



E3G

The impact of climate change on business

Speech given at the National
Climate Change Summit at the
Parliament House, Canberra.

Tom Burke, CBE

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E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change.

E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere.

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The impact of Climate Change on business

The National Climate Change Summit

Address by Tom Burke, Parliament House, Canberra, March 31st 2007

Thank you very much for inviting me to join you this morning. It is always a great pleasure for me to return to Australia and this is a particularly interesting moment to be here. Even as a visitor, you can't have watched the long dry, the growing intensity of fires and cyclones here, the changing climate of the South West of Australia, the bleaching of the barrier reef without becoming concerned about the particular vulnerability of Australia to climate change.

In these circumstances it is not a surprise to me that Australia has produced, in Tim Flannery, one of the world's most able and respected communicators about climate change. Nor is it a surprise that, in the wake of the recent publication of the Fourth Assessment Report of the Inter-governmental Panel on Climate Change and the Stern report, that the whole debate on climate change here has taken on a great new urgency.

It is particularly interesting for me to be in this gathering this morning because I speak at hundreds of these sorts of meeting on climate energy policy around the world and the people who you mostly don't find in the room are the politicians. So, it is wonderful to see gathering so full of political figures because at the end of the day this is a problem that is quintessentially a core political problem. Political will is the centre of this problem and if the politicians aren't in the debate everybody else has got less to contribute less to offer than they might have.

So, I am particularly pleased to be at this meeting this morning.

I need to make something clear before I get to the substance of my remarks, however, as the programme says and as Peter introduces me I am an advisor to Rio Tinto, and what the programme does not say, I am also an advisor to the

British Foreign Office – and a great many other people. But nothing I say should be interpreted as speaking for any of the organisations that I advise. They are all quite capable of speaking for themselves indeed, Charlie Lenegen, who is here, will be speaking for Rio Tinto later in the programme.

There was a famous moment which I very well remember in the Thatcher years when journalists managed to get very confused over whether her personal economic advisor or the then chancellor of the exchequer, actually was speaking about the government's environmental policy. And that nonsense only stopped when Walters finally reminded everybody that advisors advise, ministers decide. That's the only lesson I have taken very much to heart as somebody who's spent a lot of his life giving advice. I have also learnt by the way that the fact that advice is given in no way means that it is taken – something every parent learns, I am afraid, the hard way.

My task this morning is to give you the best advice I can on the magnitude and urgency of the climate problem, and of the nature and scale of the political challenge it poses to us all.

Three decades as an environmentalist have given me a particularly good preparation for this task. As an environmentalist, leading figures in all walks of life have gone out of their way to correct what they saw as my errors of fact or judgement about their relationship to the environment. The result, apart from a giving me a rather superior post-graduate education, is that I have had the opportunity to work in business and government as well as with the environmental NGOs.

This is relevant to today's debate only in that it informs very strongly my view that successfully meeting the challenge of climate change is going to require all three actors to work together much more closely, and much more cleverly, in the future than they have managed to do in the past. Each brings something very distinctive, and essential, to the party. Government brings authority and resources to get things done, business above all brings the means of delivering on the goals, NGOs bring the trust of the public, which business and governments don't always have, and the ability to mobilise in the base of society. And this problem is going to require mobilisation in the base of society.

Now it is a striking paradox that a problem that – unlike literally any other problem – will directly affect the well-being and security of every single person. Every single one of the six and a half billion of us on the planet, should produce

such rancorous division within and between nations. Where we should be pulling together in the face of a common threat, there has been a pulling apart. Blame, denial and finger pointing. That pulling apart has occupied the space that should have been filled by concern, collaboration, imagination and enthusiasm.

We will not going get very far in meeting this challenge successfully for ourselves and for our children unless we recognise that what we face is a shared dilemma. All of us need to secure reliable access to energy for our economies to continue to grow, and that growth is necessary to maintain social cohesion and, in the longer run even political stability. For China, for India, for Europe and the United States, as well as for Australia and the rest of the world, the continued use of fossil fuels is going to be for energy security reasons absolutely essential to maintaining that economic growth. That means we are going to continue to expand the use of coal in our economies for the foreseeable future. If we continue to use fossil fuels, including coal, with present technologies, there is then now no doubt at all, as Tony I think adequately demonstrated, that the climate will change rapidly and soon. And if that happens, the very social cohesion and political stability we are burning the fossil fuels to maintain, will itself be put at risk.

So this is a dilemma. It is a real dilemma and it is one that we all share, it is not a problem that you have and somebody has or doesn't have. We all have it.

Now, the point of a dilemma is that neither of the choices is acceptable. We do not want to give up either the use of fossil fuels or a stable climate. The problem with a dilemma is that you risk being gored by both horns if you take too long to decide what to do. Timidity would produce the worst of both worlds. The trick is to resolve the dilemma not to make false choices. We now urgently need to become much better at sharing the effort, both between and within nations, that will be needed to resolve our shared climate dilemma.

The shape of the climate horn of this dilemma is now clear. Let me illustrate this with some key numbers.

THE NUMBERS

- 2°C
- 0.7°C
- 0.7°C
- 380 ppm, 400ppm
- 425 ppm
- 2/3 ppm
- 450 – 550ppm

There is a growing body of scientific opinion that recognises that a 2°C rise in global average temperature as the threshold of a dangerous climate change. The EU leaders at their Spring Council meeting at the beginning of this month reaffirmed their desire to stay below this threshold.

However, we have already observed a 0.7°C rise in global average temperatures since the beginning of the 20th Century. And such is the nature of the climate system that if we were to stop emitting any more greenhouse gases today, we would still see another 0.7°C rise in temperature before they stabilised. Now you don't need to be a better mathematician than I am, and I'm not a very good mathematician, to add 0.7 to 0.7 and you realise you are pretty damn close to 2.

The best estimates we currently have suggest that to be confident of staying below this threshold we need to keep the concentration of greenhouse gases below about 400 parts per million (ppm) carbon dioxide equivalent. And that last word, equivalent, is a pretty important word.

The carbon dioxide equivalent is the measured carbon dioxide plus the effect of all the other greenhouse gases that we are adding to the atmosphere, expressed as their carbon dioxide equivalent. As Tony said, the carbon dioxide is about 55%. When you add that up, you get different number, so the hard carbon dioxide as this graph shows is today 380 ppm, up from the 280ppm pre-industrial revolution. But the carbon dioxide equivalent number is already 425ppm. Each year adds another 2ppm to the hard carbon dioxide number and

as Tony said that rate is rising and that's about 3ppm overall. So, the odds of being able to stay below the 2 degree threshold may now be worse than 3 to 1 against. That's what we are dealing with as a problem.

You will be hearing in much more detail later this morning about the impacts of rising global temperatures on prosperity and security. My intention has been simply to underscore how little time there is before we are impaled on the climate horn of that dilemma.

The other horn of the dilemma is the world's growing demand for energy. We saw the IEA revised its projections for future growth in world demand for energy fairly recently. They are now estimating that world primary energy demand would grow by more than 50% between now and 2030. Fossil fuels will account for more than 80% according to their projections of that increase and, as a result, carbon dioxide emissions from energy use alone will be more than 50% greater than they are today by 2030. 2030. That is, again, you don't need to be very good at arithmetic to work out that is only over two decades away.

I heard that Nick Stern was here in Australia this week talking about his groundbreaking report. He set out very clearly where we have to get to if we are to resolve our shared dilemma. And he set out just how big the risks of failure might be. His report has been vigorously criticised by some of his fellow economists, as Kevin Rudd referred to, earlier this morning.

I have to say, I have not been greatly impressed by the contribution the economics profession has so far made to the debate on climate change. This is an issue on which we cannot afford policy failure. There is no rewind button on the climate. We can't get it wrong and go back and say: "Oh dear that was a mistake let us do it differently the next time around. There is very little scope for trail and error."

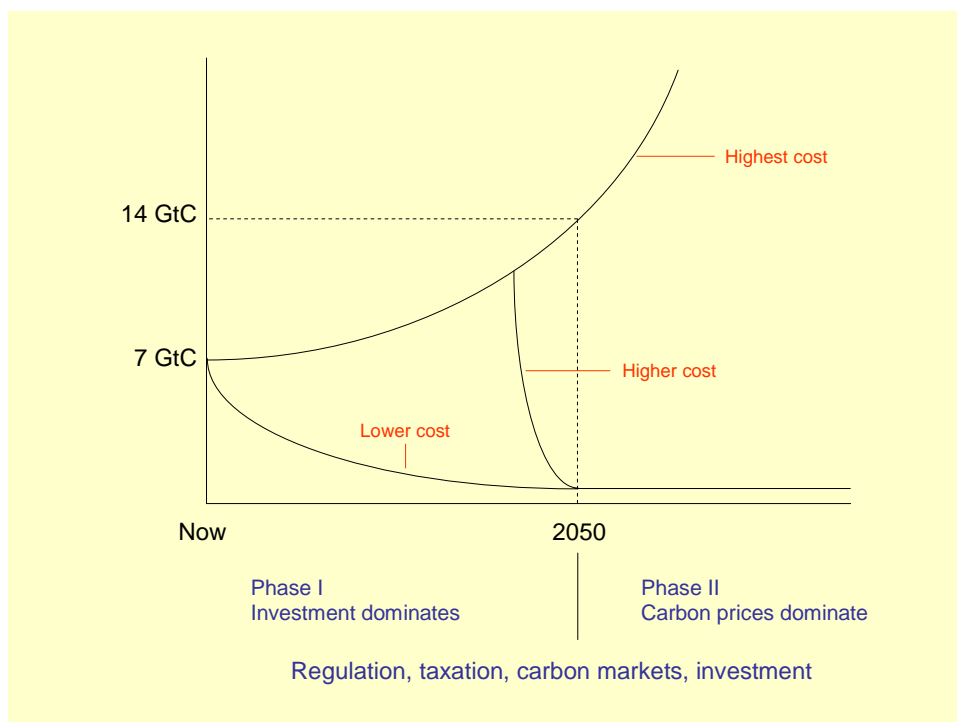
Nor is a stable climate readily traded-off against other desirable goals which will themselves become unattainable in a rapidly changing climate.

So, as Stern himself has recognised, the analytical toolkit that economists bring to a problem of this nature and scale have their limitations. It is not that they won't have something to contribute but it is often a bit less than they have so far thought. What the core value of Stern's works, which has been obscured by this rather parochial and inward-looking criticism, is that his analysis has confirmed conceptually what the scientific community has been telling us empirically for

some time, which was cost of resolving this dilemma would be far outweighed by the cost of not doing so.

That's the core message. He was actually very clear about what we must do if we are to avoid the greatest risks of climate change to our security and prosperity.

Now, the Stern report is 700 pages long and you will be glad to know that I am not about to give you even a short summary of the Stern report. But working in business I learnt the advantages of doing things what are called strategy on a page. So here is Stern on a page.



This the Stern report on a page. What Stern is telling us is that we currently emit about 7 Gigatonnes of carbon a year. We put about 7 Gigatonnes of carbon a year into the atmosphere from the energy system. On business as usual that's going to grow up so that by 2050 it will reach about 14 Gigatonnes.

What he is telling us is that we have to reduce that, we have to in effect take pretty well all of the carbon of our energy system by 2050 if we are to maintain a stable climate. What he actually says is that we have to aim to keep our concentration of carbon dioxide equivalent in the atmosphere below about 550ppm - double what it was in pre-industrial times, if we want to have any

chance of keeping the eventual temperature rise somewhere between 2^oc and 3^oc. And having looked at the work on what might be happening when you move beyond 3 degrees it's not a world you would like to live in, or would like your children to live in.

There are a couple more bits to this. What Stern also says is, if we can do that the easy way or the hard way and the easy way is the lowest cost way of doing it, the hard way is a higher cost way of doing it and not doing anything at all is the highest cost of all. That is essentially Stern on a page. There's some other bits in this, but the key message I take is that this is a two phase problem here.

In the first phase, we have to get the carbon out of our energy system and in the second phase we have to keep it out for what is effectively ever. And don't underestimate the scale of that. Even if we stop putting carbon into the atmosphere will take estimates very, but, hundreds or maybe thousands of years before concentrations drop back to the pre industrial level.

Our current total addition of carbon to the atmosphere each year is about 10 Gigatonnes – 7 is from the combustion of fossil fuels and the rest is from agriculture, deforestation and other land use changes. They are very difficult to reduce the emissions from them. The oceans and vegetation between them absorb about 4 Gigatonnes of carbon annually though this is something that was referred to by Tony; there are increasing concerns that the growth in temperature and the increasing concentration of carbon dioxide is reducing the capacity of the planet to buffer those increases.

So if we are going to avoid the greatest risks of climate change, it is a simple proposition: we have to make our energy system carbon neutral by the middle of the century. Since there is no politically available route to a stable climate that does not involve an increase in fossil fuels, especially coal, this means we must move very rapidly to the deployment of carbon sequestration and storage for electricity generation and in transport which is the other very big piece of this we must move very quickly to hybrid vehicles and eventually fuels cells as the primary motive power for our transport fleets.

Now these are by no means the only things we must do. We also need to hugely improve energy efficiency and greatly increase the deployment of wind, solar and other renewable technologies. The relative role of each carbon neutral option is going to vary from place to place, but what we are looking for from all of them is that they need to make very rapid step changes. We are not looking to

make changes at the margin. We are looking to make rapid step changes to make a transition to a low carbon economy, a low carbon global economy, that must be accomplished within the next 4 decades.

So how are we doing? It is a kind of a big challenge. How actually are we doing? This really depends very much on how you look at it, which way you are looking when you ask that question. If you look back down the road how far we have come, particularly in the last two years, the progress has actually been encouragingly rapid. I was in Washington last week and the transformation there since the November elections has been dramatic. Washington is just a different place on climate change. There are now several bills in both Houses of Congress aiming to create a national framework for policy on climate change. It is increasingly likely that one of the earliest tasks on incoming President of what ever party will be the task of signing into law comprehensive climate legislation in the United States. And nobody should underestimate how important and significant that would be.

Lost in the debate over long term emissions targets earlier in the month was the EU decision to develop a technical standard for carbon neutral fossil power stations. That's an enormously significant event. The EU is essentially thinking now that after 2020 you will not be allowed to build new fossil fuel power station that is not carbon neutral.

That's the signal that in discussions I've had this week with people from the utility industry; that's a political signal, not an economic signal, a political signal that is already begun to influence the way they think about the future.

Actually, it's quite interestingly to see in the big decision on the utility merger going private in the US., that Goldman Sachs basically, looking at those same sort of risks told TXU that they had to drop a large number of coal-fired power stations from their portfolio if they wanted to get that investment change. So I think we're beginning to see some very interesting sort of signs there.

The EU also said it was going to bring forward a dozen carbon sequestration demonstration projects by 2015.

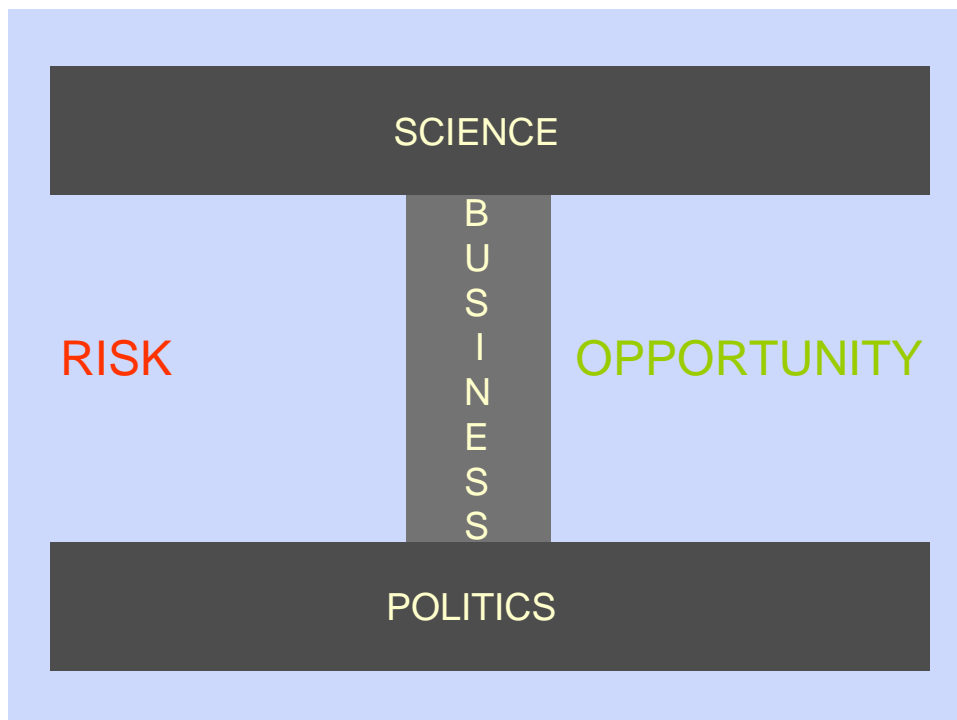
The UK has just published draft legislation which would set legally binding targets on the government to achieve specific emissions reductions targets in specific timeframes. Now that's only a legislative proposal; it is not even actually a bill before the house. But there is no doubt that there will in due course a bill before the house, and should it come into law into anything like its present

form, it will make the environment secretary the second most important political figure in determining the economy and economic decisions, second only to the chancellor in the United Kingdom. And again, nobody should underestimate the significance of that, though you might want to think carefully about whether you think Gordon Brown would be quite as content as he currently seems to let that actually come to pass.

These are all encouraging changes. But it is when you turn around and look up the road at the hill that has to be climbed, that the scale and urgency of the changes that must be made that what you see is we have barely begun. So, you really do need to be careful not to confuse effort with achievement. We are making bigger efforts and we are making progress, but we are a long way from having achieved things yet.

Kofi Annan, spoke at the climate meeting in Nairobi late last year, and he set this point out I think, with very great clarity. He pointed out that there was a large and growing gap between what the science of climate change was telling us we needed to do and what the politics of climate change seemed capable of delivering.

This has important implications for business.



Business is the bridge across that gap. Because only the business community can develop and deploy the technologies, products and services that are going to be needed to make the transition to a low carbon economy and thus to resolve the climate dilemma. But business is not going to be able to do it in time and to scale without a supportive public policy context.

On one side of this bridge lies a landscape of risk. On the other side is a vista of opportunity. Policies that are tentative and timid will mean that the business response is driven much more by risk avoidance than by opportunity seeking. Policies that are bold and sustained will tilt the balance towards opportunity rather than risk.

Let me give you just one example, not yet very widely recognised, of the scale of opportunity that making our energy system carbon neutral by 2050 will mean. To achieve that goal we have to take all of the gas out of domestic and commercial heating and cooling. That means a massive opportunity for the makers of electrical appliances. Absolutely staggering opportunity for them. And a massive opportunity for electricity generators because we will become more dependent on electricity. But you don't have to think very long to work out we are not going to be able to sequester carbon from millions and millions of domestic boilers. We are going to have to find some way of pulling all that together.

The biggest constraint on the private sector investment necessary, and available, to make the rapid transition to a low carbon economy will be a lack of confidence in the willingness and ability of governments to muster the political will to provide the regulatory certainty and counterpart public investment necessary to harness the full potential of business to drive change and innovation.

I think that brings us neatly to the purpose of this meeting in a way. Kevin Rudd referred to this challenge as a moral challenge. And I think he is absolutely right to do so. I was in Cambridge last Sunday night listening to vice-president Gore make exactly the same point. At its heart, this really is a moral challenge. Most people interpret this to mean only that we must all take personal responsibility for our own personal carbon footprint. It certainly does mean that. I think it also has a far more profound meaning.

Climate change is a bad problem that is getting worse. For the moment, it remains a manageable problem. But it is now clear that in the very future, it is

going to make a transition into an unmanageable problem unless we act decisively. Bad as it is, climate change is a problem that is well within the envelope of our technical and economic competence to solve. If we fail to solve it, it will be because we have failed to muster the political will to apply the knowledge and resources we have to tackling the problem. That would be a moral failure on a scale unmatched in history.

Some people have compared the magnitude and complexity of climate change to the Cold War and argued that we need to mobilise our energies and resources on a similar scale if we are to defeat it. I prefer another reference from history. Winston Churchill, looking at the threat to civilisation posed by Adolf Hitler warned of the gathering storm.

He was talking about a threat that might have affected the lives of millions of people. Climate change is a threat that we know now with great certainty will undermine the prosperity and security of many billions of people. Churchill once remarked that 'If something be not done, it will do itself, and in a way that pleases no-one'. We will be roundly, and rightly, condemned by our children if we allow the climate to do itself. They will condemn us for our feckless disregard of their future.

Thank you very much.

