

Environmental Plantings Explainer Guide



Using this guide

This guide aims to serve as a source of general information on Environmental Plantings carbon farming projects (EP Project) and does not factor in specific client level considerations. This guide aims to provide a high level overview of the general steps involved in undertaking an EP project. For clients considering an EP project, seeking independent advice is recommended to help assess whether a carbon project fits within their overall sustainability and business strategic goals. The information in this guide is current as at 21 February 2025.

What is an 'EP Project?'

An Environmental Plantings carbon farming project (EP Project), or 'Reforestation by Environmental or Mallee Plantings ACCU scheme method', involves planting and maintaining mixed native vegetation on land that been clear of forest cover for the last five years. To complete a project, you can plant either a mix of trees, shrubs and understory species native to your local area, or species of mallee eucalypts depending on the rainfall averages in your district.

EP projects are a part of the Australian Carbon Credit Unit (ACCU) Scheme. These projects help to reduce the amount of Greenhouse gases (GHG) in the atmosphere, because carbon is stored in the trees as they grow (known as carbon sequestration). In return, projects are eligible to earn ACCUs, where one ACCU is earned for each tonne of carbon dioxide equivalent (tco₂-e) stored.

Alongside earning ACCUs, EP projects have the potential to create co-benefits both on farm and for the surrounding environment. Although these co-benefits are specific and varied for each farm and project, examples may include increasing shade and shelter supporting animal welfare conditions, wind breaks for land and pasture protection, erosion protection for waterways, as well as biodiversity and nature restoration.

How does an EP project work?

The main steps involved in establishing and running an EP project are:

1. Plan the project including identifying the land where the project can be run, ensuring the project meets the eligibility criteria and considering legal rights on the land.

The land area where an EP project is located is called the Carbon Estimation Area (CEA). There may be one or multiple CEAs on a property, depending on the project design and the specific farm or land site. The carbon stored in the trees, shrubs and debris on site and is referred to as 'carbon stock'. The overall net reduction in greenhouse gases from the project is referred to as 'carbon abatement'.

The abatement estimate of a project is calculated using the Full Carbon Accounting Model (FullCAM), which is the Department of Climate Change, Energy, the Environment and Water's (DCCEEW) modelling tool for Australia's GHGs from the land sector. There is specific guidance for each ACCU Scheme Method including EP projects.

DCCEEW releases updated FullCAM tools from time to time so it's important that the most recent and applicable FullCAM tool is utilised. The FullCAM abatement estimate represents the modelled forecast of potential yearly carbon sequestration across the project crediting period. The project crediting period refers to the total period during which ACCUs can be generated. This is generally 25 years for EP projects.

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How does an EP project work?

The net abatement of a project is determined by subtracting any carbon emissions such as significant fire events, mortality and on-farm fuel use from the amount of carbon stock in the CEA or combined CEAs. The resulting net abatement for the project determines the potential ACCU generation throughout the project crediting period.

2. Register the EP Project with the Clean Energy Regulator

To earn ACCUs, the project must be registered with the Clean Energy Regulator (CER). As part of the registration process an Australian National Registry of Emissions Units (ANREU) account needs to be opened. ACCUs will be received through this account. There are specific land management obligations and reporting undertakings that need to be met on a regular basis as well as having audits over the project to ensure abatement is occurring in line with the FullCAM model forecast.

The legal owner of the generated ACCUs issued and the party with the legal right to carry out the project is known as the 'Project Proponent'. The Project Proponent can be the landholder or a third party such as a carbon project developer with expertise in carrying out carbon projects. Engaging a third party will likely be subject to a carbon project agreement. Understanding the specific rights and obligations for the Project Proponent and landholder is important as Carbon Project Development/Services agreement terms (including roles and responsibilities, fee structures and other cost sharing arrangements) can vary widely. The two main agreement contract structures for a carbon project are known as a 'Carbon Project Services Agreement' where the landholder is the Project Proponent and engages a third party to provide carbon project services, or a 'Carbon Project Development Agreement' where a carbon project developer is the nominated Project Proponent. Irrespective of the type of carbon project agreement in place, project registration will include setting out a reforestation management plan including site selection and preparation, species selection, planting and maintenance, monitoring, reporting and permanence obligations. There may be specific technical, regulatory, tax and legal issues to consider so obtaining independent advice before proceeding is recommended. Agreements with third party carbon project developer/service providers could be in place for up to 25 years in alignment with the project crediting period.

3. Auditing requirements

EP projects need to be audited according to the ACCU Scheme's legislative requirements. The CER will provide an audit schedule when the project is initially registered which will set out the timing and frequency of audits. Whilst most EP projects will likely require three audits, the number of audits for each project is dependent on project size and the forward abatement estimate. Carrying out audit reporting obligations and submitting audit reports aligned with the audit schedule as set out by the CER is required as part of applying for ACCUs to be released. Engaging with an external auditor during the development stages of a project may support these requirements and understanding the overall audit costs.

Some key considerations that could impact the project

1. Rainfall zones

The majority of EP projects registered to date are in rainfall zones above 600mm pa. In these higher rainfall zones, the ACCU scheme method requires mixed native tree species to be planted. Mallee Eucalypt plantings are required for areas under 600mm rainfall. There may be a number of reasons why the majority of activity has been in the higher rainfall zones including a link between carbon abatement yield and rainfall, risk of mortality, soil type and the capital expenditure required to undertake a project versus the economic return. It is however important to note that outcomes are very much site specific and rainfall zones alone are not the sole determining factor of a project's success.



How does an EP project work?

What are some further factors for farmers to consider?

What are some major risks associated with EP projects?

2. Project timeframe

EP projects are subject to permanence periods of either 25 or 100 years as nominated by you, which means that land management obligations will need to be fulfilled throughout the permanence period (i.e. even after the 25 year project crediting period ends if you choose 100 years permanence). Given the length of these obligations, understanding the project requirements, roles and responsibilities as well as how the project aligns with your overall sustainability and business strategies before committing to a project is critical.

In addition to establishing a carbon project to sequester carbon and generate ACCUs, EP projects are noted to have 'co-benefits' that are associated with mixed species native reforestation. Whilst each project outcome is site specific and impacted by design and extent of regrowth, anecdotal co-benefits may include:

- Nature restoration through increasing biodiversity of flora and fauna and expanding habitats for native species.
- Creating shelterbelts which aid animal welfare outcomes through providing shade and shelter for livestock and weaning protection.
- Protecting soils from wind erosion and resilience of pastures which may support farm productivity.
- Planting through riparian zones which may improve water quality and ecosystem health through reduced pesticide and fertiliser runoffs, as well as minimising riverbank erosion.

The location and size of planting areas may be strategically planned so gaining the right advice at the design and implementation stage can help to target these outcomes.

Once trees reach a sufficient maturity, it is also possible to reintroduce grazing within the boundaries of some of the carbon estimation areas (subject to maintaining obligations within the project land management agreement).

Rainfall variability:

- Moisture availability is a key determinant of the survival of young plants.
- Whilst most well-managed planting sites are more likely to cope with dry periods, severe drought will most likely decrease survival chances for young seedlings and could potentially even impact mature plantings.
- Increasing temperatures is another element that adds to the moisture stress on plants and ultimately, replanting will most likely need to be conducted if there are large losses resultant of great areas of mortality.

If there is a significant variance in actual carbon abatement measured versus modelled abatement (which may be determined as part of a regular audit check), this may impact the total amount of ACCUs that will be issued, especially if there is no evidence of growth or ability to attain forest cover.

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What are some major risks associated with EP projects?

Planting and logistics:

- Availability of native seeds, forestry services, labour, site preparation needs to be carefully managed and sequenced to plant within planting windows, typically during the winter months. If timing is not managed this could mean significant delays and potential additional cost.
- Poorly planned or poorly executed plantings may increase the risk of mortality and impact the project's ability to sequester carbon and generate ACCUs in line with initial modelled estimates.
- Initial feasibility assessments, engagement of carbon project consultants/ developers, contract negotiation and project registration will need to be considered before embarking on a project and advice taken where necessary.

Fire, flood, drought or other disturbance:

- An EP project may encounter a "reversal" event. A "reversal" refers to previously sequestered carbon being released back into the atmosphere and therefore a reduction in carbon stock, and ACCUs generated.
- If a fire or other disturbance occurs causing a decline in the amount of carbon stock, regrowth must be managed and carbon maintenance obligations may be required to ensure no further reduction in carbon.
- Roles and responsibilities need to be understood such as obligations under land management agreements (e.g. grazing management, maintaining firebreaks, managing feral incursions, etc.) as the Project Proponent may need to relinquish ACCUs (hand back) if they fail to carry out their obligations which lead to a significant reversal event and loss of carbon stock.
- Generally speaking it is not required that the Project Proponent must relinquish ACCUs if the reversal was caused by a natural disturbance (defined under the Carbon Farming Initiative Act as flood, bushfire, drought, pest attack and disease), or the actions of a third party (where those actions were not within the reasonable control of the Project Proponent) provided the Project Proponent took reasonable steps to mitigate the "reversal".

Considerations for third party involvement

Engaging a third party such as carbon farming project advisors or carbon farming developers/service providers to undertake certain activities under the EP project may be suitable and helpful for the entire duration or only parts of the project, determined by your situation. Some examples of when external parties could potentially be required include during the planning stage, mapping, auditing and reporting. The skillset of the landholder, the amount of time and money allocated to the project, and the potential gains are all key considerations for when, whom, how and to what extent third parties may be involved.

Each situation is unique and it is thus important to weigh the benefits and risks associated with either being a Project Proponent yourself, or onboarding an external party to be the Project Proponent. Experience, time and business operations are all factors that may influence the decision for third party engagement.

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Where can farmers get more information?

- The Clean Energy Regulator (CER) website has an ACCU Scheme Method page providing key information regarding eligibility, exclusions, method requirements and documents and resources.
- State government organisations offer a range of support and independent information relating to carbon projects. Specific resources and programs available change from time to time however examples include:
 - NSW Government On-Farm Carbon Advice program which aims to help farmers build knowledge and capability of carbon farming practices in NSW across beef, sheep, dairy and mixed farming operations.
 - NSW Government Local Land Services provides additional information on Carbon Farming across all regions of NSW and run carbon workshops from time to time.
 - Queensland Government Land Restoration Fund supports farmers, landholders and First Nations peoples on understanding and implementing carbon projects.
 - Victorian Government's Agriculture Victoria has a Carbon Farming Outreach Program which provides independent information, details of webinars and other training opportunities for farmers.
 - Tasmanian Government's Carbon Farming Advice Rebate Pilot Program has provided rebates to primary producers for advice sought about all aspects of carbon credits, such as eligibility, actions and auditing requirements. The Department of Natural Resources and Environment Tasmania also holds carbon farming information sessions from time to time.
 - South Australia's Department of Primary Industry and Regions website has a Carbon Farming page outlining specific resources and information available for farmers.
 - Western Australia Carbon Farming and Land Restoration Program (CF-LRP) provides education, outreach and financial assistance to support the growth of the carbon farming industry in the state.
- NRM Regions Australia has 54 natural resource management organisations made up of a mix of government agencies and NGOs. NRM organisations supports the adoption of sustainable agriculture and provides information on carbon and environmental markets projects.
- The Carbon Market Institute, an independent member based organisation together with NRM Regions Australia have recently produced a "Carbon for Nature" report including details specific to Environmental Plantings.
- AgriFutures Australia have produced "A farmer's handbook to on-farm carbon management" which includes information specific to Environmental Plantings
- Various carbon project service providers offer information resources such as webinars and handbooks which may be accessed via their websites.

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Abatement	<i>The overall reduction in greenhouse gasses as a result of a project.</i>
Australian Carbon Credit Unit (ACCU)	<i>One ACCU is earned for each tonne of carbon dioxide equivalent (tCO₂-e) stored or avoided by a project. ACCUs could be sold to the government or on the secondary market to generate additional income.</i>
Australian Carbon Credit Unit (ACCU) Scheme	<i>The scheme supports projects that either: 1) avoid the release of greenhouse gas emissions, or 2) remove and sequester carbon from the atmosphere. Participants in projects can earn one ACCU for every tonne of carbon dioxide equivalent (tCO₂-e) stored or avoided by a project. Note: Previously known as “Emissions Reduction Fund (ERF)”, the name was collectively changed to “ACCU Scheme” in 2021.</i>
Australian National Registry of Emissions Units (ANREU) account	<i>If you have a registered ACCU scheme project (in this case the EP Project) and are eligible to receive ACCUs, then an ANREU account is required to own, transfer, cancel, deliver, surrender or relinquish any ACCUs.</i>
Belt planting	<i>A planting configuration that is in the geometry of a belt, either following landscape contours or arranged in a straight line. Belt plantings are either narrow linear or wide linear.</i>
Block planting	<i>A planting geometry that does not consist of a single row and do not meet the requirements of a narrow linear planting or a wide linear planting.</i>
Carbon Estimation Areas (CEAs)	<i>CEAs are the areas in the project where carbon will be stored and from which ACCUs may be issued. Planting areas are required to be mapped and modelled as CEAs. A CEA must meet certain uniformity requirements under the EP method.</i>
Carbon sequestration	<i>The process of capturing and storing of carbon dioxide through the growth of trees or other vegetation. For EP projects this predominantly achieved through tree growth and understory vegetation.</i>
Carbon stock	<i>Carbon stored in trees, shrubs and debris (dead plant material) within a CEA.</i>
Clean Energy Regulator (CER)	<i>The Clean Energy Regulator is an economic regulator accelerating carbon abatement for Australia, through administering Australian Government schemes to measure, manage, reduce, and offset carbon emissions. The relevant scheme here is the Australian Carbon Credit Unit (ACCU) scheme.</i>
CO₂e (carbon dioxide equivalent)	<i>CO₂e is a standardised metric used to compare and report emissions across greenhouse gases from various sources based on their differing warming potential.</i>
Exclusion zones	<i>Exclusion zones are the parts of a project where carbon will not be stored and project activities are not conducted. Examples of exclusion zones include buildings, roads, dams.</i>

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Forward abatement estimate	<i>A forward abatement estimate is an estimate of the total amount of carbon abatement in tonnes of carbon dioxide equivalent (tCO₂-e) for a project. The forward abatement is estimated when the project is being planned, and is used for the project's audit schedule. This calculation is an estimate only.</i>
FullCAM (Full Carbon Accounting Model)	<i>DCCEEW's modelling tool for Australia's GHGs from the land sector. FullCAM is used to calculate the carbon stock held in a project's trees, shrubs and debris.</i>
Permanence Period	<i>The project proponent is obliged to maintain the carbon stocks during a defined period known as the Permanence Period. The Permanence period can be chosen as either 25 years or 100 years, and begins when the project is first credited ACCUs. The Permanence period chosen will impact the obligations and number of ACCUs issued.</i>
Planting area	<i>An eligible planting area must be clear of forest cover for at least the last 5 years before the date of application. The area also cannot have any woody biomass, and any invasive native shrub species need to be cleared (other than known weed species that require authorisation by law to be cleared).</i>
Project trees	<i>The term used to refer to the vegetation planted as part of the EP project.</i>
Shelterbelt	<i>A belt planting configured to provide shade and shelter with a general requirement for each shelterbelt to be at least 40m from the next one. Shelterbelt planting design can support farm productivity such as through providing shelter for livestock or reducing soil erosion impacts of wind. The potential for higher carbon sequestration rates may be achieved in some cases through this design due to decreased competition between trees and increased access to sunlight and water.</i>
Stocking density	<i>Stocking density is the number of trees or shrubs per hectare for established plantings, or number of seedlings/ seeds per hectare at establishment of new plantings. Stocking density can be estimated by counting every tree and shrub, and dividing by the total area of the CEA.</i>

Disclaimer

This guide aims to serve as a source of general information of Environmental Plantings (EP) and is for information purposes only. The contents of this guide are general in nature and do not take into account your personal objectives, financial situation or needs. As such, the contents of this guide target a high-level view of the general steps involved in undertaking an EP project and do not constitute advice and should not be relied upon as a basis for any decisions, financial or otherwise.

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