Grattan Institute Submission

Environment and Communications References Committee

Introduction

This submission is provided as input to the Senate's "inquiry into the Abbott Government's Direct Action Plan and the Abbott Government's failure to systematically address climate change."

We have sought to assess the effectiveness and efficiency of the Direct Action Plan while recognising that the Government has yet to develop detailed policy design elements that may impact both of these dimensions.

In 2011, Grattan Institute published a report, *Learning the hard way: Australia's policies to reduce emissions*. This report analysed four kinds of carbon abatement instruments: market mechanisms; grant tendering schemes; rebates and energy efficiency standards. Based on experience, only an economy-wide carbon price (a type of market mechanism) can achieve the scale and speed of reductions required for Australia to meet its 2020 commitments without excessive cost to the economy or taxpayer.

Of all the measures analysed, market mechanisms have delivered the greatest emissions reductions and have met targets ahead of time. Always with the caveat of robust design:

- They work because they minimise the need for government to predict the future.
- They can provide long-term predictability, enabling business to invest with greater confidence.
- They provide flexibility by devolving decision making to businesses and individuals, allowing them freedom to choose how to reduce emissions, without government involvement.
- They work best where they include the broadest range of abatement options and stay administratively simple.

The Government has accepted a global objective of constraining global warming to no more than two degrees and a combination of unconditional and conditional 2020 targets for Australia. It's published Clean Air Plan is focused only on meeting the unconditional target of reducing emissions by five per cent below 2000 levels by 2020. Therefore, in that sense, the Plan does not claim to systematically address climate change and is silent on the longer term global warming target. The Government has deferred the setting of longer term targets, and policies to achieve them, to 2015.

Specific Issues from terms of reference

Whether the Direct Action Plan has the capacity to deliver greenhouse gas emissions reductions consistent with Australia's fair share of the estimated global emissions budget that would constrain global warming to Australia's agreed goal of less than 2 degrees.

- The Direct Action Plan is not designed to deliver greenhouse gas emission reductions consistent with a global goal of less than 2 degrees' warming. The Plan will require enhancement or extension to achieve such a goal.

The Emissions Reduction Fund (ERF) is the centrepiece of the Government's Direct Action Plan and is intended to efficiently and effectively source low cost emissions reduction. It is not, however,

intended to be the only element that will contribute to the Government's target to reduce emissions by 5 per cent below 2000 levels by 2020. For example, the Renewable Energy Target (RET) will also play a role, depending on the way in which it evolves and changes in electricity demand over the period to 2020. Although the Direct Action Plan does not explicitly include the RET, an inquiry into the effectiveness and efficiency of the Government's climate change policy is not complete without reference to the RET. This is because the RET contributes to the effectiveness of the ERF in reducing emissions. In contrast, under the previous government's climate change package, the RET does not reduce emissions in the context of an ETS with a market price for emissions.

With good design, the ERF can deliver effective and efficient emissions reduction. This is not to conclude that it solely or the Direct Action Plan in its current form can achieve the Government's five per cent target.

We do not have specific expertise to comment on setting a global emissions budget and determining Australia's share of that budget. In regard to the current inquiry other analyses have associated the agreed global target with an emissions reduction target for developed countries of eighty per cent by 2050. This was a target adopted by the recent Australian Labor Government. The Direct Action Plan as published is focused only the five per cent, 2020 target, although there is no fundamental reason why it could not be expanded to meet conditional 2020 targets or longer term targets to which the Government may commit in meeting its acceptance of the two degree warming objective.

We have not undertaken our own analysis on the efficacy of the Government's unconditional or conditional targets against the global goal of avoiding more than 2 degrees' warming. However, we do note the conclusion from the 2008 Garnaut Climate Change Review that the bipartisan five per cent target falls well short of consistency with that goal.

Whether the Direct Action Plan has the capacity to reduce greenhouse gas emissions adequately and cost effectively:

- The funding allocation, rather than the inherent design, of the Direct Action Plan will be the major determinant of its adequacy.
- The ERF could deliver cost-effective reductions in greenhouse gas emissions. There is currently inadequate detail available to assess its cost effectiveness.

Adequacy

The effectiveness of the Direct Action Plan will be constrained by the Government's funding commitment, primarily to its centrepiece, the ERF. The Government has indicated that, if it comes to a choice, fiscal constraints will override environmental effectiveness.

The funding commitment includes $1.55 billion over the forward estimates period of three years and a further $1 billion in the following year. This is a firm and capped commitment. The level of emissions reduction that it will deliver will become clear only as it is tested in the market, an inherent design component of such policy instruments.

As published in 2010, the Direct Action Plan envisaged that the ERF will invest "an annual average of around $1.2 billion in direct CO_2 emissions reduction activities through to 2020", commencing in 2011-12. While this would imply a further increase in on-budget funding, we are unaware of the Government's position in regard to this expectation, beyond the first four years. In the absence of further clarity, forecasts on whether the five per cent target can be achieved by the Direct Action Plan will remain speculative, although there is broad agreement that the task to 2020 has been made less challenging due to several causes, not least being falling electricity demand. On the other

hand, published analyses, such as that by SKM for the Climate Institute, suggests the target cannot be achieved with the allocated funds, given assumptions of emissions projections, abatement costs and budgetary allocation.

Cost effectiveness

An assessment of the capacity of the Direct Action Plan to achieve cost effective greenhouse gas reductions rests on whether it will effectively generate a carbon price across a broad range of abatement options. In principle and with good design, the ERF could meet this criterion. There is simply insufficient detail yet available to make this assessment, and whether providing that detail would lead to greater administrative complexity and cost than would be associated with a well-designed ETS.

The ERF will use a commercial reverse auction process to elicit lowest cost emissions reduction activities. This approach has been used in Australia and elsewhere to deliver low-emission energy projects. Although the ERF does not include a tradable commodity such as is created by an Emissions Trading Scheme or the RET, it will establish a carbon price, based on the marginal cost curve of emissions reduction activities covered by the fund.

A series of auctions can push project costs down over time and government retains control over the total policy cost. Auctions have been implemented in Britain, Brazil, Chile, California, China, South Africa, Saudi Arabia and India. They have been applied to solar PV projects in the Australian Capital Territory.

There is particular evidence that auctions put significant downward pressure on the cost of low-emission energy technology projects. Wind power auctions in Brazil in 2010 produced an average price that, while still credible, was 42 per cent lower than projects supported by the Brazilian Government between 2002 and 2005. Results from August and December 2011 pushed the price down further still. Similarly, from auction round one to round two, the South African program reduced the bids for solar PV projects by about 40 per cent, from $US275 to $US165 per megawatt-hour. In the same period wind power projects fell from US$114 to $89 per megawatt-hour.

Yet these schemes have a mixed record. Like grant tender schemes, auctions carry a significant risk that developers will bid extremely low in order to win the auction, but then fail to deliver the project. This problem has arisen in schemes around the world, such as China, California and the UK, and may prove to be a challenge for wind power in Brazil and concentrating solar power in India. In Britain the Non-Fossil Fuel Obligation (NFFO) scheme produced far less capacity than had been contracted for.

This weakness can be addressed in several ways. These include paying only for electricity delivered, so that government is not exposed to project selection and completion risks, requiring proponents to negotiate project finance before bidding, and requiring proponents to post a bond, a strong financial incentive to deliver projects on time. We note that the Government does intend to include at least the first of these approaches.

The effect of technical issues that arise for measuring abatement under the Direct Action Plan, including additionality and establishing emissions baselines for emitting entities and long-term monitoring and reporting arrangements.

- Setting of baselines and establishing additionality are not straightforward – they present a high regulatory burden and a large potential for regulatory capture

Although the Government has expressed confidence that the setting of base lines for emissions is relatively straightforward, this is a key complexity of the ERF and baseline-and-credit schemes generally when compared with the ETS approach. This weakness has been extensively covered in the relevant academic literature and we will not add to that coverage. At the least, it will remain an issue of contention and commercial positioning for some time, as already evidenced by the submissions to the Government's Green Paper on the Emissions Reduction Fund.

The Direct Action Plan and ERF Green Paper have identified the issue of businesses exceeding historical baselines and new businesses emerging with significant greenhouse gas emissions footprints. An example of the latter is the new LNG export facilities based on coal seam gas extraction that will begin operations in Queensland from 2014. There is a clear challenge in safeguarding emissions reduction secured via the ERF while supporting economic growth, particularly if the latter is occurring at best practice levels of emissions intensity. A preferred solution has not been published by the Government, although it has sought input from stakeholders. The absence of a solution will represent a threat to both the effectiveness and efficiency of the Direct Action Plan.

The question of additionality will need to be considered as part of the baseline assessment for abatement projects. A particular example is in regard to electricity generators where falling demand is already leading to the mothballing and possible permanent closure of capacity. The 2010 published Direct Action Plan allowed for the ERF to support the reduction of emissions from old or inefficient power stations. It would be inappropriate if such funding was to flow to power stations that would have closed anyway.

The impact of the absence of policy certainty derived from the Direct Action Plan to encourage long-term business investment in the clean, low carbon economy.

- Policy certainty is a major challenge for all climate change policies worldwide, and continual change makes it much worse.
- The current five year time horizon of the ERF creates a particular challenge to investment.

The absence of long-term policy certainty is a central challenge of climate change policy across the world. This was an issue canvassed in Grattan's 2012 report, *No easy choices: which way to Australia's energy future?* A conclusion that applies across all governments is that policy on climate change and energy is inherently not reliable and continues to shift. Regardless of the relative strengths and weaknesses of the existing Australian policy and its proposed replacement, the very decision to make a change adds to this challenge.

Demand for low-emissions technology is created by government policy in order to price the environmental impact of carbon emissions. But there is significant uncertainty about the long-term credibility of the policy commitment, when energy infrastructure investment needs a high level of predictability.

Electricity sector investments are subject to many risks and uncertainties, including over climate change policy. This uncertainty encourages firms to delay investment to keep options open in the short term in the expectation that they can make better informed decisions later. As a result there is less investment in the technologies needed than is socially desirable.

In an ideal world government would legislate emissions constraints over several decades. The private sector could confidently rely on this to form a view about the likely path of the carbon price over time and the relative merits of investing now or later and in which emission reduction

technologies. Speculators would also emerge to arbitrage – or carry the investment risk – between carbon prices today and those likely in the future. Investors could then understand the potential future pay-offs of investments made today in developing improved abatement technologies for the future

The Government has indicated that it will make decisions on its conditional target range in 2015 in the light of international negotiations and the commitments of other countries. The Direct Action Plan is structured and funded to meet the unconditional 5 per cent target, and the Government has been silent as to how it would be restructured to meet a 2020 target beyond that level, or to meet subsequent targets to which it might commit. This does not detract from the ERF per se, but it does introduce a level of longer-term uncertainty for investment in low-emissions technology that may qualify for the ERF but deliver emissions reduction well beyond the forward estimates period and 2020.

The impact of the abolition of the Clean Energy Finance Corporation on the availability of capital for clean technology and industry investment.

- The case for the existence of the CEFC was, and remains, unproven.

Since its inception, there has been a problem with the rationale for the CEFC and a definition of the problem that its existence is intended to solve. We are not aware of any evidence-based analysis that demonstrates the Australian financial market is systematically failing to fund attractive investments in clean energy.

Assuming that the central policy instrument - the ETS or now the ERF - will carry the load of reducing emissions, other policies and programs can only be justified if they make that task more efficient, i.e., lower cost. Removing barriers or addressing market failures to long-term-cheaper technologies would be examples that could qualify. It is unclear whether this criterion has been explicitly included in the CEFC's funding decisions.

A thorough and logical analysis of the market failures and financial barriers that confront clean energy technologies considerably constrains the justifiable role for the CEFC. One possible area that was explicitly ruled out regarded raising capital by issuing bonds. The creation of a liquid market for clean energy infrastructure bonds could potentially mobilise sources of finance from superannuation funds or institutional investors with an appetite for this appetite class. Having catalysed such a market as both a buyer and seller, the CEFC could then withdraw when sufficient market liquidity had been established. Such a role would seem consistent with the role of the CEFC in efficiently addressing market barriers.

The CEFC has had a short life to date. We have not undertaken a comprehensive analysis of its portfolio of funding investments and whether the case has been made to justify the organisation's existence. Arguments that it is profitable or contributing to emission reduction are not relevant and the fact that substantial public funds have been deployed to refinance existing wind farms suggests a distraction from a role that addresses financial market barriers to deliver lower cost, clean energy outcomes.

The repeal of the Clean Energy Package and the Direct Action Plan's impact on, and interaction with, the Carbon Farming Initiative.

We have no expertise in the area of the Carbon Farming Initiative that would enable us to add value to this area, beyond noting that the one-off abatement potential has been consistently assessed as

being material. It is therefore worth including in the areas covered by the ERF, provided that there is a robust measurement and verification methodology.

The fiscal and economic impact of the Direct Action Plan.

A key difference between the ERF, the central element of the Direct Action Plan, and the existing ETS framework is that the former is "on budget". Whilst this has the political advantage of avoiding a direct impact on energy prices, it can also be a disadvantage since it can become the subject of budgetary constraints as has been found with a range of policies such as feed-in tariffs and renewable energy obligations in Australia and elsewhere.

The impact of repealing the Clean Energy Package on Australia's ability to systemically address climate change.

We have noted above that the Direct Action Plan is not currently designed to achieve this aim. Whilst the current Clean Energy Package has more detailed design elements in place to contribute to a comprehensive climate change policy, we doubt whether the Government that introduced the Package would, or could, have claimed such an ability. For example, caps and targets consistent with a global two degree temperature rise have not yet been developed or implemented.

The impact of repealing the Clean Energy Package on Australia's pollution cap.

If Australia's pollution cap is defined as the unconditional/conditional targets for 2020, then repealing the Clean Energy Package should have no direct impact with the caveats identified above. Beyond these targets, Australia's pollution cap would have been informed by the Caps and Targets Review by the Climate Change Authority, and will be informed by the current Government's determination of climate change policy beyond 2020 to be addressed in 2015. Again, there is no fundamental reason that a replacement to the Clean Energy Package would be less effective or efficient at meeting a cap. The criteria for such effectiveness and efficiency have been addressed above.

Some concern does exist that continual changes in climate change policy are probably as great a challenge to achievement of appropriate pollution caps than the nature of policies themselves.

The impact of repealing the Clean Energy Package on international efforts to reduce carbon pollution.

We do not have expertise in the field of international negotiations on climate change to allow us to make a useful contribution to this issue.

The impact of abandoning linkage with the European Union on international cooperation to reduce emissions.

- Climate change will not be effectively addressed without international commitment, coordination and cooperation. Some form of international linkage or trading will be an essential part of a cost effective solution. Therefore, although fraught with challenges, moves to create such linkages will generally be desirable, whilst moves to the contrary will generally be undesirable.

The Government has been very clear that it aims to achieve the 5 per cent target solely from domestic abatement. If, in 2015, a commitment beyond 5 per cent by 2020 and/or beyond 2020

emerges, international trading could contribute to efficiently meeting that target. It is unclear how the ERF or the Direct Action Plan might be enhanced or restructured to incorporate such trading. Until such clarity is forthcoming, the absence of international linkage is likely to increase the cost of achieving a given emissions target, as demonstrated by the Climate Change Authority's analysis in its draft report on caps and targets.

The ability of the Government and the Australian people to receive expert independent advice on an appropriate carbon pollution cap for Australia following the abolition of the Climate Change Authority.

As indicated above, it is highly desirable that the Government moves towards a clear, predictable and broad market-based approach to climate change policy. The setting of caps or targets is an integral element in that framework, and will be dependent on a range of environmental, economic and political considerations. The previous government established the Climate Change Authority to provide advice on caps and targets and the Authority is currently part way through its first review of that subject. Assessment of the appropriateness or otherwise of this particular body is not an area of our expertise. However, there is no fundamental reason why robust caps or targets cannot be established by an alternative arrangement.

The impact of cuts to funding for the Australian Renewable Energy Agency.

We are not in a position to provide any particular view or insight on this impact.

Any other related matters.

- The 2014 RET review needs to be considered by the Inquiry.
- Development of low-cost, low-emission technologies is inadequately addressed by the Direct Action Plan.

The Government will undertake a review of the RET in 2014. This review, and any changes that follow, will impact on the effectiveness and efficiency of the Direct Action Plan, and therefore the Senate Inquiry should consider how it intends to incorporate consideration of that review.

In 2012, Grattan Institute published a report *Building the bridge: a practical plan for a low-cost, low-emissions energy future*. The analysis in that report identified the importance of technology to transforming the energy sector towards a low-emissions future and the barriers and challenges to the development of low-cost, low-emissions technology. A market-based mechanism such as an ETS or ERF, is likely to lead to under-investment in the low-emission technologies that could be lowest cost in the future. While ARENA could be part of the solution, any comprehensive review of the Direct Action Plan should address this problem.