

Emissions Reduction Assurance Committee

C/- ERAC Secretariat
GPO Box 787
CANBERRA ACT 2601

The Hon Josh Frydenberg MP
Minister for the Environment and Energy
Parliament House
CANBERRA ACT 2600

Dear Minister

2018 Savanna Fire Management methods

On behalf of the Emissions Reduction Assurance Committee (ERAC), I am pleased to inform you it has considered the draft *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Sequestration and Emissions Avoidance) Methodology Determination 2018* (our reference: 032VG2016) and *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination 2018* (our reference: 033VG2016) and advises they are suitable to be made into Determinations.

The draft Determinations were developed by the Department of the Environment and Energy in collaboration with some of Australia's leading fire scientists, existing and potential savanna fire management project participants and the Clean Energy Regulator. The ERAC invited public submissions on the draft Determinations in 2016 and again in 2017. An independent technical assessment was commissioned to inform the ERAC's assessment of the methods. The Department also commissioned an independent peer review and quality assurance assessment of a new approach to estimate fine fuel loads, which has been incorporated into the draft Determinations.

ERAC has considered the information from these processes and advice from the Clean Energy Regulator, and concluded that the draft Determinations comply with the offsets integrity standards specified in section 133 of the *Carbon Credits (Carbon Farming Initiative) Act 2011*. On this basis, the ERAC agreed the draft methods are suitable to be made into Determinations.

In reaching its decision, the Committee considered the risk of 25-year permanence period projects not continuing to undertake the project activity beyond their permanence period and, therefore, whether the 20 per cent permanence period discount number was adequately conservative in its effect on the calculation of net abatement. The Committee concluded the number was sufficiently conservative because the risk of projects not continuing can be adequately addressed through future reviews of the methods and the extension, if appropriate, of the crediting period for the emissions avoidance element of the methods.

The Committee also acknowledged the inherent risks involved in fire management activities and the importance of close cooperation between projects and state and territory fire

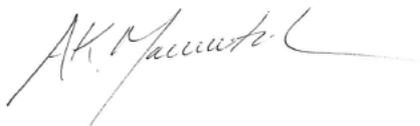
authorities. The requirement for a regularly updated project management plan, and the strengthening of eligibility requirements in relation to bushfire legislation in the proposed Rule amendment, are important steps in helping ensure the safety of all involved.

A number of public submissions raised concerns about aspects of the new science used to calculate estimates of emissions abatement in the determinations. Most of these concerns were focused on the new approach to the estimation of fine fuel loads for the purpose of calculating abatement related to emissions avoidance. The Committee has carefully considered the issues raised and is of the view the draft determinations are a considerable improvement on the existing 2015 savanna fire management determination (*Carbon Credits (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management) Methodology Determination 2015*). The draft determinations comply with the offsets integrity standards, including in relation to the measurability of emissions and removals, use of conservative estimates and being based on clear and convincing evidence. The Committee notes improvements in the underlying science can be incorporated into the methods through future updates to Australia's national inventory and other subsidiary material.

If the Determinations are made, the Committee will closely monitor their operation and any potential updates through regular reviews to ensure they continue to meet the offsets integrity standards.

Further details of the reasons for the ERAC's advice are included in the attached notices.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Macintosh', with a long horizontal flourish extending to the right.

Andrew Macintosh
Chair
Emissions Reduction Assurance Committee

6 April 2018

EMISSIONS REDUCTION ASSURANCE COMMITTEE

Notice of advice to the Minister for the Environment and Energy under subsection 123A(2) of the *Carbon Credits (Carbon Farming Initiative) Act 2011* (the Act)

Draft Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Sequestration and Emissions Avoidance) Methodology Determination 2018 (draft Determination)

On 22 February 2018, the Emissions Reduction Assurance Committee (ERAC) agreed the draft Determination is suitable to be made into a Determination.

In forming this view, the ERAC considered:

1. the offsets integrity standards specified in section 133 of the Act;
2. the public submissions received during two public consultation periods;
3. technical assessments; and
4. advice from the Clean Energy Regulator.

The ERAC was not directed to have regard to any additional issues under section 123B of the Act in providing its advice on the draft Determination.

The ERAC took into account and supports the proposed changes to the draft Determination made after the draft was released for public consultation.

1. Assessment against the offsets integrity standards

Section*	Requirement	Statement
133(1)(a)	The draft Determination’s requirements and method should result in carbon abatement that is unlikely to occur in the ordinary course of events (disregarding the effect of the Act).	<p>The draft Determination specifies appropriate requirements to ensure projects are delivering additional abatement. Most importantly, in order to earn credits, proponents must reduce net fire-related emissions and sequestration relative to the net emissions and sequestration in the relevant 10 or 15 year baseline period. The calculation of abatement using a baseline that incorporates historical fire-related emissions and sequestration appropriately minimises additionality risks. In simple terms, proponents must go beyond historical fire management activities to earn credits.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(b)	Estimations of removal, reduction or emission, as the case may be, are measurable and capable of being verified.	<p>Appropriate equations are specified for the calculation of emissions reductions, removals and project emissions. Appropriate methods for data collection, monitoring and reporting are also specified, which enable verification of the emission and sequestration estimates. Points of note on this standard include the following.</p> <ol style="list-style-type: none"> 1. The method uses equations and input parameters to estimate methane and nitrous oxide emissions from savanna fires, and the sequestration of carbon in coarse and heavy dead organic matter, that are derived from peer reviewed science and consistent with the approach used in the National Inventory. 2. Sequestration has been confined to the coarse and heavy dead organic matter pools because of the uncertainty associated with the impacts of fires on other carbon pools (e.g. live biomass and soil carbon). 3. Monthly fire scar maps for each calendar year are available on the Northern Australia Fire Information (NAFI) service webpage, enabling independent verification of project abatement by auditors and the Clean Energy Regulator. 4. The draft Determination sets out the information that must be included in an offsets report and record keeping requirements for a given reporting period for

		<p>the project. These ensure the activities and compliance requirements that occurred in the baseline and project periods, and the permanence obligation period, can be demonstrated to the Regulator.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(c)	Carbon abatement used in ascertaining the carbon dioxide net abatement amount for a project must be eligible carbon abatement from the project.	<p>The carbon abatement used in ascertaining the abatement amount is eligible carbon abatement from the project. The abatement results from a change in savanna fire management that leads to fewer late dry season wildfires, which tend to be hotter and more intense, and generate more emissions (and reduce the carbon stored in dead organic matter), than early dry season fires. Emissions and sequestration related to savanna fires in northern Australia are accounted for in the National Inventory and under the Kyoto Protocol.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(d)	The draft Determination is supported by clear and convincing evidence.	<p>The draft Determination is supported by clear and convincing evidence.</p> <p>Abatement calculations are based on the best available peer reviewed science concerning ecological and fire dynamics in Australia's savannas. There has been more than two decades of research on relevant fire and ecological processes in savannas. This research has provided robust estimates of fuel accumulation and burning efficiency factors for different vegetation types in the early and late dry seasons across the high and low rainfall zones. While there are notable uncertainties that are the subject of ongoing research, the approaches in the method reflect known processes and the best available science.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(e)	Material amounts, in carbon dioxide equivalent, of greenhouse gases that are emitted as a direct consequence of carrying out the project are deducted.	<p>There are no material emissions generated as a direct result of carrying out the project. Therefore, no relevant deductions are made in calculating abatement.</p> <p>Analysis on existing project data demonstrated emissions from fossil fuel use resulting from</p>

		<p>undertaking the project activity are less than 1% of total annual abatement from emissions avoidance. As project emissions are immaterial, they have been removed from the draft Determination.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(g)	<p>Estimates, projections or assumptions included in the methodology are conservative.</p>	<p>The assumptions and estimates included in the draft Determination are conservative.</p> <ol style="list-style-type: none"> 1. Estimates of emissions avoidance abatement consider the natural inter-annual variability in fire activity, and the potential for emissions in some project years to exceed the average baseline emissions. Years of negative abatement are accounted for through an uncertainty buffer. Proponents contribute to the uncertainty buffer in years of positive abatement to reduce the risk of over-crediting associated with years in which there is negative abatement. 2. Estimates of emissions avoidance use updated fuel accumulation values that align with assumptions and approaches for estimating carbon stock changes in sequestration calculations. These are based on well-established ecological processes linking fuel accumulation and decomposition with stand structure and vegetation growth dynamics, which in turn are limited by rainfall and soil structure and composition. These revisions result in more conservative estimates of abatement than obtained using the ERF 2015 savanna fire management determination. 3. Estimates of sequestration abatement credit the difference between project and baseline equilibrium carbon stocks, distributed over the length of the crediting period (usually 25 years). The project equilibrium carbon stocks take an average of 10 years to reach a new equilibrium in coarse fuels and an average of 25 years in heavy fuels. Therefore, the assumption that it takes 25 years for the two pools to reach equilibrium, and the allocation of credits over this period, is conservative. 4. Estimates of sequestration abatement account for years that may have negative sequestration abatement. Any negative

		<p>amounts must be carried forward to the following project year, and deducted from abatement estimated for that year.</p> <p>Accordingly, the ERAC considers the draft Determination complies with this offsets integrity standard.</p>
133(1)(h)	Such other standards that are set out in the legislative rules.	Not applicable.

* Section of the Act

2. Submissions received during public consultation period

The ERAC received 12 public submissions in response to the public consultation held in relation to the draft Determination and draft *Carbon Credits (Carbon Farming Initiative—Savanna Fire Management—Emissions Avoidance) Methodology Determination 2018*, held from 13 November 2017 to 27 November 2017. This followed 14 submissions received during public consultation on an earlier draft of the determination held from 21 November to 19 December 2016.

Except for those submissions subject to a request not to publish under subsection 123D(5), all public submissions have been published on the Department’s website.

3. Relevant advice from the Clean Energy Regulator

The Clean Energy Regulator advised the ERAC that it supports the above draft Determination.

Conclusion

On the basis that all the offsets integrity standards are met, the ERAC agreed the draft Determination is suitable to be made into a Determination.

EMISSIONS REDUCTION ASSURANCE COMMITTEE

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