

Symposium

# Carbon Markets: Inherent Limitations and Complementary Policies

**Neil Perry\***

**Paul Twomey\*\***

*Guest Editors*

Over the last two decades, carbon pricing — particularly the use of carbon markets — has become a prominent environmental policy option for controlling greenhouse gas emissions. Orthodox economic theory suggests that carbon markets are the least-cost method of achieving emission reductions, and governments in Europe, New Zealand, and now Australia have introduced carbon pricing schemes with faith that this will transform their economies and meet global emission targets. A number of other states and countries are also considering or developing their own national schemes including California, China, Japan, South Korea and Brazil.

While the introduction of carbon pricing schemes has, without exception, involved protracted and fierce controversy, the rhetoric and motivation of both sides of the debate have been greatly clouded by special interest groups and political opportunism that have, to a large degree, crowded-out more considered critiques of the appropriateness of using a market logic to reduce greenhouse gas emissions. The purpose of this symposium has been to collect critical perspectives on the limitations of carbon pricing and carbon markets, including analyses of some of the implications of the disjuncture between the text-book model of carbon pricing and the actual schemes that emerge as compromises under various lobbying and political pressures. The symposium also addresses the role of complementary policy instruments under a carbon pricing regime — why they may be necessary and how we may successfully select the best suite of policy instruments.

The formation of this symposium occurred during a very tumultuous period in the Australian debate on carbon pricing. For a long period, Australia had failed to take serious action on emission reductions under the Liberal/National Party (LNP) Government of John Howard, including failure to ratify the Kyoto Accord. After its federal election victory in 2007, the new Labor Government both ratified the Kyoto Accord and implemented a detailed design process for a broad-reaching emission trading scheme (ETS), the Carbon Pollution Reduction Scheme (CPRS). Protracted negotiation to pass the CPRS through the Senate

\* University of Western Sydney

\*\* The University of New South Wales

was derailed when the Coalition leader, Malcolm Turnbull, was replaced by Tony Abbott, largely owing to the former's support of emissions trading. Prime Minister Kevin Rudd's subsequent decision to defer the CPRS until at least 2012 and successful campaigning by Tony Abbott caused Rudd's popularity to fall and eventually saw him replaced by his former deputy, Julia Gillard. Thus, carbon pricing would seem to have undone two party leaders in less than a year.

The 2010 federal election differed markedly from that of 2007. Where formerly both Labor and the LNP had committed to emissions pricing, 2010 saw the LNP actively campaign against it. With flagging public support and a successful Opposition campaign against a 'Great Big New Tax on Everything', the Government explicitly ruled out pricing carbon via a tax in the last days of the campaign, committing instead to an ETS. The election delivered a hung parliament, and it was only after protracted negotiations that Labor was able to form a minority Government with the support of The Greens — who now held the balance of power in the Senate — and three independent Members of the House of Representatives. Two of these independent MPs — both from regional electorates — joined members of Labor and The Greens in a Multi-Party Climate Change Committee (MPCCC) to explore the options for implementing a carbon price in Australia.

The resulting policy, the government's Clean Energy Futures Policy (CEFP) (Department of Climate Change and Energy Efficiency 2011), is a hybrid carbon pricing scheme with a three-year fixed price period from 2012–15, effectively amounting to a carbon tax. From 2015, the policy reverts to an ETS with the carbon price set in the market. As with the original CPRS, the policy includes heavy concessions for industry — particularly the most emissions-intensive industries — and Ross Garnaut, the architect of the CPRS design, has suggested this compensation is overly generous and has been secured through a massive lobbying exercise by vested interests (*Sydney Morning Herald* 2008). Another important implication has been the call by influential government and industry chiefs to remove many of the alternative and complementary policy instruments in the State and Federal systems, such as the Renewable Energy Target. To date, the latter has been the most successful national policy to reduce carbon emissions. It is argued that a carbon price is the least-cost solution, and additional policy instruments will supposedly only risk distortions and unnecessary duplication (Mayer 2011; Kerr 2012).

The six articles in the symposium address the issues of carbon pricing, market-based environmental instruments, the use of complementary policies and the influence of polluting industries on the design of the policy that has emerged in Australia. They are ordered in a rough continuum, from those that accept the need for carbon pricing (but also admit the need for complementary policies and adjustments to the current implementation of the CEFP), to those articles that are more sceptical of the entire project of carbon pricing and offer totally different approaches.

Even the most neo-liberal champions of carbon pricing concede that there are imperfections in the functioning of markets that may undermine the Pigovian solution to the externality problem.<sup>1</sup> However, there is less consensus as to the

extent of these so-called 'market failures' and for the need to adopt (or not) other complementary policies to address these problems. **Twomey** provides a comprehensive survey of multiple rationales for adopting complementary policies that includes not only addressing the standard market failures that are recognised in the mainstream literature, but also potential 'system failures' that may arise from various failures in our knowledge networks, socio-technical institutions, social dynamics and other responses to deep uncertainties that pervade the climate change setting. Importantly, the identification of this broad set of rationales provides a warning for those who are too quick to dismiss certain policy instrument options on the grounds of simple, idealised, text-book arguments which ignore the richer set of complexities and uncertainties in the economic system.

Of course, recognising the existence of potential market and system failures does not provide guidance as to whether any action should be taken or what policy remedies should be adopted. Furthermore, there is little evidence to support the conclusion that the existing climate change policy mix — which may be best described as having evolved from a series of *ad hoc* decisions at various levels of government — is either coherent or efficient. In this context, **Dennis, Grudnoff and Macintosh** present a framework for evaluating the appropriateness of existing and proposed policies to accompany a carbon pricing scheme. The authors note that there is a long history in Australia of using complementary instruments to support price-based policies, but emphasise the importance of good design and evaluation. Their framework includes seven principles that can help to achieve this purpose. As in Twomey, they note the significance of uncertainty in the climate policy environment, which points to the need for flexibility in any policy instrument or policy mix so as to adapt to new circumstances as they arise.

Focusing on the carbon pricing scheme itself, the formal text-book analysis suggests that the incentive created by pricing pollution should lead to a restructuring of technology and production inputs and changes in consumer behaviour which together may transform an economy to a low energy future. However, the realities of producer and consumer behaviour can differ quite markedly from this idealised situation, and thus perspectives from alternative economic paradigms can inform the debate and policy choice. In this context, the next two articles in the symposium address the effectiveness of Australia's carbon pricing scheme by analysing its impact on the profits of polluters and the ability of large polluters to manipulate the policy in their favour. **Perry** uses a post Keynesian framework — and particularly the work of Michal Kalecki and Wilfred Salter — to argue that the CEFPP unnecessarily protects the profits of emission-intensive, trade-exposed industries and that industry compensation reflects rhetoric, rather than the reality of lost competitiveness. Moreover, because the policy maintains and could even improve the profits of powerful polluters, it delays the obsolescence of emission-intensive technology and allows the continued growth of polluting firms and industries. In this light, the prediction from a post Keynesian approach differs from that arising from more orthodox economic perspectives which tend to suggest that incentives for technological change will remain if concessions are made to industry. Thus Perry argues that the government's prediction of a

transformed economy is questionable, and alternative and complementary policies are needed to take the burden of reducing emissions off the more symbolic carbon market approach.

**Spash and Lo** highlight the windfall profits possible for polluters under the Australian government's plan, and the role of industry rhetoric in the design of the present policy which awards free permits to some of the largest polluters in the Australian economy. The result is an ineffective policy masked by a theoretically powerful policy instrument — a 'sheep in wolf's clothing'. Spash and Lo explain that carbon markets need to be highly regulated and that they differ greatly from unregulated markets upon which the ideology of carbon markets is based. Importantly, the authors discuss the contradiction in simultaneously promoting emission reductions and following a pro-growth agenda, which is evident in the Australian Treasury's prediction of economic growth under a carbon price, and they highlight that carbon pricing may not be the effective driver of technical change expected under the text-book version of the policy instrument. Thus, substantial cuts in emissions (rather than incremental improvements) require an alternative — a nationally owned electricity-generating sector which would provide public benefits in perpetuity and rely completely on renewable energy within a decade.

At the heart of the symposium is a critique of neo-liberalism and market solutions to environmental problems. The symposium broadens in the final two articles to address these issues more directly. **Paton and Bryant** argue powerfully that the pricing of nature in price-based or property rights-based mechanisms implies an alienation of ecological values. Concentrating on the Clean Development Mechanism (CDM) of the Kyoto protocol — a source of emission offsets for Australian polluters - the authors argue that the creation of a new commodity — Certified Emission Reductions (CERs) — reflects the neoliberal agenda and the free-market ideology of orthodox economics. Based on a foundation of the atomistic agent divorced from nature, orthodox economics is ill-equipped to deal with the multiple interactions of humans and their environments and the interdependence amongst ecological problems. Outlining adverse environmental and social outcomes from CDM projects, Paton and Bryant question the use of orthodox economics and neoliberal ideology in the design of environmental policy and question even the posing of environmental problems as economic problems — certainly the reduction of ethical ecological values to prices in a market.

**Goodman** concentrates on the historical development of global agreements addressing climate change and in particular their neoliberal foundations in market mechanisms such as the CDM. Following the concerns of Paton and Bryant, Goodman argues that the CDM simply re-gear Southern development to Northern needs and that the Kyoto protocol limited the extent of mitigation of the North while allowing the South to increase emissions. However, Goodman argues positively that we sit on the cusp of a new world order, an upturning in North-South relations and an improved climate justice. As an ironical twist, the Kyoto protocol has led to an exponential growth in the South's per capita emissions and its total proportion of emissions relative to the North. This pro-

vides the South with a new structural power not experienced before in colonial or post-colonial relations. The sustainability and even survival of Northern states depends on the willingness of Southern states to reduce emissions. Thus Southern countries are now essential players and can transform the structure of international treaties moving forward.

Taken together, the contributions of the symposium expose the many divergences that exist between the idealised carbon pricing framework and its implementation in practice. However, the extent and significance of such divergences is yet to be fully determined. Given these intrinsic uncertainties, one natural conclusion, made clear in Denniss, Grudnoff and Macintosh, is that the implementation of any climate policy instrument should require regular monitoring and evaluation and, where possible, clear and transparent procedures as to how any future adjustments will be made. The CEFPA in Australia saw a movement in this direction with the establishment of new institutions and review processes that were not present in the design of its predecessor, the CPRS.

One such future option should presumably include the abandonment of carbon pricing itself if the performance of the scheme is deemed demonstrably inadequate. However, this raises difficulties because a credible long term pricing signal for private investment and innovation requires confidence in the long term integrity of the scheme. Such a problem will most likely be present from the start of the Australian scheme. The opposition leader Tony Abbott has said: 'I have staked my political life, what's left of it, on stopping this carbon tax' and has explicitly pledged to repeal it if the Coalition attain power (Minus et al. 2012). Elsewhere, the EU ETS and NZ ETS appear to be accepted as part of the business landscape (although not without problems, as mentioned by a number of the contributors). Nevertheless, the current cracks in the unity of the European Union and the total failure of the United States to establish a carbon pricing scheme make it too early to determine if carbon pricing is entrenched as the dominant option in the climate change policy landscape. Only time will tell whether it is a high water mark in the application of neoliberal thinking in environmental and innovation policy, or whether it is an aberration that precedes a return to more regulatory and public investment approaches that typified much of the twentieth century.

## Notes

1. Pigou's (1920) advocacy of a price mechanism to regulate or compensate for the adverse external impacts of firm or individual behaviour is discussed by several writers in this symposium (Twomey; Denniss et al.; Spash and Lo; Paton and Bryant).

## References

- Department of Climate Change and Energy Efficiency (2011) *Securing a Clean Energy Future: The Australian Government's Climate Change Plan*, Commonwealth of Australia, Canberra, available: <http://www.cleanenergyfuture.gov.au/wp-content/uploads/2011/07/Consolidated-Final.pdf> [accessed 24 August 2011].

- Kerr, P. (2012) 'The renewable energy target is a joke', *Financial Review*, 3 February, available: [http://afr.com/p/opinion/the\\_renewable\\_energy\\_target\\_is\\_joke\\_Iri7N5OW5LKdlDetoL2FLJ](http://afr.com/p/opinion/the_renewable_energy_target_is_joke_Iri7N5OW5LKdlDetoL2FLJ) [accessed 14 February 2012].
- Maher, S. (2011) 'States face call to axe inefficient climate schemes', *The Australian*, 24 August, available: <http://www.theaustralian.com.au/national-affairs/states-face-call-to-axe-inefficient-climate-schemes/story-fn59niix-1226120781550> [accessed 15 February 2012].
- Minus, J., Aikman, A. and Barrett, R. (2011) 'Policy crusade takes to the streets, the mines and shopping centres', *The Australian*, 12 July, available: <http://www.theaustralian.com.au/national-affairs/carbon-plan/policy-crusade-takes-to-the-streets-the-mines-and-shopping-centres/story-fn99tjf2-1226092662147> [accessed 14 February 2012].
- Pigou, A. C. (1920) *The Economics of Welfare*, Macmillan, London.
- Sydney Morning Herald* (2008) 'Wong defends govt's \$4b climate plan', 20 December, available: <http://news.smh.com.au/national/wong-defends-govts-4b-climate-plan-20081220-72ml.html> [accessed 20 December 2011].