# Summary

The Authority is required by legislation to review the Carbon Farming Initiative (CFI) every three years; this is its first review. The review has benefited from consultations with stakeholders from a range of sectors and the Authority thanks those who contributed.

When introduced in 2011, the CFI was designed to complement the carbon pricing mechanism. Accordingly, it focused on sectors not covered by the carbon price, namely: agriculture, waste (in part), and land use, land use change and forestry. CFI projects earned credits that could be sold to entities with liabilities under the carbon pricing mechanism.

The carbon price has since been repealed, and the CFI has been expanded to form the Emissions Reduction Fund (ERF) and now covers all sectors of the economy. The ERF is the central plank of the government’s Direct Action Plan to reduce Australia’s greenhouse gas emissions. It has been introduced through amendments to the Carbon Credits (Carbon Farming Initiative) Act 2011 (Cth), which brings it within the scope of this review. For simplicity’s sake, this report refers to the CFI as the scheme as originally configured, and the ERF as the scheme as approved by the parliament in November 2014.

Under the ERF, the government will purchase emissions reductions through auctions (and possibly other means). Fixed-price contracts, typically for seven years, will be offered to those who are successful at auction. Other changes to streamline the scheme are also being introduced, and a safeguard mechanism (that will discourage large emitters from increasing their emissions above historical levels) is to commence in July 2016.

While these changes are substantial, the ERF retains an essential characteristic of the CFI in that it credits projects for reducing emissions below a defined baseline, and the baseline reflects what would have been expected to occur in the absence of the scheme.

The changes to the CFI are important for this review in two ways. First, as the scheme is being expanded to become the central element of Australia’s policy to reduce emissions and meet its targets, the lessons to be gleaned from its operation to date will be of interest in assessing the likely performance of the ERF. Second, as this review follows closely on the policy development process for the ERF, care has been taken not to duplicate that process, but to focus instead on the extent to which the design of the ERF addresses problems identified with the CFI, as well as other challenges that may arise.

## Performance of the Carbon Farming Initiative to date

The CFI follows a set sequence. In essence:

* A method (also known as a ‘methodology’) setting out rules for undertaking and monitoring CFI projects of a particular type is developed and approved.
* Individuals or firms develop projects to reduce emissions that can be pursued under that method.
* The project proceeds and credits are issued for verified emissions reductions—these credits can then be sold.

While the effectiveness of the scheme depends on credits, having a range of methods covering different types of activities that have potential to attract projects is an essential building block. The first methods were approved in June 2012 and the number has since grown to 26. Methods are now available for a range of activities in areas such as agriculture (for example, soil carbon and manure management), landfill and waste treatment, reforestation, avoided deforestation and savanna burning.

Initially, most projects that entered the CFI transitioned from other programs, such as the New South Wales Government’s Greenhouse Gas Reduction Scheme. Over time, the number of projects has increased to 178, and new projects now make up about two-thirds of the total. Just under half of all projects are in landfill and waste treatment, with avoided deforestation, forestry and savanna burning projects making up most of the remainder. Notably, only seven agriculture projects have been approved.

#### Real emissions reductions have been achieved but they are relatively small

The number of credits generated under schemes such as the CFI does not necessarily equate to the emissions reductions brought about by the scheme. The number of credits may exceed ‘real’ emissions reductions because:

* the emissions reductions that were measured or estimated did not in fact occur, or occurred to a lesser extent (measurement risk)
* the emissions reductions occurred, but would have happened even without the scheme (additionality risk)
* the emissions reductions relate to sequestration that did not persist for the required period (permanence risk)
* the project triggered an increase in emissions outside the project (leakage risk).

In the Authority’s view the CFI appears to have achieved a reasonably high level of environmental integrity (i.e. it has brought about real reductions in emissions that would not otherwise have occurred). The main area of possible concern, as is usual for schemes of this type, is with additionality. The problem is that it can be virtually impossible for governments, regulators or indeed anyone outside the firm concerned, to quantify what would have otherwise happened.

The available evidence suggests that additionality rates for the CFI have been reasonably high. First, the CFI has taken a conservative approach to method development and approval, tending to exclude most activities that are potentially commercially viable in their own right. Second, a considerable proportion of CFI projects are for activities that have no commercial driver, and therefore would not have happened without the scheme. Third, robust arrangements appear to be in place to exclude activities that are required under government regulation.

That said, some CFI projects potentially had a commercial driver, and the tests applied are not capable of definitively determining whether these are additional: some credits issued are likely to have been non-additional.

Despite the risks identified earlier, the number of credits issued is likely to be a reasonable indication of the emissions reductions the CFI has achieved. As at 3 December 2014, 10.6 million credits had been issued, with each credit representing one tonne of emissions reductions. This equates to emissions reductions of, on average, about 2.5 Mt CO2-e per year, with emissions reductions increasing over time. This is equivalent to about a two per cent reduction in emissions covered by the CFI. This annual quantity of emissions reductions is roughly on par with reductions achieved by the Renewable Energy Target (RET) in recent years.

#### Some costs have been unnecessarily high

Some emissions reduction policies in Australia have been criticised for being uncoordinated and high cost. The CFI is not in this category; abatement costs were capped by expected carbon prices.

This does not mean, however, that there was no scope for reductions in costs. The government invested heavily in method development, sometimes in areas that have, at least to date, failed to attract projects. While it would be unrealistic to expect the level of interest in running projects of different types to alwaysbe accurately predicted, more might have been done to better prioritise method development. Some private expenditure on method development also has been less cost-effective than it might have been, because proponents had an incentive to develop narrow methods that were not suitable for use by other firms.

At the same time, some costs associated with measurement, verification and reporting appear to have been higher than necessary, with costs not aligned with the risks being managed.

## Prospects for improvement under the Emissions Reduction Fund

The move from the CFI to the ERF created an opportunity to learn from experience with the CFI. Following extensive consultations throughout 2014, the new scheme was legislated in November 2014.

#### The Emissions Reduction Fund incorporates some important improvements

Uncertainty about future prices for credits was the single most important factor that discouraged participation in the CFI. Perhaps the most important improvement under the ERF is that project proponents will have the certainty of a fixed-price contract, typically over seven years, and in some cases, possibly up to 10 years. This is likely to provide an attractive investment proposition for activities that generate a high proportion of their emissions reductions within the contract period.

The ERF also adopts a new approach to method development, which entails:

* prioritising method development
* developing methods that have broader applicability and are potentially more consistent in their approach to managing risks
* introducing facility-based methods (for multiple activities at the one facility)
* allowing baselines based on emissions intensity (so that reductions in emissions per unit of production can be credited).

Some potential downsides also exist, including potentially greater difficulties in managing additionality risks for methods with very broad applicability. Overall, however, in the Authority’s judgement the new approach to method development and approval is an improvement; well implemented it is likely to increase participation and reduce transaction costs (on a per tonne CO2-e basis).

Another improvement is more flexible reporting. This allows project proponents to weigh up for themselves the cash flow advantages of reporting—and therefore receiving credits—more frequently against the extra time and cost that might be involved. Risk-based auditing of emissions reductions will also be introduced. The details are yet to be finalised, but, in-principle, a well-designed risk-based audit regime should reduce transaction costs without eroding the environmental integrity of the scheme.

#### But it also introduces some new or expanded risks

Unlike the CFI, which was a comparatively small land-based program, the ERF will operate across all sectors of the economy, has a funding commitment of at least $2.55 billion and is being relied upon to do a lot of the heavy lifting to meet Australia’s emissions reduction goals. Rapidly expanding the scale and scope of the scheme brings significant risks, especially for additionality.

Developing robust methods and credible baselines for many new activities will be challenging, and risks will need to be well managed if additionality rates are not to decline sharply, and/or many opportunities to achieve low-cost abatement remain outside the ERF. Good governance arrangements will be critical, and the Department of the Environment and the Clean Energy Regulator are developing the expertise, capacity and consultation mechanisms that will be important for the scheme to perform. The risks escalate for large projects, suggesting that consideration be given to introducing enhanced additionality tests for projects above a threshold level.

Another risk is that the ERF could fail to encourage investments that would achieve low-cost abatement over a long period. If contract periods are mostly capped at seven years, projects with much longer abatement profiles would probably need to rely on an expectation of reasonable prices beyond the contract period. While there are some potential sources of demand for such credits, in the near term at least, price expectations are likely to be both low and uncertain.

#### And there are some problems that the Emissions Reduction Fund simply cannot address

Some problems identified with the CFI cannot be fixed under the ERF because they are inherent in crediting-below-a-baseline approaches. Even if the additionality risk is appropriately managed some non-additional emissions reductions will inevitably be credited, and some genuine abatement opportunities excluded—for fear they are non-additional, or because they do not lend themselves to an activity- or facility-based method. In the process, considerable resources could be devoted to managing the additionality risk given the complex nature of the task.

Uncertainty has plagued Australian policy on climate change for many years. While the passage of the ERF amendments and the availability of methods and contracts will bring a degree of certainty for some activities over the next few years, the role and budget allocation for the ERF after 2020 is unclear. Expectations of longer-term policy stability and predictability will be important in supporting investments required to help Australia meet its long-term emissions reduction goals.

## Policy interactions

CFI and ERF projects can deliver benefits other than emissions reductions. Sometimes these benefits accrue to the project proponent—as, for example, when a firm installs more energy efficient equipment it also saves on energy costs, and when farmers plant trees they might also get shelter and soil protection benefits. At other times the benefits accrue more widely, such as the biodiversity benefits of establishing native vegetation on previously cleared land.

Some stakeholders have argued that the ERF should pay a higher price for credits from projects with significant public co-benefits. The government has decided against this approach, and that the ERF will focus on achieving lowest cost emissions reductions. The Authority endorses this approach for two reasons:

* paying for co-benefits from the ERF would reduce the capacity of the scheme to reduce emissions, which would be at odds with its central role in achieving Australia’s targets
* the co-benefits concerned are better assessed and secured through other programs.

That said, to achieve the best outcomes the ERF will need to interact efficiently with other policies and programs. Projects should in general be able to secure support from both the ERF and other relevant programs where the programs are paying for different benefits and where this does not undermine additionality for the ERF.

In addition to crediting approaches, which underpin the ERF, there are many policy tools available to reduce emissions, including regulatory standards and information campaigns. Carbon prices—another tool—have been ruled out by the government. International emissions reduction units may also have a role to play; the Authority has previously recommended they be used to bridge any gap between domestic reductions and Australia’s targets. Some tools are better suited than others in exploiting different emissions reduction opportunities, but the best approach to reducing emissions is to have access to the widest possible array of policy measures.

## The Emissions Reduction Fund and emissions reduction targets

Australia has a minimum target to reduce emissions by 5 per cent relative to 2000 levels by 2020. Earlier this year, the government estimated 421 Mt CO2-e of cumulative abatement would be needed over the period 2015-20 to meet this target. Since then, falling electricity demand and other factors have likely reduced the task, with one source recently estimating required abatement over the period 2015-20 to be as low as 225-279 Mt CO2-e.

The government has not released estimates of the reductions it expects to secure through the ERF over the period to 2020. Available studies of Australia’s emissions reductions opportunities, and of what the ERF is likely to achieve with its current funding, however, suggest that the ERF would fall well short of achieving the reductions required to meet Australia’s minimum 2020 target. This highlights the need to strengthen the ERF wherever possible—the planned safeguard mechanism is important here but that is still in the design stage.

More generally, the limitations inherent in ERF-type schemes—together with the obvious budgetary limitations—again highlight the imperative of policy-makers having access to the widest possible range of policy instruments to achieve Australia’s targets for both 2020 and the period beyond.

Over the next 18 months the Authority will review Australia’s post-2020 emissions reduction goals, and the policies needed to achieve those goals. This review will take particular account of international action, and the implications for Australia.