The Australia Institute

Research that matters.

Submission on the Emissions Reduction Fund Green Paper

Submission
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About TAI

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Our philosophy

As we begin the 21st century, new dilemmas confront our society and our planet. Unprecedented levels of consumption co-exist with extreme poverty. Through new technology we are more connected than we have ever been, yet civic engagement is declining. Environmental neglect continues despite heightened ecological awareness. A better balance is urgently needed.

The Australia Institute's directors, staff and supporters represent a broad range of views and priorities. What unites us is a belief that through a combination of research and creativity we can promote new solutions and ways of thinking.

Our purpose—'Research that matters'

The Institute aims to foster informed debate about our culture, our economy and our environment and bring greater accountability to the democratic process. Our goal is to gather, interpret and communicate evidence in order to both diagnose the problems we face and propose new solutions to tackle them.

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Introduction

The Australia Institute is pleased to make a submission on the emissions reduction fund (ERF) green paper.

The Australia Institute has a long history of commenting on climate change policy in Australia and we strongly believe that we need to get our policy setting right in order to reduce Australia's emissions and do our fair share to avoid dangerous climate change.

The Target

The Green paper reiterates the government's commitment to the target. It says

> *The Government has committed to reduce Australia's emissions to five per cent below 2000 levels by 2020.*

While the allocated money to the ERF has been fixed, the eventual price of emissions reduction is currently unknown. Therefore the total amount of abatement that the ERF will produce is also unknown. This is inconsistent with an emissions reduction target.

Speaking at the National Press Club Tony Abbott said

> *The bottom line is we will spend as much as we have budgeted, no more and and no less. We will get as much environmental improvement, as much emission reduction as we can for the spending we have budgeted*[1]

From the Prime Minister's words it is clear there is no longer a target but rather a set amount of funds has been allocated to reducing emissions. This will achieve an as yet unknown amount of emissions reduction and this reduction may or may not be a five per cent reduction.

The government has not released or pointed to any modelling or studies that suggest the amount of money chosen for the ERF is likely to be the correct amount to achieve the five per cent reduction. Indeed there have been a number of studies that suggest the amount of money required to achieve the target is far higher than the amount that has been allocated to the ERF.

The design of the ERF

The green paper has three design principles for the ERF. They are;

- Lowest-cost emissions reductions
- Genuine emissions reduction
- Streamlined administration

These are good design principles to have and if they are used by the government then its policies aimed at mitigating Australia's emissions are more likely to succeed. Unfortunately the method the government has chosen to use, a competitive grant scheme, will have trouble meeting these design principles. To better understand why this is the case we need to look at other competitive grant schemes that have been used in Australia to reduce greenhouse gas emissions.

[1] Taylor, L (2013). *Coalition's Direct Action funding won't rise if 5% emissions target not met*, The Guardian Australia, viewed 21 February 2014, http://www.theguardian.com/world/2013/sep/02/coalition-direct-action-no-funding-increase

Competitive grant schemes

Direct action policies have been used extensively in Australia for over 10 years. In that time state and federal governments have announced over $7 billion dollars of competitive grant schemes separate to the government's ERF. Examining these competitive grant schemes gives us insights into how effective the ERF might be.

The Australian National Audit Office (ANAO) has audited some of the largest competitive grant schemes. From this report three common outcomes can be identified. They are;

- The schemes took significantly longer to achieve any abatement than originally planned
- The schemes were unable to find enough suitable projects
- The schemes achieved substantially less emission reductions than planned.

Longer than expected

All the schemes that the ANAO looked at had projects[2] that took significantly longer than expected to achieve abatement. Delays of two years were not uncommon. This is not an unexpected outcome. In a competitive grant scheme the government is ultimately picking winners. There are also information asymmetries and the issues being assessed are complex. In this situation the government is likely to struggle to make appropriate choices. In the case of abatement schemes the government must also assess whether the project is additional (that is the abetment would not have happened without the scheme) which adds another layer of complexity. In economics these are known as high transaction costs.

One of the ERF's design principles is genuine emissions reductions. Because of high transaction costs and information asymmetries a competitive grant scheme for reducing greenhouse gas emissions is not well suited to finding projects that are likely to be additional.

There are large numbers of ways that greenhouse gases can be abated and abatement can come from all industries as well as the household sector. This means that grant applications to the ERF are likely to be varied. Abatement technologies are often complex, only recently developed and in some cases still in the process of development. Governments must be able to assess if the abatement technology is likely to be able to achieve the claimed abatement. This requires a high level of specialised knowledge.

Assessing the application also requires knowledge on the likely costs of each type of abatement. If the cost of abatement is going to be an important determining factor in the assessment of a project then this will naturally preselect projects that are overly optimistic about cost and levels of abatement. In order to weed out overly optimistic applications the government will need high levels of expertise in a large range of abatement methods including cutting edge technology.

The government will also need a relatively deep understanding of the financial position of the firm or firms proposing the abatement project. A consistent problem with many of the competitive grant schemes is that many projects failed when key stakeholders pulled out.

Another design principle for the ERF is for streamlined administration. This is made difficult by the wide variety of possible abatement projects and the fact that the government is picking winners. The government will need to carefully balance a streamlined process with ensuring that chosen projects can actually achieve abatement while also checking to make sure that projects were completed and are achieving the planned emission reductions.

[2] ANAO (2010) *Administration of Climate change policies*, Audit report No.26 2009-10

These requirements for assessing projects are a major reason for the delays that previous competitive grant schemes suffered. The large information asymmetries, the complex nature of the projects and the requirement for the government to pick winners, were significant contributors to the failure of many of these projects.

Not enough projects

The second common outcome was that despite having a large amount of money on offer all competitive grant schemes were unable to find enough suitable projects. None of the grant projects looked at by the ANAO spent more than 40 per cent of their budget. The Grattan Institute also recently conducted a study[3] that found over the past decade state and federal governments have announced $7.1 billion in competitive grant schemes of which only three per cent of announced funding produced operational projects in the first five years and 18 per cent of announced funding are predicted to produce operational projects in 10 years.

The competitive grant schemes audited by the ANAO were attempting to reduce emissions by a far smaller amount than the amount required by the ERF. This puts in doubt the ability of the ERF to find sufficient number of projects to reduce emissions in order to meet the five per cent target.

It should be noted that the competitive grant schemes audited by the ANAO had a far narrower focus than the ERF. For example the solar cities program was only interested in solar power plants. Some of the state based schemes such as the NSW governments Greenhouse Gas Abatement Program (GGAP) were only interested in projects in a particular state. These limitations would reduce the number of potential projects when compared to the ERF.

Even with these limitations in mind it will still be a difficult task for the ERF to find sufficient projects to meet its abatement target. Three of the biggest competitive grant schemes; NSW energy saving fund, Low emission technology demonstration fund (LETDF) and GGAP make up $1.3 billion in announced funds. Of these funds in 2010, 50 per cent were never allocated, 30 per cent of the funds were for projects that were discontinued, 13 per cent were for projects currently under construction and only seven per cent were spent on completed projects.

There is nothing to suggest that the ERF will not suffer the same problems finding suitable projects as previous competitive grant schemes. In fact given the size of the abatement task the government has given the ERF it is likely that it will find it more difficult to find enough suitable projects.

The difficulty in finding enough suitable projects will mean that higher cost projects many need to be approved. This will clash with another design principle of ERF, lowest-cost emissions reductions. The ERF will struggle to attract the lowest cost abatement since the lower the number of applicants the more likely that higher cost abatement will need to be purchased.

Fewer reductions than planned

The third thing that the competitive grant schemes had in common was that they achieved substantially less emission reductions than originally planned. The largest, longest running and considered by many the most successful grant scheme was GGAP. GGAP achieved only 40 per cent of its planned emissions reduction.

[3] Daley. J et al (2011) Learning the hard way: Australia's policies to reduce emissions, Grattan Institute

Other competitive grant schemes produced far less abatement, with the majority producing no meaningful abatement. From 1996 to 2010 there were 24 competitive grant schemes with $7.1 billion in announced funds. By 2010 they had achieved 4.2Mt of abatement.

Market mechanisms have achieved far larger amounts of abatement. Three abatement programs that used market mechanisms, the renewable energy target (RET), greenhouse gas abatement scheme (GGAS) and the gas electricity target (GET), had by 2010 reduced emissions by 15.7Mt. On the government's most recent figures which are used in the Emissions Reduction Fund Green Paper, the carbon price and the carbon farming initiative are predicted to reduce emissions of 39Mt over two years.

Scalability

The ERF will struggle to achieve a five per cent reduction on 2000 levels by 2020. But this target is not sufficient for Australia to do its fair share of emission reductions if the world is to avoid dangerous climate change. If Australia was to set a more ambitious target, which was more in line with doing its fair share, the ERF would find it even more difficult to achieve the target.

This is because the ERF is not scalable. If the target requires more abatement then more projects will be required to achieve that abatement. The more projects that are required, then as past experience suggests, the harder it will be to find enough projects.

Cost of abatement

Competitive grant schemes have been relatively costly when compared to market based mechanisms. Most competitive grant schemes have cost between $60 and $100 per tonne of CO_2e, with many schemes costing in excess of $100 per tonne of CO_2e. This compares to market mechanisms such as the RET, GGAS and GET which cost between $15 and $40 per tonne of CO_2e.

If we look at the abatement task set out in the government's Emission Reduction Fund Green Paper, it would appear that they have budgeted for abatement of about $9 to $12 per tonne of CO_2e over the forward estimates. This is a far lower cost of abatement than most previous competitive grant schemes have achieved.

If we assume a more realistic, but still very optimistic cost of abatement of $60 per tonne of CO_2e then ERF would need to be increased by $7.2 billion over the forward estimates and about $21 billion out to 2020. This of course assumes that enough projects can be found to achieve the required level of abatement. As discussed above, this is unlikely. This is again contrary to the ERF design principle that wants lowest-cost abatement.

The role of competitive grant schemes

Despite the shortcoming of competitive grant scheme, as outlined about, there is a role for competitive grant schemes in Australia's response to climate change. While market based mechanisms are more effective and gaining large scale emission reductions, there are circumstances where, because of market failure, a grant scheme may be more effective. They can also be effective in situations where transactions costs are low. That is situations where the government has a high degree of information and the project is relatively simple.

In the fight against smoking multiple different strategies are used. Price is used by taxing tobacco products but other strategies are also used. These include banning tobacco advertising as well as advertising the dangers of smoking, as well as plain packaging and subsidizing smoking patches.

The idea that we should only use one strategy to combat climate change is as strange as employing only one strategy to reduce smoking. Multiple strategies need to be employed if we are to effectively reduce emissions.

Conclusion

Competitive grant schemes can be effectively used to reduce Australia's greenhouse gas emissions but they are not sufficient to produce large scale abatement at a low cost. Competitive grant schemes are best used in conjunction with other policies including a broad based carbon price. The carbon price is able to achieve large scale abatement at a low cost and the revenue collected from a carbon price could be used to fund the ERF. The ERF could be effectively used to fund abatement in areas not covered by the carbon price or in areas where a carbon price is not able to tap into low cost abatement or where transaction costs are low.

The political class in Australia needs to overcome its tendency for picking individual climate change policies. Instead we need to take a broader approach to climate change that includes a range of policies if we hope to do our fair share in reducing greenhouse gas emissions in order to avoid dangerous climate change.