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Submission to the Inquiry into the Clean Energy Amendment (International Emissions Trading and Other Measures) Bill 2012 and related bills

To the Senate Standing Committee on Economics,

In this submission we mainly analyse the internal dynamics of the European Union (EU) Emissions Trading Scheme (ETS). Australia's decision to integrate into the EU ETS needs to be understood in the context of the Scheme's current performance, and the distributional outcomes of any integration.

Our conclusions from this submission are summarised as follows:

1. A large volume of accumulated unsold permits in the EU, currently about 950 million tonnes[1], ensures a continued oversupply. Deutsche Bank forecasts the price to be around 10 Euros per tonne in 2015, whilst Point Carbon thinks it could drop to 4 Euros per tonne[2]. A recent auction of 4 million permits in the UK fetched a price of 7.48 Euros per tonne. Because of these reserve over-allowances, Australia could be sold EU permits without any change to the price or volume for any emitter in Europe, implying that we would buy 'spare' permits from the EU, without anything happening to overall carbon emissions.[3]

2. We thus expect the revenue of the scheme to be much lower than projected: under the current Australian Treasury projections, the revenue would be $9.4 billion in 2015, based on a price of 29 dollars per tonne, applied to around 350 million tonnes of demand[4]. We think it is more likely to be $10 per tonne and Australian revenue to be nearer $3 billion. At present arrangements, a sizeable fraction of Australian permits would be bought in the EU auction market, effectively leading to a transfer payment from Australia to the EU without any clear benefit to Australia.

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1 The EU Commissioner for Climate Action puts it at 950 million tonnes by the end of 2011, and rising 200 million tonnes per year http://ec.europa.eu/clima/news/docs/2012092801_ets_jd_en.pdf

2 http://www.cnbc.com/id/49190887/UPDATE_1_UK_auctions_4_mln_EU_carbon_permits_at_7_48_eur_t

3 http://aei.pitt.edu/33835/1/TFR_on_EU-ETS_Fujiwara__Georgiev-1.pdf

4 http://www.cleanenergyfuture.gov.au/wp-content/uploads/2012/06/CleanEnergyPlan-20120628-3.pdf

A best case revenue estimate in 2015, assuming no EU permits bought by Australian emitters and a price of $15 per tonne, would be $5.4 billion. A worst case revenue forecast, with 50% permits bought from EU and other international Kyoto compliant offsets and a price of $8 per tonne, would be $1.4 billion, with payments from Australian firms to EU governments and other Kyoto offset suppliers of around $1.3 billion.

3. We advocate instead that if Australia has to be in this scheme as the subservient partner, then we should ensure that we are merely price-takers but do not become subsidisers of the European Union. The EU has enough surplus permits to satisfy the entire Australian demand without any effect on its own price or volume, so the danger of massive outflows of funds is real.

4. We thus encourage this committee to advocate for a mechanism that would put more strict limits on the amount of permits Australian emitters would be able to buying from the EU system, and from Kyoto-compliant permits, particularly during the transition phase till 2018. [5] The EU experience shows that adequate monitoring of cross-border flows of permits are also essential to eliminate the scope for fraudulent trading behaviour.[6]

5. Also, in order to prevent a massive outflow of funds from Australia to the EU from a the threat or expectation of a change in policy, we advocate that the scheme includes an insurance component that guarantees the value of permits if there is major domestic policy change.

Should the Committee seek clarification of the matters covered in this submission, please contact the authors for discussion and clarification.

Regards,

Professor Paul Frijters and Cameron Murray

5 This has happened in the EU before. In 2007, Great Britain bought 37% of its total emissions from other countries (about 70 million tonnes). An equivalent amount of imports for Australia would mean about $1.3 billion to flow to the EU in 2015.

6 https://www.europol.europa.eu/sites/default/files/publications/organised-crime-in-energy-supply.pdf

Introduction

We understand the proposed legislation to have the following key characteristics:

1. Australian emitters will be able to buy up to 50% of their total emissions permit requirements from abroad in 2015, including 37.5% from the EU scheme and 12.5% from Kyoto units outside the EU (mainly the almost collapsed Clean Development Mechanism). The mechanism to ensure compliance with these percentages is yet to be worked out.

2. The total amount of emissions permits is to be set in 2015, targeting Kyoto emission commitments with a declining schedule each year. All Australian permits will be auctioned, without a floor price from 2015. Yet in Europe only around 5% of emissions permits are currently auctioned (the EU Commissioner hopes to auction 60% on a common European auctioning platform). Free allocations were a major part of the EU system and it is not clear how or if they will be phased out.

3. EU emitters will not be able to buy their permits in Australia but Australian emitters will be able to sell on those emission rights they bought from the EU scheme until the expected full two-way integration of the schemes in 2018.

Each 3 of these characteristics has crucial implications. The third characteristic is perhaps the most crucial one: the subservient treatment of Australian permits means that companies who buy EU permits will have a valuable asset in all political scenarios (they are secure), whilst those with Australian permits may find themselves with a worthless asset should there be a massive increase in the number of Australian permits or should a future government decide to scrap the permit system entirely (there is greater risk and uncertainty with Australian issued permits). In turn, this means that without added elements to the scheme, the price of Australian permits will in fact be below that of the permits in the EU as the Australian price will reflect the implicit possibility that they turn out to be worthless under a change of policy, such as via a change in government.

The third characteristic thus tells us that the Australian issued permit price will be below that of the EU issued permits because of political risk: at equal price, a firm would prefer the safe European permits. The natural solution to this problem is to either take away some of the political uncertainty or to add an insurance component for the possibility of a change in domestic policy. The simplest way is for the major political parties to bind themselves to not abolishing the scheme abruptly but to follow the yearly cycle of the EU. An alternative is outright market insurance, which could be directly negotiated between the government and international insurers. Without a cross-party assurance (a full refund system), the insurance cost would be substantial and the amount of permits bought in the EU would be commensurately higher.

The second characteristic means there is a large amount of discretion on the side of the EU and Australia to set the permit volume. The question of what the EU is likely to do will be the main item of the bulk of this submission, but the bottom line is that the EU has a fairly generous amount of permits in circulation, meaning that Australia will essentially determine via the amount of permits it allocates how much revenue flows to the EU. There is high uncertainty about the political dynamics within the EU though. In turn, presuming Australia does not want large flows of funds to go to the EU it will be important for Australia to strictly enforcement limits on domestic use of EU permits.

Alternatively, the number of issued permits can be flexibly issued to ensure that Australian permits are preferred, and capture revenues locally. This type of action, however, compromises the emissions reduction intentions of the scheme and is simply a continuation of the dynamics at play within the EU scheme itself.

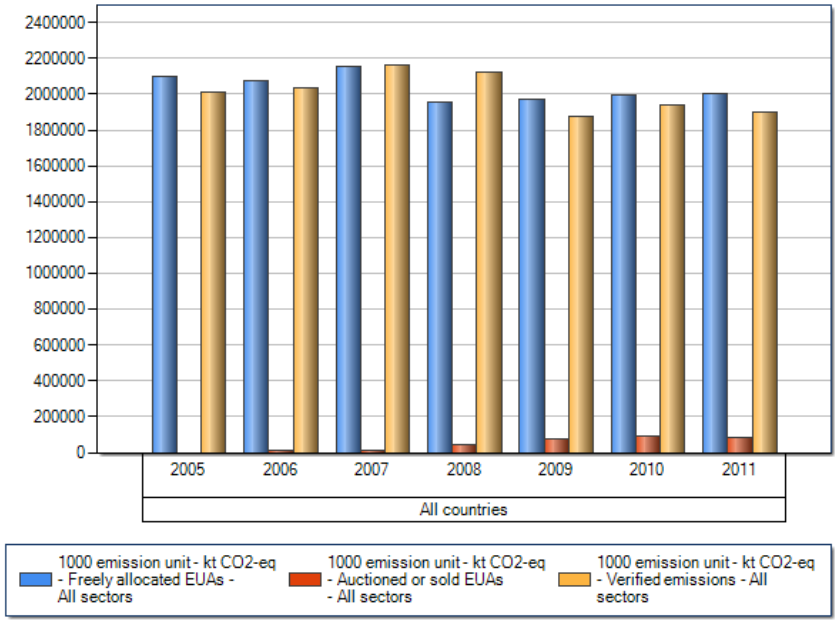
The first characteristic means there is a need for a control system determining who can buy outside the EU/Australia and to keep tabs on the total volume bought in the EU.

This control system allows Australia a flexible number of allocations: we could introduce 'additional technical permits' that can be floated in response to a 'perceived danger' of hitting the boundaries of the allowed percentages. Just like the EU has a large amount of free permits given to favoured industries, so too can Australia directly sell a certain number of permits outside of auctioning for 'technical reasons'. Set up sufficiently flexible, this can then be used to ensure much less than 50% of the permits bought by Australian emitters is bought outside of Australia. This would effectively ensure Australia is a price-taker, but not a volume-changer.

The remainder of this submission is concerned only with the internal dynamics of the EU system, aimed at getting a reasonable idea what will happen to it in the coming years.

The European Union Trading System

The EU trading system has been operational for over 7 years now. In the EU system, emitters of a minimum size[7] are supposed to buy permits from a centralised national system. Each country gets an allocated amount of permits based on historical emission levels (which rewards polluters). In practice, 96% of emitters get free permits, and as the chart below reveals, the sale and auction markets remains extremely limited.



Source: EU Emissions Trading System (ETS) data viewer[8]

7 For instance, airlines who emit less than 10,000 tonnes per year are exempt from the permit system.

8 http://www.eea.europa.eu/data-and-maps/data/data-viewers/emissions-trading-viewer

New companies who have to buy permits end up buying mainly from their own country, and intra-EU trade of ETS permits remains low for most countries.[9]

An emitter is obliged to report and monitor their own emission levels in a process quite similar to that of standard activity accounting: an emitter keeps tabs on the amount of fuels bought in and then calculates emission levels based on efficiency factors10. In order to be allowed to apply a lower efficiency factor, they need to 'prove' their higher efficiency.

A system of 'verifiers' supposedly makes the emitter honest: like an accounting audit report, a verifier has to write a verification report that says that the emitter has honestly represented their emissions accounts. A verifier is supposed to conduct spot checks and regularly check on the monitoring systems for emissions. However, at the moment, anyone can be a verifier and the monitoring of the verifiers is very limited. So the current situation is one where the scope for fraudulent monitoring is enormous, particularly since the emitters themselves have to find a verifier. This is also an area of active debate, with the EU Commission trying to implement a peer-reviewed system of verifier accreditation.

Historically, cross-country trade in the EU, which would increase if Australia joins the scheme, has been prone to criminal activity. The 2009 report by Europol estimated a $5 billion fraud in VAT[11], essentially driven by phantom traders who collected VAT payments from other buyers but did not pass this on to the tax authorities and instead disappeared with the VAT money (the missing traders). At heart the issue was one of lax monitoring by national legal bodies from internationally traded permits.

In 2013, the EU plans to include many more types of emissions and installations in its scheme, which will make monitoring even harder.

The system historically had several fudge factors that allowed countries to avoid transferring significant amounts of money to other countries. There were fudge factors in terms of scope, enforcement, offsets, and permit levels.

Scope

The scoping fudge factors in the EU have to do with the question who is actually a big enough emitter to be under this scheme. This is not just a matter of measuring who emits what, but also a matter of the legal arrangements and subjective estimates of the scale of industrial activity. For instance, in order to avoid payments, firms can split themselves into multiple legal entities to avoid being targets for classification under the scheme.

While the current list of stationary facilities included in the EU scheme is widely known, in the case of transport emissions (including aviation) whether the different legal entities are all ultimately

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9 http://www.wifo.ac.at/wwa/downloadController/displayDbDoc.htm?item=S_2012_ICPIA_1_ALLOCATION_PATTERNS_44139$.PDF

10 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0032:EN:PDF

11 https://www.europol.europa.eu/sites/default/files/publications/organised-crime-in-energy-supply.pdf

owned by a single person or unit can only be found out by the active cooperation of the local legal system.

Given that compliance is essentially self-reported it is really up to national legal institutions to catch non-compliers, and for national authorities to nominate new facilities for inclusion in the scheme. Their incentives to make this a priority is limited though.

Enforcement of emission quantities

Enforcement is another important fudge factor. Not only are emissions hard in principle to quantify, but in reality local enforcement agencies have to make many working assumptions to base their estimated emission levels on, if they bother at all. How to count the emissions of transport to and from a coal-fired power station over various countries? Does one count the emission of after-burning, even if that is owned by a different legal entity?

In practice it appears that all this is up to the 'verifier' and that there is no European monitoring system of actual emissions at all. Given that there are about 12,000 verifier reports annually and that these reports are substantial technical documents, it is not reasonable to think the EU Commissioner of Climate Action (and his staff of 160 workers plus external associates[12]) can possibly monitor what is going on. In this regard, the attempts of the EU Commission at getting verifiers to peer-review other verifiers seems to us to signal its own failings in this regard.

Carbon offsets

In the EU ETS, there is a 12.5% limit for buying permits from the Clean Development Initiative and other Kyoto-compliant non-EU sources. Some of these are being phased out of the EU scheme, such at the overseas HFC offsets which were discontinued in 2010 when extensive corruption of offset suppliers was discovered.

Offsets are much cheaper than the EU permits (about 3 Euro per tonne on the ICE Futures Europe Exchange, October 1st 2012), which of course is why Australian business groups will no doubt advocate for their greater use, despite the uncertainty surrounding their contribution to genuine emissions reductions and their known susceptibility to fraud.

Permit levels

Obviously, allocation of permit levels for each country has been a major bone of political contention. In the original plan of the European Commission it would be the Commission setting the amount of permits by country based on an engineering formula. In practice there are national plans (about to be abolished), but mainly there is discretion at the national level as to who is given free permits, the setting of auction reserve prices, and what to do with the permits kept in reserve. The EU Commission wants to reduce the number of free permits and auction off more. it is thus making steps towards centralisation of the auction process in 2013.

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12 http://ec.europa.eu/dgs/clima/mission/index_en.htm

The stalemate in permit levels has so far meant that very few firms buy significant amounts of permits from other countries. Instead local 'surplus' allocation rights can buffer any additional domestic demand.

What will happen to permit levels? Because of the European Financial crisis, the poorer countries have seen their emission levels reduce relative to that of the richer countries, and there is surplus capacity everywhere in the system, with huge reserve allocations unsold in previous years. By 2015 there will be more over three times the total number of Australian permits in reserve in the EU system.

Another factor in the political mix is that the expansion of the auctioning scheme will mean more companies will have to start buying permits.

All these political factors point in the same direction: increased resistance for price rises and reduced pressure for price increases.

Implications for greenhouse gas emissions from joining the EU ETS

In light of the above, the overall levels of permits will be determined by an intra-EU game of transfers and limited enforcement. In response to the continued poor enforcement and political pressure to keep prices low, we would expect the EU Commission to be lenient when it comes to pressuring the richer countries into low permit levels too, for fear it would alienate them too much.

It is important to note that without political consensus in the EU to amend their program, the surplus allocations are huge and can be expected to keep prices down over the next ten years: with 950 million unsold tonnes, rising 200 million per year, the incremental annual 1.74% reductions in new permits due to the Kyoto protocol will not bite till well after 2020: the total EU cap for 2013 is 2.039 billion allowances, which reduces by only 37 million allowances per year, much less than the current accumulation rate of reserve allocations. [13]

Hence, even if Australia buys 37.5% of its total emission quota from these reserve EU allocations, it will not be until around 2020 that this will start to reduce the accumulated level of European reserves. Not until around 2030 is it estimated that the EU starts running out of accumulated reserves to sell us and genuine emissions reduction occur from the new integrated emissions trading system.

In short, one should not believe the projections of high permit prices in the EU in years to come: the political will to overcome the vested interests that keep the prices low is limited. Particularly with the attention of the public elsewhere and large companies being forced to buy permits for the first time, the odds of getting the politicians to agree to 'magic away' the vast accumulated unsold permits such that there is real upward pressure on prices is minimal.

Conclusion

Our analysis of the EU system shows that within the EU there are large forces arrayed against future price increases: surplus permits that are yet unsold; established big emitters being forced to buy

13 http://ec.europa.eu/clima/policies/ets/cap/index_en.htm

permits for the first time; emitters essentially choosing their own monitors; the general public more concerned with economic growth than the climate; and convenient cheap foreign offsets still undercutting the already low EU prices.

Against this background, we suspect the EU Commission hopes Australia will be the one to save the day and buy up unused reserves, which would lead to no change in prices or emissions but merely ensure Australia transfers funds to national governments in the EU.

Yet, there are no internal Australian reasons to want to transfer to EU countries, not even the poorer ones. While the representatives of Australian emitters will make claims about our improved competitiveness from the lower carbon price resulting from this trade, Treasury's own analysis shows that it is far from clear that the net effect on international competitiveness of our current scheme is at all significant[14].

Hence we advocate a policy with a substantially lower the limit on EU permits during the transition period. An alternative to this prescription would be the development of an additional category of permits that can be flexibly expanded in order to ensure local emitters source the majority of their permits locally and reduce the amount of transfers eventually going from Australia to the EU. These 'transition permits' could function until the EU addresses its oversupply, which would optimistically be prior to full-integration in 2018.

As to further design elements, it seems important to us to have bipartite agreement that any revocation of the permit system will not happen midyear (or some equivalent full-refund system) or that else an insurance element is added to the scheme. Otherwise, the Australian price will be even less than the EU price, reflecting the greater uncertainty in the value of the Australian permits.

Mainly, the revenue projections seem wholly exaggerated. Treasury's modelling of permit prices has completely neglected the political fundamentals behind the price developments in the EU and has mistakenly bought into the pronouncements of the European Commission that it wishes to restore the price to its formerly high value of around 30 dollars per tonne. Instead, the political realities and trends would suggest a sustained much lower price for the coming years, meaning that the revenue forecasts in our opinion are about 300% higher than we expect them to be: our expectation is for the price to be around 10 dollars per tonne in 2015-2017, not 30 dollars a tonne. Additionally, it is likely that some portion of this smaller revenue pie will be transferred to the EU as local emitters preference these permits for their ability to be sold to a larger market.

This brings a shortfall in the projected revenue stream of up to 6 billion AUS per year.

In short, our recommendations are mainly meant to minimise the damage to Australia's financial interests in the short term from the political wish to align our permit scheme over the long term with that of the EU.

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14 http://cache.treasury.gov.au/treasury/carbonpricemodelling/content/report/downloads/Modelling_Report_Consolidated.pdf