

Emissions Reduction Fund Green Paper

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Summary points

- The Emissions Reduction Fund (ERF) can achieve effective and cost efficient reductions in Australia's greenhouse gas emissions.
- Fiscal constraints and the emissions abatement market, rather than inherent design limitations will determine the effectiveness of the ERF in contributing to meeting the Government's 5% target by 2020.
- The Fund is the centrepiece of the Government's Direct Action Plan. This is not a comprehensive climate change policy designed to be consistent with the longer term, global objective of containing global warming to two degrees. It will require extension and/or enhancement to be so. The Government has a commitment to address this issue by 2015.
- There is insufficient detail on critical, related parameters such as additionality and baselines to assess the cost efficiency of the Direct Action Plan. The final design around these parameters will also determine whether the ERF meets the three guiding principles proposed in the Green Paper.
- If the emissions trading scheme is closed down as intended, the Renewable Energy Target works alongside the ERF in meeting the Government's 2020 emissions reduction target. Therefore, the review of the former and the design of latter cannot be considered separately.
- Australia does not have a comprehensive climate change policy that can inform critical investment decisions that will determine the future reliability, affordability and sustainability of our energy supply. This was work-in-progress with the previous government. Australia's energy strategy to be documented in the 2014 Energy White Paper and Climate Change Strategy to emerge from the ERF White Paper will be incomplete until this gap is addressed.

The Green Paper includes three guiding design principles: Reductions should be lowest cost, they should be genuine and the administration should be streamlined. The Green Paper does not provide confidence that these principles will be met. The nature of the proposed contracts threatens the first; the second will only be addressed if processes to ensure additionality are sound; the design of those processes and the management of baselines have the potential to impose a significant administrative burden.

Background

In this submission, we have made some general comments regarding effective and efficient climate change policy in reference to the ERF and provided our views on particular matters identified in the Green Paper. We note that the Green Paper's list of preferred positions is relatively undeveloped in critical areas on which it seeks input from stakeholders. There are also several important areas identified in the Green Paper where we feel unqualified to offer any opinion. For example, we have no technical or financial insights to offer in regard to the facilitation of projects under the Carbon Farming Initiative.

Climate Change Policy

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 practical 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 on meeting the unconditional target of reducing emissions by five per cent below 2000 levels by 2020. 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.

Primary objective of the Emissions Reduction Fund

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 meeting 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 over the period to 2020 and in the context of changes in electricity demand over that period. Critically, changes to the RET targets in the 2014 review will increase the size of the emissions reduction load on the ERF. This submission does not include detailed comments on the RET.

With good design, the ERF can achieve the primary objective of 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 5 per cent target. The focus of this submission is on the design of the ERF to be both effective and efficient.

Strengths of the ERF approach

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-emissions, primarily wind and solar energy, projects, and avoids weaknesses inherent with feed-in tariffs and tradable green certificate schemes such as the RET.

Although the ERF does not include a tradable commodity such as is created by an Emissions Trading Scheme (ETS) or the RET, it will establish a visible carbon price, based on the marginal cost curve of emissions reduction activities covered by the fund.

The ERF will fund emissions reduction activities directly. It therefore avoids the dead weight loss elements of an ETS or the hypothecation issues associated with a carbon tax.

Although the Government has been clear that the allocated funds are firm, the ERF is inherently flexible such that it could be extended to meet future changes in circumstances, including a higher target or a shortfall in emissions reduction against the current target.

Reverse auctions avoid government having to estimate the optimum price. Bidding reveals the efficient level of revenue support.

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 and India, among other jurisdictions. They have been developed in South Africa and the Australian Capital Territory. Saudi Arabia utilising an auction approach as the first step to reaching a stated goal of 41 gigawatts of solar capacity by 2032.

The evidence is that auctions do 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, so-called 'contract failure', has arisen in schemes around the world, including 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 risk 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 to post a bond, a strong financial incentive to deliver projects on time. We note that the Government does intend to include the first of these approaches.

Weaknesses of the ERF approach

The effectiveness of ERF is constrained by the Government's funding commitment. This commitment includes \$1.55 billion over the forward estimates period of three years and a further \$1 billion in the following year. This \$2.55 billion 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 CO₂ emissions reduction activities through to 2020", commencing in 2011-12. While this would imply a further increase in on-budget funding, the Government's position

in regard to this expectation, beyond the first four years, is unclear. In the absence of further clarity, economic modelling on whether the 5 per cent target can be achieved by the Direct Action Plan is speculative. However, it does mean that the Government's commitment to the target is conditional on the budgetary allocation for the ERF and the other elements of the Plan being sufficient. The Government's position that immediate fiscal constraints will take priority over environmental effectiveness does not rule out future funding flexibility.

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.

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 try to add to that coverage. At the least, it will remain an issue of contention and commercial positioning for some time, as already evidenced by submissions to the Issues Paper on the Emissions Reduction Fund.

The decision to depend solely on domestic emissions reduction means that the ERF will not contribute to global emissions reduction at lowest cost. Linking international reduction credits or emissions permits with the ERF directly may be difficult. However, stakeholder proposals in the Green Paper to allow acquittal of such instruments as a "safety valve" or to maintain baseline emissions levels are worth taking further. This idea is explored further below. If a commitment beyond 5 per cent by 2020 and beyond 2020 emerges through 2015, international trading could contribute to efficiently meeting that target.

The five-year time constraint on contracts for emissions reductions is likely to limit the capacity of the ERF to secure lowest cost emissions reductions, because it effectively rules out opportunities that depend on capital investments with lives beyond five years. The suggestion that this can be resolved by "front-loading" proposal is likely to make bids for such opportunities uncompetitive.

The issues of additionality and baselines are central to both the effectiveness and efficiency of the ERF and supporting mechanisms and are potential weaknesses. Further detail is contained below.

Specific design issues of the ERF

Opportunities for large-scale, low-cost emissions reductions

Bodies with technical knowledge or commercial interests have published material over many years on the cost of abatement. Economic modelling of such abatement has been a feature of the climate change policy landscape to the extent that it sometimes overwhelms all else, despite the inherent limitations of such modelling. It is an advantage of market-based approaches to climate change

policy that the outcome does not depend on the accuracy of such modelling and the projections for abatement and costs that they contain. The ERF shares this strength in that it does not require the Government or its implementation body, to take a view on the sources of low cost, large scale abatement. We have commented on the results of such modelling and their implications for good policy design in our report, *No easy choices: which way to Australia's energy future?* The five-year limitation on contracts for emissions reduction is likely to limit the delivery of lowest-cost emissions reduction, particularly at large scale where capital investment is required.

Crediting emissions reductions

It should be relatively straightforward to ensure that emissions reductions are genuine, but more challenging to ensure they are additional, without significant administrative, project-specific processes. This will be more challenging when decisions are near commercial with support from the ERF and the quantum of additionality needs to be calculated. A similar issue applied to the previous government's Solar Flagship Program where an arbitrary limit on gas integration was imposed. The nett result was to exclude potentially low cost solar-gas hybrid projects.

In the case of the ERF, there are likely to be difficult and controversial decisions in some areas. For example, a purchaser of the Anglesea power station may be in a position to run that station for many years facilitated by a very low marginal cost position, but with high emissions intensity, and without breaching baseline constraints. It is possible that a decision to shut down the station could be achieved at modest or even low cost per tonne of abatement, and yet the Government has indicated that it will not pay to shut down power stations. Similar positions could emerge for other emissions-intensive industrial facilities. Decisions will be possible, but if they necessarily end up being project specific, the administrative burden may be material.

Purchasing emissions reductions

Reverse auctions have been used to deliver projects based on low-emission energy technologies including in South Africa, India, China and also in the ACT. The Government could valuably draw on that experience both to design the auction process and to address experienced limitations.

Grattan Institute concluded that reverse auctions could play a valuable role in delivering low-emission, lowest-cost technologies in a way that both cap-and-trade and tradable green certificates fail to do. We developed a level of detail around such arrangements in our report, *Building the bridge: a practical plan for a low-cost, low-emissions energy future*. The following suggestions build on that foundation.

The notable advantage of reverse auctions, feed-in tariffs and contracts-for-difference in stimulating investment in low-cost emissions reduction activity is the long-term revenue certainty they provide. This is particularly important for large-scale, capital-intensive emissions reduction opportunities that are likely to feature in a lowest-cost abatement portfolio. In that regard, the design of the ERF as documented in the Green Paper does not provide that revenue certainty. This is a critical limitation for the ERF in achieving its objective of lowest cost emissions reduction and should be addressed. The most obvious solution would be to enter into contracts for abatement delivery that go beyond the forward estimates period, accepting the budgetary implications of such contractual commitments.

The Green Paper proposes that the auctions will include a benchmark price. Neither the Green Paper nor the consultation workshops identified how this price will be set, and it has been suggested that it will not be disclosed prior to the auction. Experience from reverse auctions in other places suggests that a benchmark price can be a useful tool. Price discovery and forward certainty are important objectives for an ongoing reverse auction system, and the following should be considered:

- The benchmark price should be disclosed.
- The first price will have to be set on the basis of best available abatement cost information in combination with the budget limits of the ERF. This is a more difficult task than applies when a narrow range of emissions reduction opportunities are being considered, and there may need to be considerable discretion for the Regulator after first bids are received in the first auction.
- A benchmark price can be used to determine the magnitude of a security bond for aggressive bids if such a protection was deemed appropriate. This would be one element in providing confidence that projected emissions reductions will be delivered.
- For subsequent auctions, a forward path of benchmark prices with clear price setting rules and informed by earlier auction rounds may provide increased confidence in the program.

There are several safeguards that should be considered to protect against organisations making unrealistic and undeliverable bids, unreasonable delays and other problems that may occur over long timeframes:

- Holding multiple auctions through to 2020, and possibly beyond, means that companies will have several opportunities to obtain a contract. They do not need to bid as aggressively as they might in a single round auction.
- Companies can participate only if they pass a basic technical and commercial credibility test. A firm agreement for project finance should be required - bankers will perform more rigorous due diligence than governments could usually contemplate.
- Winning projects must pay a substantial project bond if their bid is below the benchmark price. Government can use all or part of the bond to penalise companies for failing to meet the conditions of their contract. The size of the bond increases as bids become more aggressive. A bid well below the benchmark price will require a larger bond than one close to the benchmark price.
- Winning projects will have no more than three months to reach financial close and satisfy any conditions precedent. They will have defined period, e.g., 12 months, to commit to construction or delivery, or else they forfeit their contract and their bond.
- The contract will require companies to deliver a minimum amount of emissions reduction per year from an agreed date. If the project is not delivering those reductions, government deducts penalty payments from the project bond. If the bond has been exhausted, the proponent could then provide the reductions by purchasing them elsewhere. There should also be a 'grace' period for late delivery beyond which the government can cancel the contract. The question of penalties for delays or default raises issues similar to those related to baselines and this is addressed below.

These conditions increase the financial cost of developing projects. This cost will be built into bids.

Safeguarding emissions reductions

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

- The baseline issue has the potential to compromise the effectiveness of the Direct Action Plan, and a poorly designed response could compromise both the effectiveness and the efficiency of the ERF.

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 Government's target is framed in terms of absolute emissions against 2000 levels. This makes it problematic to adopt an approach to baselines using an emissions intensity measure as was suggested prior to and since the 2013 election. Any approach to apply penalties to entities that exceed baselines also leads to reasonable arguments for credits for those that reduce emissions below baselines but either choose not to participate in the ERF process or have opportunities that are unsuccessful in the auctions. What initially appears to be a relatively simple issue quickly becomes very complex. The proposal that there should be a penalty and credit approach, possibly including international credits or permits has two significant consequences. First, it looks like a full-blown baseline-and-credit emissions trading scheme with cost pass-through implications that the Government is seeking to avoid. Second, interactions between the emissions reduction price established by the ERF and this baseline scheme could lead to unforeseen consequences that need to be fully considered before the design is finalised.

The alternative proposed by several leading industry associations is to seek exemption from any constraints against baselines. The consequences of this approach would be non-trivial.

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.

Building on 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.

Implementing the emissions reduction fund

A clear forward process for program review is essential where many uncertainties risks exist for government and participants. However, the Government has a clear example in the RET of how the

review process itself can corrupt the program and lead to increased uncertainty – the very opposite of its intent.

Therefore the basis of future reviews should be made very clear at the outset. High levels of uncertainty around future climate change politics and costs of emissions reductions mean that false certainty must be avoided. Instead the review process should identify the key uncertainties that will frame reviews, which elements of the ERF and Direct Action Plan will be firm and which will be flexible and provide predictability as to how that flexibility will be exercised. Examples of such predictable flexibility to future uncertainties include the gateway concept envisaged in an earlier version of the ETS and, outside climate change policy, the way the Reserve Bank has well publicised and understood guidelines for setting economic parameters such as interest rates.