

# How Green is your scheme? Greenhouse gas control the Australian way

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## **Abstract**

Australia managed to pass a national carbon pricing scheme into legislation in November 2011, which has come into effect from July 2012. The scheme includes elements of a CO<sub>2</sub>-equivalent tax as a short prelude to emission trading. Several fundamental problems remain unaddressed, including: the continuing rise of emissions, the scale of growth and economic activity, the promotion of emission trading, subsidies to polluters, the hidden promotion of banking and finance sectors. The new policy appears primarily targeted at job creation and business as usual. We argue that the prospects for any meaningful reduction in emission levels are extremely unlikely.

## **Introduction**

Canadian withdrawal from the Kyoto Protocol and the uncertain economic prospects of the USA and Europe suggest the industrialized world is confronting growing difficulties in the needed scaling-up of domestic efforts on reducing Greenhouse Gas (GHG) emissions.

However, if the claims made for carbon pricing were at all believable this would indicate that

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the worlds highest per capita carbon dioxide emitter, namely Australia (Australian Government, 2011, p. 12), is about to make progress which others should follow. This year a new type of carbon tax/pricing/trading mechanism will be introduced there and its form and prospects clearly deserve some attention.

Some political intrigue lies behind Australia's new policy. Julia Gillard ascended to the prime ministerial role in Australia after an internal Labor Party coup. That coup was inspired by the failure of the ousted leader, Kevin Rudd, to get a carbon emissions trading scheme (ETS) into legislation, and the disaffection of the mining sector due to a proposed tax on their profits. Gillard substantially revised the mining tax in consultation with corporate leaders. She then called for a general election in July 2010, which resulted in a hung parliament. The Labor Party managed to form a minority government supported by the Australian Greens and three Independents who favoured carbon pricing. This has been described as Australia's climate change election with the expectation of Labor being forced by the Greens to adopt a stronger environmental position than under Rudd (Rootes, 2011).

Formation of the coalition led Gillard to break her election promise of seeking community consensus on climate policy through a citizens' assembly. Instead the task was allocated to a multi-party climate change committee—including the Greens and three Independents. The opposition refused to take part. In July 2011 this committee produced the "Clean Energy Plan" (CEP) (Australian Government, 2011). This involves a temporary

CO<sub>2</sub>-equivalent tax for three years followed by an ETS, which appears rather similar to the failed “Carbon Pollution Reduction Scheme” (CPRS) under Rudd. According to the Treasury (2011) the approach will produce strong growth and low pollution. A double dividend is promised by curbing GHG emissions and reducing other taxes that inhibit employment and investment. The proposal passed through the Senate on 7 November 2011.

On the surface this appears to be a major policy breakthrough. The initiation of carbon pricing might even be regarded as the start of a transition to a less environmentally harmful society. In times of political and economic strife environmentalists could take this as a significant achievement. There has been much rhetoric about this being a superior regulatory approach because it is a tax as opposed to an ETS. Taxes are meant to make polluters pay while the ETS approach (as in Europe) has become notorious for supplying them with massive windfall profits (Elsworth et al., 2011b; Spash, 2010). So what exactly have the Greens managed to achieve?

### **One Step Forwards and Two Steps Back**

The Greens succeeded in forcing an emissions tax element into the CEP and providing it with a broader energy policy focus. Around 300 big polluting companies - shrinking from the original target of 500 - will need to buy and surrender to the Government a permit for every tonne of CO<sub>2</sub>-equivalent they produce. For the first three years, the permits will be

surrendered automatically, the quantity will be unlimited and the charge will be fixed (initially at A\$23 per tonne in 2012 rising to A\$25.4 in 2015). After this the scheme will become an ETS. The Greens accepted this fixed price model transitioning into an ETS; in fact, they had never ruled out the option of an ETS as the core element of an Australian GHG control policy (Australian Greens, 2009, 2010). Other aspects of the scheme include: increases in household allowances to compensate for price impacts, closing obsolete electricity generation facilities, financing for technology development (renewables and energy efficiency), and economic incentives for agricultural emission abatement.

Yet, despite signing up to the CEP the Greens have expressed their concerns over various aspects of the scheme. They encountered “very real hurdles in the negotiation process” within the multi-party climate change committee (Australian Associated Press, 2011). The negotiations leading-up to the consensus have been described by the Greens as involving “give and take” politics (Maher, 2011). That is, in more common terminology, they engaged in political horse trading. For example permanent exclusion of petrol from the carbon price was not part of their plan, but was the result of strong lobbying by the two rural Independent politicians on the committee (Maher, 2011). Nor is the use of international offsets a preferred measure (Australian Greens, 2010). In their ‘Safe Climate Bills’ the Greens called for a more stringent ETS without freely allocated permits, compensation to businesses for loss of profit, and the use of a price cap (Australian Greens, 2009). None of

these are part of the CEP.

A major disappointment of the CEP, for environmentalists in general, is the more than doubling of gas-fired electricity generating capacity as a substitute for coal-fired generation (Australian Government, 2011, p. 24). Using gas to generate electricity centrally is inherently inefficient over direct use for heating in the home. The incentive to do so arises from the fact that gas-fired power generation produces around half to two thirds of the carbon pollution compared with coal-fired generators<sup>4</sup>. The emission mitigating effects of the planned closure of coal-fired power plants might then be more than offset by the increases in gas-fired electricity generating capacity. In contrast the preference of environmentalists is for generating 100 percent of electricity from renewable energy and removing all fossil fuels from electricity generation (Shanahan, 2011), which is feasible with existing technology (Beyond Zero Emissions, 2010).

Indeed, socially and environmentally the Australian scheme is open to a range of criticisms: converting a tax into an ETS, promoting growth, watering down commitments and rewarding the banking and finance sector. The scheme covers less than half the number of polluters compared to the CPRS (300 vs. 1000 firms). The monies for plant closures will effectively hand over large payouts to the worst polluters without any public assets resulting

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<sup>4</sup> 53.06 kg CO<sub>2</sub>/MMBtu from natural gas (national average), 95.52 kg CO<sub>2</sub>/MMBtu from coal for electricity generation (reported data from U.S EIA Voluntary Reporting of Greenhouse Gases Program. Available at: <http://www.eia.gov/oiaf/1605/coefficients.html>. Accessed 19 May 2012).

from the public expenditure. A new government-backed financial institution will be established to provide loans to green technology developers, and its governing board will be chaired by a banker with other members from banking and investment sectors (Australian Government, 2011, p. 65 and 121). Thus the promotion of technologies is to be handled as a banking and finance initiative, not the promotion of social and environmental measures using existing technologies, as environmentalists recommend.

Despite Europe's unsuccessful experiences (Elsworth et al., 2011b; Spash, 2010), a permit system has remained the ultimate aim of the Australian Labor Party's policy. Starting from July 2015, trading of permits will be allowed with access to international GHG emissions markets. Polluting companies will be required to buy permits at auction, but those engaging in energy-intensive and trade-exposed activities will be entitled to free allocations. These allocations amount to 94.5 per cent and 66 per cent shielding against the carbon price, depending on emission levels, and will be subject to regular reviews beginning from 2014 with a view to reduce assistance rates by 1.3 per cent a year. The CO<sub>2</sub>-equivalent tax charge will no longer be operative but rather a floating price will be set by the financial commodity exchange markets.

This faith in financial markets and price incentives is combined with a pro-growth strategy which ignores the scale of the relationship between the scale of the economy and environmental damages. Labor managed to make job growth a major theme of the CEP.

The Australian Workers' Union (AWU), the main union in the country, hesitated to support the CPRS (Snell and Fairbrother, 2011), but supports the CEP despite the core elements remaining unchanged. The sweetener has been side measures allocating considerable resources to job creation in emission-intensive industries. The promise is that by 2020 national employment will have been increased by 1.6 million new jobs (Australian Government, 2011, p. 24].

Of course the main aim should have been to reduce GHGs. In fact the CEP only requires that: 'Growth in domestically produced carbon pollution slows' (Australian Government 2011, p. xii). Slowing down the growth rate of emission levels promises reduction against business as usual, but it also means the absolute level will continue to rise. In addition, the design allows for minimal domestic reductions of any kind, rewards the biggest polluters and will create a revenue deficit. We look at each of these aspects in turn.

### **Trading Carbon to Allow for Domestic Pollution Growth**

The CEP is advanced as a pro-growth strategy for Australia in transition to a greener economy. The most energy-intensive, trade-exposed industries will be provided with financial assistance, equivalent to 94.5 percent shielding from the pollution charges, designed to support "future investment and growth in these industries" (Australian Government 2011, p. 56). The CEP maintains the highly problematic political preference for giving away

substantial quantities of permits to big polluters, via grandfathering (Spash, 2010). This has been noted to be severely damaging for the European ETS (Elsworth et al., 2011b; Grubb et al., 2005). These permits could have been designated for auctioning with the revenues going to the public purse and being hypothecated for infrastructure change to avoid GHG emissions.

In addition, the ETS element will avoid domestic abatement via easy access to cheap international emissions credits (i.e., CO<sub>2</sub>-equivalent offsets) although a provisional charge will be imposed on the surrender of imported credits<sup>5</sup>. Such markets enable rich countries to purchase GHG credits from poorer countries, where abatement costs are relatively low. These credits, based upon foreign projects, are meant to either reduce or avoid GHG emissions which would otherwise have occurred (i.e. be additional to business as usual), but are notoriously problematic to properly implement and monitor (Spash, 2010).

The idea of offsetting raises a range issues, such as ensuring additionality, physical equivalence of GHG emissions and reductions, the failure to address non-GHG social and environmental standards, and the general exploitation of the poor (Lohman 2006; Spash 2010). Under the previous CPRS there was scant regard by the ruling Labor Party for such issues, and they even made officially explicit the Government's disregard for the broader environmental and social impacts (Australian Government 2008, p.11-12). Under the CEP

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<sup>5</sup> Amount to be applied only for the first three years and to be determined but not exceeding A\$15 for 2015, rising to A\$17.05 for 2017.

this position is maintained with the Treasury indicating confidence in output growth in the energy-intensive industries due to their ability to buy cheap credits abroad (Treasury, 2011, p. 46).

The aim is to allow domestic emission levels to continue to grow. The CEP is based on a 5 percent reduction from 2000 levels by 2020, which requires Australia's emissions to fall by 152 Mt CO<sub>2</sub>-equivalent. This 152 Mt CO<sub>2</sub>-equivalent reduction is expected to include 58 Mt CO<sub>2</sub>-equivalent of domestic abatement and 94 Mt CO<sub>2</sub>-equivalent international abatement (Treasury 2011, p.91). Thus, in contravention to international agreements (Marrakesh Accords on supplementarity of offsets) the majority of cuts (i.e. 94 Mt CO<sub>2</sub>-equivalent) will not be domestic. With the carbon price, Australia's domestic emissions are predicted to rise from 578 Mt CO<sub>2</sub>-equivalent to 621 Mt CO<sub>2</sub>-equivalent between 2010 and 2020; otherwise it would reach 679 Mt CO<sub>2</sub>-equivalent (under 'Medium global action reference') (Treasury 2011, p.86). The carbon price promises a domestic abatement by 58 Mt CO<sub>2</sub>-equivalent down to 621 Mt CO<sub>2</sub>-equivalent, which is still higher than the 2010 level (i.e. 578 Mt CO<sub>2</sub>-equivalent) (ibid). Effectiveness of the scheme in mitigating emissions at home is limited.

### **Capital Gains Irrespective of Emission Reduction Efforts**

The CEP contains a "Jobs and Competitiveness Program", which will shield eligible

businesses from the full impact of GHG charges by free allocation of emission permits. The eligible activities include: aluminium production, steel manufacturing, pulp and paper manufacturing, glass making, cement production and petroleum refining. In the initial tax period, holders of freely allocated permits will be allowed to sell unused permits to the Government at a fixed value (Australian Government 2011, p.103). Excess free permits can be traded whereas those that are purchased, mainly by less energy-intensive industries, cannot (ibid). Overall the big polluters benefit more with the CEP than under the Rudd government's CPRS proposal, which only allowed selling at a floating market price. The skewed distribution of benefits raises fairness concerns.

Allocating free permits to corporations provides them with an incentive to pass the cost onto consumers to reap windfall profits. Typically the price of products rise to reflect the full value of the permits (Whitesell, 2011). For example, under the EU ETS, Europe's largest emitter, the German power company RWE, is estimated to have received a windfall of \$US6.4 billion in the first three years of the system (Kantner, 2008), and made €1.8 billion in one year by charging customers for permits it received for free (Lohmann, 2006, p. 91). German industry, especially in the heavy industrial sectors such as iron and steel, has successfully lobbied to maintain large surpluses of permits. The top ten surplus holding corporations in Germany have amassed permits providing an asset worth more than €782 million (Elsworth et al., 2011a p.25). Similarly in Europe as a whole there are massive

windfall profits being made with the top ten corporations holding surplus permits having a value of around €4.1 billion, calculated (06/05/2011) on a €17.03 EU price (Elsworth et al., 2011b p.6).

### **Permanent Tax Cuts and Volatile Revenues**

In markets prices go up and down. Carbon prices are highly volatile under ETS, being susceptible to opportunistic market operations and speculators (Spash 2010). Once the CEP moves into the ETS phase government revenues would depend on the trade price of permits and be subject to fluctuations in the international GHG markets. Revenue stability would then be lower than under a genuine GHG tax. Revenues are reduced by free permits amounting to over A\$9.2 billion, or 38 percent of the expected revenues from permit sales. Once instigated, terminating the free allocation arrangements is likely to prove politically difficult because free permits soon become viewed as a right.

Despite this, the Australian Government is promising a package of budget commitments. The household assistance package will require 63 percent of the projected revenues and “will be permanent and increase over time” (Australian Government 2011, p.39). Capacity for revenue recycling in this way is uncertain when prices are left to follow international fluctuations. The net revenue will be positive for just one year, the scheme becoming a cost to the Treasury of approximately A\$4 billion after the ETS phase

commences (Australian Government 2011, p. 131). This is a fiscal stimulus package.

Revenues may also be overestimated. The Treasury (2011, p.89) assumes that carbon prices rise by 5 percent per year plus inflation from the start of the ETS to 2050. Yet the prices are exposed to volatility via linking to international markets. Price plunges are to be avoided by a price floor set at A\$15 per tonne. This indicates a lack of confidence in the neoliberal belief that markets should be left unregulated and will operate with minimal transactions costs. In Europe controlling market volatility, fraud and speculators have proven extremely expensive and raised the awareness of the need to tightly regulate the market which raises the costs of the whole mechanism (Spash 2010). Once the need to both top and tail price fluctuations is accepted then the supposed benefits of financially trading carbon permits as a means to reduce government intervention no longer seems credible. In addition, the public purse becomes an insurance money pot to remove risk for private profit-makers, the financial sector and speculators.

More generally, the scheme is providing a macroeconomic stimulus via boosting household consumption and rewarding the worst polluters. Neither aspect appears based upon concerns for effective GHG control. The public might also ask what the net expenditures are purchasing in terms of assets and whether far better schemes cannot be designed? A seriously Green scheme would guarantee creation of a nationalised electricity sector with 100 percent renewable energy, so achieving substantive domestic reductions and

toppling coal as King. Such a scheme has been calculated to be feasible within a decade using existing technology (Beyond Zero Emissions, 2010). Instead, the CEP scheme hopes to encourage private investors to create just an additional 12 percent in renewable electricity generation by 2020 while expanding and subsidising fossil fuel energy use.

## **Conclusions**

The Greens entered the negotiations with a promise to strengthen Australia's approach to GHG emissions control and enforce the polluter-pays principle. Yet the outcomes are no more than a rhetorical success. The scheme allows the continuing rise of emissions, the scale of growth and economic activity. The concessions to industry and big polluters are larger than under the CPRS and the scheme covers less than half the number of polluters. The stability of revenues is questionable while committing to funding substantial tax cuts and increasing expenditures on a continuing basis. Correctly designed a GHG emission tax could have provided more pollution-control cost certainty than an ETS and have had a greater capacity for revenue recycling. However, the proposed CO<sub>2</sub>-equivalent tax is just a short prelude to an ETS and the concessions to industry show even taxes are not free from capture.

Emissions reductions are only aimed at reducing GHG growth rates and even these are expected to be mostly achieved by buying cheap CO<sub>2</sub>-equivalent offsets from overseas. Revenues used to stimulate household consumption will increase growth, energy demand and

so GHG emissions, but the overall scale of economic activity is not addressed. The CEP appears primarily targeted at job creation and business as usual. These limitations indicate the strong lobbying influences at work that threaten to break the economic promise of the carbon price.

Although the CEP involves a policy shift, the fact that carbon is priced does not guarantee emissions reductions, let alone significant ones. GHG policies geared towards material growth expand the scale of economic activity while price adjustments merely rearrange activity within the economy. The theoretical expectations about carbon prices as regards GHG stabilisation also operate on the assumption that perfect markets exist. Their non-existence in reality means the creation of GHG markets becomes a complex political lobbying and negotiating exercise in which the dirtiest and most powerful have consistently gained most.

Compared with the limited efforts made by former Australian governments, and their North American counterparts, the CEP appears to take us one small step forward, but, without questioning corporate power or economic growth as usual, it has taken two large steps backwards. Pricing carbon is never an apolitical economic operation as portrayed in standard economics textbooks. Considerable political efforts in confronting power are needed to produce efficient outcomes predicted by theory. The actual political economy falls well short of the idealised economic setting. Consequently governments might end up

with a distorted policy design which is neither efficient nor equitable. As the financial and political resources required to correct these distortions are prohibitive, they would have produced better outcomes by directly financing renewable energy generation in a nationalised electricity sector.

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