

Submission to

Senate Select Committee on Climate Policy

Carbon Trade Watch, Transnational Institute

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Summary

- Emissions trading is a poor means to reduce carbon pollution, as is shown by the example of the EU Emissions Trading Scheme (EU ETS), which is the world's largest carbon market. The EU ETS has so far failed to reduce emissions, while the use of offset credits serves to conceal this lack of progress
- The potential for the unlimited introduction of UN Clean Development Mechanism credits into the Carbon Pollution Reduction Scheme (CPRS) significantly weakens its environmental integrity as well as raising concerns about social justice. Provisions for unlimited banking of credits exacerbate this problem
- Emissions trading fares poorly when compared to more traditional forms of regulation as a stimulus to innovation or the adoption of low-carbon technologies. The presumption is that a price signal will be established by the market and that this will shift investments. This has failed to happen in the EU ETS, which has been beset by volatility and price collapses. These failings are not caused by teething problems, but are symptomatic of the extreme difficulties of assessing the value of "carbon," which is a commodity that bears little relation to any single real world object. More generally, such schemes over-estimate the capacity of price to achieve structural change in energy production and industrial practice

The choice of emissions trading as the central policy to reduce Australia's carbon pollution

1. Emissions trading is a poor means to reduce carbon pollution. This is clearly demonstrated by the experience of the EU Emissions Trading Scheme (EU ETS), the world's largest carbon market. Official data on actual emissions in the EU shows that the ETS is being used to conceal significant shortfalls in domestic emission reduction efforts. In particular, data from the European Environment Agency shows that the EU-15 is on track to meet only 3 per cent of its 8 per cent reduction target (equivalent to 38 per cent of the cuts needed) domestically – with the remainder “bought” through offset credits.
2. This figure should be set against the lack of ambition in the Kyoto target (a 5.2 per cent decrease in Annex I emissions from 1990 levels); its failure to account for international aviation and shipping at all (compounded by the inaction of the IMO and ICAO, the relevant UN bodies); and the continuing “outsourcing” of emissions to non-Annex I countries (also referred to as “emissions embodied in trade”).
3. The Australian Government's Carbon Pollution Reduction Scheme (CPRS) is liable to fall victim to similar loopholes. In particular, the linking of the scheme to international Kyoto compliance mechanisms (including the Clean Development Mechanism) without quantitative restriction constitutes a significant loophole and serves as a disincentive for the reduction of emissions domestically.
4. The proposed target for the CPRS reflects a level of ambition that is inadequate to the scale of the climate change problem. A target of 550 ppm/CO₂ equivalent gives a 77 to 99 per cent chance (depending on the climate model used) of a global average temperature rise exceeding 2°C, which is generally accepted as the threshold for dangerous climate change.
5. Moreover, stabilisation targets of 450 to 550 ppm/CO₂ equivalent are inconsistent with much of the scientific evidence on carbon emissions that has emerged since the IPCC 4th Assessment Report – which have shown that climate change is currently advancing more rapidly than models had predicted, and is subject to a series of non-linear feedbacks that were not fully accounted for in that Report. More recent estimates suggest that Annex I Parties should reduce their aggregate emissions by more than 40 per cent of their 1990 levels by 2020; and by more than 95 per cent by 2050 with the goal of returning emissions to 350 ppm/CO₂ equivalent levels.
6. The proposal to meet such targets by means of emissions trading compounds the problem. In particular, emissions trading renders commensurate a whole series of “CO₂ reductions” that are not equivalent in terms of their effects on investment in low-carbon technology, while also mandating (through the link to UN compliance mechanisms) the meeting of domestic targets offshore. This is a disincentive to domestic change, as well as being inconsistent with the levels of change recommended by the IPCC and other international bodies.
7. The reliance on offsets to fill the gap in domestic actions is taking place irrespective of clear evidence that non-Annex I countries do not have extra “reduction” capacity that can be counted as equivalent to domestic action in Australia. The European Union has estimated that developing country emissions will continue to rise by 166 per cent from 1990 levels by 2020. It is unlikely (and unjust, given current per capita emissions and the burden of historical responsibility for carbon emissions) that reductions will be achieved in these countries at a level adequate to meet the challenge of dangerous climate change without far greater domestic

commitments by Australia and other Annex I countries. Offsetting obscures and delays such action.

Lessons from the EU Emissions Trading Scheme

8. The first phase of the EU ETS was widely acknowledged to be “over-allocated” - in other words, more credits were handed out than were needed to meet emissions reduction commitments. In environmental terms, therefore, it failed to achieve what it intended. The EU sought to justify this initial failure by branding the first phase as a period of “learning by doing,” the suggestion being that a similar collapse would not affect subsequent phases of the scheme. Prices for EUAs (EU Allowances) in the second phase began more strongly, peaking at close to €31 in 2008. They have subsequently crashed again, however, and now stand at around €10.
9. Emissions trading is premised on there being a “price signal” to encourage a change towards more environmentally sustainable industrial practices. The collapse of EUA prices in both the first and second phases of the scheme indicates that this is not working. Moreover, the explanation of these collapses – as well as for the high degree of volatility within the carbon market – suggests that the problems are fundamental to the design of carbon markets themselves.
10. The main failings in the first phase related to over-allocation, a problem compounded by the inability to “bank” credits. Over-allocation is a persistent problem with cap-and-trade schemes. In the initial phases, against a backdrop of poor data on actual emissions, companies were able to talk up their existing level of emissions in order to minimise their “reduction” commitments under the scheme. The influence of heavy lobbying helped ensure that the first phase ended with more EUAs than existing emissions levels. This problem is not limited to the EU scheme. Research by carbon market analysts Point Carbon on the Regional Greenhouse Gas Initiative (RGGI) in the Eastern USA found that it was over-allocated by 24 million short tons, or 13 per cent of the cap in 2009.
11. The availability of better emissions data may resolve aspects of this problem, but the broader issue has not gone away (and it is worth noting that monitoring and verifying emissions does not require that there be a carbon market). In particular, the potential use of CERs (credits from CDM offset schemes) in phase II, via the Linking Directive, is far greater – these were not a factor in phase I due to low EUA prices and delays in establishing registries to exchange EURs and CERs. The CPRS allows proposes no quantitative limits at all on the potential use of CERs, so the capacity for this same problem to undermine Australian climate policy is even greater still.
12. The banking of credits from the 2008-2012 period for future use could also affect the environmental integrity of emissions trading. Through a combination of “hot air” credits (emissions reductions from Ukraine and Russia due to industrial decline and restructuring since the 1990 baseline established by the Kyoto Protocol) and the US non-ratification of Kyoto, there is likely to be a significant surplus of Assigned Amount Units (AAUs, Kyoto reduction units) by 2012. The banking of such credits would represent a serious loophole in any post-2012 scheme globally – allowing historical reductions as a result of economic restructuring in the former Soviet bloc to be counted as equivalent to future domestic actions by Australia and other Annex I countries. The inclusion of measures that would make permits within the CPRS bankable on an indefinite basis compound this problem.

14. The price collapse in the EU ETS phase II was triggered by the current recession, and also holds lessons for the Australian scheme. A number of companies and sectors have found that their emissions are reducing as a result of lower output, so are downgrading their assumptions about how many EUAs they need.
15. Short-term emissions reductions as a result of the recession are not the same as pro-active changes in how power is generated or how goods are produced. For the CPRS to work, it is presumed that a price will be set that is sufficient to encourage changes in industrial practice. However, there is no compelling evidence to show that prices of A\$23/t CO₂-e (the assumed starting price) to \$40 per tonne (the initial price cap within the CPRS) could effect such a change.
16. Potential responses to this problem might include setting a price floor beyond which governments would intervene to purchase credits in the hope of driving up the price – or similar measures to revive the market. However, these would be a disproportionately expensive use of finance to tackle climate change, and would prove far less effective than equivalent investments to directly fund the development of clean technologies and renewable energy. Moreover, such measures would do nothing to tackle the existing problems of environmental integrity that beset the carbon market.

Carbon trading and long-term incentives for investment and innovation in clean energy and low-emission technology

17. Interventions premised upon maintaining a carbon price fail to address a more fundamental problem: the inadequacy of price as a means to achieve the structural changes needed to tackle climate change.
18. Aside from the current price collapse and continued volatility – which have undermined the “price signal” - the ambition for what carbon markets can achieve as a policy instrument is not commensurate with the scale of the climate change problem. Based on assumptions of carbon prices far higher than their present levels, some advocates for emissions trading argue that it should lead to fuel switches (eg. from coal to gas). However, this should be set in context. To take the UK as an example: a significant longer-term shift from coal to gas took place *prior to* the introduction of carbon markets, while in the period of the scheme itself short term fluctuations correlate more closely to energy price differentials than carbon markets. More recently, investment is shifting back towards proposed new coal power, with other factors (including energy security concerns and coal/gas price differentials) the significant driver of this change. The rebranding of coal as “clean” – including the potential use of auction revenues to develop “CCS ready” plants – is also a factor, in the EU and in Australia, and could contribute to an increased reliance on coal. Above all, it should be noted that a fuel switch from coal to gas is not a “decarbonisation of the economy,” but merely the continuation by other means of a system based on fossil fuels.
19. Even if emissions trading resulted in greater use of gas to power the energy sector, which is not at all clear, the kind of emissions reductions achieved through this in the short term have to be weighed against the longer-term implications for energy policy. The carbon market facilitates the cheapest cuts, but these can also “lock in” technologies that are unsustainable in the longer term. The main lesson here is that such changes are not an adequate substitute for a domestic policy agenda that incentivises and regulates for a swift transition to renewable energy.
20. More fundamentally, the notion that carbon markets incentivise either the invention or use of

cleaner technologies rests upon shaky theoretical assumptions and a highly selective interpretation of empirical data. Advocates for a market-based approach to climate change argue that they provide the means to achieve the cheapest emissions reductions first. This is also a presumption in the framing of the CPRS. However, the “cheapest” changes – in terms of short term economic cost - are not the same as the most environmentally effective.

21. Emissions trading fares poorly when compared to more “traditional” forms of regulation as a stimulus to innovation. Since it leaves flexibility in terms of where changes take place, what would happen in even a “perfectly” established cap and trade market (ie. one containing no offset credits) is that some polluters would emit more than their allocation (buying in the remainder through the trading component of the scheme) while others would emit less. The net effect on emissions should logically be the same reduction as a conventional regulation capping emissions – although provisions for linking with offset markets undermine this in practice. The net effect in terms of a stimulus to innovate is different, however. Conventional economic theory holds that a high cost of compliance will spur major polluters to invest in cleaner technology to stay competitive, yet carbon trading mitigates against this outcome (by allowing a further option of purchase of credits instead of innovation). As Professor David Dreisen of Syracuse University points out, as emissions trading lowers the costs of compliance it also “restricts the price range of innovations that are economically rational” (see http://papers.ssrn.com/sol3/papers.cfm?abstract_id=770424). Moreover, he draws attention to that evidence that useful innovations often follow a pattern of high initial outlays which then fall as better production techniques and economies of scale are achieved. This is precisely the type of investment that the emissions trading market discourages “because the buyer of credits chooses the cheapest current reductions, not considering the societal cost savings in the future,” resulting in a “failure to stimulate advanced technologies [that] may be detrimental in the long run.”
22. Beyond this limitation, innovation to fundamentally restructure power production and intensive industry (in other words, the kinds of changes needed if Australia is to meet its emissions reduction commitments) are not necessarily those that are the cheapest economically, although the co-benefits of such technologies in relation to quality of life and environmental pollution locally, as well as the responsibility to tackle climate change globally, are nevertheless qualitatively superior to the status quo. Again, the CPRS (and emissions trading more generally) does not select for this outcome, but actively mitigates against it.
23. For similar reasons, emissions trading also has negative implications for investment in low-carbon technology. The volatility of the carbon market (which is based not on a lack of liquidity, as is sometimes suggested, but rather on the fundamental instability of “carbon” as a commodity) makes it a weak stimulus for investment decisions, including in comparison to energy and other commodity prices.
24. It might be argued that these disadvantages are outweighed by the additional financing that would be achieved by auction revenues. However, the relevant comparator here is taxation (whether directly or indirectly linked to emissions levels) and there is no evidence to suggest that trading is a more effective means to achieve such revenue. Moreover, the granting of “private property” rights for pollution permits based upon pollution is inconsistent with the “polluter pays” principle.

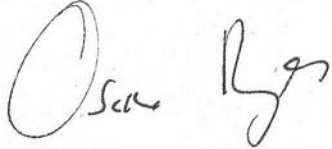
The use of Clean Development Mechanism offsets within the CPRS, and the potential for links with other carbon markets

25. The ability to use CDM offset credits within the CPRS will undermine the environmental integrity of the scheme. While cap and trade in theory limits the availability of pollution permits, offsets projects are a licence to print new ones – creating a “hole” in the cap.
26. The CDM is zero sum at best, moving “emissions reductions” from countries with binding commitments under the Kyoto Protocol to those without, rather than reducing emissions as such. However, various studies have shown a significant proportion of CDM projects to be “non-additional” - in other words, they do not involve measures to reduce emissions that would not have already happened, despite their being treated as directly equivalent to actual reductions. A recent survey by the NGO International Rivers found that 76 per cent of projects were already completed by the time they were approved as eligible to sell credits. The CDM also has significant failings with respect to social justice, as documented at www.carbontradewatch.org.
27. The assumption that the CPRS will also link up with other cap and trade schemes (possibly to form an OECD-wide and eventually a global carbon market) should also be reconsidered. Linkage to a global carbon market tends to assume that greater liquidity would stabilise prices and reduce the potential for “carbon leakage”. The current problems with emissions trading do not stem from a lack of liquidity, however, so there is little reason (beyond blind faith) to assume that they can be solved by simply expanding the market.
28. On the contrary, the further extension of carbon markets carries with it further risks. One of the underlying problems with emissions trading is that it invents a single commodity (“carbon”) out of a widely differing set of power generation techniques, industrial processes, as well as rendering these equivalent with “sink” projects (such as tree planting). Although deforestation is currently excluded from the CPRS, for example, it could therefore re-enter it through this back door.
29. Such linkages also obscure the very different social impacts of different means of reducing emissions, and the different trajectories that they set out in terms of the transition to a low-carbon economy. The net result is that emissions trading de-localises and ultimately obscures the process of measuring overall progress towards emissions reductions. This problem, and associated problems of gaming the system, are likely to be exacerbated by the expansion towards a global carbon market, since it would require a still greater diversity of distinct activities to be falsely rendered equivalent.

Carbon trading vs taxation

30. Depending on how it is designed, carbon taxation may be preferable to carbon trading, but there should be a similar caution attached to any over-ambition for the effectiveness of such measures. There is no simple, single “solution” to achieving the structural changes required to tackling the climate change problem. However, a broad range of effective approaches do exist – including various forms of regulation, financial and non-financial incentives, and education initiatives, as well as broader paradigmatic changes in how “development” and economic success are conceived.

This submission was made on behalf of Carbon Trade Watch, a project of the Transnational Institute.
As co-ordinator of this project, I confirm that I am authorised to make this submission on behalf of our
organisation to the the Senate Select Committee
Inquiry.

A handwritten signature in black ink, appearing to read "Oscar Reyes". The signature is written in a cursive style with a large initial "O" and "R".

Oscar Reyes
Co-ordinator
Carbon Trade Watch Project
Transnational Institute
25 De Wittenstraat
Amsterdam
The Netherlands
+ 31 20 662 66 08
oscar@tni.org