EXPLANATORY STATEMENT

Carbon Credits (Carbon Farming Initiative) Act 2011

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

Background

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

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

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

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

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

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

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

Further information on the ERF is available on the Department of the Environment website at: www.environment.gov.au/emissions-reduction-fund.

Application of the Determination

The *Carbon Credits (Carbon Farming Initiative—Commercial Buildings) Methodology Determination 2015* (the Determination) sets out the detailed rules for implementing and monitoring offsets projects that reduce emissions of greenhouse gases associated with the consumption of electricity and/or fossil fuels at a ***commercial building***.

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

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

Most greenhouse gas emissions generated by commercial buildings are indirect, primarily emissions from electricity that is consumed in the building (scope 2 emissions). Commercial buildings can also generate direct (scope 1) emissions, including through direct fuel combustion in, for example, boilers and gas heaters.

Improving the energy performance of commercial buildings can reduce emissions associated with fuel combustion and the generation of electricity consumed in the buildings. Activities to improve the energy performance of commercial buildings could involve modifying, removing or replacing ***energy-consuming equipment*** or equipment that generates electricity in the building, changing energy use within the building, or changing the components or shell of the building to influence energy consumption (see next page for examples of the kinds of activities that could be undertaken).

The environmental performance of Australian buildings and tenancies can be measured by the National Australian Built Environment Rating System (***NABERS***). NABERS is a national, industry-recognised rating system that measures the energy efficiency, water usage, waste management and indoor environment quality of a building or tenancy and its impact on the environment. It does this by using measured and verified operational performance information, such as utility bills, that is adjusted for the size and use of the building and converted into a star rating scale from zero stars (very poor performance) to six stars (market-leading performance).

The Determination makes use of ***NABERS energy ratings*** and tools for office buildings, shopping centres and business hotels to quantify emissions reductions and energy savings from energy efficiency activities undertaken as part of a commercial buildings ERF project. The Determination calculates emissions reductions associated with upgrades to these three types of buildings.

The Determination provides for multiple buildings to be included in a single ***commercial buildings project***. The Determination does not specify the particular activities that should be undertaken, providing flexibility for project proponents to determine what activities are most appropriate for each building.

Examples of activities that may contribute to emissions reductions under the Determination include:

- modifying, installing, removing or replacing energy-consuming equipment or equipment that generates electricity in the building, such as:
    - upgrading lighting systems;
    - replacing heating, ventilation and air conditioning systems with more efficient technologies and designs;
    - upgrading boilers to more efficient, better controlled designs;
    - installing a co-generation unit;
- making changes to the building shell to reduce the energy requirements of the building, such as;
    - improving the insulation value of glazing, for example by installing secondary glazing;
    - installing additional insulation in walls, ceilings or under floors;
- changing how energy-consuming equipment is controlled or operated, such as:
    - installing motion sensors or sensor lights;
    - adopting improved building energy management systems that automatically manage energy consumption;
- changing the energy sources used by equipment, such as
    - fuel switching from diesel to natural gas; and
- promoting energy-conserving behaviours to building occupants.

Project proponents could include owners, operators or tenants of commercial building types covered by NABERS energy ratings or commercial buildings project aggregators.

The Determination is based on a similar method under the New South Wales Energy Savings Scheme[1]. In line with advice from stakeholders, the Department has sought to maintain consistency with the New South Wales method. However, there are a number of differences between the New South Wales method and the Determination due to differences in overall scheme design and coverage. For example, the Determination covers fuels other than electricity because the purpose of the ERF is to reduce emissions from a range of sources, while at the time the NABERS method was introduced, the aim of the New South Wales scheme was to reduce electricity consumption in the state.

The Determination is also different from the New South Wales method in its minimum abatement requirement. The New South Wales method requires a building to achieve an improvement on the baseline rating of at least one NABERS star in each 12-month ***NABERS rating period*** in order to be credited. The Determination contains the same minimum threshold, but only requires it to be exceeded in one 12-month period in order for abatement to be credited in the same and subsequent reporting periods.

Another area of difference from the New South Wales method is that the Determination applies to existing commercial buildings only, whereas the New South Wales method applies to both existing and new commercial buildings.

[1] New South Wales Energy Savings Scheme Rule of 2009, Metered Baseline Method, NABERS baseline sub-method (clause 8.8), accessible in 2015 at http://www.ess.nsw.gov.au/files/3b4bc901-796f-40cd-bace-a35000e9d4f5/ESSRule2of2014.pdf.

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

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

Subsection 27(4A) of the Act provides that a methodology determination may specify requirements in lieu of the newness requirement or the government programme requirement. The Determination does not specify any requirements in lieu, and so the general requirements apply to eligible commercial buildings projects.

Public consultation

The Determination has been developed by the Department of the Environment in collaboration with a technical working group of experts from the built environment and energy efficiency sectors and the Regulator. The technical working group reviewed several draft versions of this methodology prior to the release of an exposure draft Determination for public consultation.

The exposure draft of the Determination was published on the Department's website for public consultation from 25 September 2014 to 23 October 2014. Five submissions were received. Details of the non-confidential submissions are provided on the Department's website: www.environment.gov.au.

Determination details

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

For the purpose of subsections 106(4), (4A) and (4B) of the Act, in making this Determination the Minister has had regard to, and agrees with, the advice of the Interim Emissions Reduction Assurance Committee that the Determination complies with the offsets integrity standards and that the proposed Determination should be made. The Minister is satisfied that the carbon abatement used in ascertaining the carbon dioxide equivalent net abatement amount for a project is eligible carbon abatement from the project. The Minister also had regard to whether any adverse environmental, economic or social impacts are likely to arise from the carrying out of the kind of project to which the Determination applies and other relevant considerations.

Subitem 393(2) of Schedule 1 to the *Carbon Farming Initiative Amendment Act 2014* operated in relation to this Determination to deem the request to, and advice from, the Interim Emissions Reduction Assurance Committee to be the relevant request to and advice from the statutory Emissions Reduction Assurance Committee under subsections 106(10) and 123A(2) of the Act respectively.

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

Attachment A

Details of the Methodology Determination

Part 1 Preliminary

1 Name

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

2 Commencement

Section 2 provides that the Determination commences on the day after it is registered on the Federal Register of Legislative Instruments.

3 Authority

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

4 Duration

Under subparagraph 122(1)(b)(i) of the Act, a methodology determination remains in force for the period specified in the determination. The Determination will remain in force for the duration set out in this section unless revoked in accordance with section 123 of the Act or section 42 of the *Legislative Instruments Act 2003*.

Section 4 provides that the Determination will be in force from its commencement (as provided for in section 2) until the day before it would otherwise be repealed under subsection 50(1) of the *Legislative Instruments Act 2003*.

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

If the Determination expires in accordance with section 122 of the Act or is revoked under section 123 of the Act during a crediting period for a project to which the Determination applies, the Determination will continue to apply to the project during the remainder of the crediting period under subsections 125(2) and 127(2) of the Act. Project proponents may apply to the Regulator during a reporting period to have a different methodology determination apply to their projects from the start of that reporting period (see subsection 128(1) of the Act).

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

5 Definitions

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

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

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

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

Commercial building refers to an office building, a shopping centre or a hotel.

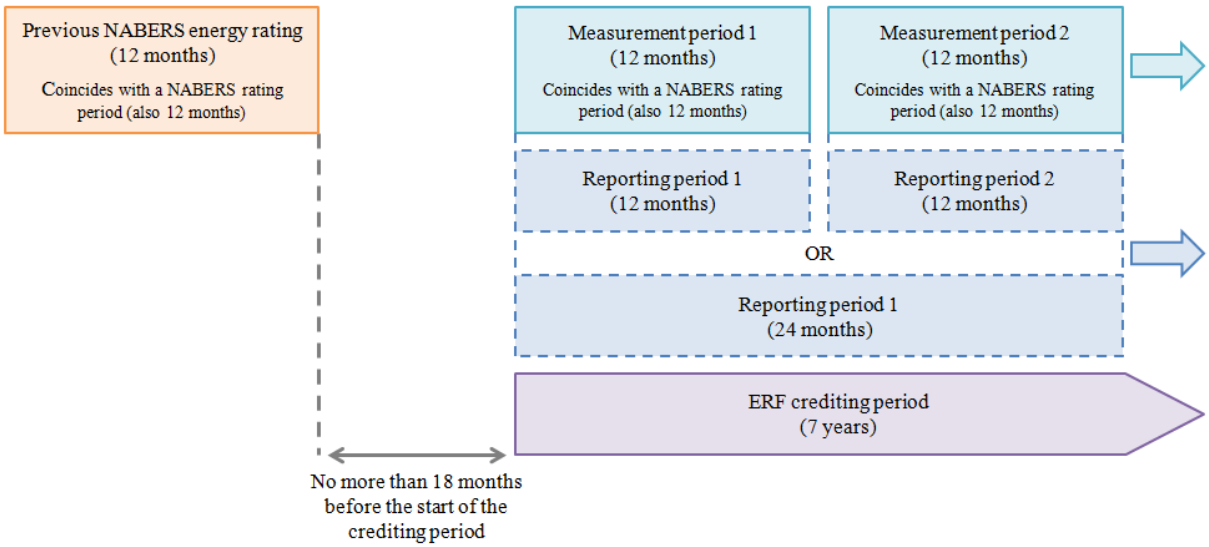
Energy-consuming equipment is a general term used to describe equipment (such as lighting, appliances and air conditioning systems) that consumes energy that is included in the total energy consumption recorded on the ***NABERS energy rating report*** for the building.

Measurement period refers to a 12-month period over which abatement for a commercial buildings project is calculated. The measurement period coincides with a ***NABERS rating period*** for the building, during which energy consumption and ***renewable electricity generated and consumed onsite*** are measured. This period lasts for 12 months because NABERS energy ratings are calculated based on 12 months of energy consumption data.

One or two 12-month measurement periods can constitute a single reporting period for a commercial buildings project. Sections 76(1)(e) and 76(2)(e) of the Act limit the maximum length of a reporting period to two years. As a NABERS rating period lasts 12 months, reporting periods of less than one year are not possible under the Determination.

Figure 1 illustrates the relationship between NABERS rating periods, measurement periods, reporting periods and the crediting period for commercial buildings projects.

Figure 1: Time periods in the Determination



NABERS energy rating refers to the accredited energy rating, expressed as a number of stars, given to a building that is rated under NABERS. NABERS energy ratings are certified by the NABERS National Administrator. The Determination requires that a NABERS energy rating be obtained for each building in each measurement period for which abatement is calculated.

NABERS energy ratings can be expressed with or without ***GreenPower***. The Determination uses the rating without GreenPower, which means that all electricity consumed by the building is treated as if it was purchased from the grid; that is, GreenPower purchases do not improve the rating.

If a NABERS energy rating is adjusted by the NABERS National Administrator (following an audit, for example), then the adjusted NABERS energy rating and adjusted NABERS energy rating report must be used for the purposes of calculating the net abatement amount. The proponent is not required to use an adjusted rating and adjusted report if the offsets report for the relevant reporting period has already been submitted when the adjustment occurs.

NABERS energy rating report refers to the report issued by the NABERS National Administrator that sets out the NABERS energy rating for the building, as well as the key inputs used to calculate the rating such as the total amount of energy consumption at the building.

Previous NABERS energy rating refers to a NABERS energy rating for the building with a rating period that ended before the ***commencement of project activities*** but no more than 18 months before the start of the crediting period. This rating is used (after adjusting for business as usual improvements over time) to establish baseline emissions. This rating must satisfy a number of requirements, which are set out in section 16, to help ensure that it is a robust basis from which to calculate baseline emissions. These requirements are intended to ensure that the previous rating and the rating for the measurement period are comparable in scope and coverage.

Relevant NABERS energy reverse calculator refers to the NABERS reverse calculator that is used to estimate a building's energy consumption and greenhouse gas emissions based on the configuration and NABERS energy rating of the building. There are different reverse calculators for different building types. For office buildings, there are different calculators for the different rating types (whole building, base building or tenancy). NABERS reverse calculators are accessible at the NABERS website (www.nabers.gov.au/).

Renewable electricity generated and consumed onsite refers to electricity that is:

- generated from renewable sources at the building in the measurement period;
- consumed by energy-consuming equipment at the building;
- generated by equipment that was installed at the building after the beginning of the NABERS rating period for the previous NABERS energy rating;
- generated by equipment that could not be included in an eligible offsets project under the legislative rules (if any) relating to the government programme requirement in section 27(4A)(c)(ii) of the Act; and
- not taken into account in the total amount of electricity consumption recorded in the NABERS energy rating report.

There is an adjustment for renewable electricity generated and consumed onsite in the calculation of the net abatement amount. The adjustment is included so that credits are not

issued for any renewable energy activities that could not be included as part of an eligible offsets project under the legislative rules relating to the government programme requirement. This is intended to ensure that projects which can make this adjustment are not precluded from being an eligible offsets project under the government programme requirement.

6 References to factors and parameters from external sources

The calculation of the net abatement amount in the Determination includes factors and parameters determined from other sources, such as emissions factors from the ***NGER (Measurement) Determination*** and energy consumption data derived from a relevant NABERS energy reverse calculator. Section 6 specifies that such factors or parameters should be determined by using the version of the external source that is current at the end of the reporting period, unless the Determination specifies otherwise.

The requirement to use versions of referenced documents current at the end of the reporting period does not apply to the emissions factor for electricity. The Determination states that the relevant emissions factor for electricity must be derived from the ***National Greenhouse Accounts (NGA) Factors document*** in force on the day the project is declared an eligible offsets project. The electricity emissions factor is discussed in more detail in section 21.

Part 2 Commercial buildings projects

7 Commercial buildings projects

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

Section 7 provides that the Determination applies to an offsets project that involves undertaking certain kinds of activities in one or more existing commercial buildings that have, or are eligible to have, NABERS energy ratings. The Determination does not specify the particular activities that must be undertaken, but requires that the activities fall under the following broad categories:

- modifying, installing, removing or replacing:
    - energy-consuming equipment;
    - equipment that generates electricity for consumption at the building;
    - a building component or other equipment;
- changing how energy-consuming equipment is controlled or operated;
- changing the energy sources used by energy-consuming equipment; and
- promoting behaviours by occupants of the building that reduce energy consumption by energy-consuming equipment at the building.

Section 7 also requires that each activity undertaken could reasonably be expected to result in eligible carbon abatement, and that together the activities could reasonably be expected to result in an improvement of at least one star in the NABERS energy rating for each building.

The Determination defines this kind of project as a commercial buildings project.

Part 3 Project Requirements

8 Operation of this Part

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

Part 3 of the Determination specifies a number of requirements that must be met in order for a project to be an eligible offsets project. These requirements are set out in sections 9 and 10.

9 Information to be included in application for declaration

Section 22 of the Act provides that a person may apply to the Regulator for the declaration of an offsets project as an eligible offsets project. Section 9 of the Determination requires the following information to be included in the application for the declaration:

- a detailed description of the ***project activities***;
- 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;
- if the proponent has already identified the specific buildings that are or will be included in the project:
    - the address of each identified building in the form approved by the Regulator;
    - the type of each identified building (office, hotel or shopping centre); and
    - if the building is an office building, the type of NABERS energy rating that will be used for the building (base building, tenancy or whole building);
- if the proponent has not identified specific buildings that will be included in the project, a description of the buildings to be included, describing:
    - the types of buildings (office, hotel or shopping centre); and
    - if the types of buildings include office buildings, the types of NABERS energy rating that will be used for the buildings (base building, tenancy or whole building).

10 Disposal of equipment

Section 10 applies if energy-consuming or electricity-generating equipment is removed from a building as part of the project activities, for example if energy-consuming appliances are replaced with more efficient models. The removed equipment must be disposed of and not refurbished, re-used or sold. This prevents leakage into the secondary market, where replaced, inefficient appliances could remain in use with no overall reduction in emissions.

The Determination allows removed equipment to be broken down into components and those components recycled. The equipment may be sold to a third party to be broken down and recycled.

Under section 31, project proponents are required to keep a record of the disposal of equipment, including evidence that the disposal was conducted in accordance with applicable legislative requirements. Section 10 is an ongoing eligibility requirement which must continue to be met for the project to be, and remain, an eligible offset project.

Part 4 Net abatement amount

Division 1 Preliminary

11 Operation of this Part

Paragraph 106(1)(c) of the Act provides that a methodology determination must specify how to calculate the carbon dioxide equivalent (CO_2-e) net abatement amount for the project in relation to a reporting period. Part 4 sets out these rules.

12 Overview of gases accounted for in abatement calculations

Section 12 provides a summary of the emissions sources that are assessed in the Determination in order to determine the net abatement amount. The emissions sources which need to be taken into account when calculating abatement for the project are set out in Table 1.

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

Greenhouse gases and emissions sources		
Relevant emissions calculation	**Emissions source**	**Greenhouse gas**
Baseline emissions Project emissions	Electricity consumption	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Baseline emissions Project emissions	Fossil fuel combustion	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)

The Determination covers scope 1 emissions from onsite fuel combustion and scope 2 emissions from electricity consumed onsite. It does not cover scope 3 emissions associated with the extraction and processing of fossil fuels or the manufacture, transportation, installation and disposal or decommissioning of building elements. It is a scheme-wide policy to exclude scope 3 emissions from baseline and project emissions sources.

13 Buildings to be used in calculations

Section 13 allows a project proponent to choose not to include a building in the calculation of the net abatement amount for a measurement period in the reporting period. This provision could be used, for example, to reduce compliance costs if it is known that one of the buildings in the project has not met the minimum abatement threshold (discussed in relation to sections 19 and 27 of the Determination).

This section also requires that proponents exclude a building from the calculation of the net abatement amount for a measurement period if the following conditions are met:

- the project proponent undertakes an activity at the building (whether or not during the measurement period) that could not be included in an eligible offsets project under legislative rules made for subparagraph 27(4A)(c)(ii) of the Act; and
- the activity could reasonably be expected to have an effect, that is not minor or trivial, on the abatement calculated for the building in the measurement period.

The legislative rules referred to in subparagraph 27(4A)(c)(ii) of the Act relate to activities that receive support under other government programmes or schemes. The requirements in section 13 are included to prevent circumvention of the government programme requirements in the legislative rules by not including an activity in the application for declaration as a project activity.

14 Data to be used in calculations

Section 14 requires that data on the configuration of the building and energy consumption be sourced from the NABERS energy rating report for the building or the NABERS energy reverse calculator. Section 14 thus requires that a NABERS energy rating be undertaken at a building for each year for which abatement is calculated for that building. Data used in NABERS energy ratings is monitored in accordance with NABERS rules and recorded by a NABERS assessor, ensuring that the data is accurate and verified.

The only energy consumption data that is not sourced from a NABERS report or tool is renewable electricity generated and consumed onsite because, by definition, it is not taken into account in the NABERS assessment (noting that 'renewable electricity generated and consumed onsite' has a specific technical definition in the Determination that is narrower than the general interpretation). The project proponent can choose one of the following two methods to determine data for renewable electricity generated and consumed onsite:

- measuring the quantity directly by using a meter or inverter in accordance with the ***monitoring requirements*** set out in Division 3 of Part 5; or
- calculating the difference between the total amount of renewable electricity generated by the relevant equipment and the total amount of electricity exported from the equipment to the electricity grid, in accordance with the requirements set out in section 15.

These choices are included to reduce the compliance burden on proponents in cases where the quantity required to be monitored is not separately metered.

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

If the project proponent chooses to calculate the difference between the total amount of renewable electricity generated onsite and the total amount of electricity exported to determine the data for renewable electricity generated and consumed onsite, the proponent must follow the requirements set out in section 15.

The two components of the calculation are obtained either by direct monitoring with a meter or inverter in accordance with the requirements set out in section 33, or by using billing data. If billing data is used, the project proponent may pro-rata the data in a situation where the billing periods do not coincide with the measurement period.

16 Previous NABERS energy rating to be used in calculations

Section 16 sets out the requirements that must be satisfied by a previous NABERS energy rating if it is to be used in the calculation of the baseline NABERS energy rating for a building under section 22. These requirements are as follows:

- The previous NABERS energy rating must be the most recent one that meets all the requirements in section 16.
- The previous NABERS energy rating must be for the same type of commercial building as the building type in the measurement period. For example, a building cannot be rated as a hotel in its previous NABERS energy rating and then be rated as an office in a subsequent measurement period.
- The previous NABERS energy rating for the building must cover substantially the same area containing or serviced by energy-consuming equipment as the building in the measurement period. This is to prevent crediting emissions reductions which result from changes in the scope of the NABERS rating. The Determination allows for changes of up to 10 per cent in the size of the area, to accommodate minor changes in the space covered by the rating arising from, for example, reconfigurations of building tenancies. Note that this concept of area relates to a physical space, and is distinct from the "rated area" concept used in NAERS ratings, which is adjusted for building occupancy levels during the rating period.
- If the building is an office, the previous NABERS energy rating must be for the same type of energy rating as the rating type in the measurement period. For example, if the previous rating for an office building was a tenancy energy rating, it can be used as the previous NABERS energy rating only if the building is rated for its tenancy performance in the measurement period.

Division 2 Method for calculating net abatement amount

17 Summary

The net abatement amount for a commercial buildings project is the sum of abatement across buildings, and measurement periods in the reporting period.

Each building in the project must meet a minimum threshold for abatement, referred to as the minimum abatement amount, for at least one measurement period in order for emissions reductions from that building to be credited for that reporting period and subsequent reporting periods. If this threshold is not achieved, the net abatement for the building is zero. If the threshold is met, abatement for the building is equal to the difference between baseline and project emissions for the building or zero, whichever is higher.

18 Carbon dioxide equivalent net abatement amount

In **equation 1**, the carbon dioxide equivalent net abatement amount is worked out by adding the abatement for the buildings in the project that are being included in the abatement calculations across measurement periods in the reporting period.

19 Abatement for a building in a measurement period

For a given 12-month measurement period, the abatement for each building is worked out using **equation 2.1** or **equation 2.2**. Which of these two equations is used depends on whether the minimum abatement amount for the building has been achieved (the calculation of the minimum abatement amount is described in section 27).

Equation 2.1 is to be used to calculate abatement for a building in a measurement period if any of the following conditions are met:

- the difference between baseline and project emissions is greater than or equal to the minimum abatement amount for the measurement period;
- in a previous measurement period in the crediting period, the difference between baseline and project emissions was greater than or equal to the minimum abatement amount for that measurement period; or
- if the subsequent measurement period is included in the same reporting period as the measurement period, the difference between baseline and project emissions in the subsequent measurement period is greater than or equal to the minimum abatement amount for that subsequent measurement period.

Equation 2.1 states that abatement for the building in the measurement period is equal to baseline emissions minus project emissions if that value is non-negative, and zero otherwise.

If the conditions for using equation 2.1 are not met, equation 2.2 states that abatement for the building in the measurement period is zero.

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. Baseline emissions are worked out using data on electricity and fuel consumption from the relevant NABERS energy reverse calculator for the relevant building type, based on a range of inputs. These inputs include the building specifications and the baseline NABERS energy rating.

21 Baseline emissions for a building

The baseline emissions for a building are calculated using **equation 3**.

Baseline emissions are estimated with reference to a baseline NABERS energy rating, which is an estimate of the star rating that would have applied to the building during the measurement period had the project not occurred (described in more detail in section 22). This rating is then used with the relevant NABERS energy reverse calculator to estimate baseline emissions for the measurement period.

The NABERS energy reverse calculator determines a building's energy use based on a range of inputs. These inputs include a NABERS energy rating, the building's energy mix, and aspects of the building configuration that vary by type of commercial building. For example, the hotels NABERS energy reverse calculator requires data on the number of rooms in the hotel, the surface area of heated pools and the number of function room seats. Other than the NABERS energy rating, which will be the baseline NABERS energy rating, inputs to the NABERS energy reverse calculator must be consistent with the NABERS energy rating for the measurement period.

The NABERS energy reverse calculator lists fuel and electricity consumption by energy type. Fuel consumption values are multiplied by the appropriate emissions factors in Schedule 1 to the *NGER (Measurement) Determination* to calculate emissions in tonnes CO_2-e.

The electricity emissions factor to be used refers to scope 2 emissions and is to be taken from the NGA Factors document published by the Department from time to time. If the building is connected to an electricity grid for which there is an emissions factor included in the NGA Factors document, then proponents will apply that emissions factor from the version of the NGA Factors document in force on the day the project is declared an eligible offsets project. If the building is not connected to one of the electricity grids for which emissions factors are included in the NGA Factors document, then the proponent will apply the factor for off-grid electricity published in the NGA Factors document. The NGA Factors document will clearly identify the table of emissions factors relevant to this definition.

The electricity emissions factor to be used in the calculation of the net abatement amount is determined by the grid the building is connected to, not the specific source of the electricity being considered. This means that the same emissions factor is used to calculate baseline emissions, project emissions and emissions corresponding to renewable electricity generated and consumed onsite.

22 Baseline NABERS energy rating for a building

The baseline NABERS energy rating for a building in a measurement period is calculated using **equation 4**.

This calculation derives the baseline NABERS energy rating from the previous NABERS energy rating. A number of restrictions are placed on the use of a previous NABERS energy rating to help ensure that it is a robust basis for establishing baseline emissions. These are described in more detail in the discussion of section 16.

To find the baseline NABERS rating for the measurement period, an annual rating adjustment is applied to the previous NABERS rating to reflect the ongoing business as usual rate of improvement in the market. This adjustment is intended to capture incremental changes in energy performance over time, as well as the average annual impact of larger step changes in energy performance that would be expected to occur in the absence of the ERF project. An example of the former is the replacement of small appliances with more efficient models as they reach end of life; an example of the latter is the replacement or removal of a large piece of energy-consuming equipment.

The annual rating adjustment is defined in subsection 2 as 0.15 stars, which is consistent with the annual rating adjustment used in the NABERS method under the New South Wales Energy Savings Scheme.

In the development of the commercial buildings Determination, the annual rating adjustment was validated against historical ratings data and found to be conservative, in the sense that it was more likely to overstate than understate future improvements in the energy performance of commercial buildings. The use of the annual rating adjustment is in line with the offsets integrity standards in the Act, which require that a methodology determination should result in emissions reductions that are unlikely to occur in the ordinary course of events and that estimates should be conservative.

Division 4 Calculations relating to project emissions

23 Summary

Project emissions are calculated from electricity and fuel consumption as recorded in the NABERS energy rating report, adjusting for renewable electricity generated and consumed onsite.

24 Project emissions for a building in a measurement period

The project emissions for a building in a measurement period are calculated using **equation 5**.

Electricity and fuel consumption as reported in the NABERS energy rating report for the measurement period are multiplied by the relevant emissions factors.

An adjustment is applied to project emissions to account for renewable electricity generation that was not taken into account when working out the NABERS energy rating for the building. This adjustment is described in section 25 below.

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

Renewable electricity generated and consumed onsite is defined in section 5 and refers to electricity generated at a building that, among other things, is not taken into account in the total amount of electricity consumption recorded in the NABERS energy rating report, and is generated by a system that receives or has received support under a government programme listed in the legislative rules made for subparagraph 27(4A)(c)(ii) of the Act. An example is electricity from a solar photovoltaic system that has received small-scale technology certificates under the Renewable Energy Target, if electricity generated by the system is fed directly into the building rather than immediately being exported to the grid.

The amount of renewable electricity generated and consumed onsite is worked out in accordance with the monitoring requirements at Division 3 of Part 5, or the calculation method at section 15.

The calculation of project emissions for a building (equation 5) includes an adjustment for renewable electricity generated and consumed onsite. This adjustment is an estimate of the additional emissions that would have occurred if the renewable electricity was not consumed at the building; this is then added to the total emissions calculated from the NABERS energy rating report. **Equation 6** sets out how the adjustment value is to be calculated.

The adjustment assumes that onsite renewable electricity generation displaces electricity from the electricity grid. The emissions that would have occurred during the measurement period if renewable electricity generated and consumed onsite had instead been purchased from the grid are calculated by multiplying the amount of renewable electricity generated and consumed onsite by the emissions factor for grid electricity (described in section 21 above).

The adjustment, which removes from the net abatement amount the impact of renewable electricity generation systems that receive support from other government programmes, is intended to allow proponents to install these systems at a building in the project without breaching the legislative rules relating to other government programmes or being required to exclude the building from the calculations under section 13 of the Determination.

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 credited for a building. This approach is consistent with the offsets integrity standards outlined in section 133 of the Act, which specify that a methodology determination should result in emissions reductions that are unlikely to occur in the ordinary course of events. The minimum abatement amount is the reduction in emissions that would arise from a one-star improvement in the NABERS energy rating for the building, compared to the building's baseline NABERS energy rating. The minimum abatement amount requirement is included to help ensure that abatement is only credited where there has been a significant improvement in the energy performance of the building.

27 Minimum abatement amount

For commercial buildings projects the minimum abatement amount is calculated using **equation 7**.

The minimum abatement amount is estimated with reference to a NABERS energy rating that is one star higher than the baseline NABERS energy rating for the building in the measurement period. This rating is used with the relevant NABERS energy reverse calculator to estimate the emissions reductions associated with a one star improvement in the building's NABERS energy rating.

Inputs to the NABERS reverse calculator must be consistent with the NABERS energy rating for the measurement period with the exception of the NABERS energy rating, which will be one star higher than the baseline NABERS energy rating for the building.

Electricity and fuel consumption values from the reverse calculator are multiplied by the appropriate emissions factors to calculate emissions in tonnes CO_2-e. Emissions for each energy type are added to find the total emissions that would be attributable to the building if its rating was one star higher than the baseline rating. This value is then subtracted from baseline emissions to calculate the minimum abatement amount.

As set out in section 19, each building in the project must meet this minimum threshold for abatement for at least one measurement period in order for emissions reductions from that building to be credited for the current and subsequent reporting periods.

Part 5 Reporting, record-keeping and monitoring requirements

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

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

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

Reporting periods

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

As described in Part 1 of this Explanatory Statement, NABERS energy ratings correspond to 12 months of energy consumption data, so reporting periods that meet the requirements set out in the calculations at Part 4 of the Determination can only be 12 months or 24 months in length.

Audit requirements

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

Notification requirements

No notification requirements are specified in the Determination. The Act and legislative rules specify notification requirements that apply to all ERF projects.

Division 1 Offsets report requirements

28 Operation of this Division

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

29 Information that must be included in an offsets report

Further to requirements under the Act or subordinate legislation, section 29 sets out specific additional information that must be included in each offsets report for a commercial buildings project.

The offsets report for the first reporting period of a commercial buildings project must include the following information for each building that is included in the abatement calculations for the reporting period:

- an address;
- a description of the project activities undertaken between the commencement of project activities and the end of the reporting period, with the exception of activities that had an effect that was minor or trivial on abatement for the building in each measurement period in the reporting period;
- the previous NABERS energy rating and the calendar year in which the rating period ended;
- the NABERS energy rating for each measurement period in the reporting period; and
- the abatement calculated for the building for each measurement period in the reporting period.

The offsets report for the second or subsequent reporting periods must include the following information for each building that is included in the project abatement calculations for the reporting period:

- an address;
- a description of any project activities undertaken during the reporting period at the building that are different from the project activities described in the previous offsets report, with the exception of activities that had an effect that was minor or trivial on abatement for the building in each measurement period in the reporting period;
- the previous NABERS energy rating and the calendar year in which the rating period ended, if not included in a previous offsets report;
- the NABERS energy rating for each measurement period in the reporting period; and
- the abatement calculated for the building for each measurement period in the reporting period.

The offset reports in the second or subsequent reporting periods must also include an address for each building that is not included in the abatement calculations for the reporting period, but was included in the project abatement calculations in the previous reporting period.

Providing addresses for buildings in the project will assist the Regulator to establish whether the project is funded under another government programme, in line with the additionality requirements in subsection 27(4A) of the Act.

These offsets report requirements are in addition to the general offsets report requirements specified in the Regulations and legislative rules.

Division 2 Record-keeping requirements

30 Operation of this Division

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

31 Record-keeping requirements

Section 31 lists the records that must be kept for a commercial buildings project, in addition to record-keeping requirements applying to all projects as specified in the Act and legislative rules.

Records that must be kept specifically for a commercial buildings project include an address for each building in the project and an electronic copy of the version of the NABERS energy reverse calculator used for the abatement calculations for each reporting period.
If energy-consuming equipment or equipment that generates electricity for onsite consumption is replaced as part of the project activities, and these activities have an effect that is not minor or trivial to the abatement calculated for the building in at least one measurement period in a reporting period, evidence of the disposal of the equipment in accordance with the relevant legislative requirements must also be kept. The same requirement also applies to other building components and equipment that are removed from a building and disposed of, as part of the project activities.

Division 3 Monitoring requirements

32 Operation of this Division

Division 3 provides a summary of parameters that require monitoring, including specifications for the manner and frequency of monitoring. Section 33 specifies requirements to monitor a commercial buildings project that is an eligible offsets project under paragraph 106(3)(d) of the Act.

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

Section 33 sets out the monitoring requirement that must be followed if a project chooses to determine data for renewable electricity generated and consumed onsite at a building by directly monitoring with a meter or inverter. The quantity must be monitored in kilowatt hours (annually or more frequently) in one of two ways:

- using a meter: if using a meter to monitor onsite electricity generation, the meter must be used in accordance with the relevant electricity metering requirements of the National Measurement Institute (see *NMI M 6 Electricity Meters*); or
- using an inverter: if using an inverter to monitor onsite electricity generation, the inverter must meet the requirements of Australian Standard AS 4777 or be on the list of approved inverters that is maintained by the Clean Energy Council (at www.solaraccreditation.com.au).

An alternative method to determine data for renewable electricity generated and consumed onsite is set out in section 15. This method is included to reduce the compliance burden on proponents in cases where the quantity required to be measured is not separately metered.

Part 6 Dividing a commercial buildings project

34 Operation of this Part

Part 6 sets out requirements for dividing a commercial buildings project that is an eligible offsets project.

35 Requirements for division of project

Different buildings may receive their NABERS energy ratings at different times in the year, which has implications for the way in which abatement from multiple buildings can be combined in a reporting schedule for the project. Accordingly, the proponent may align reporting periods (that is, conduct NABERS energy ratings of different buildings in the project so that measurement periods for different buildings cover the same rating periods) or the proponent may make use of the provisions in section 77A of the Act, which allows the project to be split into parts for reporting purposes.

Section 35 specifies that a commercial buildings project can only be divided under section 77A of the Act so that each part is a whole building in the project, or a group of buildings in the project. Note that the Determination defines a 'building' as a single building that has a NABERS energy rating, or a group of buildings covered by a campus NABERS energy rating, or part of a building covered by a NABERS energy rating.

Each building in the project needs to be covered by a NABERS energy rating in order for abatement to be calculated. For example, if an individual office building is covered by a whole building NABERS energy rating for the purposes of a commercial building project, the proponent cannot report floors separately and treat each floor as a building in the project.

Attachment B

Statement of Compatibility with Human Rights

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

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

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

Overview of the Legislative Instrument

The *Carbon Credits (Carbon Farming Initiative—Commercial Buildings) Methodology Determination 2015* (the Determination) sets out the detailed rules for implementing and monitoring offsets projects that would reduce emissions of greenhouse gases associated with the consumption of electricity and/or fossil fuels at commercial buildings.

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

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

Human rights implications

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

Conclusion

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

Greg Hunt, Minister for the Environment