

Submission to the Senate Standing Committee on Economics
Inquiry into the exposure draft of the CPRS Legislation

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Submission

Introduction

Emissions trading is one essential building block of a national emissions reduction strategy, if the transition to a low-carbon economy is to be achieved efficiently and at minimum cost. There is nothing wrong, in principle, with the emissions trading framework set out in the Federal Government's draft Carbon Pollution Reduction Scheme (CPRS) legislation; in essence it is similar to various proposals under development since 1998ⁱ ii. Where it falls down is that its key parameters are inconsistent with the stated objectives it is designed to meet.

It is impossible to design a sensible emissions reduction strategy, and a CPRS, without first deciding on the emission reduction targets to be achieved – weak targets imply a very different strategy, and CPRS, from strong targets. The Government's stated objective is for strong action, but the weak targets, compensation and escape clauses in the CPRS legislation imply exactly the opposite.

Accordingly, any meaningful inquiry into the exposure draft must begin with clarity on the objectives to be achieved with the CPRS.

Objectives

The CPRS White Paper states that "As one of the hottest and driest continents on earth, Australia will be one of the nations hardest and fastest hit by climate change if we don't act now. ----- Unmitigated climate change poses a significant threat to Australia's economic security. It challenges our prosperity and risks undermining the viability of many of our coastal, rural and regional communities. It is in our national interest to take strong and decisive action on climate change"ⁱⁱⁱ.

This follows from Australia's signature of the 1992 UN Framework Convention on Climate Change (UNFCCC), and subsequent signature and belated ratification of the Kyoto Protocol, the latter designed to be the first step in achieving the ultimate objective of the UNFCCC, namely: "----stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened and to enable economic development to proceed in a sustainable manner"^{iv}.

Part I. Section 3.2 of the legislation acknowledges Australia's obligations under the UNFCCC and Kyoto.

Part I. Section 3.3 states that the legislation "is to support the development of an effective global response to climate change".

Part I. Section 3.4 of the legislation then defines Australia's emission reduction targets, namely:

- 60% below 2000 levels by 2050
- between 5% and 15% below 2000 levels by 2020

Logically, the emission reduction targets must have been set with the intent of meeting the Government's concern with economic security and the national interest as expressed above, and Australia's obligations under the UNFCCC.

Unfortunately, the work of the International Panel on Climate Change (IPCC), and more importantly the latest science and empirical evidence becoming available since its 4th Assessment Report was published in 2007^v, is indicating that, on the balance of probabilities, the targets in Section 3.4 will not meet either our economic security needs or our UNFCCC obligations to avoid dangerous climate change in a timely manner. These targets are not in accord with the national interest.

As such, the basis upon which the CPRS legislation is established is entirely inappropriate to meet the stated objectives.

The Evidence

The fatal flaw with the CPRS draft legislation, and the White Paper from which it derives, is that it is based on scientific information which pre-dates the 2007 IPCC Assessment Report, a report which is itself based on information up to 5 years old. The latest science indicates that we now run a rapidly increasing risk of sudden and total failure of some part of the climatic system, from which recovery may be impossible – in short, a risk of catastrophe which may seriously damage society as we know it.

The evidence, inter alia, is as follows:

- Rapid summer melt of Arctic sea ice, far greater than IPCC projections
- Accelerating growth in human carbon emissions, above worst IPCC projections
- Decline in natural carbon sinks
- Large increase in projected sea level rise
- Increased response to climate forcings, hence potentially greater temperature increases
- Potential tipping point for loss of ice sheets lower than expected.
- Increased ocean acidification
- Initial indications of Arctic permafrost and seabed methane hydrate emissions

Political and corporate leaders, nationally and globally, now claim to have crossed the threshold in accepting that climate change is serious and requires urgent action, this being one of the main planks of the Federal Government's 2007 electoral success, as well as current Opposition policy.

The Garnaut Review^{vi}, to its credit, went far further than any other Australian study in acknowledging the dangers of extreme outcomes, particularly for Australia, and the looming risk of climatic tipping points. International leaders are issuing similar warnings^{vii viii ix}. Intelligence communities worldwide are factoring the implications of climate change, combined with energy security, into their strategic assessments^{x xi xii xiii}. Medical authorities are planning for the public health impact that climate change will bring^{xiv}. Leading international organisations are increasingly attempting to quantify the probabilities of catastrophic climate change^{xv xvi xvii}, no longer characterising it as high impact-low probability, but now with increasingly higher probability of occurrence.

In particular, the bulk of the world scientific community is re-iterating ever more urgently the need for rapid action^{xviii xix xx XXI}, most recently that the target for atmospheric carbon concentrations has to be reduced to less than 300ppm CO₂ if dangerous climate change is to be avoided^{xxii xxiii}, rather than the 450-550ppm CO₂e range on which current policy is based. These concerns have been given greater weight in the last two weeks by the key messages from the conference of global climate scientists in Copenhagen (10-12th March 2009), stating, inter alia:

“Recent observations confirm — the worst case IPCC scenarios are being realised. For many key parameters, the climate system is already moving beyond the bounds of natural variability within which our society and economy have developed and thrived. — There is a significant risk that many of the trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts”^{xxiv}.

The Chief Scientist for Australia, Professor Penny Sackett, was an attendee at that conference. Speaking subsequently to the “Science Meets Parliament” dinner at Parliament House, Canberra, on 17th March 2009, she stated:

“The newest (climate change) science is crucial because some elements of the global climate are now changing at a rate considerably faster than previously thought. — When world leaders meet in Copenhagen in December (2009) — if they do not act, and we do not act, and act quickly and decisively, the effects will be devastating”^{xxv}

Threshold Questions

Both Government and Opposition in Australia will be, or should be, well aware of this rapidly evolving science and the risks it represents. In the light of the overwhelming concern expressed by responsible leaders, scientists and, in particular, the community at large, this inquiry must answer the following questions:

- why is Australian policy on climate change, and the CPRS legislation, not structured to minimise the risk to the Australian community from these potential climatic impacts?.
- why are parliamentarians not recognising that the risks we now run from climate change put this issue above normal party politics?.
- why are parliamentarians not accepting that their first priority, and fiduciary responsibility, should be to address, collectively, major threats to national security?.

Climate change and the related issues of peak oil and energy security are arguably the greatest threats to national security Australia will face in the next decades, with potentially catastrophic implications. The legitimacy of any parliamentary system depends on its preparedness to acknowledge these realities and take the urgent action required.

Climate change is not a normal political issue. It cannot be addressed by traditional political arbitrage between competing ambit claims, in the manner which has led to the current draft legislation. It has to be recognised that this problem is bigger than any political party, or vested interests, and it will only be solved by emergency

bi-partisan cooperation. In the light of current risks, policy must now be dictated by the latest, considered science, not by incremental change to business-as-usual and the art of the politically possible.

Scepticism & Risk Management

A frequent response to the urgency expressed above is scepticism, firstly that the climate is in fact warming at all, secondly whether warming, if it is occurring, is due to human rather than natural causes, and thirdly, if the problem is so urgent, that we can do anything about it.

The change currently occurring is probably due to both natural and human causes - we will not know the real answer on the relative contributions for decades to come which is why the science must continue to probe for better understanding and it is right to be sceptical of any absolutist views.

However, scepticism works both ways, and denial is not scepticism. The denialists have claimed the high ground for the last two decades and the scientists of the IPCC, and others, have been overly cautious in understandably not wanting to be too alarmist until they had overwhelming evidence of the climatic changes which are occurring. In the process, they have almost certainly underestimated the climatic impact we face. Unfortunately if we wait for certainty, the lag effects of increasing carbon dioxide concentrations mean we probably will lose the flexibility to do anything about the potential climate impact, whereas at present solutions are within our grasp provided we take resolute action.

So we have a classic case of risk management, or more accurately, the management of uncertainty. We must make decisions in the absence of certainty. The science is now indicating that on a risk basis there is an overwhelming case for emergency action; in particular because this is not conventional operational risk management - we are faced with potentially catastrophic, irreversible outcomes, nationally and globally.

History suggests that the existing political and corporate approach to climate change policy formulation is incapable of addressing these risks in the time required. From a prudent risk management perspective, we should have acted long ago, but vested interests and political myopia prevented sensible precautionary steps being taken. The result has already been to impose substantial additional costs and hardship on the Australian community, necessitating an emergency response from now on if the worst impacts are to be avoided.

Policy and its associated legislation must now be re-thought with catastrophic risk management as the primary focus.

Global Solution

Australia has spent the last decade avoiding action on climate change, arguing inter alia that this is a global problem which requires a global solution, and that any action Australia took in isolation would be meaningless.

In a narrow sense, this view is correct on both counts; a global solution is essential, and Australia's emissions are small in relation to the global total, albeit our emissions are similar to most large European countries and on a per capita basis amongst the highest in the world. But such negativity exacerbated the "free rider" problem, where no country was prepared to show real leadership, in the hope another would do so. The net result has been minimal progress globally in addressing the problem, an outcome for which Australia bears its share of responsibility, and is beginning to count the cost.

The world is now waking up to the risks we face, not least because of the escalating number of extreme weather events. As a result, rapid global progress in addressing climate change is a serious prospect, with both developed and developing country involvement. This entirely changes the context on which many of the worst provisions of the CPRS legislation, such as compensation to Emission-Intensive, Trade-Exposed industries (EITE industries) and domestic high-emitting industries, has been justified.

However, progress will still not happen without real leadership, particularly from the developed world. Political and corporate leaders continue to emphasise the need for the developing world to join in the emissions reduction task as a pre-condition for Australia taking strong, early action. But no serious initiatives to encourage the developing world to do so have been put forward, either here or overseas. Little wonder that Chinese and Indian leaders at the July 2008 G8 Summit, and since, have been dismissive of the developed world's emission reduction commitments^{xxvi}.

It is in Australia's national interest to contribute to that leadership, but the weak parameters of the current CPRS legislation will undermine our leadership credibility.

Global Financial Crisis

Much is made by established interests of the costs and problems associated with restructuring our economy on to a low-carbon footing and the dangers of doing so in the midst of the Global Financial Crisis (GFC). Lobby groups and corporate players urge that action on climate change, particularly the early introduction of the CPRS, should be delayed to avoid additional cost imposts and burdens at a time of economic downturn.

These self-same groups also argued against action throughout the last 15 years of economic growth, on the grounds that nothing should be done to undermine the benefits accruing from our traditional competitive advantage, built around high-carbon coal consumption and exports. That competitive advantage is rapidly being eroded as global attitudes toward high-carbon products change. Complacency over the years of economic growth has stifled innovation in moving to a low-carbon economy; that will continue if the introduction of an effective CPRS is delayed, to our considerable cost.

Fortunately the GFC is removing many of the "sacred cows" which have historically prevented action on climate change. We now have a unique opportunity to re-structure the economy on to a low-carbon footing in a manner which has proved impossible in times of normal growth, in the process providing a sustainable path out of recession. The opportunity should not be wasted. The low-carbon solutions we must adopt offer far greater investment and job creation opportunities than propping up our traditional high-carbon economy

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More stringent emission reduction targets imply a massive nation-building investment, both public and private, to re-establish our economy on a sustainable basis, which even before the recent deepening of the GFC, would have left minimal capacity to fund the compensation promised to high emitters. In deteriorating financial circumstances it is unthinkable that such compensation should be entertained. There was never any justification for it, either economically or as a sop to established vested interest, as clearly demonstrated by similar mistakes made in implementing the EU emissions trading scheme. In circumstances where we risk catastrophic failure, it would be utterly irresponsible. Similarly, the argument for special protection for EITE industries during the transition to global carbon pricing has no validity in a world facing catastrophic climatic impact. No carbon-intensive industry is realistically going to move to a region without carbon constraints, as constraints will inevitably be imposed err long, and concerns over carbon leakage are overblown.

Corporately, in contrast to the stated public rhetoric of numerous industry sectors to be active players in meeting the climate challenge, the entire debate is about rent-seeking - compensation, decelerating the introduction of any climate change response, and government support for offsetting emissions technology research^{xxix}, despite the fact that major corporates have been well aware of the likely introduction of carbon pricing for at least two decades. There is minimal discussion about action and solutions, particularly the enormous business opportunities they present. High carbon emitters, such as the coal industry, whilst publicly accepting that climate change must be addressed, demand the right to continued expansion on the premise that carbon sequestration will solve the emission problem in due course. Given that this technology is 10-20 years away from large-scale commercial application, which even then is not guaranteed, and that science is suggesting we are already in the zone of dangerous climate change, there is no justification for expanding unconstrained carbon emissions in the interim, other than short-term commercial cynicism in total disregard of the consequences. Arguments that "if we do not supply coal, others will, and of poorer quality with worse environmental implications" no longer have credibility in a world facing the risk of catastrophic failure. All coal expansion must be halted pending the availability of safe carbon sequestration technology.

Because climate change response has such widespread implications for established high-carbon vested interests, most of our political and corporate leaders remain like rabbits transfixed in the headlights, incapable of changing direction even when about to be flattened, literally and metaphorically speaking. If Australia is to develop a competitive low-carbon economy, new thinking is required.

Key Issues in the CPRS Legislation

Set against the above background, there must be fundamental change to the CPRS legislation if it is to adequately contribute to managing the escalating risks of climate change. Above all, it must encourage rather than hinder rapid adjustment and innovation within the economy. Key issues are as follows:

I. Emission Reduction Targets

In the face of catastrophic risk, emission reduction targets should be based on the latest, considered, science, not on a political view of the art-of-the-possible. The target for stabilisation of global atmospheric carbon to avoid catastrophic consequences and maintain a safe climate is now a concentration of less than 300ppm CO₂, not the outdated 450-550ppm CO₂e on which current legislation is based. This means emission reductions for Australia must be in the range 45-50% by 2020 and almost complete decarbonisation by 2050, relative to 2000 levels, rather than the 5-15% by 2020 and 60% by 2050 currently proposed.

Many will dismiss these targets as unattainable given that current concentrations are 385ppm CO₂; it will require not only the rapid curtailment of emissions, but the re-absorption of some carbon already in the atmosphere. We have the technology to achieve this and the targets are only unattainable when viewed with a business-as-usual mindset. When real emergencies loom then remarkable change is possible.

Solutions should be built around the CPRS, but emissions trading alone is not enough. Given the size and speed of the change required, it must be complemented with regulatory initiatives and other incentives to accelerate energy efficiency, conservation and alternative energy supply, improve building codes, improve vehicle and aviation emission standards, personal carbon trading opportunities etc. This does not mean picking winners, but setting the right framework for rapid change.

There has been much, valid, criticism of the CPRS legislation on the grounds that it effectively discourages individual efforts to reduce emissions. If stringent targets are introduced as proposed, this objection falls away as all possible reduction options will be in demand to meet the national targets. This will engender substantial personal effort and the desired behavioural change.

2. Compensation

All permits should be auctioned and no compensation should be paid to high-emitting industries. Public funding should encourage a viable future, not prop up an unsustainable past, particularly when that funding is going to be in short supply. There is no justification for compensation to EITE industries, or domestic high-emitters, in the emergency situation we now face. The world will be demanding low-carbon product, which will be a source of competitive advantage.

The LNG industry in particular, in an era of peaking oil supply, will have no difficulty in absorbing carbon pricing without detriment to its global competitive position.

3. Carbon Price Caps

There should be no transitional cap on the price of emission permits.

4. Banking & Borrowing Permits

Similarly, the ability to bank and borrow permits for/from future years should be limited

5. Unlimited Access to International Abatement Permits

Whilst international permit trading is desirable in the longer term, initially the ability to trade should be limited to ensure a strong stimulus is given to emission reduction innovation domestically.

Re-Formulation of Climate Change Policy and Legislation

Current attitudes are inconsistent with a world confronting the risk of catastrophic failure from climate change, and indeed with the public rhetoric of the key players themselves. A fundamental change in the formulation of climate change policy and legislation is required if catastrophic consequences really are to be avoided, rather than just lip-service paid to the principle, along the following lines:

1. The philosophy of incremental change from “business-as-usual” is not tenable. This must be replaced with a normative view of the targets required to avoid catastrophic consequences, based on the latest, considered, science. Action is then determined by the imperative to achieve the target, not by incremental, art-of-the-possible, change from business-as-usual. This will involve both mitigation – *avoiding the unmanageable*, and adaptation – *managing the unavoidable*.

The target for stabilisation of atmospheric carbon to avoid dangerous consequences is now a concentration of less than 300ppm CO₂. Our objective must be to reach that target as rapidly as possible.

When real emergencies loom, as at present, then rapid change is possible, but only with a paradigm shift in thinking. There are numerous historic precedents, for example national mobilisations pre-WW2, the Marshall Plan for the reconstruction of post-war Europe, the Apollo Project etc^{xxx}.

2. Such a paradigm shift in thinking must now occur, to regard the climate change challenge as a genuine global emergency, to be addressed with a global emergency response. This is not extremist nonsense, but a call echoed by an increasing numbers of world leaders as the science is better understood.
3. Climate change, and its potential to trigger catastrophic failure, must be thought of differently from the conventional economics, risk assessment and cost benefit analysis which have dictated policy thus far. The irreversible climate change tipping point scenarios now being seriously articulated by leading scientists require that we base our response far more on moral and ethical considerations than on quantitative economics. Under these circumstances, we should be prepared to pay a great deal to

maintain societal, environmental and economic flexibility for both current and future generations. Economic analysis is undoubtedly valuable in charting the most efficient pathway to reach the targets, but it should not be the prime consideration in determining the targets themselves. They must be set based on the latest science and the moral and ethical implications of that scientific opinion.

It is increasingly clear that the existing economic system is broken. Rather than being paralysed by the prospect of having to move away from conventional economic and business concepts, we should recognise that we now have a unique opportunity to establish our society and economy on a genuinely sustainable footing.

The potential for catastrophe also requires the creation of a margin of safety, or insurance, against its occurrence. This is particularly so when, as with climate change, the immediacy of the problem is not obvious. Carbon emissions remain in the atmosphere for decades. We have already seen a warming of around 0.8°C relative to pre-industrial times, with a further 0.6°C being inevitable as a result of the lag effect of historic emissions. However non-linear climatic responses are already evident at current levels of warming, with the potential to trigger tipping points far earlier than previously suggested (eg Arctic sea ice melt).

A margin of safety can be “purchased” by the use of innovative scenario and real option techniques to maintain flexibility, approaches which are not part of current policy formulation^{xxxix}. Most importantly, sensible risk management, given climate change lag and the escalating probability of catastrophic impact, demands early and rapid action to curtail emissions, not the gradual incremental response now being advocated.

4. There is a need for genuine global leadership. Current responses reflect the dominance of managerialism – an emphasis on optimising the conventional political and corporate paradigms by incremental change, rather than adopting the fundamentally different normative paradigm needed to contend with the potential for catastrophic failure. In practical terms, genuine leadership means committing today to rapid, deep emission reductions, and actively promoting concrete proposals to involve the developing world. For example via the Contraction and Convergence concepts mooted in the Garnaut Report and before, but well in advance of the UNFCCC 2009 Copenhagen meetings. The conditional approach, where Australia’s emission reduction task is made dependent upon other countries undertakings, as recommended by both business, government and Garnaut, guarantees failure. A nexus-breaker is urgently needed, and Australia is ideally placed to provide the leadership it implies, with the potential for considerable national benefit.
5. It must be acknowledged that climate change, though difficult, is only one of a number of critical, inter-related, issues now confronting the global community, as a result of population pressures and economic growth, which threaten the sustainability of humanity as we know it. The immediate pressure point is the convergence of climate change with the peaking of global oil supply, water and food shortages and the financial crisis.

Rather than viewing these issues separately in individual “silos” as at present, an integrated policy approach is essential if realistic solutions are to be implemented^{xxxix}. For example, peak oil estimates suggest that, due to declining production from existing oil reservoirs and limited potential for new discoveries, even at high oil prices, global oil supply may reduce by 25-50% by 2030, depending on the depth and breadth of the current recession, raising major questions as to who receives the available oil and our ability to make rapid substitution to meet any shortfall^{xxxiii xxxiv xxxv}.

Australia is particularly exposed in this regard, with only around 50% oil self-sufficiency. Thus we may well be attempting to transform our society to a low-carbon footing in the face of acute oil shortages; given our dependence on oil, early planning for this eventuality is essential. We will not be able to fall back on more extensive use of our coal resources in the absence of safe carbon sequestration technology^{xxxvi}, and that is unlikely to be available.

The International Energy Agency (IEA), at the behest of the G8, focused on the integrated climate change/energy security challenge in their 2008 World Energy Outlook released in November 2008, issuing a clear warning that current practices are unsustainable, needing “nothing short of an energy revolution”^{xxxvii}. This analysis is a major break with the IEA’s past unfounded optimism. Whilst still overly optimistic on oil supply, it gives strong support to the above arguments and negates the claim for oil and gas industry compensation for carbon pricing.

6. There needs to be an honest articulation of the catastrophic risks and the integrated sustainability challenge we now face, with extensive community education to develop the platform for commitment to the major changes ahead, albeit community thinking is in many respects more advanced than political or corporate attitudes to these issues. This must include a more mature and responsible political approach, as catastrophic risk cannot be handled realistically with current adversarial attitudes.

Conclusions

The Garnaut Review emphasises that Australia, as a hot dry country surrounded by less robust developing countries, is more exposed than other developed countries to the risks of anthropogenic climate change. As the science evolves and it becomes clear that the risk of catastrophic climate change is growing rapidly, Australia becomes even more exposed. This implies that Australia has every reason to take genuine leadership in triggering global initiatives to avoid catastrophic consequences, for which the Federal Government was given a mandate at the 2007 election. This will not be achieved by the incremental policy formulations currently being proposed.

Recent parliamentary and corporate debate on climate change policy is reminiscent of a speech given by Winston Churchill to the British House of Commons in November 1936 at the height of the appeasement years:

“They go on in strange paradox, decided only to be undecided, resolved to be irresolute, adamant for drift, solid for fluidity, all-powerful to be impotent. . . . Owing to past neglect, in the face of the plainest warnings, we have now entered upon a period of great danger. . . . The era of procrastination, of half-measures, of soothing and baffling expedients, of delays, is coming to a close. In its place we are entering a period of consequences. . . . We cannot avoid this period, we are in it now. . . .”

The Australian community has a right to expect more from its parliamentarians and corporate leaders when faced with arguably the greatest challenge in its history. There is an urgent need for a bi-partisan emergency approach and a rapid re-formulation of policy and legislation as suggested.

Most importantly, the latest considered scientific evidence must be accepted as the basis for policy formulation, both nationally and globally, particularly for discussions at the December 2009 Copenhagen UNFCCC Conference on Climate Change.

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^{xxxvi} “Implications of “Peak Oil” for Atmospheric CO₂ and Climate, P.A.Kharecha & J.E.Hansen, NASA Goddard Institute for Space Studies, March 2008

^{xxxvii} World Energy Outlook 2008, International Energy Agency, Paris,

“The world’s energy system is at a crossroads. Current global trends in energy supply and consumption are patently unsustainable – environmentally, economically, socially. But that can – and must- be altered; *there’s still time to change the road we’re on*. It is not an exaggeration to claim that the future of human prosperity depends on how successful we tackle the two central challenges facing us today: securing the supply of reliable and affordable energy; and effecting a rapid transformation to a low-carbon, efficient and environmentally benign system of energy supply. What is needed is nothing short of an energy revolution.”

<http://www.worldenergyoutlook.org/>