Carbon Farming Initiative Amendment Bill 2014

Kai Swoboda
Economics Section
Dr Alexander St John
Science, Technology, Environment and Resources Section
Juli Tomaras
Law and Bills Digest Section

Contents

The Bills Digest at a glance .................................................. 3
Purpose of the Bill ............................................................ 4
Structure of the Bill ............................................................ 4
Background ......................................................................... 4
Committee consideration .................................................... 6
Senate Standing Committee on Environment and Communications – Direct Action Plan references inquiry ................................................................. 6
Senate Standing Committee for the Scrutiny of Bills ............ 7
Policy position of non-government parties/independents..... 8
Position of major interest groups ........................................ 9
Climate change groups ....................................................... 9
Industry and business groups ........................................... 10
Conservation groups ....................................................... 10
Farmers’ groups ........................................................... 11
Financial implications ....................................................... 11
Statement of Compatibility with Human Rights ............... 12
Key issues and provisions ............................................... 12
Australia’s emissions reduction targets ............................ 12
Additionality ................................................................. 14
CFI Act additionality requirements ................................. 15

Date introduced: 18 June 2014
House: House of Representatives
Portfolio: Environment
Commencement: The substantive provisions of the Bill commence upon the earlier of day to be fixed by Proclamation or six months after Royal Assent.

Links: The links to the Bill, its Explanatory Memorandum and second reading speech can be found on the Bill’s home page, or through the Australian Parliament website.

When Bills have been passed and have received Royal Assent, they become Acts, which can be found at the ComLaw website.
Changes to additionality requirements.......................... 15
  Guidance in clarifying if a project meets the newness requirement ................................................. 16
Commencement of projects........................................ 16
Crediting period.................................................... 17
  What will happen to the crediting period of current CFI projects? .................................................... 17
Transactions costs for participating in the ERF .......... 17
  Reverse auctions and contracting for emissions reductions.............................................................. 17
Pre-registration and contracting requirements ............ 19
  Pre-qualification.................................................. 19
Contracting arrangements ........................................ 20
Will the ERF deliver sufficient emissions reductions to meet the 5% target? ........................................ 20
  Opportunities ................................................................ 20
Assessments .................................................................. 22
Soil carbon .................................................................. 23
  Integrity ...................................................................... 25
  Permanence .................................................................. 27
Changes to permanence requirements ....................... 28
Changes to the methodologies for the issue of Australian Carbon Credit Units .................................. 29
  Quantified emissions offsets vs assumed emissions reductions.......................................................... 31
Emissions safeguard mechanism (facility baselines) ........ 32
  International permits................................................ 32
Public consultation on methodologies ......................... 33
The Bills Digest at a glance

Purpose of the Bill

• The Bill amends the Carbon Credits (Carbon Farming Initiative) Act 2011 to implement the main part of the Coalition Government’s ‘direct action’ emissions reduction policy—the establishment of arrangements to support the purchase of domestic emissions abatement through the ‘emissions reduction fund’ (ERF).

Background

• Australia is a party to the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which requires industrialised parties (known as Annex I countries) to nominate a greenhouse gas emissions reduction target. Australia’s target for the period 2013–2020 is a reduction in emissions of five per cent compared to 2000 levels by 2020.
• With the repeal of the carbon price framework from 1 July 2014, abatement purchased through the emissions reduction fund will be the most important part of efforts to achieve Australia’s emissions reduction target.

Stakeholder concerns

• Some climate change think-tanks and analysts have suggested that the Emissions Reduction Fund has the potential to contribute to the achievement of Australia’s climate change targets, but may be insufficient by itself. Conservation groups have generally criticised the replacement of the carbon price with the direct action plan. Criticisms have included an observation that it would be difficult to scale up the ERF to meet any expanded GHG abatement target, should a more ambitious target be adopted.
• Peak business groups urged the repeal of the carbon price, but their engagement with the ERF has been mostly concerned with minimising any compliance burden for business. Business has generally argued that long-term emissions reduction policy certainty is key to allow businesses the confidence to invest. Reaction from farmers’ groups has been mixed.

Key elements

• While the existing ‘unit’ (an Australian Carbon Credit Unit (ACCU)) generated by the carbon farming initiative scheme is retained, the range of activities that will be able to qualify for crediting will be broadened and the assessment and registration of activities and projects will be subject to ‘streamlined’ arrangements.
• The Government’s commitment of $2.55 billion to the emissions reduction fund was outlined in the 2014–15 Budget, but only $1.15 billion is anticipated to be spent over the four years to 2017–18.

Key issues

• A number of modelling exercises (based on information available at the time) have been sceptical about the capacity of the Coalition’s ERF policy to meet the five per cent target. To date the Government has not published any modelling to show how the ERF will contribute to the emissions reductions required to meet the five per cent target.
• The Bill signals a significant change in the nature of ACCUs, with eligibility to earn ACCUs expanded from emissions avoidance and sequestration projects, to include industrial and commercial emissions reduction projects. There are concerns with some proposed methodologies, such as soil carbon, principally related to the integrity and permanence of the abatement.
• The safeguard component of the Direct Action Plan is not proposed within this Bill. The safeguard arrangement is designed to constrain large emitters of GHG from exceeding a historical emissions baseline. This component of the Direct Action Plan is still under development, and the Government has indicated that any emissions safeguard mechanism will not commence until 1 July 2015, at the earliest.
Purpose of the Bill

The purpose of the Carbon Farming Initiative Amendment Bill 2014 (the Bill) is to amend the [Carbon Credits (Carbon Farming Initiative) Act 2011](http://example.com) (the CFI Act) to:

- establish the Emissions Reduction Fund (ERF) by:
  - allowing for a broader range of activities to be eligible to earn greenhouse gas offset units (Australian Carbon Credit Units - ACCUs) under the Carbon Farming Initiative (CFI);
  - reducing regulatory requirements associated with the development of methodologies under the Carbon Farming Initiative and
  - allowing for the Clean Energy Regulator to purchase greenhouse gas emissions offset units (Australian Carbon Credit Units) from qualifying projects on behalf of the Commonwealth.

The Bill also makes minor consequential amendments to the [Australian National Registry of Emissions Units Act 2011](http://example.com) and the [National Greenhouse and Energy Reporting Act 2007](http://example.com) and provides transitional provisions for projects earning greenhouse gas offset units under the current Carbon Farming Initiative arrangements.

Structure of the Bill

The Bill has one Schedule that is divided into three parts:

- **Part 1** amends the CFI Act to establish the framework under which the Clean Energy Regulator may purchase greenhouse gas offset units on behalf of the Commonwealth (essentially establishing the Emissions Reduction Fund)

- **Part 2** makes ‘other’ amendments to the CFI Act, principally making changes to the requirements and process for creating methodologies that prescribe how greenhouse gas offset projects can earn Australian Carbon Credit Units. Part 2 also makes consequential amendments to the Australian National Registry of Emissions Units Act 2011 and the National Greenhouse and Energy Reporting Act 2007 and

- **Part 3** makes amendments to the CFI Act to allow for various administrative matters to be specified in legislative rules, in addition to regulation.

Background

This Bill implements part of the Coalition’s climate change policy, known as the Direct Action Plan. Originated in 2010, the policy seeks to reduce Australia’s greenhouse gas emissions through a suite of measures, including a modified baseline-and-credit scheme called the Emissions Reduction Fund. The Coalition is strongly opposed to the previous Labor Government’s carbon pricing mechanism (CPM), and promised to

---

1. [Carbon Credits (Carbon Farming Initiative) Act 2011](http://example.com), accessed 1 September 2014. The CFI Act establishes a voluntary carbon offsets scheme known as the Carbon Farming Initiative (CFI). The CFI allows farmers and land managers (project proponents) to earn carbon credits through eligible carbon abatement activities which store or reduce greenhouse gas (GHG) emissions on land. Carbon credits earned under the CFI are called ACCUs. ACCUs are not issued for business-as-usual activities. To be eligible, projects must deliver extra reductions in greenhouse gas emissions. This ‘additionality’ is a requirement of all offset schemes. ACCUs are also only issued for activities that bring lasting environmental benefits – the permanence requirement. Permanence rules underpin the market value of credits. Given the variation in abatement activities, estimation methodologies are rules which are developed (by private applicant, industry associations or government) to provide instruction on how to carry out an abatement project and measure the resulting GHG reductions. To ensure credible valuing of ACCUs, these methodologies are assessed by an independent Domestic Offsets Integrity Committee.

2. The Emissions Reduction Fund is the linchpin of the Coalition Government’s Direct Action Plan. The ERF seeks to provide an incentive for low-cost emissions reductions by crediting and purchasing those emissions reductions (ACCUs) on the basis of least cost, through reverse auctions or other competitive tendering processes.

3. The CFI currently enables land-based carbon abatement and sequestration projects to generate tradeable carbon credits (emission reductions) in the form of Australian carbon credit units (ACCUs).

4. [Carbon Farming Initiative Amendment Bill 2014](http://example.com), Schedule 1, Part 2, accessed 1 September 2014.


6. Ibid.


replace it with taxpayer-funded greenhouse gas abatement programs, designed to achieve Australia’s targets under the second commitment period of the Kyoto Protocol.10

The Direct Action Plan was originally published in 2010, as the Coalition’s new climate change policy.11 This policy was developed after the Liberal Party ended its previous support in 2009 for a greenhouse gas emissions trading scheme, and voted to remove its then leader, Malcolm Turnbull.12 The Coalition’s new policy characterised the proposed emissions trading scheme as a ‘great big new tax on everything’, and heavily criticised the ETS’ reliance on purchasing carbon credits from abroad.13 Instead, the Coalition promised to reduce greenhouse gas emissions through taxpayer-funded, domestic emissions reduction projects that it claimed could be achieved at lower overall cost than the CPM.14

The Coalition took this policy to the 2010 and 2013 general elections, and formed Government following its 2013 election victory. In particular, the Coalition considered that the electorate gave it a mandate to repeal the CPM and install the Direct Action Plan in its place, as it considered that the election was in essence a referendum on the CPM.15 Greg Hunt, Minister for the Environment, outlined some further details about the Direct Action Plan in a speech in November 2013, two months after the Coalition’s election victory, confirming the Coalition Government’s intention to pursue the policy.16 The Government proceeded with policy design for the Direct Action Plan’s Emissions Reduction Fund (ERF), and released a green paper in December 2013 and a white paper in April 2014.17 The Government confirmed in the 2014–15 Budget that it would be implementing the ERF in the 2014–15 financial year, although a number of other elements of the Direct Action Plan were not proceeded with.18 The elements of the Direct Action Plan that were reconfirmed in Minister Hunt’s 2013 speech were:

1. an Emissions Reduction Fund (ERF), through which the Government will purchase domestic greenhouse gas emissions reductions and offsets by reverse auction. This Bill sets out the legislative framework for the Fund’s operation. The Government plans to spend $1.15 billion between 2014–15 and 2017–18 on this program19

2. an emissions safeguard mechanism, which will constrain large emitters of greenhouse gases from exceeding historical emissions baselines. This component of the policy appears to still be under development at the time of writing, and will not commence operation until at least 1 July 201520

3. a Solar Towns initiative, where community groups will be allocated grants to install solar photovoltaic cells or solar water heaters. This initiative was initially intended to support at least 25 towns with a maximum of $2 million per town, but was scaled back in the 2014–15 Budget to cover just eight areas with $2.1 million provided to cover all of those eight areas21

---


16. G Hunt (Minister for the Environment), The Coalition Government’s plan to repeal the carbon tax and tackle climate change, op. cit.


4. a ‘Twenty Million Trees’ program, where the Government would provide funding for the planting of twenty million new trees by 2020 in urban forests and green corridors. In the 2014–15 Budget, the Government indicated that $50 million from the ‘National Landcare Programme’ would be redirected towards this initiative.

5. a Solar Schools initiative, where at least 100 schools would be provided with up to $500,000 each to install solar photovoltaic panels or solar water heaters. The Government did not proceed with this initiative in the 2014–15 Budget and

6. a ‘One million solar roofs’ program, where one million householders would receive a $500 rebate to install solar hot water heaters or photovoltaic panels. The Government did not proceed with this initiative in the 2014–15 Budget.

It is not clear if the Government will proceed with the remaining elements of the Direct Action Plan in the future. The Government maintains that it will be able to meet its emissions reduction target under the Kyoto Protocol (of a five per cent reduction in greenhouse gas emissions by 2020, compared to 2000 levels), using the remaining elements of the Direct Action Plan.

Under the model presented in the white paper, the ERF will purchase greenhouse gas abatement (in the form of Australian Carbon Credit Units) through a ‘reverse auction’ process.

Committee consideration

Senate Standing Committee on Environment and Communications – Direct Action Plan references inquiry

On 10 December 2013, the Senate referred the Government’s Direct Action Plan to the Senate Environment and Communications References Committee, which reported on 26 March 2014. This report was finalised before the release of the ERF white paper, and before the 2014–15 Budget (which did not provide for the full complement of Direct Action Plan measures). Key themes raised in the Committee’s report include:

- doubt about the capacity of the ERF to meet Australia’s greenhouse gas emissions targets. Submitters to the inquiry raised a number of concerns about the ERF, such as the adequacy of its budget, previous poor performance of grant-based greenhouse gas abatement schemes and the voluntary nature of the scheme;

- suggestions that the ERF would not be a cost-effective way of reducing greenhouse gas emissions, and places a drain on Government finances, and the lack of economic modelling from the Government about what the scheme might cost and ultimately achieve;

- the design of the ERF presented significant technical challenges which could compromise greenhouse gas abatement efforts, including ensuring that emissions reductions paid for by the fund are actually ‘additional’, that the emissions safeguard mechanism could prove onerous and difficult to implement, and that the design of the fund did not lend itself to a long-term climate change solution.

The Committee ultimately concluded that the ERF was ‘fundamentally flawed’ and not an adequate replacement for the carbon pricing mechanism. Government senators wrote a dissenting report which largely criticised the carbon pricing mechanism, and suggested that there had been support in the community for a climate change program that provided ‘incentives rather than taxes’.

25. Ibid.
28. Ibid., p. 77 and 93–96.
29. Ibid., pp. 101–121.
30. Ibid., p. 98 and 120.
31. Coalition Senators, Dissenting report, Senate Environment and Communications References Committee, Direct action: paying polluters to halt global warming, op. cit., p. 149.
activities] in the economy. The Greens also argued that the expected level of grants available from the ERF would mean that genuine land-sector abatement would not be able to bid in successfully.32

**Senate Standing Committee on Environment and Communications – Carbon Farming Initiative Amendment Bill 2014 [Provisions] legislation inquiry**

On 19 June 2014, the Senate referred the Carbon Farming Initiative Amendment Bill 2014 to the Environment and Communications Legislation Committee for inquiry, and the Committee tabled its [report](#) on 7 July 2014.33 The Committee’s report did not raise any significant issues with the Bill and concluded that:

- the establishment of the ERF would provide significant opportunities for land-based carbon abatement and innovative projects in other sectors and
- the Bill provides a smooth transition from the existing Carbon Farming Initiative arrangements, and that the Clean Energy Regulator was well equipped to manage the ERF. 34

Labor Senators issued a dissenting report, arguing that the ERF would fall significantly short of Australia’s greenhouse gas reduction targets, that the additionality requirements of the new scheme were confusing and that the scheme’s policy design was still incomplete, particularly with regard to methodology development and the imposition of the safeguard mechanism. 35 The Australian Greens also issued additional comments, in which they argued that the weakening of integrity requirements for greenhouse gas offsets may make them ineligible to be counted under the Kyoto Protocol. 36

**Senate Standing Committee for the Scrutiny of Bills**

The Senate Standing Committee for the Scrutiny of Bills expressed concern over a few issues. Firstly, the Committee noted that the intention to ‘migrat[e] the content of regulations into legislative rules over time’, as foreshadowed in the Explanatory Memorandum to the Bill 38 would reduce transparency, appropriate opportunity for parliamentary review and thus accountability. 39 The Committee also sought clarification on how much of the regulations would be migrated into rules and the means by which a potential conflict between the regulations and rules would be avoided or resolved. 40 Thirdly, current section 304 of the *CFI Act* provides that regulations made under the Act may prescribe matters by applying, adopting or incorporating information in another document or instrument. Items 367 and 368 of Schedule 1 amend section 304 so that legislative rules made under proposed section 308, inserted by item 14 of Schedule 1 may also incorporate material in this way. The potential for uncertainty that incorporating materials by reference may create in the law, in addition to considerations of fairness for those who are under an obligation to follow a law made without scrutiny or ease of access to its terms, is perhaps a matter for re-consideration. This raised concern for the Committee, which has requested further advice from the Minister as to the rationale for this, how instruments incorporated by reference will be made available to the public and in particular, affected members of the public. 41 Lastly, proposed section 60, inserted by item 151 of the Bill ‘provides for criteria for a ‘fit and proper’ person test to be prescribed by legislative rules’ but with no justification as to why the criteria will be provided in rules, given that a ‘fit and proper’ person test is a key issue which is normally set in the primary legislation. 42

---

34. Ibid., pp. 25–26.
36. There are two components of the CFI which are designed to ensure the integrity of CFI credits: offsets integrity standards and measures to minimise fraud and dishonest conduct.
40. Ibid., p. 11.
41. Ibid., p. 12.
42. Ibid.
**Policy position of non-government parties/independents**

The Australian Labor Party opposes the Emissions Reduction Fund and the Direct Action Plan, and argued for the retention of the carbon pricing mechanism. The ALP’s overall policy position on meeting Australia’s international commitments was to retain an ETS and bring forward its commencement to July 2014. Since the carbon pricing mechanism was abolished in July 2014, the ALP has reaffirmed its commitment to constraining greenhouse gas emissions through an emissions trading scheme. In relation to the ERF, a recent Senate Environment and Communications Committee report on the Direct Action Plan Policy (in which ALP Senators and Australian Green Senators authored the majority report) considered that ‘there is no evidence that the Direct Action Plan and its Emissions Reduction Fund will achieve substantial emissions reductions at a reasonable cost’. The Committee’s majority report did however consider that the ERF could form part of a range of measures to reduce Australia’s greenhouse gas emissions but that ‘the Committee is concerned as to whether the Emissions Reduction Fund is an appropriate and cost-effective use of taxpayer’s money and considers that… design issues… would need to be adequately addressed’.

In the House of Representatives, the Leader of the Opposition, Bill Shorten, described the scheme as:

.. an amateur, ill-conceived, centralist, Soviet style voucher system that will give the nation’s biggest polluters great wads of taxpayer money to keep polluting.

The Australian Greens also oppose the ERF and the Direct Action Plan. The leader of the Australian Greens, Christine Milne, described the plan as an ‘absolute sham’. In the recent Senate committee inquiry report referred to above, the Australian Greens noted that:

Direct Action is a high-cost, narrow, government controlled scheme intended to replace the existing market driven, economy-wide, lowest-cost method of reducing harmful greenhouse gas emissions.

... Direct Action as it is currently imagined will seal the fate of the short-lived Carbon Farming Initiative. Instead of land-based abatement projects having a market to sell their Australian Carbon Credit Units (ACCUs), there will only be one buyer—the Federal Government. There will no longer be any identifiable market value of ACCUs, farmers will be bidding blind and the significantly higher risks involved will result in farmers and land managers leaving the market altogether.

The Palmer United Party also opposes the ERF. The leader of the Palmer United Party, Clive Palmer, reportedly described the Direct Action Plan as ‘an ineffectve policy and a waste of money at a time when families, pensioners, young Australians, stay at home mums, single parents and our indigenous communities are facing unfair measures in the Budget’.

Senator Xenophon is reported to be supportive of the ERF but with changes including access to international permits. In the Senate, he said:

I believe that Direct Action must be modified and changed so that there is a base, there are adequate penalties and safeguard mechanisms, and adequate long-term contracts to deliver the best, lowest cost abatement possible. There needs to be modifications to the scheme and, with the best endeavours and in good faith, I am working with the environment minister in respect of that... The point is that I believe there is, at least, a transitional alternative to deal with these issues. Not to have any form of carbon abatement would be wrong. I believe that there are some

---

46. Ibid., p. 99.
potential safeguards. I believe that having a reverse option scheme, as proposed by Direct Action, can actually work.\textsuperscript{52}

Senator John Madigan does not yet appear to have indicated categorically if he will support the Direct Action plan. However, he has raised concerns that CSIRO is allegedly sacking scientists working on areas of research related to the DAP.\textsuperscript{53}

Senators Bob Day of the Family First Party and David Leyonhjelm of the Liberal Democratic Party both oppose the scheme.\textsuperscript{54} The Liberal Democratic Party’s energy policy notes that the consequences of an increase in atmospheric carbon dioxide ‘whether it is due to human influence and if anything can or should be done about it, as too uncertain to warrant government action’.\textsuperscript{55}

Independent MP Cathy McGowan voted in favour of the Bill, explaining later that she hoped to see Direct Action alongside an emissions trading scheme, the renewable energy target and other climate change policies.\textsuperscript{56}

Katter’s Australian Party MP, Bob Katter, voted against the Bill, but does not seem to have made any public statement about the Bill.\textsuperscript{57}

### Position of major interest groups

#### Climate change groups

Some climate change think-tanks and analysts have suggested that the Emissions Reduction Fund has the potential to contribute to the achievement of Australia’s climate change targets, but may be insufficient by itself.

ClimateWorks Australia, a think-tank associated with Monash University, submitted that:

If well designed and sufficiently resourced, the proposed Emissions Reduction Fund could effectively target opportunities that are not expected to occur without additional incentives yet are large in volume, technologically proven and can be captured at reasonable cost... In addition to using budgetary measures through the Emissions Reduction Fund, a suite of other policy measures should be applied within the Government’s Direct Action policy to effectively reduce emissions in each sector of the economy. In particular, setting sector-specific emissions standards for vehicles, buildings, industrial developments and land clearing will be important for achieving the 2020 targets within budget constraints.\textsuperscript{58}

Analyst firm Energetics expressed similar views, suggesting that the ERF would need to be part of a suite of complementary measures, in particular noting that:

Direct Action’s policy could be successful if a fair and equitable baseline and credit trading scheme is included. This mechanism must include flexibility to ensure Australia can fulfil its current and future international obligations.

Bipartisan support is essential to provide certainty in climate change policy to business.\textsuperscript{59}

The Climate Institute, another climate change think tank, was less supportive of the ERF. Its submission to the Senate’s inquiry into the DAP argued that ‘no independent analysis to date has shown that the policy framework as outlined can achieve Australia’s international obligations and emission commitments’ and that ‘international and Australian experience bears out concerns that a central policy mechanism of the nature proposed by the Government will not drive substantial absolute emissions reductions.’\textsuperscript{60}


\textsuperscript{55} Liberal Democratic Party (LDP), ‘\textit{Policies: energy}’, LDP website, accessed 7 July 2014.


\textsuperscript{57} Australia, House of Representatives, ‘\textit{Carbon Farming Initiative Amendment Bill 2014}’, Votes and proceedings, HVP 52, 25 June 2014, accessed 15 July 2014


A similar line was taken by academic Professor Frank Jotzo, of the Australian National University’s Centre for Climate Economics and Policy:

The proposed Emissions Reductions Fund under the Direct Action Plan amounts to a scheme of project-based subsidies, funded by taxpayers. The Emissions Reductions Fund approach could be useful to support particular emissions reductions activities, insofar as the budgetary costs can be justified. But it is not a suitable instrument for long-term, broad-based climate change mitigation action. The effectiveness and cost-effectiveness of an Emissions Reduction Fund will be limited by fiscal costs and fiscal constraints, by private incentives to overstate emissions savings and to hold back investment unless subsidised, by the relatively short proposed time horizons for payments, by the instrument being confined to specific eligible activities, and by the relatively large administrative burden. It could also encourage continued lobbying by potential beneficiaries.

**Industry and business groups**

Peak industry groups, such as the Australian Industry Group and the Business Council of Australia urged the repeal of the CPM, but their engagement with the ERF has been mostly concerned with minimising any compliance burden for business. Both groups have made clear that long-term emissions reduction policy certainty is key to allow businesses the confidence to invest. The groups’ position on the ERF seems to have been relatively neutral.

Some renewable energy lobby groups, such as the Sustainable Energy Association (SEA) of Australia, have been critical of the ERF, suggesting that it relies too heavily on land-based measures such as soil carbon sequestration, which it argued was unlikely to deliver significant abatement. SEA argued that the ERF fails to send a market-based price signal sufficient to significantly change behaviour amongst emitters. It should be noted that renewable energy providers will be significant losers under the transition from a carbon price to the ERF; the CPM imposes additional costs on GHG-emitting electricity generators, which acts to make renewable energy more competitive. Under the ERF, renewable energy projects (which could be eligible for the Renewable Energy Target) might not pass the ‘government program requirement’, contained in item 107 of the Bill.

**Conservation groups**

Conservation groups have generally criticised the replacement of the CPM with the Direct Action Plan. Some groups have suggested that the ERF could be a useful component of a broader suite of climate change mitigation measures, but would be insufficient on its own. Criticisms of the ERF have included an observation that it would be difficult to scale up the ERF to meet any expanded GHG abatement target, should a more ambitious target be adopted. The Australian Conservation Foundation submitted to the Senate’s inquiry into the Direct Action Plan that:

“...The DAP will not drive long term structural decarbonisation of the Australian economy, and the DAP’s existing pollution reduction targets are far too low. Climate change will not end in 2020 and business decisions being taken now and up to 2020 will have costly impacts for decades for come.

(iii) The DAP fails to honour Australia’s existing international pollution reduction goals.

(iv) ACF is not aware of any independent modelling that suggests the existing and inadequate pollution reduction targets will be achieved under the DAP, given current funding commitments. Additionally, modelling suggests that the costs of the scheme will become unsustainable if it is scaled up to achieve evidence based decarbonisation objectives indexed to Australia’s existing decarbonisation commitments (that is: action in line with a two degree decarbonisation target).

64. Carbon Farming Initiative Amendment Bill 2014, Schedule 1, *Item 107*.
(v) Prior experiences with policies possessing similar structure show they fail to deliver low-cost pollution reduction.

(vi) The ineffectiveness of the DAP policy suite (low ambition, poor scalability) will only serve to lock in policy uncertainty, leading to poor outcomes both for business and the environment. Problems specific to the scheme’s architecture flow from (amongst other things) complexities of baseline settings, inequities, problems with baseline compliance mechanisms and monitoring, and inequities and perverse incentives to pollute.  

Farmers’ groups

Reaction from farmers’ groups has been mixed. Carbon Farmers Australia, a lobbying and consultancy organisation, has pointed to the potential of soil carbon activities to meet Australia’s greenhouse gas abatement targets, and welcomed the opportunity for ‘carbon farmers’ to be rewarded under the ERF. The National Farmers’ Federation (NFF) welcomed the repeal of the CPM, but has cautioned that funding for the ERF may not be sufficient to enable land-sector projects to successfully bid in to the ERF:

NFF is seeking assurance that the design of the ERF will support the participation of the agriculture sector. A basic analysis of the emissions reduction task shows the average price the Government will pay for ERF projects is in the order of $10 per tonne of CO2e. The experience of the Carbon Farming Initiative is that the break-even price of carbon projects under the CFI is close to $23/t CO2e. This indicates that agricultural projects may not be competitive when compared to, for example, large projects likely to be generated from the industrial and energy sectors.

The Environmental Farmers’ Network echoed this concern, but argued that greenhouse gas emissions reductions should be achieved by a market system paid for by users (i.e. emitters of greenhouse gases), not the taxpayer (as with the ERF).

Financial implications

The Explanatory Memorandum notes that the estimated impact of the ERF on the budget in cash terms is $2.55 billion.

The 2014–15 Budget allocated funding of $1.15 billion over the four years to 2017–18. In a media release accompanying the 2014–15 Budget, the Minister for the Environment stated that the Australian Government ‘had today delivered on its pledge to provide $2.55 billion to establish the [ERF] from 1 July 2014’. The difference between the 2014–15 Budget and the total ERF funding of $2.55 billion essentially reflects the use of five-year contracts to pay for emissions reductions in arrears and expectations about the timing of such payments, with the expenditure of the full $2.55 billion now expected to occur over the ten years to 2023–24.

Expenditure to the ERF is allocated as part of the annual budget process through the appropriation Bills—there is no standing appropriation. That said, the Explanatory Memorandum makes it clear that the CER can commit to the full $2.55 billion from the commencement of the fund.

The Coalition’s pre-election policy for the ERF was for a total allocation of $1.55 billion over the period to 2016–17, with $300 million for 2014–15, $500 million for 2015–16 and $750 million for 2016–17. This amount was increased to $2.55 billion in April 2014, with the Minister for the Environment noting in his media release...
accompanying the issue of the ERF white paper that ‘the forward estimates commitment to the ERF will be $2.55 billion, with further funding to be considered in future budgets’.76 While the term ‘forward estimates’ noted by the Minister implies that the additional $1 billion would be allocated to 2017–18, in his foreword to the white paper the Minister noted that the $2.55 billion would be ‘allocated flexibly over time according to the profile of projects contracted under the [ERF]’.77

**Statement of Compatibility with Human Rights**

The Statement of Compatibility with Human Rights can be found at page 11 of the Explanatory Memorandum to the Bill. As required under Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011 (Cth), the Government has assessed the Bill’s compatibility with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of that Act. The Government considers that the Bill is compatible.78

The Parliamentary Joint Committee on Human Rights considered the Bill, and concluded in its eighth report to the 44th Parliament that the Bill did not give rise to human rights concerns.79

**Key issues and provisions**

**Australia’s emissions reduction targets**

Australia is a party to the Kyoto Protocol to the United Nations Framework Convention on Climate Change, which requires industrialised parties (known as Annex I countries) to nominate a greenhouse gas emissions reduction target.80 Australia has nominated a target (known as a Quantified Emissions Limitation or Reduction Objective, or QELRO) for both the first (2008–2012) and second commitment periods (2013–2020) of the Protocol.81 Australia’s QELRO for the second commitment period is that on average, its annual level of emissions will be no more than 99.5 per cent of Australia’s emissions in the year 1990; this translates to a reduction in emissions of five per cent compared to 2000 levels by 2020 (see Figure 1 below).

---

77. Department of the Environment, *Emissions Reduction Fund: white paper* op. cit., p. 1. The Minister also signalled that ‘further funding would be considered in future budgets’.
Prior to the time of making its QELRO for the second commitment period, the then Labor Government laid out the possibility of two further emissions reduction commitments (to 15 and 25 per cent below 2000 levels), the adoption of which would be dependent on comparable international action. Although in its 2014 Targets and Progress Review, the Climate Change Authority argued that international action had satisfied the criteria to move to a 15 per cent reduction target, the Coalition Government has elected to remain with the five per cent target until at least 2015.

This means that in order to achieve its target, Australia must effectively emit no more than 558 million tonnes of carbon dioxide-equivalent (Mt CO\textsubscript{2}-e) in 2020. This compares with emissions of 581 and 587 Mt CO\textsubscript{2}-e in 1990 and 2000 respectively. Under the Government’s latest greenhouse gas emissions projections, Australia’s 2020 emissions are expected to be 685 Mt CO\textsubscript{2}-e under business-as-usual conditions, assuming that the carbon pricing mechanism is repealed early in the 2014–15 financial year. To achieve the QELRO, the Government will carry over unused emissions units from the first commitment period of the Kyoto protocol and purchase greenhouse gas emissions abatement under the Emissions Reduction Fund, to reduce Australia’s net greenhouse gas emissions.

The projections suggest that the Government will need to purchase emissions abatement of 421 Mt CO\textsubscript{2}-e by 2020 in order to achieve the target (see Figure 2 below).

---

82. Ibid., p. 5.
84. In 2012, the rules under which greenhouse gas emissions are measured for the purposes of the Kyoto Protocol were changed, resulting in Australia’s 2000 level emissions being revised upwards from 565 to 587 Mt CO\textsubscript{2}-e. Older sources may quote the previous version of the target; Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, The impact of Kyoto accounting changes on the QELRO and targets, Australian Government, June 2013, accessed 23 June 2014.
85. Ibid.
There are several ways in which this target could be achieved – by reducing emissions from Australian domestic sources, increasing domestic greenhouse gas offsets or by purchasing so-called carbon credits from abroad through one of the three flexibility mechanisms provided for by the Kyoto Protocol. The previous Labor Government’s approach was to use a carbon pricing mechanism that provided an economic incentive to reduce domestic emissions, but was also expected to require the use of significant amounts of internationally-sourced carbon credits. The Coalition Government’s approach to meeting the target is best characterised as a modified baseline-and-credit scheme, where the Government provides a direct cash incentive for entities to reduce or offset emissions in Australia (the credit portion) and enforces a mechanism to prevent unrestrained growth in emissions beyond historical norms (the baseline portion). The Government has indicated that it will spend $2.55 billion over ten years from 2014–15 purchasing emissions abatement, which means that the amount of money available to achieve the 2020 target is somewhat less than this.

**Additionality**

To be eligible for ACCUs projects must deliver extra reductions in greenhouse gas emissions. This ‘additionality’ is a requirement of all offset schemes.

In simple terms, additionality is the notional measurement of the effect or impact of an action or policy intervention, when compared to the ‘base line’ (i.e., leaving things to continue as they are). A baseline is a guesstimate of the quantified amount of an output from an activity resulting from the expected future behaviour of the actors undertaking the normal activity in the absence of one or more policy interventions. Thus a proposed activity is additional if the particular policy intervention or action is regarded as causing the net positive difference from the baseline to occur.

Creating a framework for measuring additionality presents a number of challenges to policy makers including:

- comparison to an unobserved scenario—additionality is to be assessed against an unobservable baseline

---

88. A Talberg, *The Kyoto Protocol accounting rules*, Background note, Parliamentary Library, Canberra, 14 October 2009, pp. 4–5, accessed 24 June 2014. The three flexibility mechanisms are Joint Implementation, where one developed country funds an emissions reduction project in another developed country; the Clean Development Mechanism where a developed country funds an emissions reduction project in a less developed country; and Emissions Trading where two countries with a Kyoto QELRO agree to trade part of their emissions allowance with each other. In the three mechanisms, the country that pays for the project or agreement receives carbon credits which it can use to increase its own Kyoto Protocol greenhouse gas allowance.


• unequal information and misaligned incentives—regulators require information from proponents to assess additionality and predict baselines and proponents may have incentives to provide biased information
• multiple factors influencing behaviour—the behaviour of project proponents is likely to be affected by multiple factors which make modelling and predicting future behaviour difficult and
• subjectivity—there is inherently some subjectivity in the assessment of additionality and prediction of baselines.91

**CFI Act additionality requirements**

Under the *CFI Act*, the concept of additionality is applied through the measurement of a baseline for each activity and an ‘additionality test’.92

The measurement of baselines for a project assumes that the project had not been carried out.93 The additionality test essentially requires an activity to have been recommended by the Minister as a project to be specified in regulations,94 with the Minister required to consider advice from the Domestic Offsets Integrity Committee about whether such a project should, or should not, be specified as such an activity and whether carrying out such a project is not ‘common practice’ in the relevant industry (or relevant part of the relevant industry) or the kind of environment in which such a project is to be carried out.95

The term ‘common practice’ is not defined in the *CFI Act*. However, the Explanatory Memorandum prepared for the CFI Bill included the following information about the application of the term:

5.49 The common practice test is intended to provide a streamlined way of identifying activities that would not normally have occurred in the absence of this scheme and are therefore genuinely additional.

5.50 In assessing whether a project is common practice, the Minister will factor out the impact of the scheme. This is to clarify that activities that are common because of the scheme should not fail the additionality test.

5.51 Common practice is not defined in the legislation. This is to allow for the application of expert judgement as to what constitutes common practice in different environments and industry circumstances. The Government will consult with stakeholders on approaches to identifying common practice and provide further guidance.96

**Changes to additionality requirements**

The Bill proposes to remove the existing additionality requirements in section 41 of the Act (Schedule 1, item 130) and the baseline concept included in the in the methodology determination (Schedule 1, items 32 and 207). In their place, the Bill proposes to insert the following three requirements:

• newness requirement - that a project has ‘not begun to be implemented’ before it is registered
• regulatory additionality requirement - that the project is not required to be carried out by or under a law of the Commonwealth, a state or a territory and
• government program requirement - that the project would be unlikely to be carried out under another Commonwealth, state or territory government program or scheme in the absence of a declaration of the project as an eligible offsets project (Schedule 1, item 107). However, it is not the intention that this preclude project proponents from seeking funding or in-kind support from multiple sources such as the Green Army

---

93. Ibid., section 107.
94. This is generally referred to as the ‘positive list’ of project types listed in *Regulation 3.28 of the Carbon Credits (Carbon Farming Initiative) Regulations 2011*.
95. *Carbon Credits (Carbon Farming Initiative) Act 2011*, subsection 41(3). The additionality test includes a requirement that the activity passes the test ‘if it is not required to be carried out by or under a law of the Commonwealth, a State or a Territory’ but this requirement can be overridden in the regulations (subsection 41(4A)).
and rangers. Indeed, a project which receives limited support from other government programs may be eligible under the ERF.

**Guidance in clarifying if a project meets the newness requirement**

In terms of the newness requirement, proposed subsection 27(4B) (at Schedule 1, item 107) provides a list of activities which may be disregarded in determining whether a project has begun to be implemented:

- conducting a feasibility study for the project
- planning or designing the project
- obtaining regulatory approvals for the project
- obtaining consents relating to the project
- obtaining advice relating to the project
- conducting negotiations relating to the project
- sampling to establish a baseline for the project
- an activity specified in the legislative rules or
- an activity that is ancillary or incidental to any of the above activities.

The Explanatory Memorandum states that the Regulator will provide further guidance on the types of project preparation activities that do not indicate that a project has begun.

Also, proposed subsection 27(4C) provides a non-exhaustive list of actions which may be used as evidence that a project has begun:

- making a final investment decision in relation to the project
- acquiring or leasing a tangible asset (other than land) that is for use wholly or mainly for the purposes of the project (though not including a minor asset)
- commencing construction work for the purposes of the project
- in the case of a sequestration offsets project — preparing soil for seeding or planting that is for the purposes of the project
- in the case of a sequestration offsets project — seeding, planting or fertilising plants that are for the purposes of the project or
- in the case of a sequestration offsets project — installing an irrigation or drainage system for the purposes of the project.

In addition to this, the Bill amends the offsets integrity standards established in section 133 of the CFI Act to remove the reference to the additionality test regulations that are proposed to be repealed and replacing them with a standard that requires methodology determinations that should result in carbon abatement ‘that is unlikely to occur in the ordinary course of events (disregarding the effect of this Act’ (Schedule 1, item 223).

**Commencement of projects**

Project proponents will be able to commence their projects from 1 July 2014 despite the Bill being passed after that date. In order to do this, project proponents must give pre-registration notification. This means that between 1 July 2014 and the date of the commencement of the ERF, project proponents need to notify the Regulator that they intend to make an application to the Regulator to have their projects declared as ‘eligible offsets projects’ under the CFI Act. They then have until 1 July 2015 to formally register their project (items 388B and 388C).

---

98. Ibid.
Crediting period

The crediting period is the length of time during which activities are eligible to create ACCUs for a project. The crediting period for emissions reductions is for a period of seven years and for sequestration projects the crediting period is 15 years, unless the regulations specify otherwise. Under the existing legislation, proponents of registered projects may apply for subsequent crediting periods after the first crediting period has expired if the project continues to pass the additionality test and satisfies any other relevant criteria. Native forest protection projects receive only one crediting period of 20 years. (See current sections 70–74 of the CFI Act.)

Proposed section 69(6) (at item 152 of Schedule 1) would limit the crediting period to one period. The crediting period for emissions reductions projects would be seven years, and for sequestration projects, the crediting period would be increased from 15 to 25 years unless another crediting period is provided for in the methodology (proposed subsections 69(3) and 69(2) respectively). Making the crediting period for sequestration projects 25 years would mean that it aligns with the new permanence period discussed further below.

The limiting of crediting to generally one period may have unnecessarily adverse impacts including on longterm arrangements and the viability of the voluntary market, and weakening a business case for future investments.

What will happen to the crediting period of current CFI projects?

Projects registered prior to the commencement of the Bill will receive a second crediting period commencing from the start of the Emissions Reduction Fund, with minor exceptions.

Transactions costs for participating in the ERF

There are a range of regulatory requirements that will create transactions costs for project proponents wanting to participate in the ERF. These include, but are not limited to, requirements for registration, eligibility requirements, participation in purchasing processes, contractual arrangements and ongoing compliance arrangements. Included in these costs will be an allowance for the potential risks to a project proponent and some allowance for being unsuccessful in a purchasing arrangement despite other requirements being satisfied.

Reverse auctions and contracting for emissions reductions

The Bill includes provisions that affect the requirements that proponents of emission abatement projects must meet both before and after a contract for emissions reductions will be entered into and moneys paid to project proponents. These requirements will affect the transactions costs that are incurred by project proponents. It will be necessary that these costs are minimised so as to ensure that the final price received by project proponents is sufficient to provide incentives to participate in the fund.

The Bill proposes to give the Clean Energy Regulator (CER) broad powers to purchase emissions reductions from a project proponent through various means including a reverse auction, a tender process or ‘any other process’. The term ‘reverse auction’ is not defined in the Bill, but the glossary in the Explanatory Memorandum defines it as ‘[a] type of auction in which the roles of buyer and seller are reversed. The auctioneer buys the good or service from sellers who compete to provide the good or service to the buyer, with sellers having the incentive to offer lower bids (as opposed to buyers offering higher bids in regular auctions)’.

In conducting its purchasing arrangements, the CER is must have regard to specified ‘principles for the conduct of carbon abatement purchasing processes’, which provide that the process should:

- facilitate the Commonwealth purchasing carbon abatement at the least cost
- maximise the amount of carbon abatement that the Commonwealth can purchase
- be conducted in a manner that ensures that administrative costs are reasonable
- be conducted in a manner that ensures the integrity of the process
- encourage competition and

99. Permanence period basically refers to the amount of time trees remain intact thus delivering forest-derived carbon emissions.
100. Proposed section 20F, at item 5 of Schedule 1.
• provide for fair and ethical treatment of all participants in the process. ¹⁰²

The Bill includes provisions that will exempt the CER from any general or specific procurement rules that apply to public sector agencies in the exercise of purchasing and contracting powers under the ERF (proposed section 20J).

The specific arrangements for the conduct of reverse auctions are not included in the Bill. While the Bill includes provisions for the Minister to make legislative rules about the conduct of reverse auctions (or other purchasing processes) (proposed subsection 20G(2)), the Explanatory Memorandum notes that there ‘are currently no plans to provide further guidance’. ¹⁰³

A key characteristic of a reverse auction, as compared to a traditional auction where the winner of the auction is the participant who makes the highest bid, is that the winner of a reverse auction is the participant who has made the lowest bid. ¹⁰⁴ Reverse auctions have been used for at least two decades in both private sector business to business supply arrangements and government procurement activities. ¹⁰⁵ Characteristics of success in reverse auctions have included competition among suppliers, the complexity of the purchase, and how well the purchase was specified. ¹⁰⁶

Examples of the use of reverse auctions in the procurement of environmental goods and service by governments include:

• allocation of feed in tariff arrangements for large scale solar power developments in the Australian Capital Territory
• the implementation by farmers of best management practices in managing environmental improvements or to retire sensitive or marginal lands and
• programs in the United Kingdom, China and Brazil for the purchase of wind energy. ¹⁰⁷

While there is no specification of the reverse auction process in the Bill, the white paper provides an overview of the process, with specific features of the process including:

• participants bid on a price per tonne of emissions reductions. Bids also specify quantity of emissions reductions offered
• participants will not be able to see what other companies are bidding as bids will be sealed or secret
• successful participants will be paid the price that they bid
• the CER will apply a ‘benchmark price’—the maximum it will pay for emissions reductions—with only bids costing less than the benchmark price considered and
• in general the benchmark price will not be known although the CER will have the discretion to publish the benchmark price in advance of the first auction, which would take place in 2014–15. ¹⁰⁸

The Government has also included a condition that the CER will only purchase 80 per cent of the emissions reductions offered for sale at an auction at prices below the benchmark price as a way of promoting competition. ¹⁰⁹

Given the purchasing options available to the CER under proposed section 20F, it is unclear how the Government will ensure that the policy for reverse auctions set out in the white paper will necessarily be

¹⁰² Proposed section 20G, at Item 5 of Schedule 1.
¹⁰⁶ Ibid.
¹⁰⁹ Ibid., p. 42.
adopted by the CER in the performance of its purchasing functions. One option may be for the CER to be given a ministerial direction under section 41 of the Clean Energy Regulator Act 2011 (CER Act) or for the Minister to make specific rules for the conduct for purchasing processes under proposed section 20G.\footnote{Clean Energy Regulator Act 2011, accessed 2 September 2014.}

**Proposed section 163** (at item 6 of Schedule 1) will allow the CER to publish specific information about the outcome of purchasing processes including:

- when the process was conducted
- the weighted average price for units purchased as a result of the process and
- other information or statistics relating to the process as the CER considers appropriate.

Annual reporting requirements that must be met ‘as soon as practicable after the end of each financial year’ will cover a range of information about purchases made including carbon abatement and financial payments made or required resulting from purchases during the relevant financial year\footnote{Clean Energy Regulator (CER), ‘Register of Offsets Projects’, CER website, accessed 10 July 2014. The name of the Register will be changed to the Emissions Reduction Fund Register by item 9 of Schedule 1.} (proposed section 163A). Information about individual contracts that have been entered into by the CER will also be required to be published as the ‘Emissions Reduction Fund Register’. Such a register already exists under section 167 of the CFI Act (‘the Register of Offsets Projects’) and is published on the CER website.\footnote{Department of the Environment, Carbon Credits (Carbon Farming Initiative) Amendment Bill 2014: Exposure Draft, May 2014, p. 7, accessed 23 August 2014; Department of the Environment, Explanatory Memorandum, Carbon Credits (Carbon Farming Initiative) Amendment Bill 2014, May 2014, p. 37, accessed 23 August 2014.} Specific information relating to contracts entered into will include:

- the name of the carbon abatement contractor
- the duration of the contract
- the name of the project to which the contract relates
- the number of units that the contractor has contracted to sell to the Commonwealth under the contract and
- the number of units that the contractor has sold to the Commonwealth under the contract\footnote{Explanatory Memorandum, Carbon Farming Initiative Amendment Bill 2014, p. 55.} (proposed subsection 168(5) at item 11 of Schedule 1).

**Pre-registration and contracting requirements**

The purchasing arrangements are simplified through the imposition of requirements for participants in auctions to satisfy a range of registration requirements prior to participating in any auctions and through standardised contractual requirements once their bids have been successful at auction (or any other purchasing arrangement).

**Pre-qualification**

The Explanatory Memorandum notes that the Regulator may set conditions or pre-qualification requirements for participation in a reverse auction or other purchasing process and that these are enabled by Schedule 1, item 5, subsection 20G(5).\footnote{Explanatory Memorandum, Carbon Farming Initiative Amendment Bill 2014, p. 55.} These arrangements will be an important part of standardising the bids for the reverse auction process. However, there is no such subsection in the Bill nor was such a provision included in the draft Bill and the relevant draft Explanatory Memorandum includes a similar description of the arrangements without a reference to proposed subsection 20G(5).\footnote{Department of the Environment, Carbon Credits (Carbon Farming Initiative) Amendment Bill 2014: Exposure Draft, May 2014, p. 7, accessed 23 August 2014; Department of the Environment, Explanatory Memorandum, Carbon Credits (Carbon Farming Initiative) Amendment Bill 2014, May 2014, p. 37, accessed 23 August 2014.}

It therefore appears that there are no specific legislative arrangements relating to the pre-qualification criteria, which are likely to be determined by the Regulator under the broad arrangements relating to the conduct of the purchasing process.

The arrangements specified in the Explanatory Memorandum for pre-qualification, which would be set out in documents published by the Regulator prior to the purchasing processes, are proposed to include a credible estimate of emissions reductions for a project, a minimum bid size and the capacity of the applicant to carry out the project.\footnote{Explanatory Memorandum, Carbon Farming Initiative Amendment Bill 2014, p. 55.} The White Paper noted that the Government had settled on a minimum bid size of 2000 tonnes
per year on average over the life of a contract but that the Regulator would have flexibility to adjust this threshold over time.\textsuperscript{115}

\textit{Contracting arrangements}

\textbf{Proposed sections 20B and 20C (at item 5 of Schedule 1) provide the framework for the contractual arrangements between the Regulator and a project proponent should they be successful at an auction or through some other purchasing process. The contracts are defined as \textit{carbon abatement contracts}.}

The Government’s preference as stated in the White Paper is for the contract period to be for five years but the Government noted that it would undertake a market testing process prior to the first auction on the commercial impacts of different contract lengths, so for the time being this detail remains unsettled.\textsuperscript{116}

A draft of such a contract was issued by the Regulator on 27 June 2014. This draft contract did not include a mandatory five year term but did include arrangements relating to an event that is beyond the reasonable control of a party that renders performance of its obligations impossible (force majeure) and includes provisions for the surrender of units issued in respect of other projects, including those purchased through the secondary market (‘Make-good Units’) as a means of satisfying contractual requirements.\textsuperscript{117}

A final version of the contract is yet to be made public.

\textbf{Will the ERF deliver sufficient emissions reductions to meet the 5\% target?}

As noted above, Australia’s abatement challenge by 2020 amounts to some 421 Mt of emissions based on the most recent projections of ‘business as usual’ emissions. Abatement opportunities are likely to come from a range of sources, but abatement opportunities proposed to be funded by the ERF will largely be limited to those at the lower end of costs given the level of committed funding of $2.55 billion over the ten years to 2023–24.

\textbf{Opportunities}

The Coalition’s 2010 Direct Action Plan included a summary of activities that could deliver emissions reductions consistent with meeting Australia’s five per cent reduction by 2020 target (Figure 3). In presenting these estimates, the Coalition noted that ‘[i]t is important to note that these estimates cover only the activities described. The Emissions Reduction Fund will support additional or alternative direct action that meet Fund criteria’.\textsuperscript{118}

\begin{itemize}
\item \textsuperscript{115}Department of the Environment, \textit{Emissions Reduction Fund white paper}, op. cit., p. 45.
\item \textsuperscript{116}Ibid., p. 47
\item \textsuperscript{118}Liberal Party of Australia, \textit{The Coalition’s Direct Action Plan}, op cit., p.14, p. 22.
\end{itemize}
Many of the activities presented above are included in a 2010 assessment of the relative investor abatement opportunities ranked by cost by ClimateWorks (Figure 4). This analysis highlights the availability of opportunities with negative costs, many associated with energy efficiency, that would be profitable to implement. At the other end, there will be many opportunities that are not likely to be supported by the ERF as the marginal abatement costs will be too high.


### Figure 3 – Coalition estimates of types, volumes and costs of potential abatement through the ERF

<table>
<thead>
<tr>
<th>Potential Available Additional Annual CO₂ Reduction by 2020</th>
<th>Indicative CO₂ Reduction to be delivered through Fund in 2020</th>
<th>Indicative CO₂ Price Per tonne</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>Soil Carbons</td>
<td>150mt</td>
<td>355mt+</td>
</tr>
<tr>
<td>Electricity Generators &amp; Industry</td>
<td>10mt</td>
<td>30mt</td>
</tr>
<tr>
<td>Forestry Measures</td>
<td>15mt</td>
<td></td>
</tr>
<tr>
<td>Waste Coal Mine Gas</td>
<td>4mt</td>
<td>8mt</td>
</tr>
<tr>
<td>Transport</td>
<td>3mt</td>
<td></td>
</tr>
<tr>
<td>Green Buildings/ Energy Efficiency</td>
<td>20mt</td>
<td>30mt</td>
</tr>
<tr>
<td>Landfills/Compost/Recycling</td>
<td>6mt</td>
<td>9mt</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>208</td>
<td>450</td>
</tr>
</tbody>
</table>
Assessments

When the former Government announced the Clean Energy Future policy in July 2011, it included detailed modelling of projected emissions under a business as usual scenario and under a carbon price at different levels. This modelling, undertaken by the Treasury, also included an analysis of the impact on economic growth, employment, wages and the source of emissions reductions.  

To date the Government has not published any modelling to show how the ERF will contribute to the emissions reductions required to meet the five per cent target.

There have been a number of modelling exercises conducted in recent years on the likely effectiveness of the ERF, given the financial commitments made at the time by the Coalition, in meeting the five per cent target. These have included modelling commissioned by The Climate Institute in 2013 and the World Wildlife Fund Australia in 2013. These modelling exercises were based on information available at the time about the ERF policy and in general were sceptical about the capacity of the Coalition’s ERF policy to meet the five per cent target.

As the ERF policy has been refined through the green paper and white paper process and funding allocations made in the 2014–15 Budget, further analysis by Reputex Carbon found that there would be a shortfall of over 300 million tonnes in order to meet Australia’s five per cent emissions reduction target. However, Reputex did


120. The Climate Institute, Coalition Climate Policy and the National Climate Interest, Policy brief, August 2013, accessed 13 August 2014.


note that the broader design of the Direct Action Plan is yet to be finalised, with details about the safeguard mechanism to be released in March 2015, giving the Government some flexibility in how any emissions shortfall could be met.123

**Soil carbon**

The Government has indicated that it expects to provide opportunities for land-sector abatement to participate in the Emissions Reduction Fund.124 This could be through relatively well-known activities relating to land-use, land-use change and forestry (LULUCF), such as afforestation, reafforestation and avoided deforestation (covered by article 3.3 of the Kyoto Protocol), or newer activities relating to cropland management, grazing management, forest management and revegetation (covered by Article 3.4).125

One idea that has repeatedly been put forward as a possible source of abatement is the sequestration of increased amounts of organic carbon in agricultural soils. (Organic carbon is derived from living things such as plants and animals, in contrast to inorganic carbon which is derived from rocks and minerals). **Soil organic carbon (SOC)** is derived from animal and plant matter at various states of decay in the soil; uncleared, undisturbed areas of vegetation tend to have relatively high levels of SOC compared with those areas that have been cleared and converted to agricultural uses.126 SOC is in a state of flux – it is depleted as organic matter in the soil decays, but is built up by the addition of new plant or animal matter to the soil. This organic matter has used carbon dioxide from the atmosphere to grow (directly, in the case of plants, or indirectly in the case of animals), so the sequestration of this material in the soil represents a transfer of carbon dioxide from the atmosphere to the soil. If the amount of organic carbon in the soil is built up, then a significant amount of carbon dioxide is removed from the atmosphere, providing a greenhouse gas ‘sink’ (analogous to growing a forest). As CSIRO points out:

> At face value, a mere 0.8 % per annum increase in SOC stocks would effectively mitigate Australia’s annual GHG emissions.127

This Figure refers to increasing the soil carbon content over the entire surface of the Australian continent, which would be impossible to achieve in practice. Building up SOC stocks can theoretically be achieved through a number of methods, which are related to changes in agricultural practices. In general, SOC sequestration techniques involve increasing the proportion of vegetation cover over agricultural land (for example, converting cropland to pasture), or reducing the level of disturbance to soil. CSIRO has compiled a useful summary of these methods, shown in Table 1.

---

123.Ibid., p. 12.
125.A Talberg, The Kyoto accounting rules, op. cit., pp. 8–9. Under the Kyoto Protocol, revegetation is distinct from reafforestation. Australia’s definition of a forest for the purposes of the Kyoto Protocol reafforestation activities requires a minimum of 0.2 hectares an area, at least 20 per cent tree crown canopy cover and a minimum tree height of two metres. Revegetation activities can include activities that produce vegetation outside of these requirements.
127.Ibid., p. 2.
Table 1 – Methods for sequestering carbon in soils

<table>
<thead>
<tr>
<th>Management</th>
<th>SOC benefit</th>
<th>Conf</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shifts within an existing cropping/mixed system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Maximizing efficiencies - 1) water-use 2) nutrient-use</td>
<td>0/+</td>
<td>L</td>
<td>Yield and efficiency increases do not necessarily translate to increased C return to soil</td>
</tr>
<tr>
<td>b. Increased productivity - 1) irrigation 2) fertilization</td>
<td>0/+</td>
<td>L</td>
<td>Potential trade-off between increased C return to soil and increased decomposition rates</td>
</tr>
<tr>
<td>c. Stubble management – 1) Elimination of burning and grazing</td>
<td>+</td>
<td>M</td>
<td>Greater C return to the soil should increase SOC stocks</td>
</tr>
<tr>
<td>d. Tillage – 1) Reduced tillage 2) Direct drilling</td>
<td>0</td>
<td>M</td>
<td>1) Reduced till has shown little SOC benefit; 2) Direct drill reduces erosion and destruction of soil structure thus slowing decomposition rates; however, surface residues decompose with only minor contribution to SOC pool</td>
</tr>
<tr>
<td>e. Rotation – 1) Eliminate fallow with cover crop 2) Inc. proportion of pasture to crops 3) Pasture cropping</td>
<td>+/++</td>
<td>H</td>
<td>1) Losses continue during fallow without any new C inputs – cover crops mitigate this; 2) Pastures generally return more C to soil than crops; 3) Pasture cropping increases C return with the benefits of perennial grasses (listed below) but studies lacking</td>
</tr>
<tr>
<td>f. Organic matter and other offsite additions</td>
<td>+/+/+</td>
<td>H</td>
<td>Direct input of C, often in a more stable form, into the soil; additional stimulation of plant productivity (see above)</td>
</tr>
<tr>
<td>2. Shifts within an existing pastoral system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Increased productivity - 1) irrigation 2) fertilization</td>
<td>0/+</td>
<td>L</td>
<td>Potential trade-off between increased C return to soil and increased decomposition rates</td>
</tr>
<tr>
<td>b. Rotational grazing</td>
<td>+</td>
<td>L</td>
<td>Increased productivity, inc. root turnover and incorporation of residues by trampling but lacking field evidence</td>
</tr>
<tr>
<td>c. Shift to perennial species</td>
<td>++</td>
<td>M</td>
<td>Plants can utilize water throughout year, increased belowground allocation but few studies to date</td>
</tr>
<tr>
<td>3. Shift to different system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Conventional to organic farming system</td>
<td>0/+/+</td>
<td>L</td>
<td>Likely highly variable depending on the specifics of the organic system (i.e. manuring, cover crops, etc.)</td>
</tr>
<tr>
<td>b. Cropping to pasture system</td>
<td>+/+</td>
<td>M</td>
<td>Generally greater C return to soil in pasture systems, will likely depend greatly upon the specifics of the switch</td>
</tr>
<tr>
<td>c. Retirement of land and restoration of degraded land</td>
<td>++</td>
<td>H</td>
<td>Annual production, minus natural loss, is now returned to soil; active management to replant native species often results in large C gains</td>
</tr>
</tbody>
</table>

The Coalition has indicated that it intends to rely heavily on soil carbon as a source of domestic greenhouse gas abatement for the ERF, as shown in Table 1. However, as a greenhouse gas abatement measure, there are some concerns with reliance on soil carbon, principally related to the integrity and permanence of the abatement.

Integrity

Although the principal of soil carbon sequestration is attractive, there are significant problems with its integrity as a rigorously quantifiable greenhouse gas offset. The integrity of a greenhouse gas offset (or carbon credit), relates to how accurately it represents a greenhouse gas emissions reduction. Ideally, a greenhouse gas emissions reduction should be able to be objectively and easily measured. However, in practice, these measurements are often affected by uncertainties and underlying assumptions.

For example, the amount of greenhouse gas emissions offset by growing a tree can be measured exactly - the amount of new carbon the tree has sequestered can be determined by measuring the tree’s change in mass. Although it is possible to measure the change in mass of a tree or plant directly (by weighing it), it is not practical to weigh trees in the ground in a forest to determine how much mass each tree has added. To provide a more practical way of measuring carbon sequestered in a forest, assumptions are made about the relationship between the volume of a tree and its mass – as it is much easier to measure the volume of a tree in a forest from its height and trunk diameter. Yet it is still not practical to measure the height and diameter of every tree in a forest, so methods are created to estimate the volume of carbon created in a forest by sampling a number of trees, or using satellite imagery. Each step away from direct measurement introduces a new set of uncertainties and assumptions that have the potential to diminish the integrity of the offset. Therefore, it is of the utmost importance that methods to estimate greenhouse gas abatement are based on strong evidence and robust analysis, to preserve their integrity.

However, although some greenhouse gas offset activities (such as afforestation and reafforestation) are relatively well studied, there are significant gaps in the state of knowledge regarding SOC activities. As Table 1 shows, CSIRO’s Land and Water division has only low to medium confidence in the sequestration potential of most types of SOC activities, based on evidence published in the literature. Their review also pointed out that the majority of studies completed on SOC sequestration had shown that most SOC activities arrested a decline in soil carbon, rather than positively added to it:

> From a theoretical standpoint, any management practice which results in greater [carbon] return to the soil, increased stabilisation of soil [carbon], or a reduction in losses should lead to positive SOC sequestration rates. Indeed, a majority of the field trial evidence summarized in this review indicated that there was a relative gain in SOC between conventional and improved management treatments. However, when SOC stocks were followed through time, the majority of studies indicated that there was an actual decrease in the quantity of [carbon] stored in the soil. These seemingly contradictory results suggest that much of Australia’s agricultural soils may still be responding to initial land clearing and that many management improvements are just slowing the rate of loss SOC.

CSIRO’s review also cast some doubt on whether SOC activities were genuine, quantifiable greenhouse gas offsets, when future environmental changes imposed significant uncertainty on the amount of SOC that would remain sequestered in the future, and that SOC sequestration was likely to depend on a number of variables:

> While this reduction in rate of loss of SOC represents a real GHG abatement in the form of avoided emissions, it may be extremely difficult to project these findings out into the future where the soil [carbon] condition is unknown (Sanderman and Baldock 2010). Further complicating predictive efforts is the fact that many of these results may be a heavily influenced by the local climatic and edaphic conditions.

Finally, CSIRO concluded that the evidence base for soil carbon sequestration was lacking:

130 Ibid., p. 48.
131 Ibid.
.. the majority of this evidence comes from field trials that were designed to test best management practices in terms of typical agronomic properties (i.e. crop yields, nutrient- or water-use efficiency, etc...) not soil carbon levels. It just so happens that many of these practices have indirect benefits to SOC stocks. Relatively minor shifts in production practices will, in most cases, have only minor impacts on SOC levels. However, large scale shifts from, for example, a fallow crop system to a permanent pasture where significantly more annual production is returned to the soil will result in greater SOC gains. Retirement of marginal agricultural land will likely have the greatest positive benefit to SOC stocks because nearly all of the annual [net primary production] will be returned to the soil. Large, but not unlimited, SOC gains will also be likely in systems where significant quantities of organic residues (manure, compost, biosolids, biochar, etc...) are added annually.\textsuperscript{132}

However, this last activity (adding organic carbon to the ground), may not actually correspond to a genuine reduction in atmospheric greenhouse gases. In 2011, several researchers from a United Kingdom research institute belonging to the UK Biotechnology and Biological Sciences Research Council published a critical review of soil carbon sequestration literature, and made the point that for SOC activities to represent genuine greenhouse gas abatement, they must include a substantial transfer of carbon dioxide from the atmosphere to the biosphere (in the ground).\textsuperscript{133} In the case of addition of extraneous organic material to the soil (such as compost or biosolids), it is possible that the carbon within is being transferred from one part of the biosphere to another, rather than from the atmosphere to the biosphere.

The authors of this review also concluded that there was a great danger of over-estimating the benefits realised from SOC activities, because:

- there is general misunderstanding about which SOC activities lead to a ‘genuine, additional transfer of carbon from atmospheric carbon dioxide to the land’ and an assumption that any increase in SOC is automatically beneficial for climate change, which is not always the case
- there is ‘ignorance’ about the fundamental limits of soil carbon sequestration (that is, the concentration of carbon in the soil does not increase indefinitely) and
- in some cases, although SOC activities sequester carbon dioxide, they can lead to greater release of other, more powerful greenhouse gases like methane or nitrous oxide, leading to a net increase in greenhouse gas emissions.\textsuperscript{134}

On 8 July 2014, the Minister for the Environment, Greg Hunt, approved a methodology for earning ACCUs based on building up SOC as a result of changing management of grazing systems. The Carbon Credits (Carbon Farming Initiative) (Sequestering Carbon in Soils in Grazing Systems) Methodology Determination 2014 allows for landholders who change livestock grazing management processes (and can demonstrate increases in SOC as a result of that change, through SOC measurements) to be awarded ACCUs equivalent to the increase in carbon sequestered in the soil.\textsuperscript{135} The Domestic Offsets Integrity Committee (DOIC) noted in its assessment of the methodology application that:

While there are uncertainties associated with the influence of land management practices on soil organic carbon stocks, the DOIC considers that the methodology proposal adequately addresses these uncertainties and that it is supported by relevant scientific results published in peer-reviewed literature.\textsuperscript{136}

It should be noted that this methodology credits only measured increases in SOC – if a project proponent undertakes an activity in order to sequester SOC, but cannot show a measured increase in SOC, no carbon credits will be earned. The Department of the Environment warns potential carbon farmers that:

There is no guarantee that any one or more of the eligible activities chosen by landholders will build soil carbon at any particular project site.\textsuperscript{137}

\textsuperscript{132}Ibid.


\textsuperscript{134}Ibid.

\textsuperscript{135}Carbon Credits (Carbon Farming Initiative) (Sequestering Carbon in Soils in Grazing Systems) Methodology Determination 2014; accessed 4 August 2014.

This means that there is a significant, acknowledged possibility that landholders could engage in sequestration activities, but not receive any reward in the form of ACCUs for their effort.

Permanence

Related to the integrity of the offset is the permanence of the offset – that is, will the greenhouse gases absorbed or reduced by the offset activity remain offset? In the forestry analogy, growing trees absorbs greenhouse gases and offsets emissions. As long as the trees are not burnt or decomposed (thereby converting the carbon in the tree back to carbon dioxide), the carbon dioxide used to grow the tree is permanently sequestered. Permanence in forestry is relatively simple to monitor – straightforward techniques like satellite imagery can be used to determine whether an area has been deforested or reforested with a high degree of confidence.

However, permanence in SOC activities can be more complicated. As Murray, Sohngen and Ross explain:

Storage of CO₂ in terrestrial carbon stocks is relatively volatile and subject to re-emission into the atmosphere. In the case of [agricultural soil carbon sequestration (ASCS)], the volatility stems primarily from the ease with which a farmer can simply switch back to conventional practices and release back to the atmosphere CO₂ from the soil carbon that has accumulated over the time since the ASCS practices were initially undertaken. This aspect of terrestrial carbon sequestration (or “sinks”) is referred to as the potential reversal or impermanence of GHG mitigation benefits.¹³⁸

The substantial risk of reversal means that there is a difficult balance between ensuring that GHG reductions related to soil carbon activities are accurately assessed, yet still provide an avenue for carbon farmers to earn income from their sequestration activities:

If the sequestered carbon is returned to the atmosphere as CO₂, the original benefits of the project have been reversed. Clearly, such a project would not have the same climate protection benefits as another ASCS project that keeps the carbon permanently sequestered in the soil layer or a project in agriculture or another sector that permanently reduces GHG emissions through a change in technology. Therefore, some project crediting adjustments should account for the possibility that the sequestered carbon will be reversed. When addressing impermanence of ASCS projects, one objective is to ensure that net contributions to the global GHG balance are accurately recorded. This implies that credits granted to projects should take potential reversibility into consideration. Another objective is to provide sufficient economic incentives for people to engage in beneficial ASCS projects.¹³⁹

Monitoring permanence in SOC activities is also more complex. The amount of soil carbon sequestered in any particular area is determined by measuring the concentration of carbon in the soil and the volume of the soil. Typically, soil carbon concentration is determined through laboratory analysis, which means that samples of soil must be taken to obtain any data on soil carbon.¹⁴⁰ If enough analytical data about carbon concentration in various soils and volume of soils under different conditions is obtained, it is possible to extrapolate this data to estimate SOC content in a particular area and the changes that may occur from SOC activities. However, even laboratory analysis of SOC is subject to significant uncertainties, with estimates obtained depending greatly on the analytical method used, or the laboratory performing the analysis.¹⁴¹ This means that the monitoring of SOC stocks under the best conditions is difficult and imperfect, which makes accurate reporting, monitoring and verification of SOC stocks problematic. In turn, this means that it is difficult to ensure that any additional sequestered carbon remains thus, which could make the permanence of soil-sequestered carbon offsets questionable.

¹³⁹ Ibid.
¹⁴¹ Ibid.
In particular, SOC offsets based on changing agricultural management practices ultimately rely on the landholder continuing to manage the land in accordance with the offset methodology. If the land is no longer managed in accordance with the requirements of the methodology, it is possible that the carbon sequestration could be quickly reversed. This presents a significant risk to the permanence of the greenhouse gas offset, which must be accounted for when determining the number of offset credits a project should receive.142

**Changes to permanence requirements**

Carbon sequestration offsets (where greenhouse gases are stored as carbon in vegetation or other forms) are subject to permanence arrangements, designed to prevent the re-release of sequestered carbon back into the atmosphere. Under the current Carbon Farming Initiative scheme, sequestration projects are subject to a 100-year permanence arrangement, which means that the carbon is expected to remain sequestered for at least 100 years.143 In general, this means that areas containing sequestered carbon should not be substantially disturbed for 100 years. To ensure that the permanence of sequestered carbon credits (and therefore the integrity of the carbon farming scheme) is retained, a regulatory assurance mechanism is in place, comprised of three elements:

- **Risk of reversal buffer**: Carbon credits for a sequestration project are issued to project developers at a rate of 95 per cent of the actual amount of greenhouse gas sequestered. The remaining five per cent of sequestered carbon is not issued with credits; the pool of un-issued credits represents an insurance buffer against the risk that a proportion of sequestration credits may be invalidated by natural disasters or compliance issues. (They represent insurance for the integrity of the offset and the scheme as a whole, not to the individual project developer)144

- **Natural disaster protections**: It is possible for sequestered carbon to be destroyed by disease, fire, drought or other natural disturbances. In these cases, project developers are not stripped of their credits, but are obliged to encourage sequestered carbon levels to recover. Carbon credits cease being issued at the time of the disturbance, and new credits can only be issued once stocks of sequestered carbon have regenerated to the pre-disturbance level145 and

- **Carbon maintenance obligations**: In the event that carbon stocks are disturbed or destroyed, and a project developer refuses to, or cannot make good the amount of carbon credits that have been issues in respect of carbon stocks that no longer exist,146 the Clean Energy Regulator (CER) may declare a carbon maintenance obligation over the land upon which credits were issued. This allows the CER to restrict the activities that occur on such land, until carbon stocks have been regenerated.147

The Bill seeks to amend the *CFI Act* to allow for project developers to elect a shorter permanence time of 25 years, in exchange for a reduced number of credits being issued. In addition to the usual five per cent risk of reversal buffer, projects that have elected to employ a 25 year permanence period will have the amount of their credits reduced by a further 20 per cent.148 It is not clear on what basis the Government has decided that a 20 per cent reduction in the amount of credits granted is an appropriate reduction, given the 75 per cent reduction in permanence period.

---

142. Typically, carbon credit generating projects are given a slightly smaller number of credits than the amount of greenhouse gases they offset. This is done to create a ‘risk of reversal buffer’; this buffer effectively insures the global carbon credit stock against the risk of a small proportion of credits being reversed.

143. Although carbon dioxide has an indefinite lifetime in the atmosphere, 100 years is a relatively widely-accepted basis for ‘permanent’ storage. In part, this is reflective of the time horizon that the Intergovernmental Panel on Climate Change uses to calculate climate change, which is based on the relative global warming effects of different greenhouse gases over 100 years. Using 100 years as a timeframe for sequestration allows for comparative equivalence between the impacts of greenhouse gases and mitigation due to land-based sequestration. See MK Lim, BA McCarl, BC Murray, ‘Permanence discounting for land-based sequestration’, *Ecological Economics*, 64, 2008, pp. 763–769, accessed 11 July 2014.


145. Ibid.

146. Project developers can make good such losses either by relinquishing earned carbon credit units, purchasing carbon credit units from other projects and surrendering them, or by allowing carbon stocks to regenerate. Generally, relinquishment requirements would only be imposed where it is not possible to make good the loss by allowing carbon stocks to regenerate.


The effect of this change is that sequestered carbon may be freely disturbed and released after 25 years, which would reverse the mitigating effect of the offset activity. Should this occur, there is nothing to stop a developer subsequently applying to re-sequester the carbon, and once again be credited with ACCUs under a new methodology. Conceivably, this could occur up to four times in 100 years, allowing a single carbon offset project to earn up to 3.2 times the number of credits that an equivalent 100 year permanence project would be entitled to (although this scenario is probably fairly unlikely). Should this occur, it would mean that ACCUs derived from 25-year permanence projects would represent much less actual, real abatement than those derived from 100-year permanence projects.

The current proposal gives the option of a shorter permanence period for all sequestration projects. It may be that such a period could be suitable for some types of project. For example, sequestration of carbon into forest could be suitable for a shortened permanence period, if the trees in the forest were converted to wooden products where the sequestered carbon was not re-released to the atmosphere (such as sawlogs etc.) However, in other circumstances it could be more suitable for sequestration projects to have a long permanence period. This would be particularly so where the credited greenhouse gas abatement activity must be a single, limited and non-reversible sequestration to represent actual greenhouse gas abatement (such as soil carbon activities).

There is also another fundamental argument for a long-term permanence requirement, related to the nature of sequestration activities — these activities are designed to offset greenhouse gas emissions elsewhere in the economy.\(^\text{149}\) The Direct Action Plan and associated Emissions Reduction Fund is designed to provide incentives to reduce emissions and also makes use of offsets to negate the effect of emissions that cannot yet be avoided for economic or technological reasons.\(^\text{150}\) Given the slow pace at which global climate policy is negotiated, a 100 year permanence period provides a better chance that effective greenhouse gas abatement policies or technologies will be in place by the time the permanence period ends, which would make the potential re-release of the sequestered carbon of less concern.

Changes to the methodologies for the issue of Australian Carbon Credit Units

The Credits for reducing emissions are calculated according to the rules set out in the chosen methodology, and, for sequestration projects (storing carbon), the reserve buffer in place at the time the project was declared eligible.

Perhaps the most significant amendments proposed in the Bill are changes to the way in which methods for the issue of Australian Carbon Credits are created and approved.

Under the current law, Australian Carbon Credit Units are issued to ‘eligible offsets’ projects, which conform to one of the approved methodologies.\(^\text{152}\) These methodologies describe how to quantify the amount of greenhouse gas abatement from a range of activities related to sequestration projects or avoided emissions projects. Examples include:

- **Sequestration projects**: Environmental planting, human-induced regeneration of permanent forests, reforestation and afforestation and

- **Avoided emissions projects**: Changes to savannah burning management, destruction of methane from piggeries, capture and combustion of gas from landfill,\(^\text{153}\) avoided deforestation.\(^\text{154}\)

\(^{149}\)J Goodward and A Kelly, *The bottom line on offsets*, World Resources Institute, accessed 11 July 2014.

\(^{150}\)Department of the Environment, *Emissions Reduction Fund white paper*, op. cit.

\(^{151}\)The original United Nations Framework Convention on Climate Change was negotiated in 1992. More than twenty years later, a truly global climate policy agreement is yet to materialise, and will likely not commence until after 2020 even if such an agreement could be concluded. See A Talberg, *Australian climate change policy: a chronology*, Research paper series, Parliamentary Library, Canberra, 2 December 2013.


\(^{153}\)Combustion of methane is considered to be an avoided emission, even though it results in the release of carbon dioxide. This is because methane is twenty-five times more powerful as a greenhouse gas than carbon dioxide over a 100-year period, so the conversion of methane into carbon dioxide represents a ninefold reduction in carbon dioxide-equivalent emissions compared to releasing methane into the atmosphere. See Environmental Protection Agency (United States), *Overview of greenhouse gases – Methane emissions*, US EPA, accessed 12 July 2014. (Note that this page quotes an older global warming potential value for methane.)

Methodologies are enabled by ‘methodology determinations’ which are disallowable legislative instruments under the *CFI Act*.\(^\text{155}\) Under the current law, the responsible Minister must not make such a determination unless a number of conditions have been fulfilled, including endorsement by an independent Domestic Offsets Integrity Committee, provision for the calculation of a project baseline and compliance with the offsets integrity standards.\(^\text{156}\)

The Government has committed to ‘streamline’ the requirements for the approval of new CFI methodologies, by reducing the extent of requirements that must be fulfilled in order for a methodology to be approved.\(^\text{157}\) This Bill gives effect to that commitment and amends a number of requirements currently in force in the *CFI Act*. This section will outline the more important changes – for a comprehensive list of changes, refer to chapter 2 of the Explanatory Memorandum to the Bill.\(^\text{158}\)

- **Domestic Offsets Integrity Committee:** The Bill proposes to replace the existing Domestic Offsets Integrity with a new Emissions Reduction Assurance Committee.\(^\text{159}\) The membership of the committee will be expanded from a maximum of six to a maximum of nine members.\(^\text{160}\) The maximum number of Committee members who are staff members of CSIRO will be permitted to be as many as the Minister desires, up from two.\(^\text{161}\) However, although CSIRO staff members are likely to be knowledgeable in areas relevant to the Committee, the CSIRO charter prevents CSIRO employees from publicly advocating, debating or defending policies of the Government or opposition.\(^\text{162}\) It is conceivable that this restriction could prevent Committee members from publicly criticising the Government’s approval of any particular method. In addition, the Committee’s endorsement would no longer be a mandatory requirement for the approval of a methodology – the Minister would only need to ‘have regard’ to the Committee’s advice in deciding to approve a methodology.\(^\text{163}\)

- **Baseline requirement:** Sections 106 and 107 of the current *CFI Act* require that a methodology must not be approved unless it contains a calculation of the baseline – that is, what the level of emissions or carbon stocks would have been if the offset project covered by the methodology had not been carried out.\(^\text{164}\) This is an important requirement, as it helps to prove that the offsets are additional (the offset wouldn’t have happened anyway) and real (the offset represents an actual reduction in greenhouse gas emissions). **Item 207** of the Bill removes this requirement.\(^\text{165}\) It is not clear why this requirement is being removed, and doing so will make the calculation of the actual greenhouse gas abatement delivered through the offset activity less robust.

- **Offset integrity standard:** The current law requires that all methodologies comply with the offsets integrity standard. In addition to the changes to the additionality test discussed earlier, the Bill removes the existing requirement for methodologies to be ‘supported by relevant scientific results published in peer-reviewed literature’.\(^\text{166}\) In its place, the Bill inserts a requirement that methodologies by supported by ‘clear and convincing evidence’ (item 227, amending paragraph 133(1)(d) of the *CFI Act*). There is no guidance or requirements as to what constitutes clear and convincing evidence, and no requirement that it be based on scientific assessment.

The cumulative effect of these changes may result in a significant dilution of the integrity of Australian Carbon Credit Unit offsets. This should be carefully considered, as there has been substantial concern about the integrity of some other types of carbon credits issued under Kyoto Protocol Clean Development Mechanism. The


\(^{156}\) Carbon Credits (Carbon Farming Initiative) Act 2011, section 106.


\(^{158}\) Explanatory Memorandum, *Carbon Farming Initiative Amendment Bill 2014*, p. 35.

\(^{159}\) Carbon Farming Initiative Amendment Bill 2014, items 272-278.

\(^{160}\) Carbon Farming Initiative Amendment Bill 2014, item 282, amending paragraph 256(b) of the *CFI Act*.

\(^{161}\) Carbon Farming Initiative Amendment Bill 2014, item 289, amending subsection 257(6) of the *CFI Act*.


\(^{163}\) Carbon Farming Initiative Amendment Bill 2014, item 204, amending subsection 106(4) of the *CFI Act*.

\(^{164}\) Carbon Credits (Carbon Farming Initiative) Act 2011, sections 106–7.

\(^{165}\) Carbon Farming Initiative Amendment Bill 2014, item 207.

\(^{166}\) Carbon Credits (Carbon Farming Initiative) Act 2011, paragraph 133(1)(d).
European Union, New Zealand and Australia have all restricted the use of some types of Certified Emissions Reduction certificates (a type of Kyoto Protocol international emissions offset) in their emissions trading schemes due to concerns over their integrity. These restrictions explain in part the very low prices that these certificates are currently trading at.

**Quantified emissions offsets vs assumed emissions reductions**

In addition to the changes outlined above, the Bill signals a significant change in the nature of Australian Carbon Credit Units. As explained in chapter 1 of the Explanatory Memorandum and the white paper for the ERF, eligibility to earn ACCUs will be expanded from emissions avoidance and sequestration projects, to include industrial and commercial emissions reduction projects.

Under the ERF, it is planned to issue ACCUs to quantify a reduction in emissions achieved by a project proponent. This could be a reduction in direct emissions (such as those from the combustion of natural gas, coal or oil), or a reduction in indirect emissions derived from the use of electricity. ACCUs will be issued in respect the amount that the project’s emissions are reduced, compared to business-as-usual.

However, in order to calculate this reduction, the business-as-usual level must be estimated, based on historical data. This estimate amounts to an assumption about what a project’s emissions would be over a certain future period – which in the case of the ERF could be a five-year contracting period. This means that the calculation of emission reductions is only as accurate as the business-as-usual estimate. The calculation of this estimate will most likely be prescribed in relevant methodologies, with the Government envisaging a number of different ways that business-as-usual emissions could be calculated. Such calculations could involve comparing estimated and actual metered energy usage, or through deemed emissions reductions occasioned upon deployment of efficient technology to replace less-efficient technology. A significant problem with this approach is that a project’s business-as-usual emissions could vary considerably under changing, unforeseen external circumstances, which might be related to economic, environmental or technical factors. If this was to occur, a project might be credited with more or less ACCUs than actual emissions reduced. Projecting appropriate business-as-usual emissions levels has been a continuing challenge in other emissions reduction schemes (such as state-based energy efficiency targets). Another problem is setting appropriate emissions reduction values for ‘deemed’ projects; recent experience with the Victorian Energy Efficiency Target has reportedly shown that the accuracy of deemed emissions reductions for consumer devices can be significantly undermined by user behaviour.

Under the carbon pricing mechanism, emissions reductions from liable entities were quantified through the use of Australian Carbon Units – a liable entity was required to purchase and surrender as many Australian Carbon Units (also called carbon allowance units) as required to cover their emissions for a year. If a liable entity reduced their emissions, they would be required to purchase and surrender fewer Australian Carbon Units, and would realise an economic saving through so doing. In this way, an emissions reduction was quantified (and economically incentivised) through an absolute reduction between two measured emissions levels; the proposed usage of ACCUs enumerates an assumed emissions reduction between a measured emissions level and an assumed business-as-usual level.

---


171. Ibid.

172. Deeming is a common method for calculating energy or emissions savings for small-scale technology projects, like the installation of energy-efficient light globes or solar hot water heaters. The new appliance is deemed to save a certain amount of energy or electricity over the life of the appliance, compared to the less-efficient appliance that it replaced.


It may be worth consideration that to date, the issue of ACCUs has been based on scientifically robust methodologies, subject to rigorous reporting, measurement and verification. A number of submissions to the Government’s consultation process around the Emissions Reduction Fund have noted that the current CFI regime is a ‘rigorous’ process, and highlighted that the integrity of ACCUs should be maintained.  

Although energy efficiency projects (and related emissions reduction initiatives) are legitimate pathways for Australia to meet its Kyoto target, it might be prudent to differentiate these activities (that rely on assumed emissions reductions) from those sequestration and emissions avoidance activities that are based on more rigorous, measured emissions offsets. This could be easily and simply achieved through the creation of a new class of tradeable unit – such as an ‘Australian Carbon Reduction Unit’. The ERF could purchase both these reduction units and ACCUs, but the existing integrity of ACCUs would be preserved. This could be of value if there was demand on international carbon markets for robust greenhouse gas offsets - a circumstance which does not seem likely in the short term, but could conceivably occur in the future.

**Emissions safeguard mechanism (facility baselines)**

It is important to note that the safeguard component of the Direct Action Plan is not proposed within this Bill. The safeguard arrangement is designed to constrain large emitters of GHG from exceeding a historical emissions baseline. This component of the Direct Action Plan is still under development, and the Government has indicated that any emissions safeguard mechanism will not commence until 1 July 2015, at the earliest.

This means that since the carbon pricing mechanism was repealed, greenhouse gas emitters will not face any constraints on their emissions until at least 1 July 2015. Indeed, it is possible that there is a perverse incentive to increase GHG emissions until the advent of the safeguard mechanism, in order to increase a facility’s historical emissions (which would have the effect of making the safeguard level more difficult to breach). The Government’s latest emissions projections predict that, in the absence of constraints, Australia’s greenhouse gas emissions will increase by around 5-6 per cent in 2014–15.

**International permits**

The Coalition’s original 2010 election Direct Action Plan expressly ruled out the purchase of international permits, noting that:

> We will take direct action to reduce carbon emissions in a practical, affordable way inside Australia, not overseas. We remain committed to a five per cent reduction in emissions by 2020.

... All money spent will be on Australian green projects, not foreign carbon credits, keeping more jobs in Australia.

The green paper sought feedback on the operation of the safeguard mechanism through ‘make good’ provisions which some suggested could include the use of international permits. The white paper gave no consideration to the use of international permits. This was despite a range of submissions from industry groups calling for international permits to be part of the ERF arrangements.

With international permits available for purchase at relatively low prices and with expectations that these permits will remain at around €0.10 to €0.20 up to 2020, the purchase of such permits though the ERF would assist in meeting Australia’s abatement task at relatively low cost.

---


177. International trade in ACCUs is not currently undertaken. However, the proposed bilateral link between the Australian and EU emissions trading schemes may have provided opportunity for this to occur. See: A Talberg, *Australian climate change policy: a chronology*, op. cit.


Amendments proposed by the Bill will have the effect of making it possible for certain international credits to be purchased by the Regulator. That said, the Explanatory Memorandum notes that at this stage the Government has no intention of allowing the use of such credits.  

**Public consultation on methodologies**

The CFI created and supported the development of methodologies by private applicants and industry associations as well as government agencies. This bottom-up approach was designed to foster innovation by enabling grounded and scientifically reliable proposals to be put forward. This is being replaced with a top-down model which provides that the Minister may make, vary or revoke a methodology after seeking advice from the Emissions Reduction Assurance Committee. Under this new approach, there is limited scope for public participation and consultation. Proposed section 123D, inserted by item 218 of Schedule 1, would provide for a consultation period during the methodology determination process, whereby the Emissions Reduction Assurance Committee must publish the proposed methodology on their website, which may be for as little as two weeks.  

This is in contrast to the current process, where the consultation period must be at least forty days.

---

Carbon Farming Initiative Amendment Bill 2014

© Commonwealth of Australia

Creative Commons

With the exception of the Commonwealth Coat of Arms, and to the extent that copyright subsists in a third party, this publication, its logo and front page design are licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia licence.

In essence, you are free to copy and communicate this work in its current form for all non-commercial purposes, as long as you attribute the work to the author and abide by the other licence terms. The work cannot be adapted or modified in any way. Content from this publication should be attributed in the following way: Author(s), Title of publication, Series Name and No, Publisher, Date.

To the extent that copyright subsists in third party quotes it remains with the original owner and permission may be required to reuse the material.

Inquiries regarding the licence and any use of the publication are welcome to webmanager@aph.gov.au.

Disclaimer: Bills Digests are prepared to support the work of the Australian Parliament. They are produced under time and resource constraints and aim to be available in time for debate in the Chambers. The views expressed in Bills Digests do not reflect an official position of the Australian Parliamentary Library, nor do they constitute professional legal opinion. Bills Digests reflect the relevant legislation as introduced and do not canvass subsequent amendments or developments. Other sources should be consulted to determine the official status of the Bill.

Any concerns or complaints should be directed to the Parliamentary Librarian. Parliamentary Library staff are available to discuss the contents of publications with Senators and Members and their staff. To access this service, clients may contact the author or the Library’s Central Entry Point for referral.

Members, Senators and Parliamentary staff can obtain further information from the Parliamentary Library on (02) 6277 2500.