

EXPLANATORY STATEMENT

Carbon Credits (Carbon Farming Initiative) Act 2011

Carbon Credits (Carbon Farming Initiative—Oil and Gas Fugitives) Methodology Determination 2015

Background: Emissions Reduction Fund

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 agreed to 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 reductions and sequestration) from eligible projects, and rules for monitoring, record keeping and reporting. These methodologies will 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.

Proponents can receive funding from the ERF by submitting their bids for delivering emission reductions they can achieve through 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 schedule for the future delivery of emissions reductions.

Further information on the ERF is available at:

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

Background: Oil and Gas Fugitives

Greenhouse gas emissions from the fugitive sector are projected to be the largest source of emissions growth up to 2020.¹ In 2011-12, emissions from venting and flaring in the oil and gas sector contributed 7.6 megatonnes or 19 per cent of all fugitive emissions², and this is expected to grow significantly with the development of several new liquefied natural gas (LNG) facilities. The *Carbon Credits (Carbon Farming Initiative—Oil and Gas Fugitives) Methodology Determination 2015* applies to facilities that have fugitive emissions from oil or gas, including coal seam gas extraction facilities, LNG processing facilities, gas pipelines and oil refineries. The Determination provides for facilities to reduce their emissions through re-routing fugitive emissions to a flare instead of allowing them to be vented to the atmosphere.

Abatement from a re-route to flare project under this method is credited based on the quantity of emissions reduced from combusting the re-routed gas. This abatement activity caters for both process venting and fugitive leak emission sources.

Application of the Determination

The Determination sets out the detailed rules for implementing and monitoring offsets projects that would reduce fugitive emissions in the oil and gas sector through the flaring of otherwise vented emissions. These rules have been designed to help ensure that emissions reductions are real and additional to business as usual.

Proponents wishing to implement projects under the Determination, once it is made, 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 requirements. The Determination does not specify any requirements in lieu and so all three requirements in the Act apply to eligible oil and gas fugitives projects.

Public Consultation

The Determination has been developed by the Department of the Environment in collaboration with a Technical Working Group, comprising of representatives from industry

¹ Department of the Environment (2013), *Australia's Abatement Task and 2013 Emissions Projections*. Available at:

http://www.environment.gov.au/system/files/resources/51b72a94-7c7a-48c4-887a-02c7b7d2bd4c/files/abatement-task-summary-report_1.pdf

² Department of the Environment (2014), *National Inventory Report 2012: Volume 1*. Available at: <http://www.environment.gov.au/system/files/resources/6b894230-f15f-4a69-a50c-5577fecc8bc2/files/national-inventory-report-2012-vol1.pdf>

and the Clean Energy Regulator. The group met on 22 January 2015, 8 April 2015, and 13 May 2015 to review the approach set out in this Determination.

The exposure draft of the Determination was published on the Department's website for public consultation on 17 March 2015. Submissions to the Department regarding the exposure draft closed on 15 April 2015.

Determination Details

The Determination will be a legislative instrument within the meaning of the *Legislative Instruments Act 2003*.

Details of the Determination are at [Attachment A](#).

Note on this explanatory statement

Numbered sections in this explanatory statement align with the relevant sections of the Determination.

Definitions for terms which are highlighted in ***bold italics*** can be found in the Determination.

Details of the Methodology Determination

Part 1 Preliminary

1 Name

Section 1 sets out the full name of the Determination, which would be the *Carbon Credits (Carbon Farming Initiative—Oil and Gas Fugitives) Methodology Determination 2015*.

2 Commencement

Section 2 provides that the Determination would commence on the day after it is registered.

3 Authority

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

4 Duration

Under subparagraph 122(1)(b)(i) of the Act, a methodology determination remains in force for the period specified in the determination.

Paragraph 4(a) provides that the Determination will be in force from the day it commences until 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.

Paragraph 4(b) ensures that the Determination would expire in accordance with subparagraph 122(1)(b)(i) of the Act.

If the Determination expires or is revoked during a crediting period for a project to which the Determination applies, the Determination will continue to apply to the project during the remainder of the crediting period under subsections 125(2) and 127(2) of the Act. 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).

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.

Flare device included in the project refers to flares that are receiving and combusting fugitive leak emissions or process venting emissions that have been captured because of activities undertaken by the project, and where without the project those emissions would have been vented to the atmosphere without combustion.

Fugitive leak emissions refers to any of the following that are not process venting emissions:

- (a) emissions from equipment including: storage tanks, loading losses and equipment listed in sections 5.4.3, 5.6.4, 5.6.5 or 6.1.2 of the *API Compendium*; and
- (b) fugitive emissions within the meaning of section 6 of the API Compendium.

Fugitive leak emissions generally include leaks or unintentional releases of greenhouse gases from equipment at a **facility**.

Process venting emissions refers to emissions from the engineered or intentional release of gas directly associated with a production process. Process venting emissions covers any emissions that are directly linked to or influenced by production levels. This includes releases from equipment such as acid gas removal units, nitrogen rejection units, dehydrators and regenerators.

6 Meaning of oil or gas facility

An **Oil or gas facility** is defined by whether particular activities are being undertaken at the facility. One or more of the following activities must be undertaken at the facility in order to qualify as an oil or gas facility:

- a) an oil or gas exploration activity that is:
 - i. drill stem testing; or
 - ii. well completions; or
 - iii. well workovers;
- b) crude oil production;
- c) crude oil transport;
- d) crude oil refining;
- e) natural gas production or processing;
- f) natural gas transmission

Section 5 sets out that the meaning of a facility is the same as under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act). A facility, however, does not need to be reporting under the NGER Act. If a facility is determined to be an oil or gas facility, it is only eligible to be an oil or gas fugitives (RTF) project if the requirements set out in Part 2 and 3 of the Determination are met.

Paragraph 6(a) provides that some oil or gas exploration activities are included as activities that qualify for a facility to be an oil or gas facility. These activities are summarised as:

- Drill stem testing is a method used to temporarily complete a recently drilled formation in a well in order to evaluate it (test the flow).
- Well completion includes the services and installation of equipment that are necessary to prepare a well for production after it has been drilled and tested.

- Well workovers is a general term for any remedial operation on a completed well that is designed to maintain, restore, or improve production from a reservoir that is currently producing.

Oil or gas exploration activities that constitute an eligible oil or gas facility in paragraph 6(a) are different to the exploration well drilling activities (i.e. any well drilling as part of exploration activities) mentioned in paragraph 8(1)(c) of the Determination, which are activities that are excluded from being part of the project. Exploration well drilling is often short term field work with no firm commitment that a production process will be established. As such, the Determination does not allow for emissions reduction associated with standalone exploration well drilling. Where particular exploration well drilling activities progress to well completion and well work over activities, there is more commitment that production is intended to commence at that location afterwards. For this reason, well completion and well work over activities are recognised as eligible activities. In contrast to exploration well drilling activities, well drilling activities that occur after well completion or well work over activities may be considered eligible activities.

It is noted that the exploration activities mentioned in paragraph 8(1)(c) may be co-located at the same facility as the oil or gas fugitives (RTF) project but the activities may not be included as part of the offsets project.

7 References to factors and parameters from external sources

Section 7 provides additional guidance to the treatment of factors and parameters used for calculations that originate from sources outside of the determination. The section notes that a proponent adopting the methodology must use the externally sourced factor or parameter from the legal instrument or writing in force at the end of the reporting period for all calculations. This is the case unless it is specifically stated in the determination that an alternative approach should be taken, or it is not possible to define or calculate the factor or parameter in force at the end of the reporting period.

Part 2 Oil or gas fugitives (RTF) projects

8 Oil or gas fugitives (RTF) 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.

Subsection 8(1) sets out the kind of offsets projects to which the methodology applies.

The type of project to which the methodology applies involves an oil or gas facility that installs and operates *gas capture equipment* to capture process venting emissions or fugitive leak emissions that would have otherwise have been vented or leaked to the atmosphere and re-routing these emissions to be combusted at a *flare device*.

The conversion of hydrocarbon compounds in the re-routed gas to carbon dioxide lowers the amount of carbon dioxide equivalent being released to atmosphere. If the amount of carbon dioxide equivalent emissions that are released to atmosphere from a flare device is less than the amount of carbon dioxide equivalent (CO₂-e) emissions that would otherwise have been released to the atmosphere through venting or leakage, the difference is counted as eligible carbon abatement and may be credited.

Section 8 provides that re-routed process venting emissions or fugitive leak emissions may be sent to either a new or an existing flare device. Where an existing flare device is used, only newly re-routed fugitive emissions will be credited under the project.

Relevant to the context of section 8, subsection 30(2) of the Determination sets out that gas quantities in relation to process venting emissions or fugitive leak emissions are only eligible if the gas quantity would not have been vented to the atmosphere if the project had not been undertaken. This includes circumstances such as where an existing flare is combusting emissions that without the offsets project would likely have continued to be combusted by the flare.

Paragraph 8(1)(c) provides that an oil or gas fugitives (RTF) project excludes process venting emissions or fugitive leak emissions that are the result of the following activities:

- coal mining activities;
- oil exploration well drilling activities;
- gas exploration well drilling activities.

These activities are excluded due to either the ability for the activities to be covered in an alternative methodology determination, or because of the inability to accurately determine a net abatement amount due to the nature of the activities. It is noted that the exploration activities mentioned in paragraph 8(1)(c) may be co-located at the same facility as the oil or gas fugitives (RTF) project but the activities may not be included as part of the offsets project.

Subsection 8(2) provides a general definition of a project (an *oil or gas fugitives (RTF) project*) for use throughout the methodology determination.

Part 3 Project Requirements

Division 1 General Requirements

9 Operation of this Division

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.

Division 1 of 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.

10 General requirements

Section 10 provides eligibility requirements for an oil or gas (RTF) fugitives project to be declared as an eligible offsets project. These requirements ensure that an offsets project is only undertaken in the context of oil and gas operations for which the methodology was developed.

Specifically, subsection 10(1) gives effect to this, as it provides a requirement that a project must be undertaken at an oil or gas facility.

Subsection 10(2) provides the requirements that:

- an offsets project must install and operate gas capture equipment to capture process venting emissions or fugitive leak emissions that would have otherwise have been vented or leaked to the atmosphere; and
- these emissions, once re-routed, must be combusted at a new or existing flare device.

Subsection 10(3) provides that a project must not utilise emissions from a source if that source previously sent the emissions to a flare for combustion. This is to ensure that activities undertaken by the project are additional to what was happening prior to the project.

Subsection 10(4) excludes activities involving process venting equipment installed after the *declaration day* of the project, as these activities could not be considered additional.

Division 2 Additionality Requirements

11 Requirement in lieu of newness requirement

Transitional provisions under the Act allowed prospective proponents who gave notice of their intentions before the date of Proclamation of that Act to have the newness of their projects assessed as at the time of their notice, provided that they made the section 22 application before 1 July 2015. The effect of this section is to extend this deadline to 1 July 2016 for this determination.

Part 4 Net abatement amount

Division 1 Preliminary

12 Operation of this Part

Paragraph 106(1)(c) of the Act provides that a methodology determination must specify how to calculate the CO₂-e net abatement amount for the project in relation to a reporting period.

Division 2 Method for calculating net abatement amount

13 Summary

Section 13 provides an overview of the way the CO₂-e net abatement amount is calculated and notes factors that are included in the calculation. The CO₂-e net abatement amount for a project for a reporting period is the amount of emissions that would have been vented had the project not taken place, minus the amount of emissions resulting from flaring the re-routed gas, with the result adjusted for both measurement error and ancillary emissions.

14 Net abatement amount

This section estimates the net abatement amount achieved by implementing an RTF project over the reporting period. **Equation 1** calculates the abatement from the project by summing all abatement generated at each flare device included in the project. The abatement at each flare device is calculated as the difference between the emissions that would have resulted from venting and the emissions that resulted from flaring. This number is adjusted by the accuracy of the measurement equipment represented by the relevant accuracy factor and sampling error discount factor. The results for each flare device are summed together and the ancillary emissions subtracted, forming the net abatement amount for the project.

This section also excludes any carbon abatement that is not eligible carbon abatement for the purposes of the Act.

Division 3 Method for calculating emissions

Subdivision A – Calculation of emissions that would have occurred if project not undertaken

15 Emissions that would have occurred if project not undertaken

The baseline emissions under an RFT project are an estimate of the counterfactual situation had the project not occurred. **Equation 2** calculates the counterfactual emissions scenario by multiplying the quantity of re-routed gas to the flare device by an emissions factor for the gas stream. This emissions factor is calculated by multiplying the global warming potential of each **component** of gas by the concentration of that component in the gas stream. This is then summed for each component in the gas stream.

Equation 2 is based on the fugitive estimation techniques in the API compendium as referred to in section 3.84 of the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (the **NGER (Measurement) Determination**).

Subdivision B – Calculation of emissions from flaring

16 Emissions from flaring

The estimation of emissions from flaring in the reporting period is calculated using **equation 3**. The calculation involves multiplying the quantity of re-routed gas amount at each flare device with the sum of the adjusted emissions factor for flaring and the **mass fraction** of carbon dioxide in the gas stream.

The adjusted emissions factor represents the emissions generated from combustion of a species of hydrocarbon in the gas stream. This factor is calculated using **equation 4** in section 17 of the Determination.

The oxidation correction factor adjusts for the difference in the oxidation factor that occurs at a flare and with regular fuel gas. This ensures the flaring oxidation factor is representative of oxidation that occurs at a flare.

The mass fraction of carbon dioxide in the gas stream is added into this equation because carbon dioxide is not combustible and as such passes through the flare unchanged. The mass fraction of carbon dioxide is added to the emissions factor because this term will subsequently multiply the total gas quantity. This action correctly converts tonnes of gas quantity measured before combustion to tonnes of carbon dioxide equivalent after combustion.

The final two bracketed terms account for methane and nitrous oxide that pass uncombusted through the flare device. This is calculated by multiplying the emission factors for methane and nitrous oxide by the fraction of the gas that is not carbon dioxide. The factors are taken directly from the table in subsection 3.85(2) of the NGER (Measurement) Determination.

17 Emissions factor for a re-routed gas quantity

Section 17 provides the equation to calculate an emissions factor for a gas quantity. Equation 4 calculates the emissions factor as the combustion of each species of hydrocarbon present in the gas stream, summed together to produce an emissions factor for all carbon dioxide emitted from the flare device as a result of combustion. The term performs this by assuming that each carbon atom present in the hydrocarbon forms a carbon dioxide molecule (subject to an oxidation factor) and adjusts for the difference in molecular weight to ensure the correct mass of carbon dioxide is reflected.

This approach closely reflects the Method 2 approach for gas flared from natural gas production and processing in the NGER (Measurement) Determination. It differs in one key respect, in that any carbon dioxide already present in the gas quantity is not included in this equation. This is because it is calculated separately and dealt with in Equations 3 and 5.

18 Mass fraction of carbon dioxide in a re-routed gas quantity

Section 18 provides the equation to calculate the mass fraction of carbon dioxide in a **re-routed gas quantity**. **Equation 5** calculates the mass fraction by converting from the **molar fraction** (a value taken from sampling) of the gas quantity by multiplying by the molar density of carbon dioxide at **standard conditions** and the density of the gas as calculated in Section 20.

Subdivision C – Other calculations relating to emissions

19 Re-routed gas quantity

Subsection 19(1) sets out that the re-routed gas quantity used in equation 2 and 3 is the sum of all **relevant gas quantities** from all of the eligible monitoring periods in a reporting period, referred to as **relevant periods**.

The method used to calculate the amount of gas that is re-routed to a flare under the Determination is dependent on the source of the re-routed gas.

Subsection 19(2) sets out that if the re-routed gas originated from a process vent, then the quantity of gas flared must be monitored continuously in accordance with the **monitoring requirements**. This is because the quantity of emissions from process venting is strongly correlated with production and may vary over time due to changes in production – as such continuous monitoring is considered appropriate.

Subsection 19(3) sets out that if the re-routed gas originates from a fugitive leak, then the quantity of emissions can either be:

- monitored continuously in accordance with the monitoring requirements; or
- calculated based on a representative sampling approach outlined through requirements set out in section 33 for establishing the **fugitive leak measurement period**, and in **equation 6**.

The representative sampling approach using a fugitive leak measurement period is included in the Determination because fugitive leak emissions are not strongly correlated with production but instead are relatively constant. An extrapolated quantity based on a fugitive leak measurement period is achieved through this approach and by doing so reduces the amount of measurement required by a proponent.

Once the fugitive leak measurement period is determined as the quantity of gas combusted per unit of time, it will be multiplied by the amount of time the flare device is operating to calculate the quantity of gas combusted in the reporting period.

Subsection 19(4) sets out equation 6, which calculates the quantity of emissions flared from a fugitive leak by multiplying the quantity of gas flared per hour of flare operation in the measurement period by the time of flare operation during the reporting period.

If a period occurs when there is a meter malfunction, this period cannot be used for calculating the quantity of gas in this section.

20 Density of a re-routed gas quantity

Section 20 provides the equation to calculate the density of a gas quantity. **Equation 7** calculates the density as the sum of the molar densities of each component gas at standard conditions weighted by the molar fraction of that component gas in the gas quantity (a value taken from sampling).

This calculation includes carbon dioxide as a component gas.

Division 4 Method for calculating sampling discount factor

21 Sampling discount factor

Section 21 provides the equation for calculating the Sampling Discount Factor (SDF).

Equation 8 calculates the SDF by forming a factor between zero and one that is inversely proportional to sampling uncertainty. This acts to discount abatement if sampling uncertainty is greater than 5 per cent.

If sampling uncertainty is less than 5 per cent, subsection 21(2) ensures that the SDF is treated as having a value of one.

22 Sampling Uncertainty

Section 22 provides the equation, **Equation 9**, to calculate sampling uncertainty. Sampling uncertainty is the uncertainty inherent in forming a mean value for a quantity by taking discrete measurements of that quantity over time. The value of the sampling uncertainty is the maximum distance from the calculated mean that the true mean can be said to lie, at a confidence interval of 95 per cent. Subsection 22(2) provides additional instructions on which sampled values are to be used in calculating the sampling uncertainty. An example is included below.

The equation to determine the sampling uncertainty is as equation 9 in the Determination.

$$SU_i = \frac{t_i \times RSD_i}{\sqrt{n_i}}$$

The proponent takes samples of gas composition once every three months over a 12-month reporting period, for a total of four measurements, with a relative standard deviation of 4. Using equation 9 with $t_i = 3.18$, $RSD_i = 3\%$ and $n_i = 4$:

$$SU_i = \frac{3.18 \times 4}{\sqrt{4}}$$

$$SU_i = 1.59 \times 4$$

$$SU_i = 6.36\% , \text{ expressed as } 0.0636$$

This sampling uncertainty is used to calculate the Sampling Discount Factor as per equation 8, resulting in:

$$SDF_i = 1 - (SU_i - 0.05)$$

$$SDF_i = 1 - (0.0636 - 0.05)$$

$$SDF_i = 1 - 0.0136$$

$$SDF_i = 0.9864$$

A table of the first 23 values of the t-value is included for reference below.

Number of measurements	Two-sided Student's t-value for the 95% confidence interval
2	12.71
3	4.3
4	3.18
5	2.78
6	2.57
7	2.45
8	2.36
9	2.31
10	2.26
11	2.23
12	2.20
13	2.18
14	2.16
15	2.14
16	2.13
17	2.12
18	2.11
19	2.10
20	2.09
21	2.09
22	2.08
23	2.07
24	2.07

Division 5 Method for calculating ancillary emissions

23 Ancillary emissions

Section 23 provides the equation for estimating ancillary emissions associated with implementing a re-route to flare project. **Equation 10** calculates the ancillary emissions by summing emissions from any electricity use and emissions from any combustion of fuel for stationary energy purposes.

Emissions from electricity use are determined by multiplying the quantity of electricity consumed in the reporting period by the relevant electricity emissions factor. Electricity emissions factors are set out in the **NGA Factors document**. For electricity imported from off-grid sources, the factor set out in the NGA Factors document or provided by the supplier can be used.

Emissions from fuel combustion are required to be calculated in accordance with the relevant sections of the NGER (Measurement) Determination.

Ancillary emissions are taken to be zero if including the total ancillary emissions for an RTF project would not result in a difference of five per cent or more to the net abatement amount in a reporting period.

Part 5 Reporting, record-keeping and monitoring requirements

Subsection 106(3) of the Act provides that a methodology determination may subject the proponent of an eligible offsets project to specified reporting, notification, 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 reporting, notification and record-keeping requirements specified in Part 5 of the Determination are in addition to any requirements specified in the Act, regulations and legislative rules.

Reporting periods

The Act and subordinate legislation provide for flexible reporting periods generally between six months and two years in duration (with monthly reporting available if abatement meets or exceeds 2,000 tonnes of carbon dioxide equivalent).

Audit requirements

The Act provides for a risk-based approach to auditing abatement. Subsections 13(1) and 76(4) of the Act provide for legislative rules to be made by the Minister, specifying the level of assurance, and the frequency and scope of the audit report that must be provided with project reports for different types of projects. These are outlined in the *Carbon Credits (Carbon Farming Initiative) Rule 2015*.

Reporting, notification and record-keeping requirements

In addition to the requirements in the Determination, the Act and *Carbon Credits (Carbon Farming Initiative) Rule 2015* specify other reporting, notification, record-keeping, and monitoring requirements that apply to all ERF projects.

Division 1 Reporting requirements

24 Operation of this Division

The effect of paragraph 106(3)(a) of the Act is that a methodology determination may set out reporting requirements for an eligible offsets project. Division 1 sets out certain reporting requirements.

25 Offsets report requirements

Section 25 sets out a number of requirements to include information in an offsets report in circumstances where emissions being reporting under the offsets project have also been, or are likely to be, reported under the NGER Act through an NGER report. This reporting requirement is intended to allow the national emissions inventory to incorporate more accurate estimates of emissions from facilities that undertake oil and gas projects.

Paragraphs 25(1)(a) and (b) set out that where subsection 25(1) applies, the offsets report must include identifying information for the reporting entity and relevant facility for emissions that are being reported through both an NGER report and an offsets report.

Paragraph 25(1)(c) sets out that where subsection 25(1) applies, the offsets report must include details of the relevant provisions of the NGER (Measurement) Determination that have or will be applied to estimate the emissions which are also being estimated through the requirements of the offsets project. This requirement allows the end-user of an offsets report to determine the NGER methodology that has been applied to the estimation of emissions and ultimately whether it is a higher or lower order approach than applied under the offsets report.

Paragraphs 25(1)(d) and (e) set out that where subsection 25(1) applies, the offsets report must include information for a number of quantities or values that have been estimated using the measurement requirements set out in the Determination. These quantities or values are not necessarily the outcomes of standalone equations, however the Determination includes equations for which these quantities are included in the working, and this is the effect of subsection 25(3).

Subsection 25(2) provides that in circumstances where it is not reasonably practicable for the project proponent to obtain information set out in paragraphs 25(1)(a),(b) or (c) that the information is not required to be included. Such a circumstance may exist where the project proponent is not the same entity that is providing the NGER report and the project proponent can demonstrate that it was not reasonably practicable to obtain the information set out in paragraphs 25(1)(a),(b) or (c) from the separate entity.

Division 2 Record-keeping requirements

26 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. Division 2 sets out certain record-keeping requirements.

27 Records of choices

Section 27 requires proponents to keep a record of all decisions made under section 33 or 34 of the Determination. This ensures that decisions such as whether historic sampling data is used or whether a fugitive leak measurement period is used are recorded and the timing of these choices are documented.

28 Records relating to ancillary emissions

Section 28 requires proponents to keep a record of any assessments made relating to whether ancillary emissions would not result in a difference of five per cent or more in the net abatement amount.

29 Records relating to historical sampling data

Section 29 requires proponents to keep a record of any documentation that is used to demonstrate that the data used as historical sampling data satisfies the provisions listed in subsection 34(2).

Division 3 Monitoring requirements

30 Operation of this Division

Section 30 sets out the two general provisions of the Division. Firstly, the Division specifies a number of monitoring provisions relating to certain parameters used in the equations in the Determination. Secondly, the Division stipulates consequential actions if certain parameters are not monitored correctly.

31 Monitoring requirements - general

Section 31 sets out the measurement procedure for a number of parameters used in calculations throughout the determination. Each item in the table describes any particular provisions that must be applied to the measurement of the relevant parameter, including the manner and frequency of monitoring.

For item 1 of the table in subsection 31(1), the requirement concerning units of measurement describes the procedure that must be taken to correctly modify measurements for use in calculations. In particular, quantity measurements in the determination are input as tonnes, whereas it is common practice to measure gas quantity in volumetric terms. Additionally, the quantity measured must be corrected for any deviation of ambient conditions from standard conditions.

For items 4 and 5 of the table in subsection 31(1), the requirement concerning samples used for the purpose of the measurement is necessary to ensure that samples of gas composition are representative of the gas quantity measured in the project.

Subsection 31(2) precludes the event in which gas that would have been otherwise flared, recovered or otherwise used is not redirected to a different or new flare device as a result of the project. This provision is necessary to ensure that credited emissions reductions are additional.

Subsection 31(3) sets out that Parameters s and molar fraction are to be worked out using historical sampling data instead of monitoring parameters in Items 4 and 5 of the table in 33(1). Also see the description of Section 34.

32 Monitoring requirements—monitored operating period

Section 32 requires a proponent to monitor a flare device included in a project, forming a ***monitored operating period***. It allows for temperature measurement, UV detection or another internationally recognised monitoring apparatus to be applied in determining whether a flare device is operating in a particular period. The section provides for when the flare device is considered to be operating or not for each type of flare monitoring apparatus and also stipulates a minimum frequency at which the operation of the flare must be monitored. These provisions are necessary to help ensure that projects involving flaring are only credited for genuine emissions reductions.

33 Monitoring requirements—fugitive leak measurement period

Section 33 includes monitoring requirements for circumstances that a project proponent has chosen to estimate the re-routed gas quantity in accordance with the representative sampling option (obtained from a fugitive leak measurement period) provided for in paragraph 19(3)(b) of the Determination.

Subsection 33(1) sets out that when a fugitive leak measurement period is used, it must start at or after the start of the first reporting period for the project. This is to ensure that the fugitive leak measurement period is representative of what will be occurring as a result of the project.

Subsection 33(2) sets out that a fugitive leak measurement period must reflect the regular operations of the relevant equipment in order to accurately work out the representative quantity of gas flared.

Subsection 33(3) sets out that the *gas quantity* must be measured in accordance with the monitoring requirements for the duration of the fugitive leak measurement period. This is to ensure that the period covers the full range of operating conditions that the flare device is likely to experience during the crediting period.

Subsection 33(4) sets out that any period in which the flare device is not operating must be disregarded for working out both the quantity and time period when setting the fugitive leak measurement period.

Subsection 33(5) sets out requirements to ensure that if a significant change to the equipment leaking the fugitive emissions has occurred after the end of a measurement period for a flare device, the fugitive leak measurement period ceases to apply. In such cases, subsection 33(6) ensures that proponents are able to set a new representative measurement period if so desired.

If the fugitive leak measurement period is not appropriately representative, this would constitute a failure to monitor certain parameters in accordance with the monitoring requirements. Unless alternative monitoring arrangements were in place, the relevant response would be determined in accordance with section 35.

34 Monitoring requirements—use of historic sampling data

The methodology provides for proponents to choose to use *historical sampling data* rather than sampling during a reporting period. This provision relates only to gas composition sampling, and not to gas quantity or other measurements. Subsection 34(2) lists the requirements incumbent on the proponent if they are to use historical sampling data.

If a proponent intends to use historic sampling data, the data must be recorded prior to the reporting period, and not greater than five years earlier. Any significant changes to equipment since the data was collected would exclude the data from being historical sampling data.

Additionally, the proponent must be able to demonstrate that the data being used is representative of what would have been collected if sampling had been performed. For example, this provision may allow a proponent to use data from a similar project conducted previously, or a previous reporting period from the same offsets project.

If historic sampling data is not appropriately representative, this would constitute a failure to monitor certain parameters in accordance with the monitoring requirements, and unless alternative monitoring arrangements were in place, the relevant response would be determined in accordance with section 35.

35 Consequence of failure to monitor certain parameters

Compliance with requirements for monitoring of parameters is important to ensure that abatement credited by the project is calculated correctly. Monitoring requirements outlined in Division 3 of Part 5 of the Determination include the process for monitoring and the standard to which monitoring must occur.

In some cases for reasons beyond their control, a project proponent may be unable to monitor a parameter to the requirements set out in sections 31 to 34. When this occurs, section 35 requires that adjustments must be 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 35(1), the consequence for not monitoring in accordance with the requirements is that the parameter is determined to be zero for the duration of the non-monitored period.

For parameters listed in item 2 of the table, the consequence for not monitoring these parameters in accordance with the monitoring requirements will require the project to make a conservative estimate of the parameter for the duration of the non-monitored period.

The need for a proponent to apply section 35 arises from failure to meet monitoring requirements. In accordance with the Act, the Regulator may determine an appropriate response 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 35(2) indicates other actions that the Regulator may choose to take in response to a project failing to meet monitoring requirements.

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—Oil and Gas Fugitives) 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—Oil and Gas Fugitives) Methodology Determination 2015* (the Determination) applies to facilities that have fugitive emissions from oil or gas. The Determination provides for facilities to reduce their emissions through re-routing fugitive emissions to a flare instead of allowing them to be vented to the atmosphere.

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 Emissions Reduction Fund 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