

Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment portfolio

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Hearing: Additional Estimates
Outcome: Outcome 2
Programme: Emissions Reduction Fund
Topic: ERF methods
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Senator Singh asked:

Senator SINGH: Can you provide the committee with details around these methods? On notice, obviously

Ms Thompson: On notice?

Senator SINGH: Yes.

Ms Thompson: Yes, we would be very happy to do that.

Senator SINGH: There are 33, so we would be here all day. You have outlined the methods, but I would actually like to have some detail into each of those, if you could provide that to the committee.

Ms Thompson: Yes, certainly.

Answer:

Methods developed under the Emissions Reduction Fund as at 27 March 2015 and methods developed under the Carbon Farming Initiative are listed below.

Methods developed under the Emissions Reduction Fund as at 27 March 2015

METHOD NAME	DESCRIPTION
Landfill gas	The method reduces methane emissions from landfills. Emissions are reduced through installing landfill gas collection systems, upgrading existing systems or recommencing operation of non-operational systems.
Alternative waste treatment	The method reduces emissions from landfills. Eligible activities include: diverting mixed solid waste from landfill and processing it into products such as compost or biogas; and increasing recovery of resources including plastics, glass and metals. The method combines the four existing Carbon Farming Initiative alternative waste treatment methods and enables projects using those methods to transition into the Emissions Reduction Fund.
Wastewater treatment	The method reduces methane emissions from domestic, commercial or industrial wastewater. Emissions are reduced by collecting biogas from treated wastewater and combusting the biogas to convert methane to carbon dioxide.
Coal mine waste gas	The method reduces methane emissions from coal mine waste gas. Emissions are reduced by operating methane destruction devices such as flares or combustion engines that produce electricity.
Commercial building energy efficiency	The method provides for improvements in energy efficiency of existing commercial buildings. Activities may include: replacing appliances and lighting; improving efficiency of boilers and air conditioners; and upgrading glazing.
Industrial electricity and fuel efficiency	The method reduces emissions from direct fuel combustion and electricity use in industrial facilities. Activities include: upgrades to lighting; boilers; and heating, ventilation and cooling systems.
Aggregated small energy users	The method provides for improving energy efficiency for households and small businesses through uptake of energy saving technologies and behaviour change.
Transport (aviation)	The method reduces the emissions intensity (emissions per unit of transportation service) of air transport. Activities include: upgrading existing vehicles with new technologies; fuel switching; and improving management practices.

METHOD NAME	DESCRIPTION
Transport (land and sea)	The method reduces the emissions intensity (emissions per unit of transportation service) of road, rail and sea transport. Activities include: upgrading existing vehicles with new technologies; fuel switching; and improving management practices.
Designated Verified Carbon Standard projects	The method applies only to forest management projects previously approved under the Verified Carbon Standard. It provides for those projects to transition into the Emissions Reduction Fund.
Avoided deforestation 1.1	The method reduces emissions by protecting native vegetation from being cleared. It updates the existing Carbon Farming Initiative avoided deforestation method to make it consistent with the Emissions Reduction Fund, and simplifies tree sampling techniques for measurements used in estimating carbon sequestration.
Avoided clearing of native regrowth	The method reduces emissions by protecting native regrowth on agricultural land from further clearing. It adopts broader eligibility requirements than the avoided deforestation 1.1 method and uses model-based abatement estimates.
Savanna fire management	The method reduces greenhouse gas emissions through fire management in the early dry season in northern savannas aimed at reducing the incidence and extent of larger, higher intensity late dry season fires. The method builds on existing Carbon Farming Initiative savanna burning methods by allowing for projects in low rainfall areas in addition to high rainfall areas and improving abatement estimation methods for the high rainfall zone.

Methods developed under the Carbon Farming Initiative

METHOD NAME	DESCRIPTION
Capture and combustion of landfill gas	The method reduces methane emissions from landfills. Emissions are reduced through installing a landfill gas collection system and combusting the gas to convert methane to carbon dioxide.
Capture and combustion of landfill gas: upgrade projects	The method reduces methane emissions from landfills using landfill gas capture and combustion systems to convert methane to carbon dioxide. The method covers projects: transitioning from the Cities for Climate Protection Programme; installing a new system between specified dates; or upgrading an existing system.

METHOD NAME	DESCRIPTION
Diverting legacy waste from landfill for process engineered fuel manufacture	The method avoids emissions from landfill by diverting construction, demolition commercial and industrial waste from landfill into an alternative fuel manufacturing facility. The method was initiated by proponents to meet particular project requirements.
Diverting waste to an alternative waste treatment facility	The method avoids methane emissions from landfills. Emissions are avoided by diverting solid waste containing organic matter from landfill to a composting waste treatment facility for manufacture of products such as potting mix and mulch. The method was initiated by proponents to meet particular project requirements.
Enclosed mechanical processing and composting alternative waste treatment	The method avoids methane emissions from landfills. Emissions are avoided by diverting solid waste containing organic matter from landfill to a resource recovery facility that mechanically processes and composts the waste. The method was initiated by proponents to meet particular project requirements.
Diverting legacy waste through a composting alternative waste technology	The method avoids methane emissions from landfills. Emissions are avoided by diverting solid waste containing organic matter from landfill to a resource recovery facility that composts the waste. The method was initiated by proponents to meet particular project requirements.
Reforestation and afforestation	The method provides for carbon sequestration through establishing forests on cleared land. Carbon sequestration estimates are based on in-field tree measurements. The method was initiated by a proponent to meet particular project requirements.
Reforestation and afforestation 1.1	The method incorporates refinements to tree sampling techniques in the reforestation and afforestation method.
Reforestation and afforestation 1.2	The method incorporates further developments on tree sampling techniques in the reforestation and afforestation method, to meet specific project requirements.
Permanent plantings of native mallee eucalypts	The method provides for carbon sequestration through establishing permanent mallee eucalypt plantings in low rainfall areas. Carbon sequestration is estimated using a modelling tool.

METHOD NAME	DESCRIPTION
Human-induced regeneration of a permanent even-aged native forest	The method provides for carbon sequestration in permanent forests of native species established through cessation of the activities causing suppression or destruction of vegetation regrowth. Carbon sequestration is estimated using a modelling tool.
Human-induced regeneration of a permanent even-aged native forest 1.1	The method incorporates minor variations to the human-induced regeneration of native forest method to allow grazing to occur in the regenerating forest.
Permanent environmental plantings of native species	The method provides for carbon sequestration through establishing and managing permanent native forests on cleared or partially cleared land. Carbon sequestration is estimated using a modelling tool.
Measurement-based methods for new farm forestry plantations	The method provides for carbon sequestration through establishing and managing for-harvest farm forestry plantations and permanent native forests. The method is based on the reforestation and afforestation 1.2 method and was submitted by a proponent to meet particular project requirements. It incorporates variations to tree sampling techniques used in that method and provision for farm forestry plantations.
Native forest from managed regrowth	The method provides for carbon sequestration through establishing permanent forests of native species on cleared land from in-situ seed sources. Establishment involves a change in land management practice. Carbon sequestration is estimated using a model. The method was initiated by a proponent to meet particular project requirements.
Reforestation by environmental or mallee plantings - FullCAM	The method provides for carbon sequestration through establishing permanent plantings of native mixed species environmental plantings or mallee plantings. Carbon sequestration is estimated using the FullCAM model.
Avoided deforestation	The method reduces emissions by protecting native vegetation from being cleared. Carbon sequestration estimates are based on in-field tree measurements. The method was initiated by a proponent to meet particular project requirements.

METHOD NAME	DESCRIPTION
Sequestering carbon in soil in grazing systems	The method provides for carbon sequestration in soils through undertaking management actions on grazing land. Sequestration estimates are based on direct measurements of soil carbon.
Early dry season savanna burning	The method reduces greenhouse gas emissions from fire in high-rainfall northern savannas through controlled fire management.
Early dry season savanna burning 1.1	The method makes a minor technical variation to the early dry season savanna burning method.
Feeding dietary additives to milking cows	The method reduces methane and nitrous oxide emissions from dairy cows through feeding milking cows a dietary supplement.
Destruction of methane generated from dairy manure	The method reduces methane emissions from dairy manure in effluent ponds. Emissions are reduced through covering ponds, capturing biogas and combusting the biogas to convert methane to carbon dioxide.
Feeding nitrate supplements to beef cattle	The method reduces methane emissions from beef cattle. Emissions are reduced through feeding pasture-fed beef cattle supplements containing nitrates, which reduce methane emissions from digestion. The method was initiated by a proponent to meet particular project requirements.
Destruction of methane generated from manure in piggeries	The method reduces methane emissions from piggery manure in effluent ponds. Emissions are reduced through covering ponds, capturing biogas and combusting the biogas to convert methane to carbon dioxide.
Destruction of methane generated from manure in piggeries 1.1	The method makes a minor technical variation to the destruction of methane generated from manure in piggeries method.
Destruction of methane from piggeries using engineered biodigesters	The method reduces methane emissions from piggery manure. Emissions are reduced through directing waste into an engineered biodigester to combust biogas and convert methane to carbon dioxide.

