Carbon Credits (Carbon Farming Initiative—Commercial Buildings) Methodology Determination 2015

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

Dated 14 January 2015

Greg Hunt
Minister for the Environment

OPC60795 - D

Contents

Part 1—Preliminary

1 Name

This is the *Carbon Credits (Carbon Farming Initiative—Commercial Buildings) 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 determination commences; and

(b) ends on the day before this determination would otherwise be repealed under subsection 50(1) of the *Legislative Instruments Act 2003*.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*.

building in the project means a commercial building where project activities are, or have been, undertaken.

commencement of project activities, in relation to a building in a project, means the first day when project activities are undertaken at the building.

commercial building means an office building, a shopping centre or a hotel.

commercial buildings project has the meaning given by subsection 7(3).

declaration day, in relation to a project, means the day the project is declared to be an eligible offsets project.

energy-consuming equipment, in relation to a building, means equipment that consumes energy that is taken into account in the total amount of energy consumption recorded in the NABERS energy rating report for the building.

GreenPower means renewable energy purchased by an energy provider on behalf of an energy consumer under the program known as the GreenPower program.

measurement period, in relation to a building, means a period:

(a) during which the following are measured:
  (i) energy consumption at the building;
  (ii) renewable electricity generated and consumed onsite at the building; and
(b) that coincides with a NABERS rating period for the building.

Note: There may be more than one measurement period for a building in a reporting period.

monitoring requirements means the requirements set out in Division 3 of Part 5.

NABERS means the National Australian Built Environment Rating System, under which the environmental performance of Australian buildings, tenancies and homes are measured.

NABERS energy rating, in relation to a building, means:
(a) the accredited energy rating given to the building under NABERS that:
  (i) is certified by the NABERS National Administrator; and
  (ii) is expressed as a number of stars; and
(b) if GreenPower was purchased in relation to the building—the rating mentioned in paragraph (a) that would be given if GreenPower had not been purchased, as recorded in the NABERS energy rating report for the building.

NABERS energy rating report, in relation to a building, means the report issued by the NABERS National Administrator that sets out:
(a) the NABERS energy rating for the building; and
(b) the inputs, including the total amount of energy consumption at the building, used to work out that rating.

NABERS energy reverse calculator means a NABERS reverse calculator that:
(a) is used to estimate a building's energy consumption and emissions of greenhouse gas based on the configuration and NABERS energy rating of the building; and
(b) is published by the NABERS National Administrator.

Note: There are different NABERS reverse calculators for different types of buildings, and for office buildings there are different NABERS reverse calculators for different types of ratings. The NABERS reverse calculators could in 2014 be accessed from the NABERS website (http://www.nabers.gov.au).

NABERS rating period means a period of 12 months to which a NABERS energy rating relates.

NGA Factors document means the document titled *National Greenhouse Accounts Factors*, published by the Department and as in force from time to time.

NGER (Measurement) Determination means the *National Greenhouse and Energy Reporting (Measurement) Determination 2008*, as in force from time to time.

previous NABERS energy rating, for a building, means a NABERS energy rating for the building that relates to a NABERS rating period that ended:

(a) before the commencement of project activities in relation to the building; and

(b) no more than 18 months before the start of the crediting period.

project activities has the meaning given by section 7.

relevant NABERS energy reverse calculator, for a building, means the NABERS energy reverse calculator for:

(a) the type of building; and

(b) if the building is an office building—the type of NABERS (office) energy rating that will be used for the building.

Note 1: The building type is an office building, a shopping centre or a hotel: see the definition of ***commercial building***.

Note 2: For an office building, the type of NABERS (office) energy rating is a base building, a tenancy, or a whole building.

relevant previous rating year, in relation to a building, means the calendar year which includes the last day of the NABERS rating period for the previous NABERS energy rating used in Part 4 for the building.

renewable electricity generated and consumed onsite, in relation to a building and a measurement period, means electricity generated and consumed at the building in the measurement period which:

(a) is generated from a renewable energy source by equipment that:

(i) was installed at the building after the start of the NABERS rating period for the previous NABERS energy rating used in Part 4 for the building; and

(ii) under the legislative rules (if any) made for subparagraph 27(4A)(c)(ii) of the Act, must not be included in an eligible offsets project; and

(b) is not taken into account in the total amount of electricity consumption recorded in the NABERS energy rating report for the building for the measurement period, but would be if the electricity were instead purchased from the electricity grid.

(2) In this determination, a reference to a building that has a NABERS energy rating includes:

(a) a reference to a group of buildings that are covered by a single NABERS energy rating; and

(b) if a NABERS energy rating covers only part of a building (such as a tenancy)—a reference to that part of the building.

(3) If a NABERS energy rating for a building is adjusted by the NABERS National Administrator:

(a) a reference in this determination to the NABERS energy rating for the building is a reference to that adjusted rating; and

(b) a reference in this determination to a NABERS energy rating report for the building is a reference to the report that sets out the adjusted rating.

Note: To avoid doubt, if the NABERS energy rating for a building in a project is adjusted after an offsets report for the building is submitted, the project proponent is not required to submit a new offsets report.

6 References to factors and parameters from external sources

(1) If a calculation in this determination 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.

(2) Subsection (1) does not apply if the determination specifies otherwise.

Part 2—Commercial buildings projects

7 Commercial buildings projects

(1) For paragraph 106(1)(a) of the Act, this determination applies to an offsets project that satisfies the following:

(a) the project involves any of the activities (the ***project activities***) mentioned in subsection (2) being undertaken, for the purposes of the project, at one or more commercial buildings that have, or are eligible to have, a NABERS energy rating;

(b) each project activity could reasonably be expected to result in eligible carbon abatement;

(c) the project activities, collectively, could reasonably be expected to result in an improvement of at least one star in the NABERS energy rating for each of those buildings.

(2) The activities are the following:

(a) modifying, installing, removing or replacing:

(i) energy-consuming equipment; or

(ii) equipment that generates electricity for consumption at the building; or

(iii) a building component or other equipment not mentioned in subparagraph (i) or (ii);

(b) changing how energy-consuming equipment is controlled or operated;

(c) changing the energy sources used by energy-consuming equipment;

(d) promoting behaviours by occupants of the building that affect energy consumption by energy-consuming equipment at the building.

(3) A project covered by subsection (1) is a ***commercial buildings project***.

Part 3—Project requirements

8 Operation of this Part

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

9 Information to be included in application for declaration

The application under section 22 of the Act in relation to the project must include the following:

(a) a detailed description of the project activities;

(b) if those activities include modifying, installing, removing or replacing equipment (whether or not energy-consuming equipment) or other building components—a detailed description of the types of equipment or building components involved;

(c) if there are, or will be, buildings included in the project that are identified at the time of making the application:

(i) the address of each identified building in the form approved by the Regulator; and

(ii) the type of each identified building; and

(iii) if the identified building is an office building—the type of NABERS (office) energy rating that will be used for the building;

(d) if there are, or will be, buildings included in the project that are not identified at the time of making the application—a description of those buildings, including:

(i) the types of buildings; and

(ii) if office buildings will be included—the types of NABERS (office) energy rating that will be used for the buildings.

Note 1: The building type is an office building, a shopping centre or a hotel: see the definition of ***commercial building*** in subsection 5(1).

Note 2: For an office building, the type of NABERS (office) energy rating is a base building, a tenancy, or a whole building.

10 Disposal of equipment

(1) This section applies if, as part of project activities, any of the following is removed from a building in the project:

(a) energy-consuming equipment;

(b) equipment that generates electricity for consumption at the building.

(2) The equipment:

(a) must:

(i) be disposed of; and

(ii) not be refurbished, re-used or sold; and

(b) may be broken down into components and those components recycled.

(3) However, the equipment may be sold to a third party to be broken down and recycled as described in paragraph (2)(b).

Part 4—Net abatement amount

Division 1—Preliminary

11 Operation of this Part

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 commercial buildings project that is an eligible offsets project.

12 Overview of gases accounted for in abatement calculations

The following table provides an overview of the greenhouse gases and emissions sources that are relevant to working out the carbon dioxide equivalent net abatement amount for a commercial buildings project.

Greenhouse gases and emissions sources

Item	Relevant emissions calculation	Emissions source	Greenhouse gas
1	Baseline emissions Project emissions	Electricity consumption	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
2	Baseline emissions Project emissions	Fossil fuel combustion	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)

13 Buildings to be used in calculations

(1) For the purposes of working out the carbon dioxide equivalent net abatement amount for a reporting period, the project proponent for the project may choose not to calculate abatement for a building in the project for a measurement period in the reporting period.

(2) However, if:

(a) the project proponent undertakes an activity (whether or not a project activity) at a building in the project; and

(b) under legislative rules made for subparagraph 27(4A)(c)(ii) of the Act, the activity must not be included in an eligible offsets project; and

(c) the activity could reasonably be expected to have an effect, that is not minor or trivial, on the abatement that would be calculated for the building in the measurement period;

the project proponent must not calculate abatement for the building for the measurement period.

14 Data to be used in calculations

When data about energy consumption at a building or the configuration of the building is to be used to work out the carbon dioxide equivalent net abatement amount for a reporting period, the project proponent for the project must only use the following data:

(a) data that:
  (i) is recorded in the NABERS energy rating report for the building; or
  (ii) can be derived from the data recorded in the report;
(b) data that is derived from a NABERS energy reverse calculator;
(c) for renewable electricity generated and consumed onsite at the building—data that is:
  (i) monitored in accordance with the monitoring requirements; or
  (ii) worked out in accordance with section 15.

15 Data for renewable electricity generated and consumed onsite at a building

(1) If, for a particular period (the ***non-monitored period***), a project proponent chooses to work out data for renewable electricity generated and consumed onsite at a building in accordance with this section, the renewable electricity generated and consumed onsite at the building during the non-monitored period is taken to be equal to the difference between:
  (a) the total amount of renewable electricity generated by the equipment, mentioned in paragraph (a) of the definition of ***renewable electricity generated and consumed onsite***, during the non-monitored period; and
  (b) the total amount of electricity exported from that equipment to the electricity grid during the non-monitored period.

Note: The non-monitored period may be the whole measurement period.

(2) The amounts of electricity mentioned in paragraphs (1)(a) and (b) must be worked out:
  (a) in accordance with paragraph 33(a) or (b); or
  (b) using billing data.

Note: Different methods can be used to work out the amounts.

(3) If:
  (a) billing data is used to work out an amount mentioned in paragraph (1)(a) or (b) for a non-monitored period; and
  (b) there is available data, for time periods, about:
    (i) renewable electricity generated by the equipment mentioned in paragraph (1)(a); or
    (ii) electricity exported to the electricity grid by the equipment mentioned in paragraph (1)(a); and
  (c) the time periods do not start and end on the same days as the non-monitored period starts and ends; and
  (d) together the time periods cover the non-monitored period;

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the project proponent for the project may pro-rata the relevant data for a time period based on the number of days in the time period that are days in the non-monitored period.

(4) For subsection (3):

relevant data means:

(a) for working out the amount mentioned in paragraph (1)(a)—billing data about renewable electricity generated by the equipment mentioned in paragraph (1)(a); or

(b) for working out the amount mentioned in paragraph (1)(b)—billing data about electricity exported to the electricity grid by the equipment mentioned in paragraph (1)(a).

16 Previous NABERS energy rating to be used in calculations

(1) For the purposes of working out the baseline NABERS energy rating for a building in relation to a measurement period in the reporting period under section 22, the previous NABERS energy rating used for the building must be the most recent one that meets all of the requirements in this section.

Note: If the previous NABERS energy rating used for the building does not meet all the requirements in this section, abatement cannot be calculated for the building for the measurement period.

(2) The previous NABERS energy rating was for the same type of commercial building as is the type of the building in the measurement period.

(3) The previous NABERS energy rating covered an area:

(a) containing, or serviced by, energy-consuming equipment; and

(b) that is the same area, or is substantially the same area, as is covered by the NABERS energy rating for the building in the measurement period.

(4) For paragraph (3)(b), an area is substantially the same area if the size of the area has changed by no more than 10%.

(5) If the building is an office building, the previous NABERS energy rating was for the same type of NABERS (office) energy rating (a base building, a tenancy, or a whole building) as is covered by the NABERS energy rating for the building in the measurement period.

Division 2—Method for calculating net abatement amount

17 Summary

The carbon dioxide equivalent net abatement amount for a project for a reporting period is the sum of abatement for buildings in the project over measurement periods in the reporting period.

Abatement for a single building is:

(a) if certain conditions are met for achieving a minimum abatement amount for the building, and the difference between baseline emissions and project emissions for the building is equal to or greater than zero—the amount of that difference; and

(b) otherwise—zero.

18 Carbon dioxide equivalent net abatement amount

The carbon dioxide equivalent net abatement amount for a reporting period is worked out using the formula (***equation 1***):

$$A = \sum_{m}\sum_{n} A_{m,n}$$

where:

A means the carbon dioxide equivalent net abatement amount for the reporting period, in tonnes CO_2-e.

m means a measurement period in the reporting period.

n means a building in the project.

$A_{m,n}$ means the abatement for a building in the project for a measurement period in the reporting period, in tonnes CO_2-e, worked out using equation 2.1 or 2.2.

19 Abatement for a building in a measurement period

(1) The abatement for a building in the project in a measurement period in the reporting period (***measurement period m***) is worked out in accordance with the formula (***equation 2.1***) in subsection (2) or the formula (***equation 2.2***) in subsection (3).

(2) If any of the following apply:

(a) the following:

$$E_{B,m} - E_{P,m} \geq A_{Min,m}$$

(b) for at least one k—the following:

$$E_{B,k} - E_{P,k} \geq A_{Min,k}$$

(c) if measurement periods m and m+1 both occur in the reporting period—the following:

$$E_{B,m+1} - E_{P,m+1} \geq A_{Min,m+1}$$

then the following formula (***equation 2.1***) applies:

$$A_{m,n} = \text{Max}\left\{E_{B,m} - E_{P,m}, 0\right\}$$

where:

$E_{B,m}$ means the baseline emissions for the building in relation to measurement period m, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period m.

$E_{P,m}$ means the project emissions for the building in measurement period m, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period m.$A_{Min,m}$ means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period m, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period m.

k means a measurement period, in the crediting period, that occurs before measurement period m.

$E_{B,k}$ means the baseline emissions for the building in relation to measurement period k, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period k.

$E_{P,k}$ means the project emissions for the building in measurement period k, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period k.$A_{Min,k}$ means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period k, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period k.

m+1 means the measurement period immediately following measurement period m.

$E_{B,m+1}$ means the baseline emissions for the building in relation to measurement period m+1, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.

$E_{P,m+1}$ means the project emissions for the building in measurement period m+1, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.$A_{Min,m+1}$ means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period m+1, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.

$A_{m,n}$ means the abatement for the building for measurement period m, in tonnes CO_2-e.

(3) If all of the following apply:

(a) the following:

$$E_{B,m} - E_{P,m} < A_{Min,m}$$

(b) for all k—the following:

$$E_{B,k} - E_{P,k} < A_{Min,k}$$

(c) if measurement periods m and m+1 both occur in the reporting period—the following:

$$E_{B,m+1} - E_{P,m+1} < A_{Min,m+1}$$

then the following formula (***equation 2.2***) applies:

$$A_{m,n} = 0$$

where:

$E_{B,m}$ means the baseline emissions for the building in relation to measurement period m, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period m.

$E_{P,m}$ means the project emissions for the building in measurement period m, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period m.***$A_{Min,m}$*** means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period m, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period m.

k means a measurement period, in the crediting period, that occurs before measurement period m.

$E_{B,k}$ means the baseline emissions for the building in relation to measurement period k, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period k.

$E_{P,k}$ means the project emissions for the building in measurement period k, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period k.***$A_{Min,k}$*** means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period k, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period k.

m+1 means the measurement period immediately following measurement period m.

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$\boldsymbol{E_{B,m+1}}$ means the baseline emissions for the building in relation to measurement period m+1, in tonnes CO_2-e, worked out using equation 3 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.

$\boldsymbol{E_{P,m+1}}$ means the project emissions for the building in measurement period m+1, in tonnes CO_2-e, worked out using equation 5 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.$\boldsymbol{A_{Min,m+1}}$ means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to measurement period m+1, worked out using equation 7 as if a reference to a measurement period in the reporting period were a reference to measurement period m+1.

$\boldsymbol{A_{m,n}}$ means the abatement for the building for measurement period m, in tonnes CO_2-e.

Division 3—Calculations relating to baseline emissions

20 Summary

Baseline emissions for a building are the emissions that would have been attributable to the building had the project not occurred. The emissions are worked out using data about electricity and fuel consumption derived from the relevant NABERS energy reverse calculator.

Inputs to the calculator are building specifications and the baseline NABERS energy rating for the building, which is worked out by applying an annual adjustment to the previous NABERS energy rating for the building.

21 Baseline emissions for a building

(1) The baseline emissions for a building, in relation to a measurement period in the reporting period, are worked out using the formula (***equation 3***):

$$E_B = \sum_i \sum_j \left(Q_{F,R_B,i} \times \frac{EF_{i,j}}{1\,000} \right) + Q_{EN,R_B} \times \frac{EF_E}{1\,000}$$

where:

E_B means the baseline emissions for the building in relation to the measurement period, in tonnes CO_2-e.

i means a type of fuel consumed at the building in the measurement period.

j means a type of greenhouse gas emitted at the building in the measurement period due to fuel combustion. $Q_{F,R_B,i}$ means the consumption of fuel type i at the building that would have occurred in the measurement period if the project had not occurred, converted to gigajoules, worked out using:

(a) the relevant NABERS energy reverse calculator for the building; and

(b) the baseline NABERS energy rating for the building in relation to the measurement period worked out using equation 4; and

(c) the other inputs to the calculator as recorded in, or derived from, the NABERS energy rating report for the building for the measurement period.

Note: An example of an input that is derived from the NABERS energy rating report is the share of energy consumption at the building by source (expressed as a percentage of all energy consumption) for the measurement period.

$EF_{i,j}$ means the emissions factor for fuel type i and greenhouse gas type j, in kilograms CO_2-e per gigajoule, specified for the fuel type or greenhouse gas type in Schedule 1 to the NGER (Measurement) Determination.

Q_{EN,R_B} means the consumption of electricity at the building that would have occurred in the measurement period if the project had not occurred, in kilowatt hours, worked out using:

(a) the relevant NABERS energy reverse calculator for the building; and
(b) the baseline NABERS energy rating for the building in relation to the measurement period worked out using equation 4; and
(c) the other inputs to the calculator as recorded in, or derived from, the NABERS energy rating report for the building for the measurement period.

Note: An example of an input that is derived from the NABERS energy rating report is the share of energy consumption at the building by source (expressed as a percentage of all energy consumption) for the measurement period.

EF_E means:

(a) if the building is connected to an electricity grid that is a grid in relation to which the NGA Factors document, in force on the declaration day, includes an emissions factor—that factor, in kilograms CO_2-e per kilowatt hour; or
(b) if the building is not connected to an electricity grid mentioned in paragraph (a)—the emissions factor, in kilograms CO_2-e per kilowatt hour, for off-grid electricity included in the NGA Factors document in force on the declaration day.

(2) If the unit of measurement for fuel type i needs to be converted, the energy content factor for the fuel type specified in Schedule 1 to the NGER (Measurement) Determination must be used.

22 Baseline NABERS energy rating for a building

(1) The baseline NABERS energy rating for a building, in relation to a measurement period in the reporting period, is worked out using the formula (***equation 4***):

$$R_B = R_V + \alpha \times (Y - Y_V)$$

where:

R_B means the baseline NABERS energy rating for the building in relation to the measurement period, measured in stars.

R_V means the previous NABERS energy rating for the building.

α means the annual rating adjustment mentioned in subsection (2).

Y means the calendar year which includes the last day of the measurement period.

Y_V means the relevant previous rating year for the building.

(2) The annual rating adjustment is 0.15.

Note: This is the amount added each year to the previous NABERS energy rating to set the baseline NABERS energy rating for a building in relation to a measurement period.

Division 4—Calculations relating to project emissions

23 Summary

Project emissions for a building are worked out using data about energy consumption recorded in the NABERS energy rating report for the building and multiplying it by the relevant emissions factors. The amount is adjusted for renewable electricity generated and consumed onsite.

24 Project emissions for a building in a measurement period

(1) The project emissions for a building in a measurement period in the reporting period are worked out using the formula (***equation 5***):

$$E_P = \sum_j \sum_i \left(Q_{F,i} \times \frac{EF_{i,j}}{1\,000} \right) + Q_{EN} \times \frac{EF_E}{1\,000} + E_{Ren}$$

where:

E_P means the project emissions for the building in the measurement period, in tonnes CO_2-e.

j means a type of greenhouse gas emitted at the building in the measurement period due to fuel combustion.

i means a type of fuel consumed at the building in the measurement period.

$Q_{F,i}$ means the consumption of fuel type i at the building in the measurement period, converted to gigajoules, as recorded in the NABERS energy rating report for the building for the measurement period.

$EF_{i,j}$ means the emissions factor for fuel type i and greenhouse gas type j, in kilograms CO_2-e per gigajoule, specified for the fuel type or greenhouse gas type in Schedule 1 to the NGER (Measurement) Determination.***Q_{EN}*** means the consumption of electricity at the building in the measurement period, in kilowatt hours, as recorded in the NABERS energy rating report for the building for the measurement period.

EF_E means:

(a) if the building is connected to an electricity grid that is a grid in relation to which the NGA Factors document, in force on the declaration day, includes an emissions factor—that factor, in kilograms CO_2-e per kilowatt hour; or

(b) if the building is not connected to an electricity grid mentioned in paragraph (a)—the emissions factor, in kilograms CO_2-e per kilowatt hour, for off-grid electricity included in the NGA Factors document in force on the declaration day.

E_{Ren} means the emissions of greenhouse gas that would have occurred at the building in the measurement period if renewable electricity generated and

consumed onsite had instead been purchased from the electricity grid, worked out using equation 6.

(2) If the unit of measurement for fuel type i needs to be converted, the energy content factor for the fuel type specified in Schedule 1 to the NGER (Measurement) Determination must be used.

25 Emissions corresponding to renewable electricity generation at a building in a measurement period

The emissions of greenhouse gas that would have occurred at a building in a measurement period in the reporting period if renewable electricity generated and consumed onsite had instead been purchased from the electricity grid are worked out using the formula (***equation 6***):

$$E_{Ren} = Q_{ER} \times \frac{EF_E}{1\,000}$$

where:

E_{Ren} means the emissions of greenhouse gas that would have occurred at the building in the measurement period if renewable electricity generated and consumed onsite had instead been purchased from the electricity grid.

Q_{ER} means renewable electricity generated and consumed onsite at the building in the measurement period, worked out in accordance with the monitoring requirements or section 15.

Note: See subsection 5(1) for the definition of ***renewable electricity generated and consumed onsite***.

EF_E means:

(a) if the building is connected to an electricity grid that is a grid in relation to which the NGA Factors document, in force on the declaration day, includes an emissions factor—that factor, in kilograms CO_2-e per kilowatt hour; or

(b) if the building is not connected to an electricity grid mentioned in paragraph (a)—the emissions factor, in kilograms CO_2-e per kilowatt hour, for off-grid electricity included in the NGA Factors document in force on the declaration day.

Division 5—Calculations relating to minimum abatement amount

26 Summary

The minimum abatement amount is a threshold that is used to determine whether abatement can be recorded for a building. The minimum abatement amount is the abatement that would correspond to a one-star improvement in the NABERS energy rating for a building, compared to the baseline NABERS energy rating for the building.

27 Minimum abatement amount

(1) The abatement for a building associated with an increase of one star in the building's NABERS energy rating (the ***minimum abatement amount***), in relation to a measurement period in the reporting period, is worked out using the formula (***equation 7***):

$$A_{Min} = E_B - \left(\sum_i \sum_j \left(Q_{F,(R_B+1),i} \times \frac{EF_{i,j}}{1\,000} \right) + Q_{EN,(R_B+1)} \times \frac{EF_E}{1\,000} \right)$$

where:

A_{Min} means the abatement associated with an increase of one star in the building's NABERS energy rating, in relation to the measurement period.

E_B means the baseline emissions for the building in relation to the measurement period, in tonnes CO_2-e, worked out using equation 3.

i means a type of fuel consumed at the building in the measurement period.

j means a type of greenhouse gas emitted at the building in the measurement period due to fuel combustion.

$Q_{F,(R_B+1),i}$ means the consumption of fuel type i at the building in the measurement period, converted to gigajoules, worked out using:

(a) the relevant NABERS energy reverse calculator for the building; and

(b) a NABERS energy rating one star higher than the baseline NABERS energy rating for the building in relation to the measurement period worked out using equation 4; and

(c) the other inputs to the calculator as recorded in, or derived from, the NABERS energy rating report for the building for the measurement period.

Note: An example of an input that is derived from the NABERS energy rating report is the share of energy consumption at the building by source (expressed as a percentage of all energy consumption) for the measurement period.

$EF_{i,j}$ means the emissions factor for fuel type i and greenhouse gas type j, in kilograms CO_2-e per gigajoule, specified for the fuel type or greenhouse gas type in Schedule 1 to the NGER (Measurement) Determination.

$\boldsymbol{Q_{EN,(R_B+1)}}$ means the consumption of electricity at the building in the measurement period, in kilowatt hours, at the building worked out using:

(a) the relevant NABERS energy reverse calculator for the building; and

(b) a NABERS energy rating one star higher than the baseline NABERS energy rating for the building in relation to the measurement period worked out using equation 4; and

(c) the other inputs to the calculator as recorded in, or derived from, the NABERS energy rating report for the building for the measurement period.

Note: An example of an input that is derived from the NABERS energy rating report is the share of energy consumption at the building by source (expressed as a percentage of all energy consumption) for the measurement period.

$\boldsymbol{EF_E}$ means:

(a) if the building is connected to an electricity grid that is a grid in relation to which the NGA Factors document, in force on the declaration day, includes an emissions factor—that factor, in kilograms CO_2-e per kilowatt hour; or

(b) if the building is not connected to an electricity grid mentioned in paragraph (a)—the emissions factor, in kilograms CO_2-e per kilowatt hour, for off-grid electricity included in the NGA Factors document in force on the declaration day.

(2) If the unit of measurement for fuel type i needs to be converted, the energy content factor for the fuel type specified in Schedule 1 to the NGER (Measurement) Determination must be used.

Part 5—Reporting, record-keeping and monitoring requirements

Note: Other reporting, record-keeping and monitoring requirements are set out in regulations and rules made under the Act.

Division 1—Offsets report requirements

28 Operation of this Division

For paragraph 106(3)(a) of the Act, this Division sets out information that must be included in an offsets report about a commercial buildings project that is an eligible offsets project.

29 Information that must be included in an offsets report

(1) If the offsets report about the project is for the first reporting period for the project, the report must include the following for each relevant building in the project in the reporting period:

(a) an address for the building, in the form approved by the Regulator;

(b) a description of the project activities that:

(i) were undertaken at the building from the commencement of project activities at the building until the end of the reporting period; and

(ii) had an effect, that is not minor or trivial, on the abatement for the building in at least one measurement period in the reporting period;

(c) the previous NABERS energy rating used for Part 4, and the relevant previous rating year, for the building;

(d) the NABERS energy rating for the building for each measurement period in the reporting period;

(e) the abatement calculated for the building under section 19 for each measurement period in the reporting period for which abatement was calculated for the building.

(2) If the offsets report about the project is for the second, or a subsequent, reporting period for the project, the report must include the following for each relevant building in the project in the reporting period:

(a) an address for the building, in the form approved by the Regulator;

(b) a description of any project activities that:

(i) were undertaken at the building during the reporting period; and

(ii) had an effect, that is not minor or trivial, on the abatement for the building in at least one measurement period in the reporting period; and

(iii) are different from the project activities described in previous offsets reports for the project;

(c) if the previous NABERS energy rating used for Part 4, and the relevant previous rating year, for the building was not included in a previous offsets report for the project—that rating and rating year;

(d) the NABERS energy rating for the building for each measurement period in the reporting period;

(e) the abatement calculated for the building under section 19 for each measurement period in the reporting period for which abatement was calculated for the building.

(3) If the offsets report about the project is for the second, or a subsequent, reporting period for the project, the report must also include the address that was given in the offsets report for the previous reporting period for each building in the project that:

(a) is not a relevant building in the project in the reporting period; and

(b) was a relevant building in the project in the previous reporting period.

(4) In this section:

relevant building, in relation to a project and a reporting period, means a building in the project that is included in calculations for the carbon dioxide equivalent net abatement amount for the project for the reporting period.

Division 2—Record-keeping requirements

30 Operation of this Division

For paragraph 106(3)(c) of the Act, this Division sets out record-keeping requirements for a commercial buildings project that is an eligible offsets project.

31 Record-keeping requirements

The project proponent for the project must keep a record of the following:

(a) an address, in the form approved by the Regulator, for each building in the project;

(b) an electronic copy of the version of a NABERS energy reverse calculator used for the calculations for the carbon dioxide equivalent net abatement amount for the project for a reporting period;

(c) if, as part of a project activity that has an effect, that is not minor or trivial, on the abatement for a building in the project in at least one measurement period in a reporting period, any of the following is removed from the building:

(i) energy-consuming equipment;

(ii) equipment that generates electricity for consumption at the building;

evidence that the equipment was disposed of in accordance with relevant Commonwealth, State or Territory legislative requirements;

(d) if, as part of a project activity that has an effect, that is not minor or trivial, on the abatement for a building in the project in at least one measurement period in a reporting period, a building component or other equipment not mentioned in subparagraph 7(2)(a)(i) or (ii) is:

(i) removed from the building; and

(ii) disposed of;

evidence that the building component or other equipment was disposed of in accordance with relevant Commonwealth, State or Territory legislative requirements.

Division 3—Monitoring requirements

32 Operation of this Division

For paragraph 106(3)(d) of the Act, this Division sets out requirements to monitor a commercial buildings project that is an eligible offsets project.

33 Requirement to monitor renewable electricity generated and consumed onsite at a building

If a project proponent will, for the purposes of Part 4, use data for renewable electricity generated and consumed onsite at a building that is monitored in accordance with this section, the renewable electricity generated and consumed onsite must be monitored in kilowatt hours, annually or more frequently:

(a) using a meter in accordance with the relevant requirements of the National Measurement Institute for electricity metering, set out in the document titled *NMI M 6 Electricity Meters* as in force from time to time; or

(b) using an inverter that:

(i) satisfies the requirements of Australian Standard AS 4777 as in force from time to time; or

(ii) is on the list of approved inverters maintained by the Clean Energy Council, as it exists from time to time.

Note 1: The *NMI M 6 Electricity Meters* could in 2014 be viewed on the National Measurement Institute's website (http://www.measurement.gov.au). At that time, the document was split into 2 parts (referred to as NMI M 6-1 and NMI M 6-2).

Note 2: The list of approved inverters could in 2014 be viewed on the Clean Energy Council's website (http://www.solaraccreditation.com.au).

Part 6—Dividing a commercial buildings project

34 Operation of this Part

For subsection 77A(2) of the Act, this Part sets out requirements for dividing a commercial buildings project that is an eligible offsets project.

35 Requirements for division of project

The project may only be divided so that each part is a building in the project, or a group of buildings in the project.