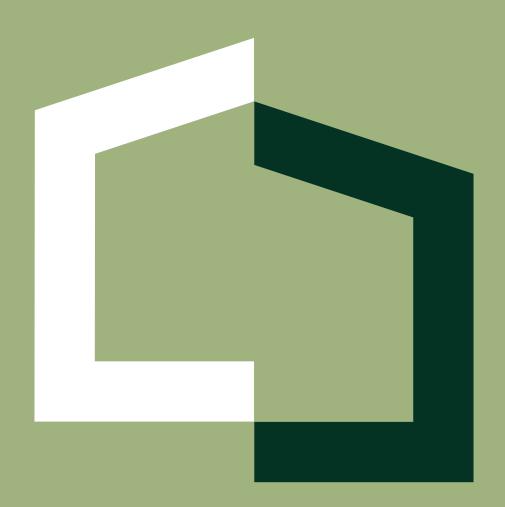


# CARBON NEUTRAL BUILDINGS



Climate Active Carbon Neutral Standard for Buildings





#### **IMPORTANT NOTE & DISCLAIMER**

The Climate Active Carbon Neutral Standard for Buildings (Building Standard) is a voluntary standard to manage greenhouse gas emissions and to achieve carbon neutrality. It provides best-practice guidance on how to measure, reduce, offset, validate and report emissions that occur as a result of the operations of a building.

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VERSION: This version of the Climate Active Carbon Neutral Standard for Buildings is effective from 26 October 2022

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# 1. Overview and principles

### 1.1 Introduction

Australians all have a role to play in protecting our unique and fragile environment.

As the world moves towards a low carbon future, the business case for being Climate Active is clear as a means to help generate revenue, reduce costs and meet stakeholder expectations. Leading businesses are choosing to reduce their climate impact to zero by becoming carbon neutral.

Carbon neutral means reducing emissions where possible and compensating for the remainder by investing in carbon offset projects to achieve net zero overall emissions (Figure 1). Offsets are generated from an activity that prevents, reduces or removes greenhouse gas emissions from being released into the atmosphere.

The Climate Active Carbon Neutral Standard for Buildings (Building Standard) is a voluntary standard to manage greenhouse gas emissions and achieve carbon neutrality. It provides best-practice guidance on how to measure, reduce, offset, validate and report emissions that occur as a result of the operations of a building.

The Building Standard has been designed to accommodate a wide variety of building types in Australia. From large office buildings to smaller apartment complexes, the Building Standard is a framework to achieve carbon neutrality and showcase climate leadership.

The Building Standard can be used in a number of ways. It can be used to better understand and manage carbon emissions, to credibly claim carbon neutrality and to seek carbon neutral certification.

For buildings that are certified (Section 3), the Climate Active Carbon Neutral Certification Trade Mark (the certification trade mark) is available for use. The trade mark provides at-a-glance proof to clients and stakeholders that a building is committed to credible, low emissions operations.

# What does it mean to be carbon neutral.

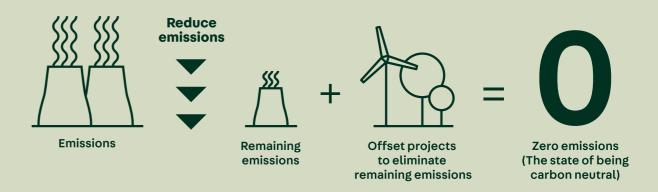


Figure 1: The process of carbon neutrality

# 1.2 Development of the Building Standard

The National Carbon Offset Standard and Carbon Neutral Program were launched by the Australian Government in 2010 to provide a credible framework for managing emissions and achieving carbon neutrality. It was first designed for organisations, products and services and expanded to events, buildings and precincts in 2017 (Box 1). The Building Standard was developed by the Department of the Environment and Energy (the Department) in partnership with the property sector. The initiative was rebranded under the Climate Active name in 2019.

Climate Active is Australia's collective initiative for climate action. Driven by members and activated by consumers, it is the only Government backed program to enable all levels of Australian society to work together to reduce carbon emissions. Further information is available at www.climateactive.org.au.

# Box 1: Categories of the National Carbon Offset Standard

- Climate Active Carbon Neutral Standard for Organisations
- Climate Active Carbon Neutral Standard for Products & Services
- Climate Active Carbon Neutral
  Standard for Events
- Climate Active Carbon Neutral Standard for Buildings
- Climate Active Carbon Neutral Standard for Precincts

Please contact the Department early to confirm the appropriate choice of certification category.

# 1.3 Core principles

The Building Standard is based on international standards and tailored to the Australian context. The Australian and international standards that form the basis for the Building Standard are listed in Section 4: References. The requirements of the Building Standard (Section 2) are underpinned by carbon accounting and offset integrity principles.

## 1.3.1 Carbon accounting principles

The following principles are considered best practice when calculating a carbon account. The carbon account of a building must be calculated according to the following principles if seeking to claim carbon neutrality against the Building Standard.

- Relevance: ensure the greenhouse gas inventory of a building appropriately reflects the
  greenhouse gas emissions attributable to that building and serves the decision-making
  needs of users both internal and external.
- Completeness: account for and report all greenhouse gas emissions sources and activities within the defined boundary of the building. Disclose and justify all exclusions.
- Consistency: use consistent methodologies to allow for meaningful comparisons of greenhouse gas emissions over time. Transparently document any changes to the data, boundary, methods or any other relevant factors in the time series.
- Transparency: compile, analyse and document greenhouse gas information clearly
  and coherently so that auditors and the public may evaluate its credibility. Disclose
  any relevant assumptions and make appropriate references to the calculation
  methodologies and data sources used.
- Accuracy: ensure the quantification of greenhouse gas emissions is unbiased
   (not systematically over or under actual emissions) and uncertainties are reduced as
   far as practicable. Achieve sufficient accuracy to enable users to make decisions with
   reasonable assurance as to the integrity of the reported information. Where uncertainty
   is high, use conservative values and assumptions.

These principles are based on those outlined in the *GHG Protocol - Corporate Standard* (WBCSD and WRI, 2004) and international standards, including the AS ISO 14064 and ISO 14040 series (references in Section 4).

# 1.3.2 Offsets integrity principles

Buildings can use offset units to support their emissions management activities.

For example, buildings seeking to become carbon neutral can use eligible offset units to compensate for emissions that cannot be completely reduced through energy efficiency, the procurement of renewable energy or supply chain management.

The purchase of offset units supports projects that reduce or remove emissions from the atmosphere, such as through reforestation, renewable energy or energy efficiency. Many of these projects also deliver other environmental, social and economic benefits; for example, improved water quality, increased biodiversity and increased Indigenous employment. Organisations often seek offset projects that provide these benefits to align with their organisational or corporate values.

The projects and offset units are verified by independent auditors through internationally recognised standards. These standards ensure the projects are implemented, run and managed properly and the credits they generate represent real and actual emissions sequestered or avoided.

One offset unit is issued for each tonne of emissions avoided or removed from the atmosphere.



The Department reviews the credibility of publicly available offset units. Only offset units that have met the integrity principles below are eligible for use in a carbon neutral claim against the Building Standard.

The integrity principles are based on the offsets integrity framework for Australian Carbon Credit Units (ACCUs) as set out in the Carbon Credits (Carbon Farming Initiative) Act 2011. The offsets integrity principles ensure any unit used to offset emissions as part of a carbon neutral claim against the Building Standard represents a genuine and credible emissions reduction.

For a unit to be eligible for use under the Building Standard, it must meet the following requirements:

- Additional: it must result in emissions reductions that are unlikely to occur
  in the ordinary course of events, including due to any existing commitment or
  target publicly agreed by the entity responsible for issuing the units. It must represent
  abatement that has not been double counted.
- **Permanent:** it must represent permanent reductions in greenhouse gas emissions. In the case of sinks, this requires that the carbon stored is sequestered and will not be released into the atmosphere for a period of 100 years. Where a period of less than 100 years is applied to sequestration units, an appropriate discount must be applied.
- **Measurable:** methods used to quantify the amount of emissions reductions generated must be supported by clear and convincing evidence.
- **Transparent:** consumers and other interested stakeholders must have access to information about the offset project that generated the abatement, including the applied methodology and project-monitoring arrangements.
- Address leakage: the system responsible for generating the offset unit must provide
  deductions for any material increases in emissions elsewhere which nullify or reduce the
  abatement that would otherwise be represented by the offset unit.
- **Independently audited:** the circumstances responsible for the generation of the unit must be verified by an independent, appropriately qualified third party and not found to be in contradiction with these integrity principles.
- **Registered:** the offset unit must be listed and tracked in a publicly transparent registry.

The Department uses a decision framework based on the offsets integrity principles to determine the eligibility of offset units under the Building Standard. A list of offset units that have met the integrity principles and are eligible for use under the Building Standard is provided in Appendix A: Eligible offset units.

Appendix A may be updated as new information or different offset units become available. This may result in the addition of new offset units or the removal of existing ones.

# 1.4 Using the Building Standard

The Building Standard is a voluntary standard and can be used in a number of ways. Firstly, it can be used to better understand and manage the greenhouse gas emissions that occur as a result of the operations of a building. This can be achieved by following the best-practice guidance provided in Section 2 on a range of topics including how to measure, reduce, offset, validate and report emissions. Secondly, it can be used as a framework to credibly claim carbon neutrality by following all of the requirements outlined in Section 2. Thirdly, it can be used as a pathway to be certified as carbon neutral as detailed in Section 1.4.2 and Section 3.

The Department may issue minor policy and accounting updates or other clarifications to the Building Standard from time to time. The Building Standard must be applied and used consistently with all such guidance material which is published at www.environment.gov.au/carbon-neutral.

#### 1.4.1 Making carbon neutral claims

When making a carbon neutral claim against the Building Standard, the responsible entity must be mindful of its obligations under Australian Consumer Law. Australian Consumer Law applies to all forms of marketing, including claims on packaging, labelling and in advertising and promotions across all media (print, TV, radio and internet).

Consumers, investors and tenants are entitled to rely on any carbon neutral claim made in reference to the Building Standard and expect these claims to be truthful. The responsible entity must ensure any claim made regarding compliance with the standard is accurate and appropriately substantiated.

#### 1.4.2 Carbon neutral certification

Carbon neutral certification against the Building Standard allows for the use of the certification trade mark, which can showcase the building's carbon neutrality. There are two pathways through which a building can achieve certification (by approved certifiers):

- 1. As an extension of a NABERS Energy rating (whole or base building): almost all the data required for a complete carbon account in a building is calculated as part of a NABERS Energy rating. If the building collects the additional data required under the Building Standard (see Box 2) and cancels eligible offset units to reach net zero emissions, then carbon neutral certification can be sought directly from the NABERS Administrator.
- 2. As an extension of a Green Star Performance rating (whole or base building): almost all the data required for a complete carbon account in a building is calculated as part of a Green Star Performance rating. If the building collects the additional data required under the Building Standard (see Box 2) and cancels eligible offset units to reach net zero emissions, then carbon neutral certification can be sought directly from the Green Building Council of Australia (GBCA).

A certification pathway for whole buildings through the Australian Government may be developed in the future. This could allow buildings that are ineligible or do not wish to obtain a NABERS Energy or Green Star - Performance rating to apply directly to the Department for carbon neutral certification.

#### 1.4.3 Use of the certification trade mark

The Climate Active Carbon Neutral Certification Trade Mark (the certification trade mark) can be used under licence to show a building complies with the Building Standard.

The certification trade mark is only available to buildings that are certified by approved certifiers (the NABERS Administrator or GBCA) and have agreed to the terms and conditions of the Certification Trade Mark Licence.

The certification trade mark can only be used in direct relationship with the category of certification. For example, an organisation occupying space in a certified building cannot use the certification trade mark on its own documents or in any other way that suggests the claim of carbon neutrality applies to the organisation (unless the organisation is itself certified against the Climate Active Carbon Neutral Standard for Organisations).

# 2. Requirements of the building standard

# 2.1 Context for the requirements

The requirements of the Building Standard are written from the perspective of a reader who is seeking to achieve carbon neutrality. Where a building chooses to claim carbon neutrality, the standard must be applied consistently and fully.

Throughout this document, the term 'must' is used to signify what is required to make a carbon neutral claim in accordance with the Building Standard. The terms 'can' or 'may' are used where a building can apply its own discretion and choose from several options, all of which are acceptable under the standard. The term 'should' is used to indicate a recommendation by the standard, in line with best practice.

The Building Standard can be applied to make a carbon neutral claim for base building operations or whole building operations.

- 1. Carbon neutral whole building operations: making a carbon neutral claim for a whole building requires a building's total emissions to be measured and offset. This includes all emissions from base building services and emissions from occupants and their operations. The Building Standard can be applied to all building types (not only those that are owned and occupied by the same entity); for example, commercial office buildings, universities, hotels, multi-unit residential buildings and public buildings.
- 2. Carbon neutral base building operations: making a carbon neutral claim for base buildings requires the emissions from the building's core services (air conditioning, common area and external lighting, hot water, lifts, car parking or similar) to be measured and offset. Base building certification does not require tenant or occupant emissions to be considered. Examples of building types include tenanted commercial buildings, industrial facilities or multi-unit residential buildings.

The base building category is provided as a stepping stone towards whole building certification and provides the property sector with an alternative option to begin a carbon neutral journey. The availability of base building certification in the Building Standard will be reviewed periodically.

The Building Standard is designed to be used for building operations. This means that carbon neutral claims against the standard only apply to operational emissions. In the context of a building, operational emissions are those generated from the day-to-day running of the building. This includes scope 1 and scope 2 emissions, but also upstream and downstream emissions (scope 3) from resource consumption and waste generation necessary for a building's day-to-day operations.

Emissions from energy (including energy embodied in materials) used to construct, fit out, renovate or upgrade the building, are not considered part of a building's operational carbon account and are not covered by the Building Standard. Embodied energy from construction materials and processes may be considered for future versions of the standard.

The responsible entity is the person or organisation that has taken responsibility for making a carbon neutral claim or seeking carbon neutral certification. The responsible entity should be clearly identified and must be able to meet the requirements of the Building Standard, including carbon accounting, regular reporting and purchasing of eligible offset units as required to make the carbon neutral claim.

The Building Standard only covers greenhouse gas emissions. Other environmental impacts of the building do not need to be assessed for the purpose of the standard.

# 2.2 Achieving and maintaining carbon neutrality

To achieve and maintain a valid and credible carbon neutral claim against the Building Standard, the responsible entity and/or approved certifier must:

- Calculate emissions (Section 2.3)
- Develop and implement an emissions reduction strategy (Section 2.4)
- Purchase offsets to compensate for remaining emissions (Section 2.5)
- Arrange independent validation (Section 2.6)
- Publish a public statement of the carbon neutral claim (Section 2.7)



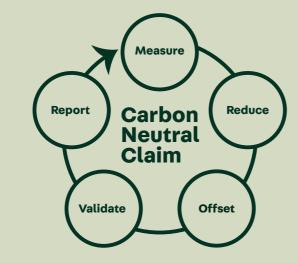


Figure 2: The cycle of activities for carbon neutral claims

A key element of a carbon neutral claim for buildings is investor and tenant confidence in the validity of the claim. The requirements of the Building Standard have been designed to provide investors and tenants with transparent information on the actions taken to achieve carbon neutral status.

Each of the stages above (Figure 2) must be completed annually (with the exception of the independent validation) to support the validity and transparency of the carbon neutral claim.

Sections 2.3 –2.7 describe the requirements of the Building Standard and provide guidance on how to meet those requirements to achieve carbon neutrality.

Certification against the Building Standard can be sought through NABERS Energy and Green Star - Performance (Section 3).

### 2.3 MEASURE: Calculate emissions

Preparing a carbon account involves the following steps:



A responsible entity may choose to develop its own carbon account, or may engage a consultant to prepare the carbon account or to provide technical advice. The Department maintains a register of consultants with relevant expertise at www.environment.gov.au/carbon-neutral.

For a building seeking to claim carbon neutrality against the Building Standard without certification, the responsible entity must use a NABERS Energy or Green Star - Performance rating as part of its carbon account.

#### Box 2: Carbon accounts for certification under NABERS Energy or Green Star - Performance

For buildings seeking carbon neutral certification through NABERS Energy, most of the carbon account can be calculated in accordance with a NABERS Energy protocol and relevant guidance.

For buildings seeking carbon neutral certification through Green Star - Performance, most of the carbon account can be calculated in accordance with Green Star-Performance submission guidelines and guides.

However, there are several additional items that must be included to complete the carbon account against the Building Standard. These are:

- Scope 1 emissions: refrigerants NABERS does not capture refrigerant emissions or other fugitive emissions of gases. Other gases as outlined in Section 2.3.2 must be added into the carbon account for the building.
- **Scope 2** emissions: accounting for renewable energy NABERS and Green Star - Performance consider onsite renewable energy (e.g. electricity from a solar system) to be zero emission electricity, regardless of the disposal of any Large Generation Certificates (LGCs) created from the generated electricity. In accordance with the Building Standard, any LGCs created during the rating period\* or performance period\* that were not voluntarily retired must be added back into the carbon account. See guidance on accounting for renewable energy at http://www.environment.gov.au/carbon-neutral.
- **Scope 3** emissions

NABERS and Green Star - Performance only capture scope 3 emissions from transmission and distribution losses from electricity and gas. In accordance with the Building Standard, scope 3 emissions from water supply, wastewater treatment and waste must be included in the carbon account of a building (Section 2.3.1).

- Rating period: 12-month period for which data is collected under NABERS.
- Performance period: 12-18-month period for which data is collected under Green Star Performance, which falls prior to certification and review as part of the yearly audits.

### 2.3.1 Step 1: Establish the emissions boundary

Defining the emissions boundary is the first step in the carbon accounting process. The emissions boundary refers to the coverage and extent of the carbon account. The boundary is established using a set of criteria to identify emissions sources and decide which of the identified sources are to be included or excluded. Refer to Figure 3 for an example of an emission boundary.

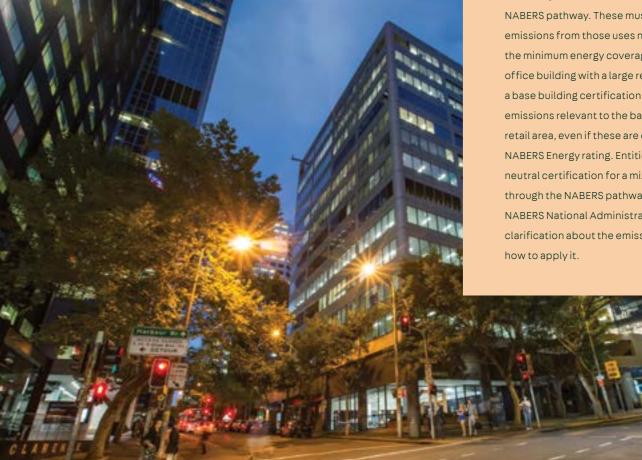
The building's emissions boundary must be transparently documented and disclosed. Where an emissions source is excluded, the exclusion must be clearly stated and justified against the relevance criteria. A disclosure statement, including the reasons and justifications for any exclusions, must be published as part of the public report (Section 2.7).

The set of criteria governing the inclusion or exclusion of emissions from a building's carbon account are the geographic boundary, building operations and relevance.

#### Box 3: For buildings seeking carbon neutral certification through NABERS Energy or **Green Star – Performance**

In most cases, the emissions boundaries (otherwise known as minimum energy coverage) described by NABERS Energy and Water for Offices, Rules for Collecting and Using Data (Office of Environment and Heritage, 2015) and Green Star - Performance Submission Guidelines (Green Building Council of Australia, 2016) align with the requirements of this Section 2.3.1, noting the additional requirements outlined in Box 2.

The exception is mixed use buildings using the NABERS pathway. These must include the relevant emissions from those uses not covered under the minimum energy coverage. For example, an office building with a large retail area seeking a base building certification must include the emissions relevant to the base building of the retail area, even if these are excluded from the NABERS Energy rating. Entities seeking carbon neutral certification for a mixed use building through the NABERS pathway should contact the NABERS National Administrator if they require clarification about the emissions boundary and how to apply it.



#### Geographic boundary

The geographic boundary refers to the physical and spatial boundary of the building. The geographic boundary sets the basis for determining what are considered direct emissions and indirect emissions (see Scopes below).

The geographic boundary of the asset must be determined as the building in its entirety. A building with multiple uses, such as an office with hotel and retail spaces, must be considered as one entity. Tenanted parts of the building must also be included in the geographic boundary.

#### Scopes of emissions

To help differentiate between different emissions sources, emissions may be classified into the following scopes (adapted from the *Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories* (WRI and ICLEI, 2014)):

- Scope 1 emissions include all direct greenhouse gas emissions from sources that
  are within a building's geographic boundary. These could be emissions from fuel use,
  refrigerants and electricity generation taking place within the building.
- Scope 2 emissions include offsite emissions from purchased electricity, heat, cooling and steam (i.e. energy produced outside the geographic boundary of the building but consumed within the building).
- Scope 3 emissions include all indirect emissions that occur as a result of the activities of the building, but occur from sources outside the building's geographic boundary.

#### **Building operations**

Emissions from building operations are those generated from the day-to-day running of the building; for example, stationary energy (lighting, heating and cooling, occupant energy use, plant and equipment, and other infrastructure), refrigerants, maintenance vehicles and machinery, as well as upstream and downstream emissions from resource consumption and waste generation necessary for a building's day-to-day running (waste, water and wastewater).

Emissions from energy (including energy embodied in materials) used to construct, fit out, maintain or upgrade the building are not considered a part of the building's operations for the purpose of the Building Standard. Emissions from construction and demolition of waste associated with these activities are also considered to be outside the operations of a building. The responsible entity may choose to optionally include these emissions sources in the emissions boundary if they are considered to be relevant under the relevance test.

#### Relevance

The criterion of relevance, as adapted from the *GHG Protocol - Corporate Standard* (WBCSD and WRI, 2004), is about ensuring the carbon account appropriately reflects the emissions of the building and meets the expectations of users and stakeholders - both internal and external to the building.

All emissions identified as occurring as a consequence of a building's operations must be considered for relevance using the relevance test below. This includes emissions which the responsible entity has direct control over as well as other emissions that it can influence. Emissions sources considered to be relevant, whether or not they fall within the geographic boundary of the building, must be included in the emissions boundary. The Building Standard deems certain emissions sources to be relevant.

#### Emissions deemed to be relevant

The following emissions sources are deemed to be relevant to all whole buildings:

- All Scope 1 emissions (direct emissions within the geographic boundary of the building) from building operations, with the exception of emissions from shared services (see below) which may be apportioned.
- All Scope 2 emissions (emissions from the generation of purchased electricity, heat, cooling and steam; i.e. energy produced outside the geographic boundary of the building but used within the building) from building operations.
- Scope 3 emissions from electricity consumption and fuel use (indirect emissions from the extraction, production and transport of fuel burned at generation, and the indirect emissions attributable to the electricity lost in delivery in the transmission and distribution network) from building operations.
- Scope 3 emissions from waste, water supply and wastewater treatment.

All other emissions sources identified must be assessed for relevance in accordance with the relevance test.

Emissions sources deemed relevant for base buildings are the same as those for whole buildings, with the additional criteria of operational control. Scope 1 and scope 2 emissions sources outside the operational control of the building owner or manager are not deemed as relevant for a base building carbon neutral claim. Scope 3 emissions sources must be assessed for relevance in accordance with the relevance test.

#### Relevance test

Emissions sources are relevant when any *two* of the following conditions are met (adapted from the GHG Protocol – Corporate Standard (WBCSD and WRI, 2004)):

- the scope 3 emissions from a particular source are likely to be large relative to the building's scope 1 and scope 2 emissions
- the emissions from a particular source contribute to the building's greenhouse gas risk exposure (i.e. will the impacts of climate change pose a serious risk to the viability of this emission source over a specified timeframe)
- the emissions from a particular source are deemed relevant by key stakeholders
- the responsible entity has the potential to influence the reduction of emissions from a particular source
- the scope 3 emissions are from outsourced activities that were previously undertaken
  within the building's boundary or from outsourced activities that are typically undertaken
  within the boundary for comparable buildings.

Important note: All emissions assessed as relevant must be included within a building's emission boundary. Emissions that are determined as not relevant can be excluded from the emissions boundary. Excluded emissions should be disclosed in the public reporting documents (Section 2.7).

#### Shared services

Emissions from shared services may be apportioned between the sharers of the service in accordance with:

- the NABERS protocols for shared services and facilities; or
- the Green Star Performance guidelines for shared services and facilities.

For buildings that share facilities and services with other buildings, the responsible entity may seek carbon neutrality for the individual buildings or together as a precinct (if they qualify under the *Climate Active Carbon Neutral Standard for Precincts*).

#### Non-quantification of relevant emissions

Relevant emission sources must be quantified unless justification can be provided to demonstrate that quantification would not be technically feasible, practicable or cost effective relative to its significance.

Responsible entities are encouraged to include, measure and report as many emissions sources as possible. The following methods can be used if primary data cannot be sourced:

- taking an initial measurement as a basis for projecting emissions for future years of that source; or
- estimating and projecting an emissions source (e.g. using input-output analysis tools, approximation through extrapolation or applying an uplift factor to the carbon account).

Where relevant emissions are non-quantified because of data or other estimation issues, a data management plan should be developed to outline how more rigorous quantification can be achieved within a reasonable timeframe. This could include setting in place appropriate data collection processes and negotiating with stakeholders who have access to accurate data.

#### Materiality

An emissions source that constitutes 1 per cent or more of the total carbon account is considered to be material under the Building Standard. Emissions sources that are relevant but estimated to constitute less than 1 per cent of the total carbon account can be non-quantified.

In applying the 1 per cent materiality threshold, the total amount of emissions to be non-quantified must not exceed 5 per cent of the total carbon account. To estimate materiality of these emissions sources, tools based on input-output analysis can be useful.

Important note: Non-quantified emission sources must be included within the emissions boundary and disclosed as non-quantified. Non-quantified emissions do not need to be included in the carbon account (see Section 2.3.4).

Stationary fuel Refrigerants **Embodied** emissions in **Electricity** Waste transport the building and building materials Waste **Transport** Office furniture Water supply Wastewater treatment Quantified Non-quantified **Excluded** 

Figure 3: Example of an emissions boundary

### 2.3.2 Step 2: Set a base year

The responsible entity must collect data to calculate the building's carbon account for a full year before a carbon neutral claim can be made. This is known as the base year.

The base year carbon account:

- demonstrates an understanding of what must be included in the building's carbon account, and what data must be collected and reported annually to maintain certification
- sets the timing of the annual reporting obligations that will have to be met to maintain carbon neutral certification
- provides a starting point for year on year emissions comparisons overtime.

## Box 4: Base year

The base year is the year for which a carbon account must be prepared before a carbon neutral claim can be made. It requires concurrent data for the 12 months immediately prior to a carbon neutral claim.

For buildings seeking carbon neutral certification through NABERS Energy or Green Star - Performance, the 'base year' is equivalent to the full year of data collection and accounting that is required for the purpose of achieving a NABERS Energy or Green Star - Performance rating



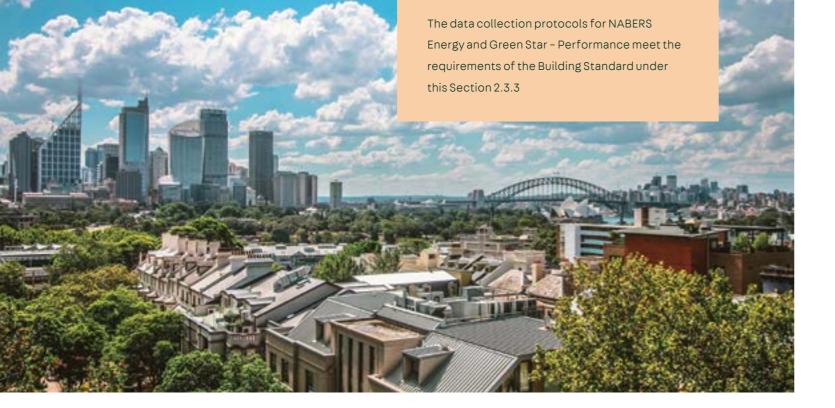
### 2.3.3 Step 3: Collect data on identified emissions sources

Once the responsible entity has established the emissions boundary, it must identify the type of data available for different emissions sources, bearing in mind the emissions calculations that it will need to undertake (Section 2.3.4).

Measured data should be used whenever possible, with conservative estimates used only where data is unavailable. For example, operational energy data should be obtained from energy meters such as electricity and gas meters (from utility bills). Where estimates are used, they must be appropriately

justified with respect to data availability and the relative size and nature of the emission source.

Box 5: For buildings seeking carbon neutral certification through NABERS Energy or Green Star – Performance



#### Data management and record keeping

The quality of data is key to the integrity of a carbon account. Quality control procedures must be in place when collecting data to ensure a high level of data quality.

The responsible entity must maintain appropriate records for an audit trail of how the carbon account was created. Records should be kept for seven years after the end of the carbon neutral period. For responsible entities seeking certification against the Building Standard, records must be kept for the period of time specified in the licence agreement.

### 2.3.4 Step 4: Calculate the carbon account

The responsible entity must calculate the greenhouse gas emissions attributable to each emission source in its emissions boundary, unless the source is identified as non-quantified (Section 2.3.1).

The carbon account should be set out to allow for easy interpretation. The calculation methods and the emission factors used must be disclosed clearly and completely.

#### Types of greenhouse gas emissions

The carbon account must include emissions of carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride ( $SF_6$ ) and nitrogen trifluoride ( $NF_3$ ).

#### **Emission factors**

Emission factors are used to convert a unit of activity into its emissions equivalent.

The responsible entity must use credible and reliable emission factors when determining the carbon account. Where a factor is available in the National Greenhouse Accounts Factors (NGA Factors, Department of the Environment and Energy) that is applicable to an emissions source, this factor should be used unless more accurate emission factors or calculation methodologies are available.

The NGA Factors is an annual publication by the Department and includes factors for scope 1 and 2 emissions sources and scope 3 emission factors for waste; solid, liquid and gaseous fuels; and electricity.

Factors used should either be the most up to date available at the time of preparing the carbon account or align with the relevant time period during which the emissions occurred.

Further guidance on emission factors is available at www.environment.gov.au/carbon-neutral.

### Treatment of renewable energy

The carbon account must include renewable energy (used or generated).

The requirements when accounting for renewable energy and energy efficiency schemes under the Building Standard are explained in guidance documents available at www.environment.gov.au/carbon-neutral.

#### Scope 3 accounting methods

#### Water, wastewater and waste emissions

Scope 3 emissions from water, wastewater and waste emissions are deemed relevant under the Building Standard. Calculations for these sources may be done using the default calculation methods in Table 1 or using more accurate calculation methods where available.

Table 1. Default calculation methods for building scope 3 emissions sources deemed relevant

| Source of emissions | Calculation method   |  |  |
|---------------------|--|--|--|
| Water               | $[Building  water  use  (ML/yr)]  x  [water  treatment  \&  pumping  emission  factor  (kg  CO_2 - e/ML)]$ $[Building  water  use  (ML/yr)]  x  SUDF  x  [wastewater  treatment  \&  pumping  emission  factor  (kg  CO_2 - e/ML)]  or$ $[Building  wastewater  discharge  (ML/yr)]  x  [wastewater  treatment  \&  pumping  emission  factor  (kg  CO_2 - e/ML)]$ |  |  |
| Wastewater          |  |  |  |
| Waste (general)     | [Building waste (tonne/yr)] x [waste transport & treatment emission factor (kg $CO_2$ -e/tonne)]   |  |  |
| Waste (recycling)   | [Building waste (tonne/yr)] $\times$ [waste transport & treatment emission factor (kg $CO_2$ -e/tonne)]  |  |  |

#### Accounting for carbon neutral supply chains

If the building's carbon account includes an activity that has been certified as carbon neutral against any of the other categories of the Climate Active Carbon Neutral Standard (see Box 1), the activity or product is considered to contribute zero emissions to the building's carbon account. This is because the emissions of the activity or product have already been accounted for and offset by another entity.

The use of the activity or product must still be reported (in the form of activity data) to ensure transparency and completeness of the carbon account. The activity data should be recorded as having an emission factor of zero.

For example, if carbon neutral retail electricity is used, the carbon account for the building would record the amount of electricity used with an associated emission factor of zero. Therefore, the calculated emissions from the use of this electricity would also be zero.

#### Accounting for carbon neutral organisations within a building

If a carbon neutral organisation certified against the *Climate Active Carbon Neutral Standard* for *Organisations* is accommodated in a carbon neutral building certified against the Building Standard, the emissions from the accommodation can be offset by either the building or the organisation.

#### For example:

- a carbon neutral certified organisation can account for the emissions from its accommodation within a carbon neutral certified building as zero emissions; or
- a carbon neutral certified building can account for the emissions from a carbon neutral certified organisation as zero emissions.

The responsible entity of the building is ultimately responsible for ensuring all emissions within its emissions boundary are measured and offset. Tenants of a carbon neutral certified building will accordingly be entitled to report emissions associated with their accommodation in the building as zero emissions.

The responsible entity of the building may, alternatively, enter into arrangements with carbon neutral certified organisations whereby the tenants undertake the offsetting for the accommodation services instead of the building. Such arrangements must be transparently reported as part of the public report (Section 2.6). This must provide information on which entity (building or tenant) is responsible for emissions associated with the accommodation. In the event of any disputes about the responsibility for offsetting emissions, the building is deemed as responsible.

#### Accounting for carbon neutral precincts

Under the Climate Active Carbon Neutral Standard for Precincts, the emissions boundary of a precinct will encompass the vast majority of the operational emissions of buildings contained within the precinct. Similar to carbon neutral organisations within a building, if a carbon neutral building certified against the Building Standard is located in a carbon neutral precinct certified against the Climate Active Carbon Neutral Standard for Precincts, the emissions from the building can be offset by either the precinct or the building.

The responsible entity of the precinct is ultimately responsible for ensuring all emissions within its emissions boundary are measured and offset. Buildings in a carbon neutral certified precinct will accordingly be entitled to report emissions included within the precinct's emissions boundary as zero emissions.

The responsible entity of the precinct may, alternatively, enter into arrangements with carbon neutral certified buildings whereby the buildings undertake the offsetting for the operations of the building instead of the precinct. Such arrangements must be transparently reported as part of the precinct's public report. This must provide information on which entity (precinct or building) is responsible for emissions associated with the building's emissions. In the event of any disputes about the responsibility for offsetting emissions, the precinct is deemed as responsible.

Note that apart from the accounting of offsets as described in this section, buildings within carbon neutral certified precincts cannot claim to be carbon neutral against the *Climate Active Carbon Neutral Standard for Buildings* unless they have met the requirements of that standard independently of the precinct.

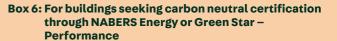
# 2.4 REDUCE: Develop and implement an emissions reduction strategy

A building seeking to become carbon neutral must develop and maintain an emissions reduction strategy or achieve (or commit to) a minimum 4 Star NABERS Energy rating or a 4 Star Green Star - Performance rating (Section 2.4).

The emissions reduction strategy must identify the emissions reduction measures to be undertaken over a specified timeframe and should quantify expected emissions reductions, where possible.

In some cases, it may not be possible or practicable to achieve emissions reductions every year. Recognising these circumstances, there is no mandatory requirement for year-on-year reductions or specific targets for reducing emissions. Nevertheless, the responsible entity should aim to achieve emissions reductions wherever possible.

A summary or outline of the emissions reduction strategy must be included in the annual Public Disclosure Statement or other public report (Section 2.7).



The minimum energy efficiency requirements and the public disclosure of the NABERS Energy or Green Star – Performance certificates meet the requirements of the Building Standard under this Section 2.4.

The minimum energy efficiency requirement is the energy performance rating that must be met before allowing carbon neutral certification. The requirements are:

- achieving a 4 Star or greater NABERS Energy rating (without GreenPower);
- achieving a 4 Star or greater Green Star Performance rating, or at least 8 of 20 points (base building) or
   9 out of 23 points (whole building) scored in the
   'Greenhouse Gas Emissions' credit in Green Star -Performance, regardless of the rating, for the building.

Where the minimum requirements cannot be met, a commitment to achieve the requirement can be made to the NABERS Administrator or GBCA at the time of submitting for carbon neutral certification. This will allow buildings working towards their rating requirement to achieve carbon neutral certification.

Where the commitment is made, the rating requirement must be achieved within three years from the carbon neutral certification (the commitment cannot be extended). If the commitment is not met at the end of three years, the carbon neutral status of the building will no longer be certified.



#### **Emissions reduction activities**

Maintaining a comprehensive carbon account can help to better understand the sources of greenhouse gas emissions and to identify the most cost-effective opportunities for reducing emissions. Once a carbon account has been measured, reductions in emissions can be calculated by comparing changes in the carbon account over time relative to previous years.

The Building Standard requires that emissions reduction activities are undertaken within the building's operations where possible, before compensating for emissions through the purchase and cancellation of eligible offset units (Section 2.5).

As such, a building seeking carbon neutrality should follow the carbon reduction hierarchy of energy efficiency, onsite renewable energy generation and offsite renewable energy generation before undertaking carbon offsetting.

Disclosing emissions reduction initiatives and reporting on achievements contributes to transparency and is in line with carbon management best practices.

Emissions reductions may be achieved in many ways, including by:

- increasing energy efficiency (e.g. by installing energy efficient lighting and appliances)
- switching to renewable energy sources
- substituting products or inputs with those that are less emissions intensive (e.g. by switching from conventional vehicle fleets to electric or hybrid vehicle fleets)
- changing practices to replace emissions intensive activities with those that generate fewer emissions (e.g. reducing flights to business meetings through using teleconferencing)
- encouraging and optimising the responsible treatment of waste (e.g. through source separation and procurement of waste treatment services with biogas capture).

# 2.5 OFFSET: Purchase offsets to compensate for remaining emissions

Any remaining emissions must be compensated each year through cancelling (also known as retiring) an equivalent number of eligible offset units (see figure 4).

Two approaches to offsetting are allowed under the Building Standard:

- **1.** Offsetting in arrears: this involves offsetting emissions for the reporting year that has just finished.
- 2. Upfront offsetting: this involves adopting an upfront offsetting approach. Offsetting in advance must be followed by an annual true-up process to ensure that sufficient eligible offset units have been cancelled to cover the period of the carbon neutral claim (Section 3.5.2).

The responsible entity should develop and maintain a strategy for purchasing and cancelling eligible offset units for each year that is the subject of a claim of carbon neutrality. This strategy may include decisions regarding the types of offset units to be purchased. The strategy should also consider the timing of offset cancellation, especially if seeking carbon neutral certification (see Section 3).

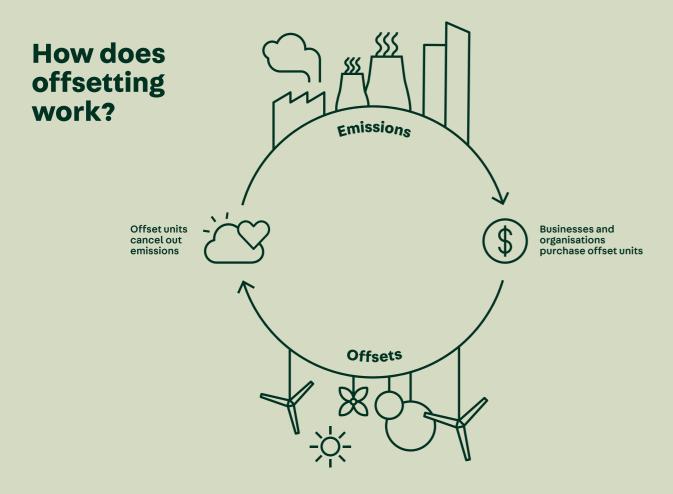


Figure 4: How offsetting works



# 2.5.1 Eligible offset units

Offset units eligible for making a carbon neutral claim against the Building Standard are listed in Appendix A. Only these units can be used to make a carbon neutral claim under the standard.

Under the Building Standard, offsetting is conducted on the total carbon account (remaining after reductions in Section 2.6) which includes the sum of all scope 1, 2 and 3 emissions. As such, eligible offset units (Appendix A) are used to compensate for scope 1, 2 and 3 emissions.

These units have met the offset integrity principles of the Building Standard (Section 1.3.2). Appendix A may be updated as new information or offset units become available. This may result in the addition of new offset units or the removal of existing ones.

The purchase of eligible offset units supports projects that reduce or remove emissions from the atmosphere. Many carbon offset projects deliver positive outcomes in addition to emissions reductions. The responsible entity may choose to purchase units from projects that align with corporate goals or values, or those that deliver specific social or environmental outcomes.

Before choosing to use any units for offsetting purposes, the responsible entity should undertake its own due diligence assessment of the originating projects and underpinning methodologies as well as consult the Department's website (www.environment.gov.au/carbon-neutral) for any updates to the eligibility of offset units.

#### 2.5.2 Proof of cancellation of offset units

Eligible offset units must be cancelled via an offsets registry. The cancellation should be clearly attributed to the carbon neutral claim and the building or responsible entity making the claim. The cancellation and attribution of eligible offset units is important to prevent resale or double counting of offset units.

Attributing units to the particular carbon neutral claim should be done via a note within the registry explaining that the units have been 'cancelled on behalf of Building XYZ to meet its carbon neutral claim against the Climate Active Carbon Neutral Standard for FY2018-19'.

There are several independently managed registers for offset units, as well as those set up

by suppliers and the administrators of the various offset standards. Units may be purchased and cancelled by the responsible entity or by a consultant or carbon service provider.

Eligible offset units may be purchased and cancelled for immediate use or they may be banked for use against a future carbon neutral claim. Early purchase and/or cancellation of units allow the responsible entity to choose the timing of purchase to meet its needs and to obtain a particular type of offset when it is available.

All eligible offset units cancelled to support a carbon neutral claim against the Building Standard must be reported transparently in the annual public report (section 2.7). The annual public report must include the following information about each cancelled unit or unit block that is part of the carbon neutral claim:

- the publicly viewable registry in which the units were cancelled (e.g. APX, ANREU, Markit);
- the name and type of the abatement project (e.g. Acme Wind Farm Project, China);
- the serial numbers of the units; and
- the vintage year of the units.

To aid transparency, the annual public report should also include a hyperlink to the record of the cancellation in the public registry, and the date the cancellation was completed.

Important note: The registry used to cancel units should be publically accessible, otherwise a screenshot providing evidence of the cancellation should be included in public reporting documents.

Box 8: For buildings seeking carbon neutral certification through NABERS Energy or Green Star – Performance

The proof of offset cancellations will be sought from the responsible entity (or applicant) through the normal NABERS Energy or Green Star - Performance submission templates.

# 2.6 VALIDATE: Arrange independent validation

Independent third party validation ensures the accuracy and completeness of carbon calculations, including the appropriateness of emissions boundaries, methodologies and calculations.

# 2.6.1 Validation requirements for carbon neutral claims with certification

Certification against the Building Standard through the Green Star - Performance or NABERS Energy pathways relies primarily on the existing review and quality control processes of these pathways to provide confidence in carbon neutral reporting. The NABERS Energy and Green Star - Performance assessment processes include standardised methods for calculating the carbon account and confirming offset retirements. NABERS and Green Star's quality assurance systems ensure that these methods are applied consistently in accordance with the requirements of the Building Standard.

In the case of Green Star - Performance, quality assurance processes include:

- The program is accredited to the ISO 9001 Quality Management Systems standard, and quality assurance processes are documented, reviewed and audited on a regular basis.
- All certifications undergo an independent review by a certified assessor, who is an industry professional independent of the GBCA.
- A sample of assessments produced by these certified assessors is validated by the GBCA each month, with all major non-conformances identified and rectified, increasing the robustness of their quality assurance processes.

In the case of NABERS, quality assurance processes include:

- Building ratings are undertaken by NABERS assessors, who undergo training by the NABERS Administrator, and are bound by the NABERS Accredited Assessor Code of Conduct and the NABERS Rules.
- All NABERS ratings undergo a quality assurance check by the NABERS Administrator.
- In addition, at least 5 per cent of ratings undergo a detailed audit by an experienced
   NABERS assessor.

These embedded quality assurance processes within the Green Star - Performance and NABERS programs provide confidence that the carbon account for the carbon neutral certification is prepared in accordance with the Building Standard.

To provide additional certainty and ensure the integrity of carbon neutral certifications against the Building Standard, verification-type audits are conducted for a minimum of

5 per cent of all carbon neutral certification for buildings (across both the Green Star – Performance and NABERS pathways) on an annual basis. These verification audits must be conducted in accordance with the *Verification Audit Framework for the National Carbon Offset Standard for Buildings*, available as a separate document on the Department's website. This framework was developed using the *National Greenhouse and Energy Reporting (NGER) (Audit) Determination 2009* as its basis.

# 2.6.2 Validation requirements for carbon neutral claims without certification

If a building is seeking to claim carbon neutrality without certification, the carbon account, emissions over time and carbon offsets must be reported and independently audited or verified on a regular basis. A carbon neutral claim against the Building Standard must be subject to independent validation (i.e. audit or verification) by an environmental auditor or carbon consultant at least once every three years. The independent validation report findings and/or assurance statement should be made publicly available.

The first validation of the base year (Section 2.3.3) must include assessment of the adequacy and appropriateness of the emissions boundary setting, emissions methodologies and emission factors.

As appropriate to the carbon account, the auditor or verifier may need reasonable access to:

- facilities, equipment and personnel required for the operations within the organisation's emissions boundary
- records, including monitoring records, utility bills, test reports, failure reports, internal
  audit and management review records, customer complaints and statistics related to the
  activities within the emissions boundary
- any additional reporting or information source used to develop the carbon account.

The responsible entity making a carbon neutral claim is responsible for maintaining appropriate records for auditing or verifying and bearing the associated costs.

# 2.7 REPORT: Publish a public statement of your carbon neutral claim

An annual report must be made publicly available to communicate progress on emissions reduction activities and offsetting as part of a carbon neutral claim. Annual reporting keeps the public and other interested parties informed in an open and transparent manner and communicates achievements in managing emissions.

The annual public report must include the following:

- the total gross and net greenhouse gas emissions of the building for the base year or current reporting period (taking into account any renewable energy and certified carbon neutral activities) and an explanation of any significant changes that are not attributed to emissions reduction actions
- an emissions summary table showing high level emissions sources and total emissions for each source type
- disclosure of any non-quantified emissions within the emissions boundary and any plans to improve the consistency and completeness of the carbon account in the future
- disclosure of any excluded emission sources from the emissions boundary that stakeholders would expect to be included, and the justification for the exclusion
- a summary of the emissions reduction strategy and of the activities undertaken in accordance with the strategy as per section 2.4; or the minimum energy efficiency requirement that the building has met to be eligible for certification through the NABERS or Green Star pathway
- records to prove that sufficient eligible offset units have been cancelled to offset the building's emissions (including the name of the registry in which the units were cancelled, vintage year, the project type and serial numbers of the relevant units) as per section 2.5.

The public report can be in the format of a Public Disclosure Statement or another document more suitable for communications with building stakeholders.

The public report must be published on the responsible entity's website (unless it is already published on the Department's website).

For buildings that are certified against the Building Standard through NABERS Energy or Green Star - Performance (Section 3), the public report (or information contained within) will be automatically published on the Department's website when certification has been granted.

Box 9: For buildings seeking carbon neutral certification through NABERS Energy or Green Star – Performance

A public version of the
NABERS Energy or Green
Star assessment report is
deemed to meet the reporting
requirements of Section 2.7.
Public reports will be published
on the Department's website.

# Certification against the building standard

Carbon neutral certification against the Building Standard can be sought for whole buildings and base buildings through the NABERS National Administrator or GBCA. An option for certification through the Australian Government's Carbon Neutral Program may be provided in the future.

Carbon neutral certification may be granted by the NABERS Administrator or GBCA:

- For whole or base buildings that meet the eligibility requirements for certification (Section 3.1).
- Upon NABERS' or GBCA's approval of the application for certification (Section 3.2).
- Upon the responsible entity accepting the terms and conditions (Section 3.3).
- Upon the responsible entity paying the application fee (information at www.environment.gov.au/carbon-neutral).

If certification is granted, the responsible entity will be provided with a notice of certification by the NABERS Administrator or GBCA (Section 3.4).

# 3.1 Pathways and eligibility for certification

Table 2. Carbon neutral certification pathways and eligibility

| Organisation                                  | Program                     | Building coverage                      | Certification eligibility   |
|---|-----------------------------|--|---|
| NABERS National<br>Administrator              | NABERS<br>Energy            | Whole<br>building and<br>base building | For buildings that have achieved or committed to a 4 Star or greater NABERS Energy rating (without GreenPower)  |
| Green Building Council<br>of Australia (GBCA) | Green Star -<br>Performance | Whole<br>building and<br>base building | For buildings that have achieved or committed to 4 Star or greater Green Star - Performance rating or have achieved a score of at least 8 of 20 points (base building) or 9 out of 23 points (whole building) in the 'Greenhouse Gas Emissions' credit in Green Star - Performance, regardless of the rating, for the building. |

#### **NABERS Energy**

NABERS Energy is a rating tool focused on benchmarking a building's energy consumption and greenhouse gas emissions. It is relevant to commercial office buildings, large retail centres, hotels, and data centres. Buildings required to comply with the *Building Energy Efficiency Disclosure Act 2010* are required to obtain a NABERS Energy rating. NABERS Energy sits alongside NABERS Indoor Environment, NABERS Water and NABERS Waste. NABERS Energy is administered by the New South Wales Office of Environment and Heritage.

Performing annual NABERS Energy Rating assessments allows emissions, in terms of building performance, to be accurately compared against peers and over time. This in turn provides transparency as to the success and magnitude of emissions reduction efforts. To obtain a NABERS rating:

- The building owner/manager/tenant commissions an accredited rating from an assessor.
- The assessor compiles data, including a site visit to the building for verification, and calculates the rating.
- The assessor submits the rating application to the NABERS National Administrator (the NABERS Administrator).
- The administrator reviews, verifies and certifies the rating.
- The administrator issues the customer with a rating certificate.

More information can be found at www.nabers.gov.au.

#### Green Star - Performance

Green Star – Performance is a holistic rating tool focused on the sustainable operations of existing buildings of any type (including mixed use). In addition to greenhouse gas emissions and energy consumption, the rating system addresses water, waste, indoor environment quality, materials, management practices and transport practices. It is owned and managed by the Green Building Council of Australia (GBCA). Green Star – Performance forms part of the Green Star rating system, which also addresses new buildings, fit outs and precincts.

Obtaining a Green Star - Performance rating allows emissions, in terms of building operations, to be accurately calculated and compared over time. This in turn provides transparency as to the success and magnitude of emissions reduction efforts.

To obtain a Green Star - Performance rating:

- The building owner or manager registers the building for a rating on the GBCA's website.
- The building owner or manager, who may be assisted by a Green Star Accredited Professional, compiles data, including a site visit to the building for verification, and prepares a submission for assessment.
- The building owner or manager submits the documentation supporting the claim to the GRCA
- The GBCA provides the documentation to an independent assessor, who in turn reviews, verifies the documentation, determines the rating and certifies the building.
- The GBCA issues the customer with a rating certificate, clearly outlining the building's achievements, including the operational emissions related to energy use and refrigerant use

More information can be found at www.gbca.org.au.

# 3.2 Application for certification

Certification against the Building Standard requires calculating a carbon account, preparing a public report and obtaining independent auditing or quality assurance.

An application for carbon neutral certification can be made by contacting the NABERS Administrator or GBCA.

- When seeking certification through NABERS Energy, the details required for an application for carbon neutral certification are sought through the rating assessment form.
- Applications for carbon neutral certification are lodged by the building's NABERS assessor.
- When seeking certification through Green Star Performance, the details required for an application for carbon neutral certification are sought through the Green Star Project Manager portal.
- Applications for carbon neutral certification can be lodged at www.gbca.org.au.

If an application is unsuccessful, the NABERS Administrator or GBCA will provide an explanation why.

#### 3.2.1 Carbon account

The responsible entity seeking carbon neutral certification must have all relevant data and must be able to calculate the building's carbon account for a full year before applying for carbon neutral certification. This is known as the base year (Section 2.3.3).

When seeking certification through NABERS Energy or Green Star - Performance, the
base year is equivalent to the full year of data collection and accounting that is required
for the purpose of achieving a NABERS Energy or Green Star - Performance rating (i.e.
rating period or performance period, respectively).

# 3.2.2 Public report

Transparency of information is important for maintaining consumer confidence in carbon neutral claims. A building seeking certification must prepare a public report as described in Section 2.6.

When seeking certification through NABERS Energy or Green Star - Performance:

- The public report requirement will be met through the information presented on the NABERS Energy or Green Star - Performance certificates and a public version of the NABERS Energy or Green Star - Performance assessment reports.
- Information as required for a public report (Section 2.6) will be collected as part of the submission templates for NABERS Energy and Green Star - Performance when applying for carbon neutral certification.
- The responsible entity will have to provide sufficient information to ensure that the resulting certificates can reflect the requirements of Section 2.6.

### 3.2.3 Independent validation

A building applying for carbon neutral certification must undergo independent auditing or quality assurance, as per the validation requirements in Section 2.6.

- For certification through NABERS Energy, the NABERS Administrator will organise the audit or quality assurance of the submission in line with the Building Standard. The NABERS Administrator may request clarification or further information to assist with the evaluation.
- For certification through Green Star Performance, GBCA will organise the audit or quality assurance of the submission in line with the Building Standard. GBCA may request clarification or further information to assist with the evaluation.

### 3.3 Terms and conditions

The NABERS Administrator and GBCA will grant certification only after the responsible entity has agreed to the *Terms and Conditions for Certification of a Carbon Neutral Building and Use of the Certification Trade Mark* (terms and conditions).

The terms and conditions stipulate the obligations for certification and for the use of the certification trade mark. Accepting the terms and conditions legally binds the responsible entity to the obligations for the timeframe specified.

The Department, NABERS Administrator and GBCA review and monitor obligations and evaluate whether the requirements of the Building Standard have been met.

A copy of the terms and conditions can be requested from the NABERS Administrator or GBCA at any time.

# 3.4 Notice of certification and licence to use the certification trade mark

If certification is granted, the responsible entity will be provided a notice of certification by the NABERS Administrator or GBCA, and will have a licence to use the certification trade mark as stipulated in the terms and conditions.

The carbon neutral certification and permission to use the certification trade mark are valid continually for the time specified in the notice of certification subject to adherence to the terms and conditions (Section 3.3).

Certification and trade mark use may be suspended or terminated by the Department, NABERS Administrator or GBCA if the terms and conditions are not met. There will be the opportunity to rectify any issues before such action is taken.

Use of the certification trade mark must be in accordance with the User Guide for the Climate Active Carbon Neutral Certification Trade Mark (User Guide). Use of the certification trade mark in accordance with the User Guide minimises risks of challenges in relation to the carbon neutral claim.

The User Guide can be found at www.environment.gov.au/climate-change/government/carbon-neutral.

Digital versions of the certification trade mark and guidance on how the trade mark can be used will be provided to the responsible entity with the notice of certification.

# 3.5 Other administrative arrangements

### 3.5.1 Continuing certification

Terms and conditions agreed to are valid for the timeframe specified in the notice of certification. Buildings seeking to continue to be certified after the timeframe specified in the notice of certification will need to submit a new application. This must be done before the timeframe expires if a building wishes to be continuously certified as carbon neutral across multiple timeframes.

### 3.5.2 Timing of offset unit cancellation

The responsible entity seeking carbon neutral certification must purchase and cancel offset units at the time of or prior to submitting their application for certification to the NABERS Administrator or GBCA.

Details of the cancelled offset units must be included in the carbon account (Section 2.6).

#### Offsets cancellation (in arrears)

A building offsetting in arrears must cancel enough eligible offset units to compensate for the emissions calculated for the year that has just finished.

#### Offsets cancellation (upfront and true-up)

If a responsible entity wishes to offset upfront, a sufficient quantity of eligible offset units need to be purchased and cancelled to offset the total emissions expected to be associated with the certified building for the coming reporting year. A true-up is then performed at the end of the reporting year to ensure that a sufficient quantity of units has been cancelled. Guidance on how to record the details of upfront offsetting in the public report is available on the Department's website at www.environment.gov.au/climate-change/government/carbon-neutral.

#### 3.5.3 Review of decisions

If the responsible entity disagrees with a decision of the NABERS Administrator or GBCA (e.g. in relation to granting of certification or use of the certification trade mark), an internal review of the decision may be requested.

For certification through NABERS Energy, the NABERS Administrator has an established appeal process that allows for a review of any decisions made. More information can be found at www.nabers.gov.au.

For certification through Green Star - Performance, the GBCA has an established appeal process that allows for a review of any decisions made. More information can be found at www.gbca.org.au.

If the responsible entity is dissatisfied with the way in which the NABERS Administrator or GBCA handles a complaint, it may complain to the Commonwealth Ombudsman.

The Ombudsman will usually decline to investigate a complaint unless the matter has been raised directly with the NABERS Administrator or GBCA first. Details of how to make a complaint to the Commonwealth Ombudsman can be found at www.ombudsman.gov.au.

# 3.5.4 Confidentiality

Information that is provided to the NABERS Administrator or GBCA that is confidential will not be disclosed to any third party without the responsible entity's permission, except under limited circumstances that are required for the administration of the certification as set out in the terms and conditions, or if required by law. This does not apply to the public reports or Public Disclosure Statements, which are public documents.

If there are any concerns about disclosure of confidential information, please discuss this with the NABERS Administrator or GBCA.

## 3.5.5 Discretion regarding certification

The Department reserves the right to refuse any application for certification under this Standard or, if granted, to suspend or terminate a licence if accepting the application or continuing the licence would bring or has brought the certification scheme into disrepute; if use of the Certification Trade Mark by the Applicant would tarnish or devalue the Certification Trade Mark; or if use of the Certification Trade Mark would breach the international treaty obligations of the Commonwealth of Australia or be contrary to policies of the Australian Government or be contrary to the laws of Australia or any jurisdiction to which the Applicant's goods were exported or in which the Applicant's services were provided. It may also suspend or terminate a licence agreement in accordance with its terms, including if the holder no longer meets requirements for certification. For the avoidance of doubt, the Department will not be liable for any loss or damage of any kind, howsoever arising, that may be occasioned directly or indirectly as a result of such a refusal, suspension or termination.

#### Tobacco organisations, products, services, events, buildings and precincts

Tobacco related organisations, products, services, events, buildings and/or precincts will not be certified. This arises from Australia's commitment to implementing Article 5.3 of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC), as further enunciated in Australia's Interpretative Declaration in relation to the WHO FCTC, the Guidelines for implementation of Article 5.3 of the WHO FCTC, and the Australian Government Department of Health's Guidance for Public Officials on Interacting with the Tobacco Industry.

# 4. References

The following existing Australian and international standards and Australian legislation provide the basis for the Building Standard. These documents also provide further detailed information on how to develop a carbon account.

- Australian Standard (AS) ISO 14064 series, including:
  - AS ISO 14064.1:2006 Greenhouse gases Part 1: Specification with guidance at the organisation level for the quantification and reporting of greenhouse gas emissions and removals
  - AS ISO 14064.2:2006 Greenhouse gases Part 2: Specification with guidance at the project level for quantification and reporting of greenhouse gas emission reductions and removal enhancements
  - AS ISO 14064.3:2006 Greenhouse gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions

- International Standard ISO 14040 series, including:
  - ISO14040:2006 Environmental management - Life cycle assessment - Principles and frameworks
  - ISO14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines
  - Other international standards that are based on the ISO 14040 series, including PAS 2050:2011
  - Specification for the assessment of the life cycle greenhouse gas emissions of goods and services
- ISO 14065:2013 Greenhouse gases

   Requirements for greenhouse gas

   validation and verification bodies for use in accreditation of other forms
   of recognition

- The British Standards Institution's (BSI)
   Specifications, including:
  - BSI's PAS 2060:2014 Specification for the demonstration of carbon neutrality
- The Greenhouse Gas (GHG) Protocol standards, including:
  - GHG Protocol A corporate accounting and reporting standard (2004)
- The GHG Protocol for Project Accounting (2005)
- GHG Protocol Corporate Value
   Chain (Scope 3) Accounting
   and Reporting Standard (2011)
- GHG Protocol Product
   Life Cycle Accounting and
   Reporting Standard (2011)
- GHG Protocol Scope 2Guidance (2015)
- Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories -An Accounting and Reporting Standard for Cities (2014)

- The National Greenhouse and Energy Reporting Act 2007 (NGER Act) and supporting legislation and documentation, including:
  - National Greenhouse and Energy Reporting Regulations 2008
  - National Greenhouse and Energy Reporting (Measurement)
     Determination 2008
- National Greenhouse and Energy Reporting (Audit)
   Determination 2009
- National Greenhouse and Energy Reporting Technical Guidelines
- National Greenhouse
   Accounts Factors

All standards and legislation are subject to revision. Responsible entities must use the most recent version or editions of any listed standards, guidance material or legislation.

# 5. Glossary

#### Activity data

Source data from a generating activity, such as fuel usage and electricity consumption, and can be used to determine greenhouse gas emissions.

#### Additionality

A requirement that a project or activity results in carbon abatement unlikely to occur in the ordinary course of events in the absence of the project or activity, including due to any existing commitment or target publicly agreed by the entity responsible for issuing the units.

Abatement must not be double counted under another system.

#### Approved certifier

Any entity approved by the Department to certify organisations, products & services, buildings, precincts and events as carbon neutral against the Climate Active Carbon Neutral Standard. Approved certifiers are a credible and reputable entity chosen by the Department due to their experience and expertise in the relevant sector. Approved Certifiers have a contractual arrangement in place with the Department which sets out the role and responsibility of the approved certifier.

#### Attributable processes

Service, material and energy flows that become the product, make the product, and carry the product through its life cycle.

#### Australasian EPD Programme

A platform for environmental information operating in alignment with the International EPD System.

#### Australian Carbon Credit Unit (ACCU)

An emissions unit issued under the Carbon Credits (Carbon Farming Initiative) Act 2011.

#### Base year

The reference year (calendar, financial or other) from which changes in emissions can be tracked over time. This is usually a year's worth of emissions data that is audited before certification is granted.

#### **Building operations**

One of the criterion for determining the inclusion and exclusion of emissions from a building's carbon account. Emissions generated from the day-to-day running of a building are considered to be part of the building operations.

#### Cancellation

Transfer of a unit to a cancellation account so that it may not be used for any further purpose. Also known in some schemes as 'retirement'.

#### Carbon account

A measure of the carbon dioxide equivalent emissions attributable to an activity. A carbon account can relate to the emissions of an individual, household, organisation, product, service, event, building or precinct. This can also be known as a carbon footprint or emissions inventory.

#### Carbon dioxide equivalence (CO2-e)

A standard measure that takes account of the global warming potential of different greenhouse gases and expresses the effect in a common unit.

#### Carbon neutral

A situation where the net emissions associated with an activity are equal to zero because emissions have been reduced and offset units cancelled to fully account for all emissions.

#### Carbon sink

A natural or man-made reservoir, such as a forest, that stores carbon.

#### Certification trade mark

See Climate Active Carbon Neutral Certification Trade Mark.

#### **Certified Emission Reduction (CER)**

A Kyoto Protocol unit corresponding to one metric tonne of carbon dioxide equivalent emissions, and issued for verified emissions reductions or removals achieved by a project approved under the Clean Development Mechanism (CDM). CDM projects undertaking afforestation and reforestation activities are issued temporary (tCERs) and long-term units (ICERs), which expire and must be replaced after a specified period.

#### City

Any geographically discernible subnational entity, with a local government, such as a community, town, city or province, and covers all levels of subnational jurisdiction as well as local government as legal entities of public administration.

#### Clean Development Mechanism (CDM)

A carbon offset mechanism established under Article 12 of the Kyoto Protocol.

Countries with emissions targets under the Kyoto Protocol can meet their obligations using credits from greenhouse gas abatement projects established under Article 12 in countries that are party to the Protocol but do not have an emission target.

# Climate Active Carbon Neutral Certification Trade Mark (certification trade mark)

The Climate Active Carbon Neutral
Certification Trade Mark IP Australia
Reference Number 2042153 (for Licence
agreements after 15 November 2019),
or the National Carbon Offset Standard
Certification Trade Mark IP Australia
Reference Number 1369520 (for Licence
agreements before 15 November 2019).

#### Climate Active Carbon Neutral Standard

A standard for making carbon neutral claims; maintained by Australian
Government Department of the
Environment and Energy; sets rules
for measuring, reducing, validating
and reporting emissions. The standard is
available for organisations, products and
services, buildings, precincts and events.

#### Conservative approach

An approach that reduces the risk of emissions being underestimated in the carbon account.

#### Department (the)

Australian Government Department of the Environment and Energy.

#### Eligible offset unit

An offset unit that has been deemed to meet the Climate Active Carbon Neutral Standard's offsets integrity principles, and is listed in Appendix A to this standard.

#### **Emission factor**

A factor that specifies the kilograms of CO<sub>2</sub>-e emissions per unit of activity.

# Emissions abatement or carbon abatement

Either the removal of one or more greenhouse gases from the atmosphere or the avoidance of emissions of one or more greenhouse gases.

#### Equity share

One of the approaches described in the *GHG Protocol – Corporate Standard* (WBCSD and WRI, 2004) for setting an organisational boundary. See Section 2.3.1 for further details.

#### **Event**

A planned and organised occasion.

### **Event Organiser**

The entity that assumes control of the event's planning and documentation.

#### Financial control

One of the control approaches described in the *GHG Protocol - Corporate Standard* (WBCSD and WRI, 2004) for setting an organisational boundary. See Section 2.3.1 for further details.

#### Functional unit

A means of expressing the greenhouse gas emissions of a product or service in a way that is meaningful for the product or service being investigated (e.g. kilograms of  $CO_2$ -e per unit of product).

#### Geographic boundary

The physical and locational border that separates a building or a precinct from other areas not considered a part of that same building or precinct. The geographic boundary is the main criterion for defining the emissions boundary of a building or precinct. Refer to Section 2.3.1 for further details.

# Green Building Council of Australia (GBCA)

The Green Building Council of Australia (GBCA) is the nation's authority on sustainable buildings and communities. The GBCA's mission is to accelerate the transformation of Australia's built environment into one that is healthy, liveable, productive, resilient and sustainable. The GBCA works with industry and government to encourage policies and programs that support its mission. The Council educates thousands of people each year on how to design and deliver sustainable outcomes for Australia's buildings and communities and it operates Australia's only national, voluntary, holistic rating system for sustainable buildings and communities - Green Star.

#### Greenhouse gases (GHG)

The atmospheric gases responsible for causing global warming and climate change. The Kyoto Protocol lists six greenhouse gases – carbon dioxide  $(CO_2)$ , methane  $(CH_4)$ , nitrous oxide  $(N_2O)$ , hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur –hexafluoride  $(SF_6)$  – with the addition of nitrogen trifluoride  $(NF_3)$  from the beginning of the protocol's second commitment period.

#### **Green Star**

Green Star is an internationally recognised holistic sustainability rating system which provides independent verification of sustainable outcomes throughout the life cycle of the built environment.

#### Input-output analysis

A method of estimating carbon emissions using aggregate economic and emissions data which are categorised into different industry sectors. The analysis takes into account the economic flows between these sectors, and is usually presented in input-out tables (or databases) as an emissions intensity per dollar of economic activity (or business spending) in any given industry sector.

#### International EPD System

A global program for environmental declarations based on ISO 14025 and EN 15804.

#### **Kyoto Protocol**

An international treaty that was created under the United Nations Framework

Convention on Climate Change (UNFCCC) in 1997 and entered into force in 2005.

The Kyoto Protocol sets binding targets for the reduction of greenhouse gas emissions by developed countries and countries in transition.

#### Kyoto unit

Emissions units created under the Kyoto Protocol. Kyoto units include Assigned Amount Units (AAUs), Certified Emission Reductions (CERs, including tCERs and ICERs), Emission Reduction Units (ERUs) and Removal Units (RMUs).

#### Licence agreement

An agreement in place between the responsible entity and the Department which contains terms and conditions for the use of the certification trade mark.

The responsible entity must agree to and comply with the obligations and rules contained in the licence agreement in order to use the certification trade mark.

#### Life cycle

Consecutive and interlinked stage of a product system, from raw material acquisition or generation from natural resources to final disposal.

#### Life cycle assessment (LCA)

The compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its production, use, transport and disposal (the product's 'life cycle').

#### Large event

Greater than 10,000 unique attendees at a single-day event; or greater than 5,000 unique attendees over the course of a multi-day event.

#### Material

The status of an emissions source when it constitutes 1 per cent or more of the total carbon account. Refer to Section 2.3.1 for further details.

#### Material discrepancy

An error (e.g. from an oversight, omission or miscalculation) that results in the reported quantity being significantly different to the true value to an extent that will influence performance or decisions. This definition is taken from the *GHG Protocol – Corporate Standard* (WBCSD and WRI, 2004).

#### Materiality

See Material.

# National Administrator for the National Australian Built Environment Rating System (the NABERS Administrator)

NABERS is a national program managed by the NABERS National Administrator, the NSW Government's Department of Planning, Industry and Environment (DPIE), and overseen by a National Steering Committee. The NSW DPIE manages the operation and development of NABERS throughout Australia on behalf of the National Steering Committee.

## National Australian Built Environment Rating System (NABERS)

A national rating system that measures the environmental performance of Australian buildings and tenancies. Put simply,

NABERS measures the energy efficiency,
water usage, waste management and indoor environment quality of a building or tenancy and its impact on the environment.

### National Greenhouse and Energy Reporting (NGER) Scheme

The national reporting framework for information related to greenhouse gas emissions, energy production and use by corporations operating in Australia. The framework is established under Commonwealth legislation, which makes registration and reporting mandatory for corporations whose greenhouse gas emissions or energy production or use meet certain thresholds.

#### National Carbon Offset Standard

The previous name of the Climate Active Carbon Neutral Certification Standard.

#### NGER Act

National Greenhouse and Energy Reporting Act 2007.

#### Non-attributable processes

Processes and services, materials and energy flows that are not directly connected to the studied product because they do not become the product, make the product, or directly carry the product through its life cycle.

#### **Notice of Certification**

A formal letter of acknowledgement from the Department to the responsible entity informing it that its application for Climate Active certification has been successful.

#### Notice of Continuing Certification

A formal letter of acknowledgement from the Department to the responsible entity informing it that its annual obligations for Climate Active certification has been met.

#### Offsetting

The activity of cancelling offset units.

#### Offset unit

Represents reductions of greenhouse gases or removals of greenhouse gases from the atmosphere by sinks, relative to a business-as-usual baseline. Offset units are tradeable and can be used to negate (or offset) all or part of another entity's emissions.

#### Organisation

A company, corporation, firm, enterprise, authority or institution, or a combination thereof, incorporated or not, public or private, that has its own functions and administration. This may also include an organisation that shares functions and/or administration with another organisation.

#### Permanence

A requirement that offset units represent reductions in emissions or an increase in carbon sequestration that is permanently maintained and is not re-released into the atmosphere.

#### Precinct

A precinct or district is a discernible area 'more than a building and less than a city' and is primarily defined by its geographic boundaries, which, at a minimum, must incorporate public infrastructure beyond a single building.

#### Process map

An illustration which shows the different processes where materials and energy are brought together to move a product or service through its lifecycle. See Figure 7.2 of the *GHG Protocol – Corporate Standard* (WBCSD and WRI, 2004) for a sample process map.

#### Product

A tangible (and usually physical) good.

#### Relevance

Concept adapted from the This definition is taken from the *GHG Protocol - Corporate*Standard (WBCSD and WRI, 2004) for ensuring the carbon account of a subject appropriately reflects the emissions of that subject and meets the expectations of users and stakeholders. See Section 2.3 for further details.

#### Relevance test

Qualitative test for determining whether certain emissions sources are or are not considered relevant. See Section 2.3 for further details.

#### Removal Unit (RMU)

A unit created under the Kyoto Protocol corresponding to one metric tonne of carbon dioxide equivalent emissions sequestered and issued for removals of carbon dioxide from the atmosphere by eligible land use, land-use change and forestry activities.

#### Responsible entity

The organisation or person
(with appropriate delegation to sign
on behalf of the organisation) that
has taken responsibility for making a
carbon neutral claim or seeking carbon
neutral certification.

#### Scope

The categorising of emissions sources into direct and indirect sources. See individual definitions for scope 1 emissions, scope 2 emissions and scope 3 emissions.

Further details in Section 2.3.2.

#### Scope1emissions

The release of greenhouse gases into the atmosphere as a direct result of activities occurring within a responsible entity's control (or geographic boundary).

#### Scope 2 emissions

The release of greenhouse gases into the atmosphere from the consumption of electricity, heating, cooling or steam that is generated outside of a responsible entity's control (or geographic boundary).

#### Scope 3 emissions

Greenhouse gases emitted as a consequence of a responsible entity's activities but emitted outside the responsible entity's control (or geographic boundary).

#### Sequestration

The removal of atmospheric carbon dioxide, either through biological processes (e.g. photosynthesis in plants and trees) or geological processes (e.g. storage of carbon dioxide in underground reservoirs).

#### Service

A transaction in which no physical good is transferred between the seller and buyer.

### Significant emissions

Emissions that make up more than five per cent of the total carbon account for an event certification and always includes electricity, attendee travel, food and drink, and accommodation.

#### Small event

Less than 5,000 unique attendees over the course of a multi-day event; or less than 10,000 unique attendees at a single-day event.

#### True-up

The calculation to determine if additional eligible offset units must be purchased after the measurement of a post-event carbon account

#### Uplift factor

A factor used to increase the estimated emissions from an activity, usually by a risk-adjusted proportion or percentage, and mitigate the risk of emissions being underestimated in the *carbon account* 

# User Guide for the Climate Active Carbon Neutral Certification Trade Mark (User Guide)

Sets out the rules that govern how and when the certification trade mark can be used.

#### Verified Carbon Unit (VCU)

A unit corresponding to one metric tonne of carbon dioxide equivalent emissions reduced or avoided, as certified and issued under the Verified Carbon Standard.

#### Verified Emissions Reduction (VER)

A unit corresponding to one metric tonne of carbon dioxide equivalent emissions reduced or avoided, as certified and issued under the Gold Standard, a global standard for projects that deliver carbon abatement and other social and environmental benefits.

#### Vintage

Refers to the date of issuance of an offset unit.

Climate Active Carbon Neutral Standard for Buildings

Appendix A: Eligible offset units

# Appendix A: Eligible offset units

# **Eligible offset units**

All units must have a vintage year later than 2012.

The following offset units are eligible under the Climate Active Carbon Neutral Standard:

- Australian Carbon Credit Units (ACCUs) issued by the Clean Energy Regulator in accordance with the framework established by the Carbon Credits (Carbon Farming Initiative) Act 2011.
- Certified Emissions Reductions (CERs) issued as per the rules of the Kyoto Protocol from Clean Development Mechanism projects, with the exception of:
  - long-term (ICERs) and temporary (tCERs); and
  - CERs from nuclear projects, the
     destruction of trifluoromethane, the
     destruction of nitrous oxide from
     adipic acid plants or from large scale hydro-electric projects not
     consistent with criteria adopted
     by the EU (based on the World
     Commission on Dams guidelines).
- Removal Units (RMUs) issued by a Kyoto Protocol country on the basis of land use, land-use change and forestry activities under Article 3.3 or Article 3.4 of the Kyoto Protocol.

- Verified Emissions Reductions (VERs) issued by the Gold Standard.
  - Abatement recognised by the Gold
     Standard may be subject to the
     possibility of double counting; for
     example, where the abatement
     occurs in a host country or region
     that is affected by international or
     national emissions trading, cap and
     trade or carbon tax mechanisms.
     Please see the Gold Standard's
     Double Counting Guideline for
     full details.
- Where the additionality of a VER is ensured through the cancellation of an Eligible Cancellation Unit (as defined by the Gold Standard), that VER is only eligible for use under the Climate Active Carbon Neutral Standard where the applicable Eligible Cancellation Unit would also have been eligible under the Climate Active Carbon Neutral Standard.
- Verified Carbon Units (VCUs) issued by the Verified Carbon Standard.

This list of eligible offset units will be updated as new information or new offset units become available. This may result in the addition of new offset units or the removal of existing ones.

A decision framework based on the offset integrity principles (Section 1.3.1) is used to determine the eligibility of new offset units and to review the eligibility of existing units.

#### **Australian Carbon Credit Units**

If a responsible entity is generating Australian Carbon Credit Units (ACCUs) within their emissions boundary, any reductions from the ACCU project can only be counted as a reduction in the carbon account if the ACCUs from the project are voluntarily retired on behalf of the responsible entity. Otherwise, the responsible entity is required to account for the ACCU project's emissions reductions by purchasing offsets equivalent to the reductions from the ACCU project (i.e. as though the projects has never occurred).

Additional guidance on offset units is available at www.environment.gov.au/carbon-neutral.

