



CARBON MARKET
INSTITUTE

Emissions Reduction Fund Information Session

**Sydney
22 July 2014**



AGENDA

- 1. Introductions**
- 2. ERF update and overview presentation**
 - a. ERF key principles**
 - b. Timeline for implementation**
 - c. Overview and update of method development**
 - d. End to end process for participation – key considerations**
 - e. Case study examples of potential projects**
- 3. Panel discussion**
- 4. Q&A**
- 5. Networking**

- CMI is an independent, membership-based, not-for-profit organisation. It is the peak body for carbon market participants.
- Members – liable entities, professional service providers, banks, project developers, technology providers, academics, specialists.
- CMI facilitates the networks, knowledge exchange and commercial interaction amongst key government policy makers and regulators, industry, financiers and investors, professional services companies and technology solution providers.
- CMI works with Government to ensure effective implementation of policy.

ERF – KEY PRINCIPLES

Three principles have guided the design of the Emissions Reduction Fund (ERF):

- **Lowest-cost emissions reductions:** the ERF will identify and purchase emissions reductions at the lowest cost.
- **Genuine emissions reductions:** the ERF will purchase emissions reductions that make a real and additional contribution to reducing Australia's greenhouse gas emissions.
- **Streamlined administration:** the ERF will make it easy for businesses to participate.

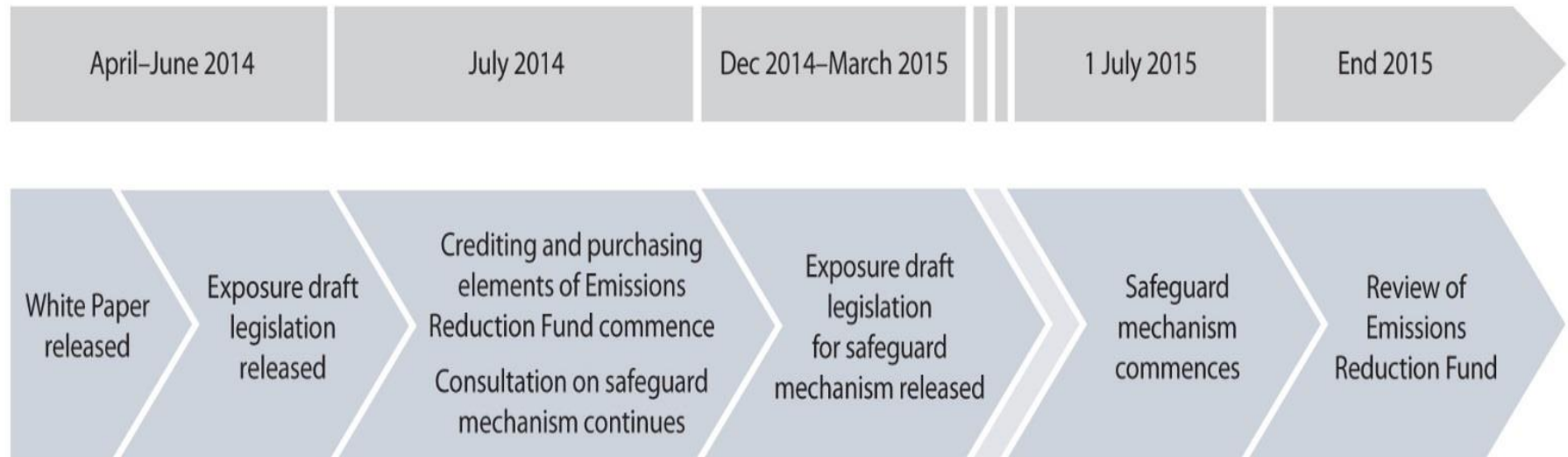
Reflecting these three design principles, the ERF has three elements:

- **Crediting** emissions reductions
- **Purchasing** emissions reductions
- **Safeguarding** emissions reductions

ERF – TIMELINE FOR IMPLEMENTATION

- Carbon Farming Initiative Amendment Bill passed by lower house 25 June 2014
- Clean Energy Regulator's administration of end to end processes is progressing
- Project registrations open
- New method development is progressing
- Consultations on the safeguard mechanism will occur

Figure 1.7: Implementation timeline for the Emissions Reduction Fund



ERF – METHOD DEVELOPMENT

- Abatement activities under the ERF need to use emissions reduction methods made by the Government.
- Methods contain rules that explain how to carry out an abatement project and measure the resulting reductions in greenhouse gas emissions.
- The Government is working with scientists, government agencies and industry bodies to develop methodologies for different activities.
- An independent expert committee, the Emissions Reduction Assurance Committee (ERAC), will assess and provide advice to the Minister for the Environment on the suitability of methods.
- The Government will provide guidelines and tools to help proponents to estimate likely emissions.

ERF – METHOD DEVELOPMENT

Minister
decision
on method
priorities

Technical
working groups
(comprising
business and
Department)
to develop
methods

Draft
determination
for public
consultation

Emissions
Reduction
Assurance
Committee
assessment
and advice

Minister makes
determination

The current approved methodologies from the CFI will remain as approved methods under the ERF or be updated for application in the ERF (including consolidating and making streamlining improvements).

- **Sequestration**
 - Reforestation and afforestation, permanent environmental plantings of native species, and native forest protection (avoided deforestation)
- **Agricultural emissions avoidance**
 - Destruction of methane from manure in piggeries and dairies, feeding dietary additives to milking cows, soil carbon sequestration in grazing systems and early dry season savannah burning
- **Landfill and alternative waste treatment**
 - Capture and combustion of methane in landfill gas from legacy waste, diversion of legacy waste and mechanical processing and composting

The Government is also developing a range of new land sector methods for use under the ERF to be delivered by the end of 2014.

ERF – METHODS IN DEVELOPMENT

The Government has worked with industry through technical working groups to identify key priorities for method development. The following methods will be available for businesses to use in the initial period of the ERF.

- **Facility-level methods** – aggregate improvements of large scale facilities
- **Coal mine gas capture** – flaring and/or combustion of coal mine methane
- **Transport** – technology upgrades, low emissions vehicles
- **Waste** – landfill gas, alternative waste treatment, waste water treatment
- **Industrial energy efficiency** – technology upgrades, boiler upgrades
- **Commercial buildings** – commercial building retrofits, co and tri-generation, building on existing state-based energy efficiency programs
- **Residential buildings** – based on aggregated metered baseline method

ERF – END TO END PROCESS FOR PARTICIPATION



- Project Registration and Auction Qualification

- Auction Participation

- Contracting

- Reporting and Auditing

- Delivery and Make-good Provisions

Project Registration - Process

- All projects registered must sit under an approved method.
- Apply for approval of your project by demonstrating that the project meets all eligibility criteria set out in the relevant method and ERF legislation.
- Be assessed as a fit and proper person. This test is designed to assess compliance and the integrity of participants.
- Passing the fit and proper person test will allow you to open an account in the Australian National Registry of Emissions Units (ANREU). Any ACCUs generated from your project will be issued into your ANREU account.

Project Registration – Key considerations

- Work out which method is right for you.
 - Activity methods
 - Facility method
- Decide on your business model.
- Assess the financial and technical feasibility of your planned project.
- The project must be new (unless it is a CFI project approved before 1 July 2015). It is a requirement of the ERF that a project has not begun to be implemented before it has been registered.
- Check guidance provided by the Clean Energy Regulator on whether the project can be registered if it receives funding from another State or Commonwealth government programme.

Qualification - Process

- Only registered projects will be considered in the ERF auction qualification process.
- The details of the auction qualification due diligence are being finalised by the Regulator.

Qualification - Key considerations

- Prospective auction participants should ensure that they have prepared the necessary due diligence documentation.
- Documentation prepared with internal board approvals could help ensure qualification.
- Validating your abatement delivery schedule will be important.
- Existing CFI project proponents will need to consider transitional arrangements when seeking to participate in an ERF auction.
 - Existing CFI projects will automatically be registered and qualify under the ERF.
 - Existing CFI participants can choose to transition to a relevant ERF method or continue under their CFI method.

Auction Participation – Process

- Initial auctions will be in the form of a sealed bid, single round, pay as bid tender process.
- Auctions will be decided on price only, as all other project criteria will have been reviewed by the Clean Energy Regulator in the qualification process.
- If successful in the auction, the Regulator will enter into a forward contract with a successful seller for the purchase of carbon abatement.
- Following the auction, the Regulator may publish certain information about the purchasing process including when the process occurred, the weighted average price paid and other information or statistics.

Auction Participation – Key considerations

- Auction participants should consider their bid price in relation to their project costs and their required rate of return.
- As the contract is fixed, other factors will also need to be considered when formulating bids, including anticipated increases in input costs over time (CPI), and other commercial factors that might change impacting price.
- Auction participants will need to be aware of the Regulator's auction schedule and the process required for auction participation.
- The ERF legislation allows for only one successful bid per project (plus the opportunity to bid at another auction to sell any over delivery).
- Unsuccessful auction participants are eligible to participate in subsequent auctions.

Contracting – Process

- Following the auction, the Regulator will enter into an enforceable contract to purchase carbon abatement from the successful seller.
- The contracts will be standardised.
- Contracts will include a range of commercial provisions to manage the delivery of emissions reductions:
 - Contract condition precedents
 - Delivery schedule
 - Make-good provisions
- In addition to standardised forward contracts, the Government may also develop standardised contracts for the purchase of spot and aggregated emissions reductions.

Contracting – Key considerations

- Ability to meet the requirements of the contract condition precedents.
- Ability to meet the requirements of the delivery schedule:
 - Volume of delivery
 - Timing of delivery, noting proponents can nominate the start of their project's crediting period (must be within 18 months of registration) to help align crediting and project commencement.
- Understand the Clean Energy Regulator's position on the development of the spot market.
- Ability to meet the requirements of the make-good provision, should there be an under-delivery of emissions reductions.

Reporting and Auditing - Process

- The Clean Energy Regulator will employ a risk-based approach to determine the level of assurance, frequency and scope of audit required for a project.
- Project reporting requirements will be specified in methods.
- ACCUs are issued on receipt of an eligible project report.
- Where an audit report is required, it must be conducted by a registered greenhouse and energy auditor.

Reporting and Auditing - Key considerations

- Project proponents should consider the frequency of reporting emissions in line with their contract delivery schedule to optimise their cashflow.
- Project proponents choose when to report within certain time limits.
- Reports for emissions reduction projects must be submitted at least once every two years, and reports for sequestration projects at least every five years.
- Reports can be submitted as frequently as every six months or more frequently in some circumstances.
- Project proponents need to ensure that the level of assurance, frequency and scope of the audit meet the requirements of the method determination and regulations.

Delivery and Make-good – Process

- Payment for contracted abatement will be made upon delivery in accordance with the contract delivery schedule.
- Abatement will be in the form of ACCUs issued by the Regulator.
- There will be a make-good provision in the contract for under delivery of contracted abatement.
- The make good can be in the form of ACCUs from other projects owned by the project proponent or those purchased from the secondary market.

Delivery and Make-good – Key considerations

- Understand the steps that are likely to be involved in the standard process for delivering contracted ACCUs to the Regulator and receiving payment.
- Determine the level of risk of under delivery of contracted abatement.
- Understand the risks and opportunities in purchasing ACCUs from the secondary market.

Case Study 1: Forestry – Existing CFI projects

Sector

- Forest carbon sequestration (existing CFI project)

Project type

- Large scale block plantings of mallee eucalypts
- CFI methodology for reforestation and afforestation projects

Abatement potential t CO₂

- 1,600,000 tonnes cumulative to 2020 based on an existing CFI project

Likely at \$10-15/t?

- Possibly viable between \$15-20 per tonne

Method available?

- Sequestration: Carbon Credits (Carbon Farming Initiative) (Reforestation and Afforestation-1.1) Methodology Determination 2013

Considerations

- Commissioning period – a five year lead time before revenue generation

Potential to bid in early funding rounds

- High - changes to permanence requirements (25 year option) provides more flexibility for proponents



Case Study 2: Biogas capture for waste water treatment

Sector

- Waste water treatment - industrial, domestic or commercial
- CFI methods available for piggeries and dairies

Project type

- Replacement of open anaerobic lagoons with engineered biodigesters to capture and combust biogas

Abatement potential t CO₂

- Single project of 34ML lagoon will generate 662,000 tonnes cumulative to 2020

Likely at \$10-15/t?

- Possibly below \$10/t per tonne due to gas/electricity price pressure

Method available?

- CFI method for dairies and piggeries
- ERF waste water method under development

Considerations

- Many abattoirs have received government assistance (CTIP)

Potential to bid in early funding rounds

- High - CFI methods are operating, ERF waste water method to be completed early 2015

Case Study 3: Commercial lighting replacement in large offices

Sector

- Commercial buildings

Project type

- Replacement and upgrading of commercial lighting in large offices with more efficient technologies (e.g. LEDs)

Abatement potential t CO₂

- 2,700,000 tonnes over four years based on potential in Qld, WA and SA only assumes NSW growth rate under ESS can be replicated

Likely at \$10-15/t?

- Possibly, but will need to manage non-price barriers

Method available?

- Industrial energy efficiency method

Considerations

- Aggregation and sampling are potentially useful approaches

Potential to bid in early funding rounds

- High



Case Study 4: Pulp and Paper

Sector

- Pulp & Paper mills
- Cogeneration plant with energy efficiency measures

Project type

- Grid power substituted by natural-gas cogeneration plant
- Waste heat used instead of natural gas for steam generation

Abatement potential t CO₂

- 30,000 tonnes per annum at a single project (avoided grid power, avoided gas consumption)

Likely at \$10-15/t?

- Possibly, but dependent on spread between electricity and gas prices

Method available?

- Industrial energy efficiency method

Considerations

- Price uncertainty and contract terms of ERF → difficulty in raising finance

Potential to bid in early funding rounds

- Medium – depends on benchmark price



Case Study 5: Soil carbon

Sector

- Soil carbon

Project type

- Rotational grazing to allow carbon replenishment in the soil
- Conversion of cropland to permanent pasture

Abatement potential t CO₂

- Difficult to quantify, largely dependent on scale of uptake
- Estimates of between 0.25 and 0.5 tonnes per hectare

Likely at \$10-15/t?

- Possibly, though price estimates for soil carbon vary considerably

Method available?

- Yes – initial methodology for application in grazing systems

Considerations

- The availability and cost of audit
- Aggregation will be required

Potential to bid in early funding rounds

- Medium – subject to availability of auditors and costs



Case Study 6: Industrial energy efficiency - boiler upgrade

Sector

- Industrial energy efficiency

Project type

- Boiler upgrade

Abatement potential t CO₂

- Estimates of 3,500 tonnes cumulative over 7 years per boiler

Likely at \$10-15/t?

- Possibly – around \$10/t per tonne due to gas price pressure

Method available?

- Industrial energy efficiency method

Considerations

- The availability and cost of audit
- Ability to pool multiple boiler upgrades under one project

Potential to bid in early funding rounds

- Medium – subject to availability of auditors and costs



Department of Environment

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Industry experts

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Q&A

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