EXPLANATORY STATEMENT

Carbon Credits (Carbon Farming Initiative) Act 2011

Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015

Background

The *Carbon Credits (Carbon Farming Initiative) Act 2011* (the ***Act***) enables the crediting of greenhouse gas abatement from emissions reduction activities across the economy. Greenhouse gas abatement is achieved either by reducing or avoiding emissions or by removing carbon from the atmosphere and storing it in soil or trees.

In 2014, the Australian Parliament passed the *Carbon Farming Initiative Amendment Act 2014*, which establishes the Emissions Reduction Fund (ERF). The ERF has three elements: crediting emissions reductions, purchasing emissions reductions, and safeguarding emissions reductions.

Emissions reduction activities are undertaken as offsets projects. The process involved in establishing an offsets project is set out in Part 3 of the Act. An offsets project must be covered by, and undertaken in accordance with, a methodology determination.

Subsection 106(1) of the Act empowers the Minister to make, by legislative instrument, a methodology determination. The purpose of a methodology determination is to establish procedures for estimating abatement (emissions reduction and sequestration) from eligible projects and rules for monitoring, record keeping and reporting. These methodologies will help ensure that emissions reductions are genuine—that they are both real and additional to business as usual.

In deciding to make a methodology determination the Minister must have regard to the advice of the Emissions Reduction Assurance Committee (ERAC), an independent expert panel established to advise the Minister on proposals for methodology determinations. The Minister must not make or vary a methodology if the ERAC considers it inconsistent with the offsets integrity standards, which are set out in section 133 of the Act. The Minister will also consider any adverse environmental, economic or social impacts likely to arise as a result of projects to which the determination applies.

Offsets projects that are undertaken in accordance with the methodology determination and approved by the Clean Energy Regulator (the Regulator) can generate Australian Carbon Credit Units (ACCUs), representing emissions reductions from the project.

Project proponents can receive funding from the ERF by submitting their projects into a competitive auction run by the Regulator. The Government will enter into contracts with successful proponents, which will guarantee the price and payment for the future delivery of emissions reductions.

Further information on the ERF is available on the Department of the Environment website at:

www.environment.gov.au/emissions-reduction-fund.

Application of the Determination

The *Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015* (the Determination) sets out the requirements for implementing and monitoring offsets projects that would avoid emissions by reducing the emissions or emissions intensity of aviation.

The Determination reflects the requirements of the Act's offsets integrity standards and helps to ensure that emissions reductions are real and additional to business as usual. The offsets integrity standards require that an eligible project should result in carbon abatement that is unlikely to occur in the ordinary course of events and is eligible carbon abatement under the Act. In summary, the offsets integrity standards also include that:

- amounts are measurable and capable of being verified;
- the methods used are supported by clear and convincing evidence;
- material emissions which are a direct consequence of the project are deducted; and
- estimates, assumptions or projections used in the determination should be conservative.

All eligible projects will be able to receive ACCUs for emission reductions achieved over a seven-year crediting period.

The Determination provides for crediting emissions reductions by comparing the emissions intensity of an aircraft before and after the implementation of project activities. Emissions reductions for an aircraft are calculated for each phase on a route of that aircraft and then aggregated.

To allow for different types of emissions reduction activities to be implemented, the Determination allows proponents to choose different ***service units*** to measure the emissions intensity of an aircraft, depending on the phase of an aircraft's operation. For example, when an aircraft is in transit (that is, waiting at the gate) emissions per hour or emissions per route could be used to measure intensity, whereas when the aircraft is in the cruising phase, emissions per passenger hour or tonne hour could be used. Importantly, once chosen, the service units for measuring emissions reductions for an aircraft must be retained throughout the whole project for that aircraft.

Project abatement is the aggregate of emissions reductions from all aircrafts in the project.

The Determination is activity neutral to support a broad range of activities to reduce emissions within aviation, including:

- modifying existing aircraft;
- changing energy sources (that is, fuel switching) or the mix of energy sources for aircraft; and
- changing operational practices in relation to aircraft.

Project proponents wishing to implement projects under the Determination must make an ***application*** to the Regulator under section 22 of the Act. They must also meet the general eligibility requirements for an offsets project set out in subsection 27(4), which include compliance with the requirements set out in the Determination, and the additionality requirements in subsection 27(4A) of the Act. The additionality requirements are:

- the newness requirement;
- the regulatory additionality requirement; and
- the government program requirement.

Subsection 27(4A) of the Act provides that a methodology determination may specify requirements in lieu of any of the above additionality requirements. The Determination does not specify any requirements in lieu, and so all three requirements in the Act apply to eligible ***aviation projects***.

Public Consultation

The Determination has been developed by the Department of the Environment in collaboration with a technical working group of experts from the transport industry and the Regulator. The technical working group has reviewed several draft versions of a broad transport methodology prior to and during the release of a draft Determination for public consultation.

The exposure draft Transport Determination was published on the Department's website for public consultation from 15 October 2014 to 12 November 2014. Six submissions were received. The draft explanatory statement accompanying the exposure draft sought stakeholder views on a proposal to convert the broadly applicable Transport Determination into separate methodologies for different transport modes. Feedback from public consultation and the technical working group suggested that transport modes were generally well served by the broadly applicable methodology with the exception of aviation for which a separate methodology determination has been developed (this Determination).

Details of the non-confidential submissions are provided on the Department of the Environment website: www.environment.gov.au.

Determination Details

Details of the Determination are at Attachment A. Numbered sections in this explanatory statement align with the relevant sections of the Determination. The definition of terms highlighted in ***bold italics*** can be found in the Determination.

For the purpose of subsections 106(4), (4A) and (4B) of the Act, in making this Determination the Minister has had regard to, and agrees with, the advice of the Emissions

Reduction Assurance Committee that the determination complies with the offsets integrity standards and that the proposed determination should be made. The Minister is satisfied that the carbon abatement used in ascertaining the carbon dioxide equivalent net abatement amount for a project is eligible carbon abatement from the project. The Minister also had regard to whether any adverse environmental, economic or social impacts are likely to arise from the carrying out of the kind of project to which the determination applies and other relevant considerations.

Subitem 393A(2) of Schedule 1 of the *Carbon Farming Initiative Amendment Act 2014* operated in relation to this Determination to deem the request tothe Interim ERAC to be the relevant request to the statutory ERAC under subsection 106(10) of the Act. Subitem 393A(3) then allowed the ERAC to consider the consultation on the exposure draft which occurred before 13 December 2014 and not re-open consultation under section 123D of the Act.

A Statement of Compatibility prepared in accordance with the Human Rights (Parliamentary Scrutiny) Act 2011 is at Attachment B.

Attachment A

Details of the Methodology Determination

Part 1 Preliminary

1 Name

Section 1 sets out the full name of the Determination, which is the *Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015*.

2 Commencement

Section 2 sets out that the Determination will commence on the day after it is registered.

3 Authority

Section 3 provides that the Determination is made under subsection 106(1) of the ***Act***.

4 Duration

Paragraph 4(a) provides that the Determination begins on commencement (as set out in section 2). The Determination will remain in force for the duration set out in this section unless revoked in accordance with section 123 of the Act.

Paragraph 4(b) provides that the Determination ends on the day before it would otherwise be repealed under subsection 50(1) of the *Legislative Instruments Act 2003*.

Instruments are repealed under that provision on the first 1 April or 1 October following the tenth anniversary of registration on the Federal Register of Legislative Instruments. In accordance with subparagraph 122(1)(b)(i) of the Act, paragraph 4(b) of the Determination sets out the time that the Determination will expire.

If the Determination expires or is revoked during a crediting period for a project to which the Determination applies, the Determination continues to apply to the project during the remainder of the crediting period under subsections 125(2) and 127(2) of the Act. Project proponents may apply to the Regulator during a reporting period to have a different methodology determination apply to their projects from the start of that reporting period (see subsection 128(1) of the Act).

Under section 27A of the Act the Emissions Reduction Assurance Committee may also suspend the processing of applications under a determination if there is reasonable evidence that the methodology determination does not comply with one or more of the offsets integrity standards. This does not impact applications for declaration already received by the Regulator before such a suspension or declared eligible offset projects which apply the Determination.

5 Definitions

Section 5 defines a number of terms used in the Determination.

Generally, where terms are not defined in the Determination, but are defined in section 5 of the Act, they have the meaning given by the Act.

Under section 23 of the *Acts Interpretation Act 1901*, words in the determination in the singular number include the plural and words in the plural number include the singular.

Key definitions in section 5 of the Determination include those set out below.

Auxiliary equipment in relation to an aircraft, means any vehicle, mobile equipment or other equipment used to power or operate or assist in powering or operating the aircraft, as long as it is doing so.

Aircraft may at times be powered or operated by other vehicles or equipment, such as tugs, tractors or ground power units. It is important that the fuel or electricity use from these vehicles or equipment (together termed auxiliary equipment) are included, as changes to the auxiliary equipment may lead to changes in the overall emissions intensity of a phase (for example, switching from using the auxiliary power unit on an aircraft to using ground power during the transit phase).

Phase means one of the following phases of aircraft operation:

(a) cruise;

(b) descent and landing;

(c) take-off and climb;

(d) taxi in;

(e) taxi out;

(f) transit.

In this Determination abatement is calculated for individual phases on a route of aircraft operation and then aggregated. This more accurately quantifies abatement from project activities by including in calculations only those phases which are impacted by project activities.

- For example, a project that reduces an aircraft's fuel use while waiting at the gate would only need to measure changes in emissions intensity in the transit phase and could select service units that take account of the fact that the aircraft is stationary.

Each of the phases of aircraft operation is defined below and depicted in Figure 1.

Cruise, as a phase of aircraft operation:

(a) begins when the aircraft levels off at the initial cruising altitude; and

(b) ends when the aircraft reduces thrust to commence final descent into the arrival airport.

Descent and landing, as a phase of aircraft operation:

(a) begins when the aircraft reduces thrust to commence final descent into the arrival airport; and

(b) ends at the end of the landing roll when the aircraft reaches the speed necessary to commence taxiing.

Take-off and climb, as a phase of aircraft operation:

(a) begins on the application of take-off thrust; and

(b) ends when the aircraft levels off at the initial cruising altitude.

Taxi in, as a phase of aircraft operation:

(a) begins at the end of the landing roll when the aircraft reaches the speed necessary to commence taxiing; and

(b) ends when the aircraft arrives at the final parking position prior to passengers or freight being offloaded (when the aircraft applies the park brake, shuts down any remaining engines with the first door/hold opened).

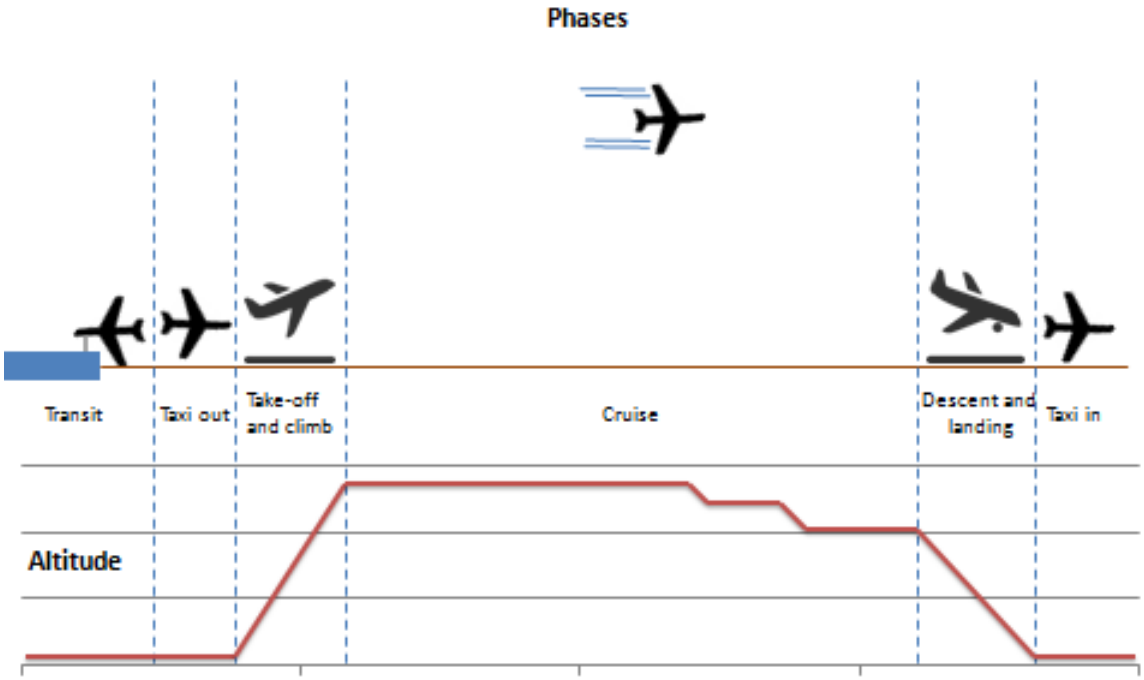
Taxi out, as a phase of aircraft operation:

(a) begins when the aircraft's brakes are released from final parking position for departure to the runway; and

(b) ends on the application of take-off thrust.

Transit, as a phase of aircraft operation, is the phase between taxi in and taxi-out (and includes any movement of the aircraft between locations during that phase).

Figure 1: Phases of aircraft operation.



Eligible renewable electricity means renewable electricity generated from equipment installed as part of the project, but does not include renewable energy generated by equipment that, under the legislative rules (if any) made for subparagraph 27(4A)(c)(ii) of the Act, must not be included in an eligible offsets project.

There is an adjustment for eligible renewable electricity in the calculation of the net abatement amount. The adjustment is included so that credits may be issued for any renewable energy activities that may be included as part of an eligible offsets project under the legislative rules relating to the government programme requirement.

6 References to factors and parameters from external sources

The calculation of the net abatement amount in the Determination includes factors taken from other sources, such as emissions factors from the ***NGER (Measurement) Determination***. The Determination specifies that such factors or parameters should be taken from the version of the external source that is in force at the end of the reporting period unless the Determination specifies otherwise.

The requirement to use versions of referenced documents current at the end of the reporting period does not apply if sections in the Determination specify otherwise, such as for the emissions factor for electricity.

The requirement to use versions of referenced documents current at the end of the reporting period does not apply to the emissions factor for electricity. The Determination states that the relevant grid-based emissions factor for electricity must be derived from the ***National Greenhouse Accounts (NGA) Factors document*** in force on the day the project is declared an eligible offsets project. The electricity emissions factor is discussed in more detail in section 19.

Part 2 Aviation projects

7 Aviation projects

The effect of paragraphs 27(4)(b) and 106(1)(a) of the Act is that a project must be covered by a methodology determination, and that the methodology determination must specify the kind of offsets project to which it applies.

Section 7 provides that the Determination applies to an offsets project that is reasonably expected to deliver eligible carbon abatement and involves one or more of the following ***project activities***:

- modifying existing aircraft;
- changing the energy sources or the mix of energy sources for aircraft; or
- changing operational practices in relation to aircraft.

The Determination defines these kinds of projects as ***aviation projects***.

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

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

Part 3 Project requirements

8 Operation of this Part

The effect of paragraph 106(1)(b) of the Act is that a methodology determination must set out requirements that must be met for a project to be an eligible offsets project. Under paragraph 27(4)(c) of the Act, the Regulator must not declare that a project is an eligible offsets project unless the Regulator is satisfied that the project meets these requirements.

Part 3 of the Determination specifies a number of requirements that must be met in order for a project to be an eligible offsets project.

9 Individual aircraft

Section 8 prescribes that an aviation project must be used in relation to one or more individual aircraft.

10 Service units for phases of operation

Section 10 prescribes that the application for declaration must specify the service unit to be used for each phase for each aircraft. The service unit must be chosen from the options presented for each phase in the table in schedule 1 of the Determination. Once chosen, that service unit must be used for all instances of that phase for that aircraft, and must be used for each reporting period of the project. This is to ensure that abatement is calculated in the same way throughout the project. Section 10 also includes the rules for converting passengers to tonnes where an aircraft may carry both passengers and freight, allowing for the use of tonne hours as the service unit in the cruise phase.

More information about service units is at Schedule 1.

11 Data from domestic activities only

The Act and section 11 of the Determination requires that data used for calculating the net abatement amount must be from domestic activities only, that is, does not include activities undertaken outside ***Australia***, or from transport activities that use fuel that is not taxable fuel. Taxable fuel excludes fuel used for international flights as emissions from this fuel are not included in Australia's National Greenhouse Gas Inventory.

The definition of taxable fuel is based on the definition in the *Fuel Tax Act 2006* but does not include fuel for which fuel tax credits or a refund of excise or customs duty is given because the fuel is used for an international flight.

This section ensures that emissions reductions achieved under the Determination are eligible carbon abatement, and count towards Australia's climate change targets under the Kyoto Protocol or a successor international agreement.

12 Data from previous years

Section 12 requires that, in relation to each aircraft, proponents must have data for the year prior to the commencement of the reporting period in which the aircraft is first included in the project. This ensures that baseline data reflects the recent actual performance of aircraft included in the project.

13 Data from all affected phases must be included

Section 13 requires that data from all phases that are affected by the project activities are to be included in the calculation of the carbon dioxide equivalent net abatement amount. This includes affected phases in which a project activity is not directly applied.

This ensures that all decreases and increases in emissions that result from project activities are taken into account in calculating the net abatement amount. Section 13 also clarifies that if a phase is not affected by a project activity that it does not need to be included. This helps to reduce the risk of crediting non-additional abatement brought about by external factors.

14 Information to be included in application for declaration

Section 22 of the Act provides that a person may apply to the Regulator for the declaration of an offsets project as an eligible offsets project. Section 14 of the Determination requires the following information be included in the application for the declaration of an aviation project:

- the number and type of aircraft in the project;
- any auxiliary equipment to be included in the project;
- the project activities involved;
- the aircraft, phases and routes that are impacted by those activities; and
- the service unit to be used for each phase for each aircraft.

Subsection 14(2) outlines that this information can be provided by class: this allows for a shorter application rather than listing every single vehicle, phase and route where there are similar project activities.

Part 4 Net abatement amount

Division 1 Operation of this part

15 Operation of this Part

Paragraph 106(1)(c) of the Act provides that a methodology determination must specify how to calculate the carbon dioxide equivalent (CO_2-e) net abatement amount for the project in relation to a reporting period. This Part sets out these requirements.

16 Overview of gases accounted for in abatement calculations

This section provides a summary of the greenhouse gas sources that are assessed in order to determine the net abatement amount. The emission sources which need to be taken into account when calculating abatement for the project are set out in Table 1.

Table 1: Overview of gases accounted for in the abatement calculations

Relevant calculation	**Emissions source**	**Greenhouse gas**
Baseline emissions	Fuel combustion	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Baseline emissions	Electricity consumption (as transport fuel)	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Project emissions	Fuel combustion	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Project emissions	Electricity consumption (as transport fuel)	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)

A number of emissions sources are excluded from the abatement calculations for the following reasons:

- Emissions from fuel extraction and processing, fuel blending and fuel transport are excluded as they are scope 3 emissions. This is consistent with the National Inventory Report and the ***NGER (Measurement) Determination***, and also prevents the potential for double counting of abatement from another project/facility for which these are scope 1 emissions.
- Emissions from fuel storage and dispensing have been excluded. Where fuel storage and dispensing occurs offsite, they are scope 3 emissions, and so are excluded as above. Where fuel storage and dispensing occurs onsite they are likely to be comparable in the baseline and project scenarios.

- Emissions from the transport facility electricity use, vehicle and facility maintenance, vehicle manufacture, new vehicle transportation and vehicle decommissioning are considered comparable in the baseline and project cases. Further, some of the sources are likely to be immaterial, and impractical for project proponents to access this information.

Division 2 Method for calculating net abatement amount

17 Summary

Section 17 provides a summary of how the method calculates the net abatement amount.

18 Net abatement amount

Subsection 18(1): The carbon dioxide equivalent net abatement amount

The carbon dioxide equivalent net abatement amount for an aviation project is calculated using **equation 1.** The net abatement amount is the sum of abatement from each aircraft in the project.

Subsection 18(2): The carbon dioxide equivalent net abatement amount for an aircraft

The carbon dioxide equivalent net abatement amount for an aircraft is calculated using **equation 2.** The net abatement amount is the higher of either the sum of the abatement achieved by that aircraft in each phase or zero. This prevents crediting negative abatement if the emissions intensity of an aircraft rises, in recognition that there are factors outside a proponent's control that might cause this.

Subsection 18(3): The carbon dioxide equivalent net abatement amount for an aircraft in a phase

There are three different ways to calculate abatement from an aircraft in a specific phase, which depends on the service unit chosen. These are outlined in subsection 18(3).

- If a service unit other than route or hours using alternative energy source is chosen **equation 3** is used, where the abatement for an aircraft in a phase is the sum over all routes of baseline emissions minus the project emissions for the phase.
- If route is chosen as the service unit, then **equation 4** is used, where the abatement for an aircraft in a phase is the sum over all routes of the average baseline emissions for the phase for the route multiplied by the number of times the aircraft flew on that route in the reporting period, minus the project emissions for the aircraft for the phase for the route.
- If hours using alternative energy source is chosen as the service unit, **equation 5** is used, where the abatement is calculated as the difference between the baseline and project energy source emissions intensity, multiplied by the time that the aircraft was using the alternative energy source as part of the project.

The note in subsection 18(3) reiterates that the service unit chosen will determine which option is used to work out the abatement for the aircraft in the phase, and that it must be

used for all reporting periods. This ensures that a consistent and comparable approach to measuring abatement is used for the entire project.

Subsection 18(4): Baseline emissions for an aircraft in a phase on a route

The baseline emissions for an aircraft in a phase are worked out using **equation 6**. It is the baseline emissions intensity of the aircraft in that phase on the route multiplied by the project quantity of service (determined in accordance with the monitored parameters table in section 26).

Subsection 18(5): Average baseline emissions for an aircraft in a phase on a route

The average baseline emissions for an aircraft in a phase on a particular route is worked out using **equation 7**. It is the emissions of the aircraft in that phase on that route in the year prior to the year in which the aircraft was first included in the project divided by the number of times the aircraft flew that route in that same period.

19 General equations

Section 19 sets out generic equations that are used to calculate emissions intensity and emissions. These equations are to be applied at the appropriate level, which may be at the level of an aircraft, phase, route, time period or energy source.

Subsection 19(1): Emissions intensity for an aircraft

Equation 8 sets out how to calculate the emissions intensity of an aircraft in a phase for a particular period. Emissions for the aircraft for the phase are divided by the quantity of service (determined in accordance with the monitored parameters, section 28). The units of emissions intensity are therefore dependent on the service unit used to measure the quantity of transport services.

Subsection 19(2): Emissions intensity for a particular energy source for an aircraft

The emissions intensity for a particular energy source for an aircraft in a phase for a particular period is worked out using **equation 9**. It is the emissions for the aircraft when using the energy source divided by the time that the energy source was used.

Subsection 19(3): Emissions for an aircraft

Emissions are calculated using the generic **equation 10** for an aircraft. In the Determination, emissions sources that must be included in the calculation are emissions from the combustion of fuel used and, if applicable, emissions from electricity when it is used as a transport energy source.

Subsection 19(4): Emissions from combustion of fuel

Emissions from transport fuel are worked out using **equation 11**. Emissions are calculated for each fuel based on the quantity and energy content of each type of fuel used and the emissions

factors for the greenhouse gases produced by combusting those fuels (determined in accordance with the monitored parameters table in section 26).

Importantly, the calculation must include both the aircraft and the auxiliary equipment.

Further, this calculation allows for proponents to measure the carbon dioxide emissions factor and energy content for the fuel using a higher order estimation method (either method 2 or method 3) rather than the default NGERs parameters. More detail on this is in section 26.

Subsections 19(5 and 6) Emissions from electricity

Emissions from electricity used are worked out using **equation 12**. The total quantity of electricity used as a transport energy source is reduced by the quantity of ***eligible renewable electricity*** used and the value obtained is multiplied by the relevant scope 2 grid-based electricity emissions factor.

Total quantity of electricity used (Q_{EC}) includes electricity used from all sources (both eligible and non-eligible renewable electricity). The emissions factor (EF_{EC}) applicable to non-eligible renewable electricity is that of the grid.

The electricity emission factor to be used is to be taken from the *National Greenhouse Accounts (NGA) Factors* document published by the Department from time to time. The factor will apply unchanged from the date of project declaration. If the electricity is from a source other than an electricity grid included in the *NGA Factors* document then the proponent should apply the factor provided by the supplier of the electricity or if that factor is not known then the factor for off-grid electricity included in the *NGA Factors* document should be used. The NGA Factors document will clearly identify the table of emissions factors relevant to this definition.

Figure 2 provides an example of how equation 12 is to be applied to a project that involves powering aircraft and its auxiliary equipment with eligible renewable electricity. In this example, solar panels are installed to generate eligible renewable electricity.

Figure 2: Example calculation for project involving eligible renewable electricity

Part 5 Reporting, record-keeping and monitoring requirements

Subsection 106(3) of the Act provides that a methodology determination may require the project proponent of an eligible offsets project to comply with specified reporting, record-keeping and monitoring requirements.

Under Parts 17 and 21 of the Act, a failure to comply with these requirements may constitute a breach of a civil penalty provision, and a financial penalty may be payable.

The monitoring, record-keeping and reporting requirements specified in Part 5 of the Determination are in addition to any requirements set out in the Act, regulations and rules made under the Act.

Reporting periods

The Act and subordinate legislation provide for flexible reporting periods between six months and two years in duration. Proponents should be aware that the Act and subordinate legislation may also specify other reporting and notification requirements affecting the Determination.

Audit requirements

The Act provides for a risk-based approach to auditing emissions reductions. Subsections 13(1) and 76(4) of the Act provide for legislative rules to be made by the Minister, specifying the level of assurance, frequency and scope of the audit report that must be provided with project reports for different types of projects.

Notification requirements

No notification requirements are specified in the Determination in addition to those set out in the Act, regulations or rules made under the Act.

Division 1 Offsets report requirements

20 Operation of this Part

The effect of paragraph 106(3)(a) of the Act is that a methodology determination may set out requirements to be included in each offsets report.

21 Determination of certain factors and parameters

Further to requirements under the Act and subordinate legislation, section 21 sets out specific additional information that must be included in each offsets report for an aviation project.

Subsection 21(1) sets out that the offsets reporting requirements in this subsection apply where it is not possible to meet the requirements of subsection 6(1), as outlined in paragraph 6(2)(b). The purpose of subsection 21(1) is to provide the Regulator with information on which version of the *NGER (Measurement) Determination* or other relevant external source has been used by a project proponent to meet the monitoring requirements set out in section 26. The proponent is required to detail in their offsets report the version of the *NGER (Measurement) Determination* or external source that was used when undertaking

monitoring, the dates that the version was used and why it was not possible for the proponent to use the version that was in force at the end of the reporting period.

Subsection 21(2) sets out that if a parameter is not monitored in accordance with the monitoring requirements, and is determined in accordance with section 27, the offsets report must include the following information:

- the name of the parameter;
- the start and end of the non-monitored period for which the parameter was determined;
- the reasons why the project proponent failed to monitor the parameter as required by the monitoring requirements; and
- the value of the parameter and how that value was determined.

22 Division of project into smaller projects

Sub-section 77A(2) of the Act provides rules under which a proponent can divide an overall project into parts for the purpose of submitting offset reports and applying for certificates of entitlement. The Determination provides for dividing a project down to the level of a single aircraft.

Division 2 Record-keeping requirements

23 Operation of this Division

The effect of paragraph 106(3)(c) of the Act is that a methodology determination may set out record-keeping requirements for an eligible offsets project.

24 Record-keeping requirements

Section 24 lists the records that must be kept for an aviation project, in addition to record-keeping requirements applying to all projects as set out in the Act, Regulations and rules made under the Act.

Proponent must keep records about the individual aircraft involved in the project including:

- the registration number and make of the aircraft;
- information about any period for which the vehicle was not operational, including for sale or disposal;
- the project activities and the phase or routes to which they are applied;
- operational practices performed and in relation to which aircraft, phases and routes;
- the phases that are not affected by project activities; and
- information about any auxiliary equipment used.

All records required to be kept for the project must be kept in a form that is easily and quickly accessible for inspection and audit.

Division 3 Monitoring requirements

25 Operation of this Division

Subsection 106(3)(d) of the Act provides that a methodology determination may require the project proponent of an eligible offsets project to comply with specified monitoring requirements.

This Division specifies the parameters that require monitoring, including the manner and frequency of monitoring.

26 Requirement to monitor certain parameters

Section 26 lists parameters used in the calculation of net abatement amounts in Part 4 of the Determination that require monitoring, including specifications for units, procedure and frequency of monitoring.

Key monitored parameters are:

- the quantity of service of the aircraft for the phase and route;
- the quantity of fuel and electricity (including eligible renewable electricity if appropriate) used by the project by vehicle, phase, route or energy source;
- the time using alternative energy sources; and
- the emissions factor and energy content of transport fuel.

Subsection 26(1) sets out how these parameters must be monitored, including specific requirements for aircraft or auxiliary equipment where appropriate.

Subsection 26(1) also allows a proponent to choose whether to use default factors or a higher order estimation method and continuous monitoring for the emissions factor for carbon dioxide and the energy content for a fuel. If a higher order estimation is chosen, the proponent must monitor those factors in accordance with Division 2.4.3 or 2.4.4 of the *NGER (Measurement) Determination* and must continue to do so for the entire project. If a project proponent uses the default values, they may change to a higher order method, however cannot change back to the default.

Any equipment or device used to monitor a parameter must be calibrated by an accredited technician at intervals, and using methods, that are in accordance with the manufacturer's specifications.

The Determination requires that measurement procedures meet specification in the *NGER (Measurement) Determination* or other relevant standards and other requirements under the *National Measurement Act 1960*. This is implicit where a parameter must be measured in accordance with the *NGER (Measurement) Determination,* and otherwise a monitoring parameter must meet ***appropriate measuring requirements***.

In subsection 26(1), where the monitoring frequency of a parameter is specified as 'continuous', this means it should be monitored at intervals that will provide sufficient substantiation of its value.

As reiterated by subsection 27(1) below, failure to monitor parameters in accordance with this section is a breach of requirements of the Determination. In the case of certain parameters, where it has not been possible to monitor in accordance with the requirements in section 26, project proponents should use one of the approaches provided in section 27.

27 Consequences of not meeting requirement to monitor certain parameters

Compliance with requirements for monitoring parameters is important to ensure that abatement is calculated correctly. Monitoring requirements (section 26) include the process for monitoring and the standard to which monitoring must occur.

In some cases for reasons beyond their control, a proponent may be unable to monitor a parameter to the requirements specified in section 26. When this occurs, section 27 requires that adjustments are applied for the time intervals that the parameters are not being monitored in accordance with requirements (termed the ***non-monitored period***). The adjustment is necessary to ensure that all estimates or assumptions used in the Determination are conservative and are in accordance with the offsets integrity standards outlined in section 133 of the Act.

For parameters listed in item 1 of the table in subsection 27(1), the consequence of not monitoring these parameters in accordance with the monitoring requirements is that the proponent must make a conservative estimate of the parameter for the duration of the non-monitored period.

For the parameters listed in item 2 of the table in subsection 27(1), the consequence of not monitoring in accordance with the requirements is that the proponent must work out the parameter using the default emissions factor for that parameter (as is included in the lower order monitoring option for the parameter). The proponent must apply a 10 per cent adjustment to the default emissions factor (i.e. the factor is multiplied by 1.1) for a period of up to three months in any 12-month period. For any period in excess of those three months the adjustment is 50 per cent (i.e. the factor is multiplied by 1.5). The adjusted factors should only apply to the non-monitored period in the reporting period. The baseline must not be amended using the adjusted factors. This is a consistent approach across emissions reduction methodologies that allow a higher order estimation method.

The need for a proponent to apply section 27 arises from failure to meet monitoring requirements. In accordance with the Act, the Regulator may determine an appropriate response (irrespective to the adjustments listed in subsection 27(1)) within its compliance and enforcement framework, depending on the nature of the non-compliance (i.e. whether it is a one-off minor event or a more significant or repeated breach). This could include determining that no eligible net abatement has been achieved by the project for the period of the breach. A note to subsection 27(2) indicates other actions that the Regulator may choose to take in response to a proponent failing to meet monitoring requirements.

When section 27 is used, the proponent will be required to include information relating to the monitoring failure in its offsets report for the relevant reporting period. This is to provide the Regulator with evidence that will allow it to determine the nature and frequency of the failure to meet the monitoring requirements of the Determination, and to determine what compliance action may be appropriate.

Schedule 1 Service unit

1 Service units

The table in schedule 1 sets out the service units that may be used for each phase.

Different service units are appropriate for different phases, depending on whether the aircraft is moving or not, and whether it is on the ground or in the air.

Route may be used as the service units for any phase. In other words, emissions reductions for any phase can be calculated on a route basis. Providing for calculating emissions reductions on a route basis recognises that different routes have different emissions intensities (for example as a result of the length of the trip, airport and air traffic management, terminal design, the installation of different power units, etc). Furthermore, some project activities may reduce the emissions of a specific route but not others.

Passenger or tonne hour may be used as the service unit for the cruise phase only. These service units ensure that the calculations of emissions intensity reflect the transport services provided.

Hours may be used as a service unit for the descent and landing phase and the take-off and climb phase. The use of this service unit could help to ensure that changes in air traffic management, which affect these two phases, and are not within an airlines control, are not reflected in the calculation of abatement. Distance travelled may not be used as a service unit for these two phases as these phases involve aircraft travelling in three dimensions: these introduce challenges for measuring distances. Using hour as the service unit therefore takes into account these factors, including the impact of air traffic management and the differences between take-off and landing tracks due to prevailing weather.

Hour, kilometre or hours using alternative energy sources may be used as the service unit for the phases of taxi in and taxi out. This provides for accurately calculating the impact of the different types of activities that can be done in these phases.

Hours or hours using alternative energy sources may also be used as the service unit for the transit phase as other units would not be appropriate for this phase, in which the aircraft is generally stationary.

Attachment B

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015

This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the Legislative Instrument

The *Carbon Credits (Carbon Farming Initiative—Aviation) Methodology Determination 2015* (the Determination) sets out the detailed rules for implementing and monitoring offsets projects that avoid greenhouse gas emissions by reducing the emissions intensity of air transport services. The Determination applies to aviation projects that involve modifying existing aircraft, changing aircraft energy sources or changing operational practices in relation to aircraft.

Project proponents wishing to implement the Determination must make an application to the Clean Energy Regulator (the Regulator) and meet the eligibility requirements set out under the Determination. Offsets projects that are approved by the Regulator can generate Australian Carbon Credit Units, representing emissions reductions from the project.

Project proponents can receive funding from the ERF by submitting their projects into a competitive auction run by the Regulator. The Government will enter into contracts with successful proponents, which will guarantee the price and payment for the future delivery of emissions reductions.

Human rights implications

This Legislative Instrument does not engage any of the applicable rights or freedoms.

Conclusion

This Legislative Instrument is compatible with human rights as it does not raise any human rights issues.

Greg Hunt, Minister for the Environment