Australian Government
Clean Energy Regulator

EMISSIONS REDUCTION FUND

Participating in the Emissions Reduction Fund

A guide to the aviation method

The Emissions Reduction Fund

The Emissions Reduction Fund is a voluntary scheme that aims to reduce Australia's greenhouse gas emissions by providing incentives for a range of organisations and individuals to adopt new practices and technologies to reduce their emissions.

A number of activities are eligible under the scheme. Individuals and organisations taking part in these activities may be able to earn Australian carbon credit units (ACCUs). One ACCU is earned for each tonne of carbon dioxide equivalent (tCO_2-e) stored or avoided by a project. ACCUs may be sold to generate additional income, either to the government through a Carbon Abatement Contract, or on the secondary market.

Emissions Reduction Fund projects must be conducted according to an approved method. Approved methods include all Emissions Reduction Fund methods and all original Carbon Farming Initiative methods. The methods set out the rules for conducting activities under the Emissions Reduction Fund to earn ACCUs.

Why participate?

As well as contributing to Australia's efforts to reduce the amount of greenhouse gas entering the atmosphere and the opportunity to earn ACCUs, running an Emissions Reduction Fund project may offer a range of other benefits for scheme participants. Examples include increases in biodiversity, better air quality, reduced energy consumption or income from electricity generation exported into the grid. An Aviation project can reduce the carbon footprint of an organisation by reducing fuel consumption, thereby improving air quality as well as reducing costs.

Using this guide

This guide provides an introduction to using the *Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015* (the method). Methods set out the rules for conducting activities under the Emissions Reduction Fund to earn ACCUs.

The guide is complementary to the *Carbon Credits (Carbon Farming Initiative) Act 2011*[1] (the Act), the associated legislative rules, approved method and explanatory statement, but does not replace them. It has been prepared by the Clean Energy Regulator, an independent Australian statutory authority responsible for administering legislation to reduce carbon emissions and increase the use of clean energy.

[1] https://www.comlaw.gov.au/Series/C2011A00101

Overview of an aviation project

An aviation project involves activities such as modifying existing aircraft, switching fuel sources, or changing operational practices in relation to aircraft to reduce emissions.

Projects help to reduce the amount of greenhouse gas entering the atmosphere from the operation of aircraft and associated auxiliary equipment. The net reduction in greenhouse gas emissions as a result of a project is termed 'abatement'.

The emissions avoided by an aviation project are calculated by comparing the total 'emissions intensity' of different phases of aircraft operation (e.g. take-off and landing) before and after the project activities take place (See Figure 1). Emissions intensity means the emissions that are produced compared with a service unit; for example, the emissions per hour of operation. Using emissions intensity to calculate abatement allows emissions reductions to be credited when the level of service provided changes compared to previous periods.

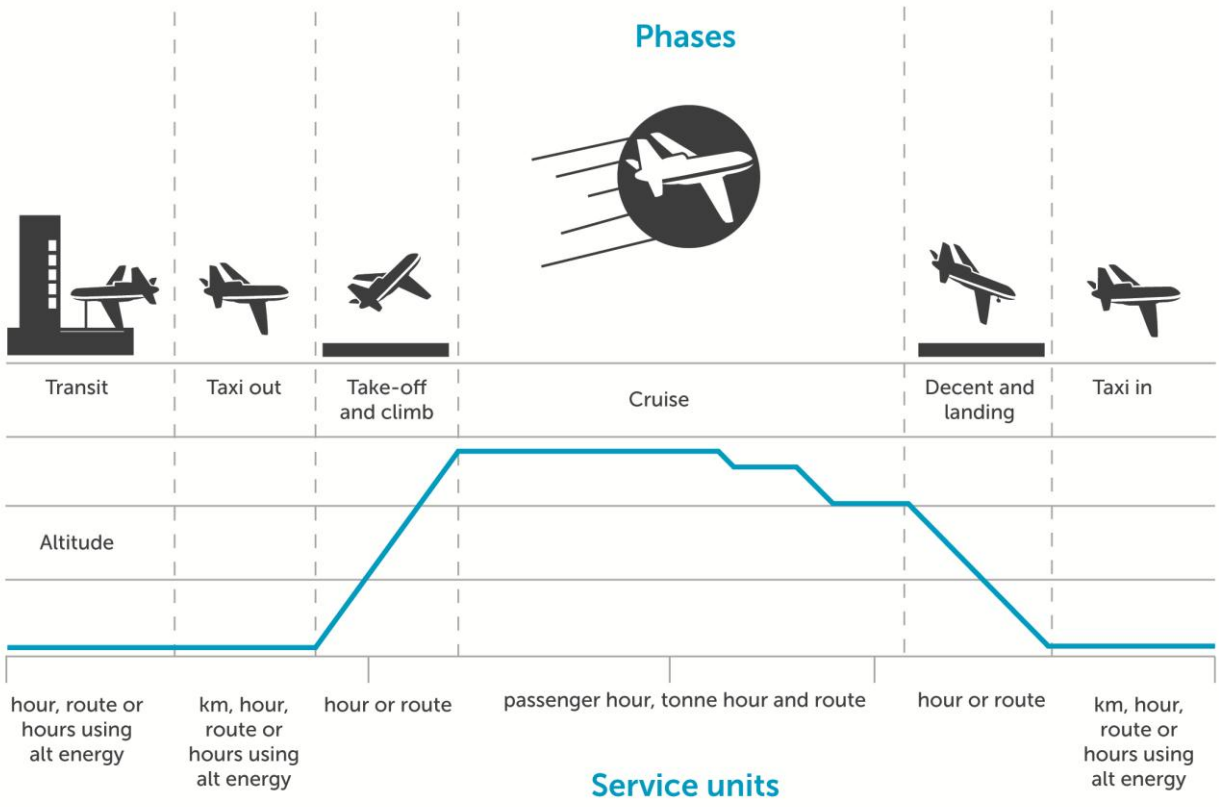

Figure 1: Phases of aircraft operation and service units

Essential reading

To conduct an aviation project and earn ACCUs make sure you read and understand the method and other legislative requirements. You will need to:

- Review the Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015[2] (method) and its Explanatory Statement[3].
- Understand how the *Carbon Credits (Carbon Farming Initiative) Act 2011* (the CFI Act)[4], the Carbon Credits (Carbon Farming Initiative) Regulations 2011[5] and the Carbon Credits (Carbon Farming Initiative) Rule 2015[6] apply to your project.
- Ensure you have the legal right required to conduct the project as well as any consents required.
- Open Australian National Registry of Emissions Units (ANREU) account if you do not have one already.
- Apply to the Clean Energy Regulator to have your project declared an Emissions Reduction Fund project before you start the project activities.
- Set up your project according to the instructions in Parts 2 and 3 of the method. Set up record keeping and monitoring systems for your project as required by Part 5 of the method.
- Estimate the average annual abatement of your project, obtain an audit schedule for your project from the Clean Energy Regulator and engage a Category 2 Greenhouse and Energy Auditor early on in your project. Submit audits of your project according to your audit schedule.
- Determine the amount of emissions avoided by your project using the calculations in Part 4 of the method. Convert the amount of emissions avoided into carbon dioxide equivalents (CO_2-e).
- Submit your project report and application for ACCUs to the Clean Energy Regulator for assessment.

What does an aviation project look like?

An aviation project only covers aircraft undertaking domestic flights within Australia. International flights are excluded from a project.

A project must involve implementing emissions reduction activities on at least one aircraft. The method is flexible, in that you are free to choose the activities you wish to implement, provided they fall into at least one of the following categories:

- modifying existing aircraft
- changing the energy source or the mix of energy sources used by aircraft

[2] http://www.comlaw.gov.au/Details/F2015L00161
[3] https://www.comlaw.gov.au/Details/F2015L00161/Explanatory%20Statement/Text
[4] http://www.comlaw.gov.au/Series/C2011A00101
[5] http://www.comlaw.gov.au/Series/F2011L02583
[6] http://www.comlaw.gov.au/Details/F2015L00156

- changing operational practices in relation to aircraft.

Each activity you undertake must be reasonably expected to reduce emissions from the aircraft, or from its auxiliary equipment. Auxiliary equipment includes vehicles or other mobile equipment used to help power or operate the aircraft, such as tugs, tractors or ground power units.

Examples of the types of activities that could be undertaken in an aviation project include:

- replacing on-board components with lighter-weight alternatives
- altering aircraft structure to improve aerodynamics
- increasing the use of bio-derived jet fuel
- installing ground power units or eligible renewable electricity generation equipment to power aircraft and its auxiliary equipment
- changing terminal procedures to shorten taxi length or duration.

Details of what is required for an aviation project to be considered eligible by the Clean Energy Regulator are in Parts 2 and 3 of the method.

Setting up and running an aviation project

How an aviation project is set up and run is critical for calculating the amount of emissions avoided as a result of a project, which in turn determines the amount of abatement that has occurred and how many ACCUs may be issued for a project. Parts 2, 3 and 4 of the method describe in detail how to set up a project and how to calculate the volume of emissions avoided, as well as the net abatement that has occurred.

Calculating abatement

Part 4 of the method and explanatory statement describe in detail how to calculate the net abatement that has occurred. Many calculations may need to be conducted to determine how much abatement your project has achieved in each reporting period. The parameters in each equation are worked out through additional equations, default values or direct project monitoring undertaken in accordance with the method.

The equation flow chart in Figure 2 gives an overview of the equations that may be used to calculate net abatement for each reporting period.

Figure 2 is produced for general information only and does not represent a statement of the policy of the Commonwealth of Australia. The Commonwealth of Australia and all persons acting for the Commonwealth preparing this graphic accept no liability for the accuracy of or inferences from the material contained in this publication, or for any action as a result of any person's or group's interpretations, deductions, conclusions or actions in relying on this material. It should be read in conjunction with the CFI Act and supporting Regulations. Changes to the legislation may affect the information in this graphic. This graphic is not intended to provide legal advice. Entities are responsible for determining their obligations under the law and for applying the law to their individual circumstances. Entities should seek independent professional advice if they have any concerns.

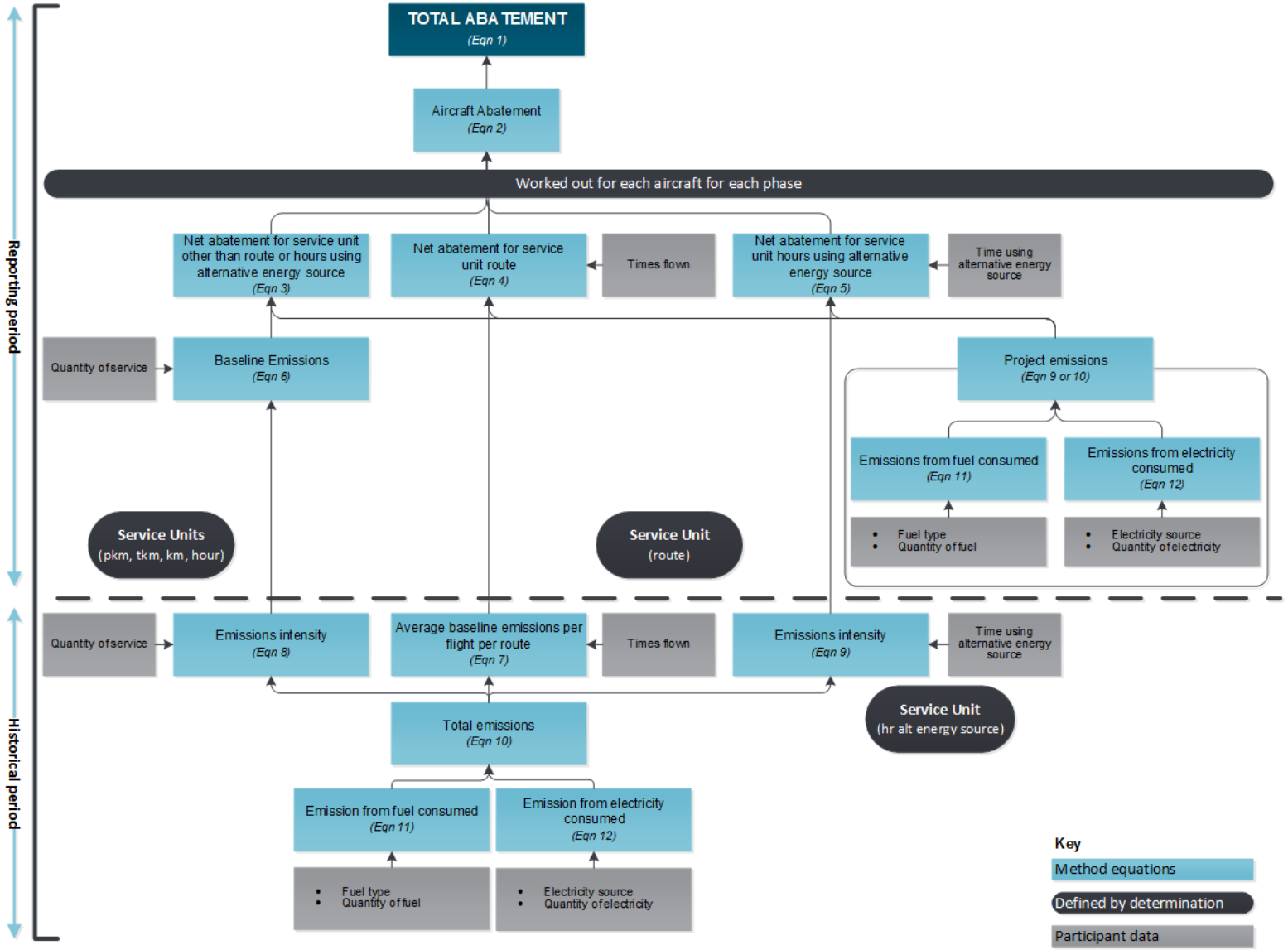

Figure 2 – Aviation method equation flow chart

Monitoring and record keeping

The Clean Energy Regulator recommends you draw up a plan for the monitoring, data collecting and record keeping required for a project report as specified in Part 5 of the method. The means of collecting and recording data will need to be in place from the start of the project. Should a project report and associated audit show that data collecting and record keeping has not been in place for the entire reporting period, ACCUs may not be issued for some or all of that reporting period.

When developing your plan, make sure you have the right controls and processes around your data. Ensure that you are able to maintain your data in the events such as a server failure or computer theft.

Monitoring an aviation project involves collecting service unit and energy consumption data for each aircraft at the level of phase and route. The method includes several options for collecting this data, including approaches that are used in the aviation industry to collect data for other purposes. For details of which parameters to monitor see the table in Section 26 in the method. If you are unable to monitor any of the specified parameters during a reporting period you must estimate their value (Section 27 in the method).

Project and audit reports

Project reports

You need to report on your project to the Clean Energy Regulator and may report as frequently as monthly where allowed for in the relevant method and legislative rules made under the *Carbon Farming Initiative Act (2011).* Audits are required where indicated in your project's audit schedule, which the Clean Energy Regulator will provide when your project is registered.

For aviation projects, the first project report must be made between six months to two years from the project start date and then up to every two years thereafter.

Part 5, Division 1, of the method lists the information that must be included in your project reports.

Applications for ACCUs can be made when you submit your project reports using the relevant part of the Application for ACCUs form[7]. Full reporting, record keeping and monitoring requirements are set out in regulations and rules made under the Act. You should familiarise yourself with these requirements. The Clean Energy Regulator will not issue ACCUs automatically on receipt of a project report.

Emissions Reduction Fund projects are able to generate credits throughout their crediting period. Crediting periods for each type of project are set out in Part 5 of the Act. The crediting period for an aviation project is seven years.

[7] http://www.cleanenergyregulator.gov.au/ERF/Forms-and-resources/reporting-and-auditing

The role of audit

Audits assess whether a project complies with the project declaration and the relevant method and legislative requirements. Audit reports must be prepared by a registered Category 2 Greenhouse and Energy Auditor[8]. The Clean Energy Regulator recommends you engage your auditor early when developing your project to ensure the project is auditable and to assist the auditor to plan activities throughout the reporting and post-reporting periods. The costs of any audit are your responsibility or the responsibility of your organisation. You must make available to the auditor all necessary documents and information, including data records, receipts and other supporting documentation, and calculation spread sheets.

Making changes to your project

You must notify the Clean Energy Regulator of any changes to you or your project's circumstances or operations that may affect project ownership, the project's eligibility or the amount of abatement reported and the number of ACCUs claimed. You must seek approval from the Clean Energy Regulator if you intend to make a significant change from the project as outlined in the application.

Resources

- For more information on participating in the Emissions Reduction Fund[9].
- For more information regarding method development, Department of the Environment[10].
- ComLaw[11] is the site where you can find all legislative instruments, including the:
  - *Carbon credits (Carbon Farming Initiative) Act 2011* (current version)[12]
  - Carbon credits (Carbon Farming Initiative) Regulations 2011[13]
  - Carbon Credits (Carbon Farming Initiative) Rule 2015[14]
  - Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015[15]
  - Explanatory Statement[16]
- Enquiries on participating in the Emissions Reduction Fund – 1300 553 542; enquiries@cleanenergyregulator.gov.au

[8] http://www.cleanenergyregulator.gov.au/NGER/For-auditors/Register-of-auditors
[9] http://www.cleanenergyregulator.gov.au/ERF/Pages/default.aspx
[10] http://www.environment.gov.au/
[11] https://www.comlaw.gov.au/
[12] https://www.comlaw.gov.au/Series/C2011A00101
[13] https://www.comlaw.gov.au/Series/F2011L02583
[14] https://www.comlaw.gov.au/Details/F2015L00156
[15] https://www.comlaw.gov.au/Details/F2015L00161
[16] https://www.comlaw.gov.au/Details/F2015L00161/Explanatory%20Statement/Text