Carbon Credits (Carbon Farming Initiative—Beef Cattle Herd Management) Methodology Determination 2015

I, Greg Hunt, Minister for the Environment, make the following determination.

Dated   9:9:2015

GREG HUNT

Greg Hunt
Minister for the Environment

Contents

Part 1—Preliminary

1 Name

This is the *Carbon Credits (Carbon Farming Initiative—Beef Cattle Herd Management) Methodology Determination 2015*.

2 Commencement

This determination commences on the day after it is registered.

3 Authority

This determination is made under subsection 106(1) of the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

4 Duration

This determination remains in force for the period that:
  (a) begins when this instrument commences; and
  (b) ends on the day before this instrument would otherwise be repealed under subsection 50(1) of the *Legislative Instruments Act 2003*.

5 Definitions

(1) In this determination:

Act means the *Carbon Credits (Carbon Farming Initiative) Act 2011*.

ANZSIC class means the industry classification and code for that number published in the *Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006*.

arm's length agistment arrangement means a written contract:
  (a) under which a party with more grazing available than is needed for its own herd allows the other party to use the spare grazing capacity; and
  (b) where the parties are not associates.

associate has the same meaning as in section 318 of the *Income Tax Assessment Act 1936*.

business operation means an operation consisting of the whole or a part of an entity or group of entities:
  (a) that involves pasture grazing of cattle; and
  (b) in relation to which a livestock inventory of those cattle is maintained.

cattle means beef cattle.

crude protein means the total protein equivalent in a feed, based on an assumed nitrogen content of 16% of the total protein equivalent of the feed. Crude protein includes true protein and non-protein nitrogen.

dry matter means the total weight of a feed minus the weight of its water content.

dry matter digestibility means the percentage of dry matter in a feed able to be digested by cattle, as determined by an in-vitro testing method.

eligible herd management project means a herd management project that has been declared an eligible offsets project under section 27 of the Act.

emissions intensity reference period, for a herd—see subsection 14(2).

entity has the same meaning as in the *A New Tax System (Goods and Services Tax) Act 1999*.

herd—see subsection 8(3).

Herd Management Calculator means the Calculator that is published from time to time on the Department's website with a statement that:
   (a) it is the Beef Cattle Herd Management Calculator for this determination; and
   (b) if it differs from the version that was on the website at the time of commencement of this determination—the differences consist only of one of more of the following:
      (i) updates to inputs and variables used by the Calculator that are consistent with either or both of the following:
         (A) the National Inventory Report;
         (B) the carbon dioxide equivalence and applicable methods under subsection 10(3) of the *National Greenhouse and Energy Reporting Act 2007*;
      (ii) updates that are of a minor nature;
      (iii) updates that are necessary or incidental to updates referred to in subparagraph (i) or (ii).

herd management project—see section 6.

input date—see section 24.

input group—see section 24.

inventory cattle of a business operation, at a particular time, means all cattle that are on the livestock inventory of the business operation at that time.

livestock class means a subset of the herd corresponding to the age and gender divisions for beef cattle specified in the Herd Management Calculator.

National Inventory Report means the most recently published document that is:
   (a) known as the National Inventory Report; and
   (b) prepared by the Department in fulfilment of obligations that Australia has under the Climate Change Convention.

non-inventory cattle of a business operation, at a particular time, means any other cattle that are grazed with inventory cattle of the business operation at the time, except where:
   (a) the inventory cattle are under an arm's length agistment arrangement; or
   (b) the other cattle are under an arm's length agistment arrangement; or
   (c) the other cattle are inventory cattle of another herd of an eligible herd management project (and are therefore accounted for separately).

non-protein nitrogen means substances that are not proteins but can be converted into proteins by microbes in the ruminant stomach and includes urea, nitrates, biuret, and ammonia.

parent entity—see subsection (2).

primary business operation for a herd of cattle—see subsection 8(2).

project activity—see subsection 17(1).

region means an area of Australia in which beef cattle farming is undertaken, as published in the National Inventory Report.

registered entity means an entity that is registered on the Australian Business Register under the *A New Tax System (Australian Business Number) Act 1999*.

sub-entity—see subsection (2).

Rule means the *Carbon Credits (Carbon Farming Initiative) Rule 2015*.

season means a 3 month period, grouped by calendar month in the following way: Spring (September, October and November); Summer (December, January and February); Autumn (March, April and May); and Winter (June, July and August).

secondary business operation for a herd—see subsections 8(5) to (9).

section 22 application means the relevant application under section 22 of the Act for the declaration of a herd management project as an eligible offsets project.

t CO₂-e means tonnes of carbon dioxide equivalent.

weighing group—see subsection 24(2).

*Meaning of **parent entity** and **sub-entity***

(2) If a business operation is only a part of an entity or a group of entities, then:
   (a) the entity or group of entities of which it is a part is the **parent entity** of the business operation; and
   (b) the business operation is a **sub-entity** of the parent entity.

Note: Other words and expressions used in this determination have the meaning given by the Act. These terms include:

Climate Change Convention
crediting period
eligible offsets project
emission
greenhouse gas
offsets project
offsets report
project
project proponent
reporting period

Part 2—Herd management projects

6 Herd management projects

(1) For paragraph 106(1)(a) of the Act, this determination applies to an emissions avoidance offsets project that can reasonably be expected to result in eligible carbon abatement through reducing emissions from a herd of cattle that are ordinarily grazed together, by any of the following:

    (a) increasing the ratio of weight to age of the herd;

    (b) reducing the average age of the herd;

    (c) reducing the proportion of unproductive animals in the herd;

    (d) changing the ratio of livestock classes within the herd to increase total annual liveweight gain of the herd.

(2) A project covered by subsection (1) is a **herd management project**.

Part 3—Project requirements

> **Keeping the herd simple**
>
> The methodology of this determination requires each herd in the project to:
>
> (a)   have continuity of management over time; and
>
> (b)   be managed and pastured separately from other herds.
>
> The project proponent must specify a business operation as the primary business operation for a herd (section 8). The determination then applies to the herd of cattle consisting of:
>
> (a)   the cattle that are on the livestock inventory of the specified primary business operation (its *inventory cattle*); and
>
> (b)   other cattle that need to be taken into account for the determination because they cannot be sufficiently clearly distinguished from the inventory cattle of the primary business operation. This may be because:
>
> > (i)   they are on the livestock inventory of another business operation that is too closely related to the primary business operation (a *secondary business operation*); or
> >
> > (ii)   because they are grazed in a way that means that their emissions cannot be properly separated from those of other cattle in the herd (*non-inventory cattle*).
>
> To simplify the application of the determination, the primary business operation should be chosen in such a way that the herd consists as far as possible of its inventory cattle only. To maintain such a herd, the project proponent must ensure that:
>
> (a)   the cattle are grazed either separately from other cattle, or using arm's length agistment arrangements (so that the other cattle do not become non-inventory cattle of the herd); and
>
> (b)   cattle are not transferred to other, related business operations in a way that makes them into secondary business operations of the herd.

7 Operation of this Part

For paragraph 106(1)(b) of the Act, this Part sets out requirements that must be met for a herd management project to be an eligible offsets project.

8 Specifying a primary business operation to identify a herd

(1) In the section 22 application, the project proponent must specify one or more business operations for this section.

*Meaning of **primary business operation***

(2) For this determination each specified business operation is the ***primary business operation*** for a herd of cattle.

*Meaning of **herd** in relation to primary business operation*

(3) For this determination the ***herd*** that relates to the primary business operation consists, at a particular time, of all inventory cattle and all non-inventory cattle of:
    (a) the primary business operation of the herd; and
    (b) any business operation that is a secondary business operation of the herd at that time.

(4) However, an animal that is *in utero* is not a member of the herd.

*Meaning of **secondary business operation** for a herd*

(5) Where a business operation is the primary business operation for a herd, another business operation becomes a ***secondary business operation*** for the herd if:
    (a) there is a transfer of cattle from a livestock inventory of the primary business operation to a livestock inventory of the other business operation; and
    (b) at the time of the transfer:
        (i) if the primary business operation consists of an entity or a group of entities— the other business operation includes, or its parent entity includes, an entity that is an associate of an entity that is part of the primary business operation; and
        (ii) if the primary business operation is a sub-entity of a parent entity—the other business operation includes, or its parent entity includes, an entity that is an associate of an entity that is part of the parent entity of the primary business operation.

(6) If a primary business operation is a sub-entity of a parent entity:
    (a) the parent entity is a ***secondary business operation*** for the herd if:
        (i) there is a transfer of cattle from a livestock inventory of the primary business operation to another livestock inventory of the parent entity; and
        (ii) the transfer is not to a livestock inventory of another sub-entity of the parent entity; and
    (b) another sub-entity of the parent entity is a ***secondary business operation*** for the herd if:
        (i) a livestock inventory is maintained in relation to the other sub-entity; and
        (ii) there is a transfer of cattle from a livestock inventory of the primary business operation to a livestock inventory of the other sub-entity.

(7) For subsections (5) and (6):
    (a) ignore any transfer that involves only:
        (i) cattle leaving the herd for the purpose of being exported live, or being slaughtered, as soon as practicable; or
        (ii) transfer of cattle into another herd that is part of an eligible herd management project; and

(b) only take into account transfers that take place on or after commencement of the emissions intensity reference period.

(8) A business operation that is a secondary business operation for the herd because of subsection (5) ceases to be a *secondary business operation* if the entities that were associates cease to be associates.

(9) A business operation that is a secondary business operation for the herd because of subsection (6) ceases to be a *secondary business operation* if the transfers of the kind referred to in paragraphs (6)(a) and (b) cease and do not recommence.

9 Other eligibility requirements relating to specifying a business operation

A herd management project is an eligible offsets project only if:
(a) each business operation that is specified in the section 22 application for section 8:
   (i) meets the separate business operation requirement (section 10); and
   (ii) meets the business continuity requirement (section 11); and
   (iii) meets the secondary business operation requirement (section 12); and
(b) the section 22 application contains the additional information referred to in section 13 for each primary business operation.

10 Separate business operation requirement

For subparagraph 9(a)(i), the business operation meets the separate business operation requirement if it is:
(a) a registered entity or a group of registered entities; or
(b) a sub-entity of a parent entity, where:
   (i) the parent entity is a registered entity or a group of registered entities; and
   (ii) the sub-entity has a livestock inventory that is separate from other livestock inventories that are maintained by the parent entity; and
   (iii) the sub-entity is responsible for management of its inventory cattle and non-inventory cattle:
      (A) as a discrete part of the parent entity over time; and
      (B) in such a way that it is possible to account for all movements (including transfers and sales) of cattle into and out the livestock inventory (whether to other livestock inventories of the parent entity, or to other business operations).

11 Business continuity requirement

For subparagraph 9(a)(ii), the business operation meets the business continuity requirement if:
(a) it has managed the herd since the beginning of the emissions intensity reference period for the herd; and
(b) it can reasonably be expected to manage the herd, in accordance with any applicable agreement with the project proponent, until the end of the crediting period; and
(c) the information referred to in Schedule 1 is available for the herd from the start of the emissions intensity reference period; and
(d) if the registered entity or entities referred to in section 10 have varied, or vary, at any time:

(i) the livestock inventories of the entities and, where relevant, the sub-entity, are transferred in such a way that the livestock inventory of the business operation is the same before and after the change; and

(ii) the change has no practical effect on the continuity of the management of the herd for the purposes of the project.

12 Secondary business operations requirement

For subparagraph 9(a)(iii), if a business operation ceases to be a secondary business operation for the herd, it must not once more become a secondary business operation.

13 Additional information required in section 22 application

For paragraph 9(b), the additional information is the following for each primary business operation:

(a) if the business operation is a registered entity or a group of registered entities—details of the entity or entities;

(b) if the business operation is a sub-entity:

  (i) details of the registered entity or registered entities that make up the parent entity; and

  (ii) a description of the sub-entity and how it complies with subparagraphs 10(b)(ii) and (iii); and

  (iii) if, during the emissions intensity reference period, there were any transfers of cattle from the sub-entity's livestock inventory:

    (A) to another livestock inventory of the parent entity, as described in paragraph 8(6)(a)—a statement of that fact; or

    (B) to a livestock inventory of another sub-entity of the parent entity, as described in paragraph 8(6)(b)—a statement of that fact and a description of each other relevant sub-entity;

(c) if the entity or entities making up the business operation, or the parent entity of the business operation, have changed since the beginning of the emissions intensity reference period—a description of the changes and details of all the entities;

(d) the years constituting the emissions intensity reference period for the herd;

(e) any business operation that was, during the emissions intensity reference period, a secondary business operation;

(f) the land on which the cattle of the herd grazed in each year of the emissions intensity reference period, other than under an arm's length agistment arrangement;

(g) to the extent possible, the land on which the cattle of the herd are expected to graze during each year of the crediting period, other than under an arm's length agistment arrangement.

14 Requirement relating to emissions intensity reference period

(1) A herd management project is an eligible offsets project only if, for each herd in the project, for 3 of the 7 years immediately preceding the date of the section 22 application, the liveweight gain of the herd for the year was greater than zero.

(2) For this determination, the *emissions intensity reference period* for the herd is the 3 years for which the liveweight gain for the herd for the year was greater than zero and are closest in time to the date of the section 22 application.

Note 1: The years in the emissions intensity reference period need not be consecutive.

Note 2: If the project comprises more than one herd, each herd will have its own emissions intensity reference period. Each such period might consist of a different set of years.

(3) For this section, the *liveweight gain* for the herd for the year means the liveweight gain calculated using Equation 5 (subsection 21(4)).

15 Requirements relating to the management of herds

(1) A herd must consist of cattle that are grazed in Australia.

(2) A herd must consist of cattle whose feed comes principally from grazing or forage.

(3) A herd must consist of cattle managed in a way consistent with:
    (a) ANZSIC class 0142 (beef cattle farming); or
    (b) ANZSIC class 0144 (sheep-beef cattle farming); or
    (c) ANZSIC class 0145 (grain-sheep or grain-beef cattle farming).

Note 1:   Herds managed in a way consistent with ANZSIC class 0143 (beef cattle feedlots) do not meet the requirements of this Part.

Note 2:   Members of a herd (that is, individual animals) might leave and join the herd over time.

16 Animal identification requirement

The project proponent must be able to identify the members of each group of animals as defined by:
    (a) the herd; and
    (b) the livestock class; and
    (c) the date of entry into, or discovery in, the herd.

17 Project activity

Requirement to implement project activity

(1) For each year in the crediting period and for each herd in the project, the project proponent must implement at least one agricultural practice that complies with subsection (2) (a *project activity*).

Note: If there is more than one herd in the project, different project activities could be implemented in relation to each herd.

The project activities for a year must be reported in the offsets report. They can change from year to year but must comply with subsection (2).

(2) An agricultural practice must be one that:
    (a) can reasonably be expected to reduce emissions from the herd through one of the measures specified in paragraphs 6(1)(a) to (d); and
    (b) either:
        (i) was not undertaken in relation to the herd during the emissions intensity reference period; or
        (ii) is a variation of a practice that was undertaken in relation to the herd during the emissions intensity reference period; and
    (c) does not consist of feeding non-protein nitrogen to a herd; and
    (d) does not consist only of grazing the herd on a different area of land.

Note 1:   In relation to paragraph (2)(c), Part 4 of this determination does not calculate abatement resulting from feeding non-protein nitrogen to cattle. The *Carbon Credits (Carbon Farming Initiative) (Reducing Greenhouse Gas Emissions by Feeding Nitrates to Beef Cattle) Methodology Determination 2014* applies to projects that involve feeding non-protein nitrogen to cattle. Projects that feed non-protein nitrogen to cattle and herd management projects can be applied to the same herd.

Note 2: Paragraph (2)(d) does not prevent an agricultural practice that consists of grazing the herd on a different area of land in combination with another agricultural practice from complying with this section, so long as, when taken together, there is an agricultural practice that complies with this section.

Initial assessment of agricultural practice for compliance with subsection (2)

(3) The proponent must nominate at least one agricultural practice as a project activity in the section 22 application.

(4) For each practice, the section 22 application must contain the following:
   (a) a description of the practice;
   (b) an explanation of how the practice complies with paragraph (2)(a);
   (c) evidence to support the explanation;
   (d) if the proponent considers that the practice satisfies subparagraph (2)(b)(i)—a statement of that fact;
   (e) if the proponent considers that the practice satisfies subparagraph (2)(b)(ii)—a description of:
      (i) the previous practice; and
      (ii) the variation;
   (f) a statement that the practice does not consist of feeding non-protein nitrogen to a herd; and
   (g) a statement that the practice does not consist only of grazing the herd on a different area of land.

Subsequent changes to agricultural practice

(5) If the proponent subsequently wishes to implement a different agricultural practice as a project activity, the agricultural practice must comply with subsection (2).

18 Project not to involve feeding of cattle on cleared land

(1) The project must not involve the feeding of cattle on land that has been, for the purposes of the project, partially or wholly cleared of perennial woody vegetation.

(2) This section does not apply to the extent that clearing of land was required by law.

(3) If:
   (a) land has been partially or wholly cleared of perennial woody vegetation; and
   (b) the land would have been so cleared even if the project had not been undertaken;
   the clearing is taken, for the purposes of this determination, not to have been for the purposes of the project.

Part 4—Net abatement amount

Division 1—The net abatement amount

19 Method for calculating the net abatement amount

(1) For paragraph 106(1)(c) of the Act, this Part specifies the method for working out the carbon dioxide equivalent net abatement amount for a reporting period for a herd management project that is an eligible offsets project.

(2) For such a project, the carbon dioxide equivalent net abatement amount, A, in t CO_2-e, is given by the following formula:

$$A = \sum_{\substack{\text{all herds } H \\ \text{reported on}}} \sum_{\substack{\text{all years } y \text{ in the} \\ \text{reporting period}}} A_{H,y} \qquad \textit{Equation 1}$$

where:

$A_{H,y}$ = the abatement amount for herd H and for year y of the reporting period, in t CO_2-e, given by subsection (3).

(3) For Equation 1, the abatement amount for herd H and for year y of the reporting period, in t CO_2-e, $A_{H,y}$, is:

(a) given by the formula below, if it gives a positive amount; and

(b) zero otherwise.

$$A_{H,y} = BE_{H,y} - PE_{H,y} \qquad \textit{Equation 2}$$

where:

$BE_{H,y}$ = the baseline emissions for herd H and for year y of the reporting period, in t CO_2-e, given by Division 2.

$PE_{H,y}$ = the project emissions for herd H and for year y of the reporting period, in t CO_2-e, given by Division 3.

Note: Herd annual abatement amounts that are less than zero are not deducted from the carbon dioxide equivalent net abatement amount. This is possible from a greenhouse gas accounting perspective because of the variance discount applied to baseline emissions, which reduces positive herd annual abatement amounts (see subsection 21(1)).

20 Gases accounted for in abatement calculations

The following table specifies the greenhouse gases and emissions sources that are relevant to working out the carbon dioxide equivalent net abatement amount for a herd management project.

Gases accounted for in abatement calculations			
Item	Relevant emissions calculation	Emissions source	Greenhouse gas
1	Baseline emissions and project emissions	Enteric fermentation	Methane (CH_4)
2	Baseline emissions and project emissions	Dung and urine	Nitrous oxide (N_2O)

Division 2—The baseline emissions

21 The baseline emissions

Note: The baseline emissions, for each year in the reporting period and for each herd in the project, is the estimated methane and nitrous oxide emissions for each year in the reporting period and for each herd that would have occurred had the project not been undertaken, and discounted by the 4% variance discount.

(1) For each herd H in the project and each year y of the reporting period, the baseline emissions $BE_{H,y}$ is given by the following formula:

$$BE_{H,y} = \frac{96}{100} \times LWG_{H,y} \times HAEI_H \qquad \textbf{\textit{Equation 3}}$$

where:

$LWG_{H,y}$ = the liveweight gain for herd H for year y of the reporting period, in tonnes, as given by Equation 5.

$HAEI_H$ = the historical annual emissions intensity for herd H, in t CO_2-e per tonne of liveweight, as given by Equation 4.

Note: The factor $^{96}/_{100}$ represents a variance discount, which is applied to account for emissions reductions that were due only to environmental variations.

(2) For Equation 3, the historical annual emissions intensity, $HAEI_H$, for herd H, in t CO_2-e per tonne of liveweight, is given by the following formula, where the sums are over all years y of the emissions intensity reference period:

$$HAEI_H = \frac{\sum_y TE_{H,y}}{\sum_y LWG_{H,y}} \qquad \textbf{\textit{Equation 4}}$$

where:

$TE_{H,y}$ = the total emissions of herd H, in t CO_2-e, for year y of the emissions intensity reference period, as calculated in accordance with Division 4.

$LWG_{H,y}$ = the liveweight gain for herd H for year y of the emissions intensity reference period, in tonnes, as given by Equation 5.

(3) For subsection (2):

  (a) take into account only emissions from the emissions sources specified in the table in section 20; and

  (b) assume that the herd's diet in the emissions intensity reference period consisted entirely of pasture from the region referred to in item 1 of the table in Schedule 1.

(4) For Equations 3 and 4, the liveweight gain for herd H for year y (of either the emissions intensity reference period or of the crediting period) in tonnes, $LWG_{H,y}$, is given by the following formula:

$$LWG_{H,y} = LW_{End} + LW_{Departures} - LW_{Start} - LW_{Arrivals} \qquad \textbf{\textit{Equation 5}}$$

where:

LW_{End} = the total liveweight in tonnes of animals in the herd at the end of the year.

$LW_{Departures}$ = the total liveweight in tonnes of animals leaving the herd during the year.

LW_{Start} = the total liveweight in tonnes of animals in the herd at the beginning of the year.

$LW_{Arrivals}$ = the total liveweight in tonnes of animals entering the herd during the year.

Division 3—The project emissions

22 Project emissions

For each year in the reporting period and for each herd in the project, the project emissions are the methane and nitrous oxide emissions from the sources referred to in the table in section 20, expressed as their carbon dioxide equivalent.

Division 4—Use of Herd Management Calculator to perform calculations

23 Requirement to use Herd Management Calculator

When performing calculations for the purposes of this Part:
- (a) the Herd Management Calculator must be used for any calculation for which it can appropriately be used in relation to each herd and for each year in the crediting period and the emissions intensity reference period; and
- (b) the inputs required by the Herd Management Calculator (which are specified in Schedule 1 and Schedule 2) must be entered:
  - (i) in the specified units; and
  - (ii) in the manner and form required by the Herd Management Calculator; and
- (c) if a calculation includes a factor or parameter that is defined or calculated by reference to another instrument or writing, the factor or parameter to be used for a reporting period is the factor or parameter referred to in, or calculated by reference to, the instrument or writing as in force at the end of the reporting period.

  Note: Paragraph (c) includes the global warming potentials for methane and nitrous oxide prescribed by the *National Greenhouse and Energy Reporting Regulations 2008*.

24 Assessment of average liveweight for inputs into the Calculator

(1) For this determination:
- (a) each livestock class of a group or subgroup that requires an input into the Herd Management Calculator under Inputs 2(b), 2(d), 3(b), 4(d), 5(d), 6(b) or 7(d) of Schedule 1 is an *input group*; and
- (b) the date in relation to which the input is required is the *input date*.

(2) For the purpose of establishing the average liveweight of an input group for an input date, the project proponent may either treat the input group as a single *weighing group* or divide it into several *weighing groups*, each of which is dealt with by one of the methods set out in section 25.

  Note: A project proponent might wish to do this to apply different methods under subsection 25(1) to different weighing groups. See the examples at the end of that subsection.

(3) If an input group is divided into several weighing groups, the average liveweight of the input group is the weighted average of the average liveweight of the weighing groups.

25 Inputs in the crediting period

(1) For an input relating to the crediting period, the average liveweight of a weighing group must be ascertained by one of the following methods:
- (a) weighing all the animals in the weighing group within one month before or after the input date and calculating the average;
- (b) weighing all the animals in a statistically valid sample from the weighing group within one month before or after the input date, and estimating the average

liveweight from the sample in accordance with, and to an accuracy that is consistent with, industry practice;

(c) for a weighing group with an input date at the start of the first year of the crediting period—applying the average weight of the relevant livestock class of the herd as a whole, calculated in accordance with subsection (2);

(d) for a weighing group with an input date at the start of a later year of the crediting period—applying the average weight of the relevant input group from the end of the previous year, identified in accordance with subsection (3);

(e) for cows or bulls aged 3 years or more—applying a figure derived in accordance with subsection (4) from the hot standard carcase weights of all animals of the relevant livestock class culled from the herd during the year of the input date;

(f) where the animals in the weighing class were bought or sold within one month before or after the input date—calculating the average weight from the data in the relevant sale records or receipts;

(g) for a weighing class that consists of animals entering the herd by birth, and the input date is the date of their branding—applying a default branding weight of 75 kg.

Note 1: Values ascertained consistently with Accounting Standard AASB 141—*Agriculture* would be expected to comply with paragraph (b).

Note 2: The date of branding mentioned in paragraph (g) is required by the Calculator, and in this context the date of tagging or other application of identification marks.

Example 1: For paragraph (d), suppose a group of cattle that are in the livestock class of 1-2 year old steers at the start of year 2 are sold in August of year 2 when they are in the livestock class of 2-3 year old steers. Some of the animals had been in the herd for the whole of year 1, while others had been purchased in March of year 1 as steers less than one year old.

At the start of year 2, the animals form an input group requiring an average weight to be entered into the Calculator for the start of year 2. They could be divided into two weighing groups based on their history. The animals that had been in the herd for the whole of year 1 can be taken to have the average weight of 1-2 year-old steers that were entered into the Calculator for paragraph 2(d) of Schedule 1 at the end of the previous year. The rest of the animals can be taken to have the average weight that the under one year olds purchased in March of year 1 had reached by the end of that year, as entered into the Calculator for paragraph 6(b) of Schedule 1.

Example 2: A project proponent could collect all the data required for input weights as follows:
• within a month of the start of the crediting period, take weights or sample weights of each livestock class (for paragraph (c))
• ensure that weights are recorded in the sale records or receipts for each sale or purchase
• within a month of the end of each year, take weights or sample weights of each livestock class in the resident herd and in each group of animals that entered the herd during the year.

Weighing and sampling at the beginning of the crediting period

(2) For the purposes of paragraph (1)(c), the project proponent may calculate the average liveweight of all animals in the herd of a particular livestock class at the beginning of the crediting period by:

(a) weighing all the animals in the livestock class within one month before or after the beginning of the crediting period and calculating the average; or

(b) weighing all the animals in a statistically valid sample from the livestock class within one month before or after that date, and estimating the average liveweight from the sample in accordance with, and to an accuracy that is consistent with, industry practice.

Using weights calculated for inputs at the end of one year in calculating inputs at the beginning of the next year

(3) For the purposes of paragraph (1)(d), an input group from the previous year is relevant to the weighing group if:

    (a) the input date of the input group was the end of the previous year; and

    (b) all the animals in the weighing group were in the input group.

Estimation using hot standard carcase weight and dress out percentage

(4) For the purposes of paragraph (1)(e), liveweight of a group of animals that are slaughtered may be estimated by converting hot standard carcase weights for the animals into liveweight using:

    (a) the abattoir records of dress out percentage for the group of animals; or

    (b) a default dress out percentage of 55%.

26 Inputs in the emissions intensity reference period

(1) For an input relating to the emissions intensity reference period, the average liveweight of a weighing group must be ascertained by a method from the first of the following paragraphs that mentions a method for which the relevant data is available:

    (a) a method set out in subsection 25(1), read as if a reference to the crediting period were a reference to the emissions intensity reference period;

    (b) where the animals in the weighing class were bought or sold within one month before or after the input date—using the indicator price weight in accordance with subsection (2);

    (c) where a method set out in paragraph (a) or (b) can be used to ascertain the average liveweight of the weighing group at:

       (i) a time within 12 months before the input date; and

      (ii) a time within 12 months after the input date;

    using a linear projection between the two figures;

    (d) applying the average liveweight for the relevant livestock class obtained in accordance with subsection (4).

(2) For paragraph (1)(b), the indicator price weight is calculated by converting the numbers sold and their sale price to liveweight using the appropriate prices for the class of animal as published, from time to time, by the body that has been declared to be the industry marketing body under subsection 60(1) of the *Australian Meat and Livestock Industry Act 1997*.

    Note: At the time of commencement of this determination, Meat & Livestock Australia Limited was the declared industry marketing body, and relevant prices were the Eastern States Daily Indicators prices, published on http://www.mla.com.au.

(3) For subsection (2), if the price is given on carcase weight basis, assume a dress out percentage of 55% unless the publication referred to in that subsection indicates otherwise.

(4) For paragraph (1)(d), the average liveweight for a relevant livestock class is the average liveweight of all animals that were bought into or sold from the herd in that livestock class during the course of the emissions intensity reference period, calculated using weight data in the relevant sale records or receipts where this data is available, and the indicator price weight in accordance with subsection (2) if it is not.

Part 5—Reporting, record-keeping and monitoring requirements

Division 1—Operation of this Part

27 Application

For subsection 106(3) of the Act, the project proponent of an eligible offsets project to which this determination applies must comply with the reporting, record-keeping and monitoring requirements in this Part.

Division 2—Offsets report requirements

Note: Other reporting requirements are prescribed in the Rule.

28 Information in each offsets report

For paragraph 106(3)(a) of the Act, the following information must be included in each offsets report in relation to each herd:

(a) a description of the project activity or project activities undertaken in each year in the reporting period;

(b) all inputs and outputs from the Herd Management Calculator for the reporting period;

(c) any entity that became a secondary business operation for the herd during the reporting period;

(d) any entity that ceased to be a secondary business operation for the herd during the reporting period;

(e) a statement that:

(i) identifies the land on which the inventory cattle grazed in each year of the reporting period (other than land on which the cattle grazed under an arm's length agistment arrangement); and

(ii) indicates that the land was not cleared, for the purposes of the project, partially or wholly of perennial woody vegetation except as allowed under section 18.

Division 3—Record-keeping requirements

Note: Other record-keeping requirements are prescribed in the Rule.

29 Records that must be kept for purchased feed

(1) This section applies if:

(a) the project activity is a dietary change for the herd or for a livestock class; and

(b) some or all of the supplementary feed for the dietary change was purchased.

(2) If the feed was purchased from a commercial feed supplier, the project proponent must keep a commodity vendor declaration form, fodder declaration form, or equivalent specifying the crude protein and dry matter digestibility of the purchased feed.

(3) If the feed was purchased from a person who is not a commercial feed supplier, the project proponent must keep a purchase invoice describing the purchased feed.

Note: Examples of descriptions for the purposes of subsection (3) include hay, silage and dried distillers grain.

Division 4—Monitoring requirements

Note: Part 17 of the Rule sets out record-keeping requirements that relate to showing that monitoring requirements for the project are being complied with, and to collection of data while monitoring the project.

30 General

(1) The project proponent must undertake sufficient monitoring of each animal in each herd to determine the inputs specified in Schedule 1.

(2) For the crediting period, if the project activity is a dietary change for the herd or for a livestock class, the project proponent must undertake sufficient monitoring to determine the inputs specified in Schedule 2.

(3) For each herd, the project proponent must monitor the following:
   (a) the land on which the inventory cattle of the primary business operation grazed in each year of the reporting period (other than land on which the cattle grazed under an arm's length agistment arrangement);
   (b) the inventory and non-inventory cattle of the primary business operation for the herd during each year of the reporting period;
   (c) any business operation that becomes, or ceases to be, a secondary business operation for the herd during the reporting period;
   (d) for each secondary business operation—its inventory cattle and its non-inventory cattle during that reporting period;
   (e) any changes to the entity or entities that constitute:
      (i) the primary business operation for the herd during the reporting period; or
      (ii) the parent entity of a primary business operation.

Division 5—Reporting under section 77A of the Act

31 Requirements relating to reporting under section 77A of the Act

For section 77A of the Act, an overall project may only be divided into parts that consist of one or more whole herds.

Schedule 1—Inputs into Herd Management Calculator— general

For paragraph 23(b), the inputs into the Herd Management Calculator are set out in the following table.

	Inputs required by the Herd Management Calculator		
Item	**Group**	**Input relating to the group**	**Unit**
1	The herd	Region primarily occupied by the herd in the year	Region
2	For each livestock class, the group of animals that were in the herd at both the start and the end of the year	(a) number at the start of the year (b) average liveweight at the start of the year (c) number at the end of the year (d) average liveweight at the end of the year	Head Kilograms Head Kilograms
3	For each livestock class, the group of animals that were in the herd at the start of the year, but left during the year	(a) number at the start of the year (b) average liveweight at the start of the year	Head Kilograms

4	Each sub-group of each group defined in item 3, as defined by:
	(a) the date when they left the herd; and
	(b) whether they left:
	  (i) for live export or slaughter; or
	  (ii) for another destination
		(a) date when they left the herd
		(b) whether they left for live export or slaughter, or for another destination
		(c) number on that date
		(d) average liveweight on that date
			Date
			Destination
			
			Head
			Kilograms

5	For each livestock class, each group of animals that entered the herd during the year, as defined by:
	(a) whether they entered:
	  (i) by birth; or
	  (ii) by purchase or other management action; and
	(b) the date when they entered the herd (this is, the date of branding for animals that entered by birth)
		(a) date when they entered the herd
		(b) whether they entered by birth, or by purchase or other management action
		(c) number on that date
		(d) average liveweight on that date
			Date
			Origin
			
			Head
			Kilograms

6	For each group defined in item 5—the sub-group of those that did not leave the herd during the year	(a) number at the end of the year (b) average liveweight at the end of the year	Head Kilograms

Inputs required by the Herd Management Calculator			
Item	Group	Input relating to the group	Unit

7	For each group defined in item 5—each sub-group of those that left the herd during the year, as defined by:
	
	(a) the date when they left; and
	
	(b) whether they left:
	
	    (i) for live export or slaughter; or
	
	    (ii) for another destination
		(a) date when they left the herd	Date

		(b) whether they left for live export or slaughter, or for another destination	Destination
		(c) number on that date	Head
		(d) average liveweight on that date	Kilograms

Note: The Herd Management Calculator does not require entry of data on deaths or unaccounted arrivals and departures—these are dealt with by calculations from the other data.

Schedule 2—Inputs into Herd Management Calculator—dietary change

For paragraph 23(b), for a year in the crediting period during which one of the project activities is a dietary change for the herd, or for a livestock class of the herd, the following table specifies inputs to the Herd Management Calculator.

Note: The inputs are used, with seasonal values of pastures of the region published in the National Inventory Report, to calculate the weighted average of diets for each livestock class.

Dietary change contingent inputs required by the Herd Management Calculator		
Item	**Input**	**Unit**
1	Average dry matter digestibility of diet in each season in the year without dietary change	Percentage of total dry matter
2	Average crude protein of diet in each season of the year without dietary change	Percentage of total dry matter
3	For each livestock class for which a dietary change was a project activity:	
	(a) the period or periods of the year during which more than 50% of the animals in the livestock class experienced the dietary change	Days
	(b) for supplementary feed used for the dietary change that was purchased from a commercial feed supplier—the dietary values of the supplements, as specified in a commodity vendor declaration form, fodder declaration form, or equivalent	Dietary values of supplements
	(c) for supplementary feed used for the dietary change that was not purchased from a commercial feed supplier—the type of supplement	Type of supplement