithmetic in our interim report – what Australia would need to do in the context of a comprehensive global solution to the climate change problem. You might not like the conclusions but there's not much point in disagreeing with the conclusions. The only challenge that's worth making is to our premises and to our analysis and we invite that sort of discussion. There are some people who say "we don't like that conclusion". Well, I invite them to say "What about the logic or the premises that lead to that conclusion don't you like?" And I'll be very happy to debate that and I look forward to a transparent discussion with the Australian community about these matters. Just a final couple of points about "why bother". Ultimately we are going to have to, as a global community, deal with this problem or it will deal with us.

I understand that Robin Batterham, President of the Academy of Technological Sciences said this morning that we simply are living through a great imbalance. We're putting up into the atmosphere carbon dioxide at twice the rate at which it can be withdrawn. That sort of imbalance in nature sooner or later has to be adjusted. I'd look at it in another way and I would say, given the majority science, pending some miraculous reprieve from the conclusions of that science or some unlikely change in humanity's understanding of the workings of nature – unlikely but possible. Pending either of those things, then sooner or

later we have to deal with the problem or it will very seriously disrupt human economic life as it has developed over these last 10,000 years. So it will become a problem of optimisation over time. When is the right time to make the transition to a low emissions economy? And there's quite a lot to be said and a lot to be analysed about that transition being earlier rather than later, before you face the consequences of climate change rather than while you're dealing with them.

A couple of points about Australia. We are probably the most vulnerable of all developed countries to climate change. I chair the Board of the International Food Policy Research Institute in Washington, which is the world's major centre for research on agriculture and rural development in the world. The work there suggests that there's three big agricultural losers in the world – Australia, India and the Indian sub-continent and sub-Saharan Africa. Unfortunately when the rest of the world – my colleagues in Washington look at this, they think it matters terribly that in the Indian sub-continent and the sub-Saharan Africa are such big losers and don't think that the 21,000,000 people who inhabit this continent weigh very much in the whole scheme of things. But they weigh a lot to us. But it seems from the majority of science and the science is young enough for there to be different perspectives but it seems that one of the damaging effects will be a significant drying of Southern Australia on a balance of probabilities. And that happens to be where most Australians live. It happens to be in a continent and it's a part of a continent that's already hot and dry that takes a lot of human – further heating and drying will take a lot of human activities outside the normal ranges of temperature and rainfall in which you have such intense human activity.

They're amongst the reasons why Australia will be disproportionately affected, but I think the most important – and we'll be talking about this a great deal in our final reports is that we, more than any other developed country, live in a region of developing countries including fragile developing countries. The disorder in small countries – Solomon Islands, Timor in recent years, caused us fairly automatically and uncontroversially as a nation to spend billions of dollars a year on stabilisation of those policies. It is hard to imagine a significant lift in sea levels. Some of the other climatic changes that the majority scientific opinion tells us to expect with unmitigated growth in emissions seriously destabilising other entities and larger entities in Australia's neighbourhood. That could also affect the terms on which Australia trades with other countries. I'll just give a couple of examples of the possibilities – and here we're dealing with possibly distant, possibly for the immediate future low probability but high impact events.

Over the last four years, Australia's terms of trade have increased by 50 per cent. The value of our exports relative to the price of our imports. Given the structure of trade in our economy that has increased the average purchasing power of the product of each Australian by about 10% - a bit more than 10%. It is understood by economists that the lift in the terms of trade is primarily the result of a number of Asian developing countries growing more rapidly than anticipated. China first of all, but also India, Vietnam, others in South East Asia and others. It was a couple of percentage points of shock on the upside to global economic growth in those Asian developing countries that increased average Australian purchasing power of product by 10%. It would not take much of a shock to take a couple of percentage points off growth in our trading partners, with very large consequences in our income. And in forming a wise judgement about the importance of this issue for Australia and what we are prepared to invest in its mitigation; we need to assess these indirect as well as the direct impacts on Australia. We began to do that in the interim report; we'll take it that much further in our final reports.

Well, while Australia is probably the most vulnerable of the developed countries because of these indirect as well as direct factors we would also be very well placed for effective use of the opportunities that would arise in a world of effective global mitigation and the first strength of Australia in this context is the one I mentioned at the beginning when I alluded to Premier Brumby's speech this morning. That's the strength of our human resource base. Now the strength of our capacity and engineering in related matters of financial and project management and management of innovation in the resource space more generally. It is no accident that a few blocks down the road in Lonsdale Street we have the world's largest resources company – and most successful resources company. It's no accident that that headquarters happens to be in Melbourne and not in Tokyo or London or Pittsburgh or New York. Those skills and strengths are based on a lot of experience and on an education and research base which has emerged gradually over a long period of time. We do have strong capacities in this area – they are the crucial capacities in successful adjustment to a low emissions economy. But our natural resources are also exceptionally strong and doing well in a world which is taking mitigation seriously. Some of our ... we often reflect on the vulnerability of our ... currently our largest export – coal – to global mitigation and it is certainly true that the future of coal abroad as well as in Australia is going to depend on the success of carbon capture and storage. Carbon capture and storage, its commercial development – is going to be the key to the future of coal. If it is successful commercially, then the Australian coal sector will be a centre of prosperity and growth; if it's not successful then it won't be. I think in the long run it's as simple as that.

Our coal, not in Victoria but in New South Wales and Queensland, unfortunately Minister, tends to be low-emissions coal, or on average, well it contains large elements of low-emissions coal which will be advantaged in global markets in a world that's taking mitigation seriously. The very low cost of mining Victorian coal will give Victoria advantages if we can get commercial carbon capture and storage working well.

Other Australian major exports, like natural gas and uranium, will be exceptionally advantaged in a world that is taking mitigation seriously. That's already happening; that's part of the story of the extraordinary boom in – especially natural gas – but also uranium mining that's occurring in Australia at the moment. More than any other developed country, our natural endowments for renewables; for wind in Southern Australia – Tasmania, Victoria, South Australia, the Southern tip of Western Australia; for geothermal so long as the cleverness we've shown in unlocking the relevant new technologies is followed through into commercialisation and tidal and wave resources. Per capita our carbon capture and storage sites are exceptional by the standards of developed countries and the most extraordinary on a per capita basis are those not very far from here, not very far from the Latrobe Valley in Bass Strait. That can be the basis of relatively low cost expansion of low-emissions versions of coal based energy generation. It could make Gippsland the centre of a major national industry; a high-tech industry of carbon sequestration, drawing carbon dioxide from other parts of Australia, even internationally. I've already touched upon some of the special characteristics of Victoria in this context. Just to summarise there are ways in which, while Australia is especially vulnerable to climate change, Victoria is too, in some ways especially so, but like Australia and in some ways especially so Victoria is exceptionally well-endowed to make a good job in a world – of doing well in a world of comprehensive mitigation.

The key is innovation, a positive attitude to technological change. It will require putting in place policies which support innovation. In the case of commercialisation of the new technologies, carbon capture and storage and the clever new renewable technology which is the focus of a lot of Australian ingenuity at the moment. I would like to see a

substantial part of the revenues from the auctioning of permits for emissions to be put into fairly automatic mechanisms for matching innovative investment in the low-emission space. General mechanisms that don't require bureaucratic second-guessing of what will work and what won't, and we'll be discussing those approaches to innovation policy in our final reports.

So overall, I think that as sceptics, we have to strongly support the idea of Australia being a full participant in a major global mitigation effort. You have to be a believer against the science to think the right thing to do is nothing and I don't ... I think this issue is too important for that sort of misplaced belief. If we tackle this issue with realism and put in place a policy framework that provides incentives to address the issue at the lowest possible cost, we will find that the costs ... Australia's share of the costs of mitigation is manageable and we will find that innovative Australians, firms and individuals, find ways of doing very well for themselves, for their State and their country.

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