

PAS 2060:2014

Specification for the demonstration of carbon neutrality



SUPPORTED BY



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Foreword

This PAS was sponsored by the Environmental Protection Administration, Executive Yuan, R.O.C.(Taiwan). Its development was facilitated by BSI Standards Limited and it was published under licence from The British Standards Institution. This PAS came into effect on 30 April 2014.

Acknowledgement is given to the following organizations that were involved in the development of this PAS as members of the steering group:

- Anthesis Consulting Group (incorporating Best Foot Forward Ltd)
- BP Target Neutral
- Carbon Care Asia Limited
- Carbon Clear Limited
- China Standardization and Technical Consortium for Energy Conservation and Emission Reduction (STCE)
- Climate Friendly Proprietary Limited
- EcoAct
- Forestry Commission
- Foundation of Taiwan Industry Service (FTIS)
- The Gold Standard Foundation
- Inovate
- Institute of Environmental Management and Assessment (IEMA)
- Taiwan Accreditation Forum (TAF)

Acknowledgement is also given to the members of the wider review panel consulted in the development of this PAS.

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This PAS is not to be regarded as a British Standard. It will be withdrawn upon publication of its content in, or as, a British Standard.

The PAS process enables a specification to be rapidly developed in order to fulfil an immediate need in industry. A PAS can be considered for further development as a British Standard, or constitute part of the UK input into the development of a European or International Standard.

Supersession

This PAS supersedes PAS 2060:2010, which is withdrawn.

Use of this document

It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element. The word "should" is used to express recommendations, the word "may" is used to express permissibility and the word "can" is used to express possibility, e.g. a consequence of an action or an event.

Spelling conforms to The Shorter Oxford English Dictionary. If a word has more than one spelling, the first spelling in the dictionary is used.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a PAS cannot confer immunity from legal obligations.

Introduction

0.1 General

Climate change and the emission of greenhouse gases continues to be one of the critical issues facing society. Strategies and actions to reduce carbon footprints remain important and governments, industry and communities are still responding to this issue in various ways.

In some markets, carbon neutrality is seen as an important indicator for consumers wishing to choose greener products and services and in these areas, PAS 2060 has provided common definitions and a recognized method of validation that has helped to restore credibility to the concept of carbon neutrality.

The anticipated benefits for the use of PAS 2060 remain:

- enhanced consumer protection;
- increased action on climate change;
- accurate and verifiable declarations of carbon neutrality that are not misleading;
- reduction in confusion between trading partners;
- increased likelihood that corporate entities will make improvement in their carbon management relating to production processes and products, in response to customer pressure;
- increased opportunity for the public, consumers, purchasers and potential purchasers to make more informed choices.

The use of PAS 2060 over its first two years has demonstrated that the concept of carbon neutrality can justifiably relate to a wide variety of subjects including products, organizations, communities, travel, events, projects, and buildings. In practice, the only subject that has generated significant enquiry on matters relating to the application of PAS 2060 has been that of events and in response, this revision contains a new annex providing additional insight and guidance in this area.

Also in response to request from users of the PAS, special provision has been made for the presentation of claims in advertising or other promotional material. An explicit declaration or claim of carbon neutrality in the form of a prescribed, publicly available statement is still required but is now part of the qualifying explanatory statement (QES). In parallel with this, the PAS now provides text for an equivalent “representative statement” that may be used in advertising, literature, publicity, labels, and technical bulletins in printed or electronic media.

The fundamental principle that the methodologies used to collate evidence that substantiates such declarations need to be clear, transparent, and scientifically sound, documented and readily available remains as the foundation of PAS 2060. It is this public availability of supporting evidence that ensures that interested parties can be assured of the validity of any claim of carbon neutrality in accordance with PAS 2060.

PAS 2060 has been updated to recognize improvements in the knowledge and understanding of greenhouse gas emissions assessment, reduction and offsetting that have taken place over the first two years of its availability but continues to underpin reliable, credible claims that the subject of such a claim can indeed be considered carbon neutral.

0.2 This specification

0.2.1 This PAS has been revised in response to:

- comments received from users over the two years since first publication;
- recommendations submitted via a BSI Survey run during August/September 2013;
- improvement in general knowledge and understanding of greenhouse gas emissions, assessment, reduction and offsetting.

It continues to provide a clear definition of carbon neutral and a credible means of determining and demonstrating carbon neutrality. The specification encourages entities to work towards reduced greenhouse gas emissions and to achieve genuine reductions in those emissions. Its use encourages real change in behaviour to help drive society towards a low carbon economy.

0.2.2 This specification remains true to its original concept that transparency and accountability around declarations of carbon neutrality are essential to build trust and confidence. It therefore constitutes good practice with respect to the making and substantiation of carbon neutral claims but continues to recognize and make provision for the fact that currently determined good practice is likely to evolve as improved methodologies for carbon footprinting emerge.

0.2.3 This specification provides a credible and logical roadmap for entities that are setting out to achieve carbon neutrality for any subject that they have unambiguously identified and clearly defined. For an entity that has previously undertaken the reduction of greenhouse gas emissions from such a subject in a manner that meets the requirements of this PAS and is now seeking to obtain recognition of that reduction in relation to a claim of carbon neutrality, this specification makes enhanced provision for taking account of historical GHG emission reductions in relation to the first declaration made.

0.2.4 Although the principles set out in **6.1.2** and **8.2.2** of this PAS are fundamental to its application, it is still intended that this specification can be used with other existing standards, industry codes and established protocols and guidance that prescribe methodologies for carbon footprint quantification, greenhouse gas reduction and carbon credits and offsetting. It therefore identifies some of the examples recognized as potentially appropriate for application in connection with the demonstration of carbon neutrality. It is however important for entities applying this PAS to recognize that in this latter respect, the principles set out in **6.1.2** and **8.2.2** are the core of the specification and when using other standards as part of a PAS 2060 application, they are required to confirm and record that their carbon credit purchase and application of the methodologies selected for quantification, re-quantification or offsetting, of the greenhouse gas emissions from the subject, conforms to those principles.

0.2.5 This specification also refers to some aspects of carbon neutrality for which no standard currently exists or has been proven and it therefore sets out rules and principles whereby new or modified standards or codes can be judged acceptable for use in connection with a declaration of carbon neutrality in accordance with its provisions.

Attention is particularly drawn to the fact that through implementation of the requirement to publish a QES, users of this PAS will be expected to publicly justify their selection of particular standards or approaches in respect of the identified subjects being assessed for carbon neutrality.

1 Scope

This PAS specifies requirements to be met by any entity seeking to demonstrate carbon neutrality through the quantification, reduction and offsetting of greenhouse gas (GHG) emissions from a uniquely identified subject. It is not the intention of this PAS to exclude any specific subjects or entities.

It is intended that this specification be used by any entity, including:

- regional or local government;
- communities;
- organizations/companies or parts of organizations (including brands);
- clubs or social groups;
- families;
- individuals.

This specification is applicable to the demonstration of carbon neutrality in respect of any subjects selected and defined by the applying entity, including for their:

- activities;
- products;
- services;
- buildings;
- projects and major developments;
- towns and cities;
- events.

Achieving carbon neutrality solely through reduction of direct GHG emissions will not be practicable in most instances and hence carbon offsets (see 3.7) are likely to play a role in achieving carbon neutrality. **However, this specification does not make provision for a declaration of the achievement of carbon neutrality solely through offsetting** other than for the first application period, where to facilitate initiation of the process, concession is made to enable entities to take up the option of making a declaration of the achievement of carbon neutrality solely through carbon offsets. In all subsequent periods it is essential that a reduction in absolute terms and/or a reduction in emission intensity be evident for the defined subject, if carbon neutral status in accordance with PAS 2060 is to be claimed.

This specification provides for communication at two levels. The primary level requires one of two forms of declaration as follows:

1. The declaration of commitment to carbon neutrality requires the entity to establish the carbon footprint of the subject and to document a carbon footprint management plan describing how the entity intends to achieve carbon neutrality with respect to the defined subject.

2. The declaration of achievement of carbon neutrality requires the entity to have achieved reductions in the carbon footprint of the subject and to have offset remaining GHG emissions. Such declarations of achievement therefore only apply to the scope and period validated and should the entity intend to extend its claim to future periods, further validation will be required.

The secondary level is a “representative statement” couched in more consumer friendly terms, for use in promotional material. However, the use of a representative statement is only permitted in addition to the publication of the formal declaration.

This specification provides for the validation of declarations by the entity itself as well as by other parties and independent third parties, engaged to do so. To claim compliance with this PAS, it is necessary that the entity satisfy all of the requirements within the specification relevant to the declaration being made.

This specification establishes a set of principles against which the selection of methodologies for GHG emissions quantification and offsetting can be undertaken. It also incorporates examples of widely accepted standards and methodologies (see Annex C) that can be presumed to meet those principles although other standards can also meet this requirement. However, the entity undertaking assessment is still required to confirm that the methodology accepted is being used in accordance with those principles.

Annex A (Normative) sets out the permissible declarations in respect of carbon neutrality including that for a unified declaration for entities wishing to declare both achievement of and future commitment to, carbon neutrality.

Annex B (Informative) provides a list of the information required to complete the qualifying explanatory statement (QES) for each declaration and is appropriate for use as a check list to assist in establishing the completeness of a QES.

The application of proprietary logos or symbols to represent the status of carbon neutrality is outside the scope of this specification.

2 Normative references

The documents identified in Annex C, Table C.1 of this PAS can be fundamental to its successful application but are not normative in the usual standards-related meaning of that term. This is because choice as to which document provides the most appropriate methodology for any particular entity or subject rests with the user of this PAS, on the basis of the principles and requirements embodied in it.

Within the terms of this PAS however, conformity to the requirements of any external documents selected by the applying entity, is an integral part of conformity to this specification.

To conform to PAS 2060, it is necessary that an entity satisfy the requirements of all of the documents that it identifies as being applicable to it and/or to the subject. The manner of application of the methodologies provided shall conform to the principles of PAS 2060.

For dated documents, only the edition cited applies. For undated documents, the most recent edition of the document (including any amendments) applies.

3 Terms and definitions

For the purposes of this PAS, the following terms and definitions apply.

3.1 application period

period of time between the baseline date and the first qualifying date or between successive qualifying dates, for which a declaration in respect of carbon neutrality is made.

NOTE There is no specific length to the application period which can be determined in accordance with the assessing entities carbon footprint management plan. However, successive application periods should be of equal length other than where the first is extended by inclusion of historic reductions (see 3.17).

3.2 baseline date

date on which the carbon footprint for the subject was first determined in accordance with this PAS.

3.3 carbon dioxide equivalent (CO₂e)

the universal unit of measurement used to indicate the global warming potential of greenhouse gases expressed in the terms of the 100-year global warming potential of one metric tonne of carbon dioxide

NOTE The carbon dioxide equivalent is calculated using the mass of a given greenhouse gas multiplied by its global warming potential.

3.4 carbon footprint

absolute sum of all emissions and removals of greenhouse gases caused directly and indirectly by a subject either over a defined period or in relation to a specified unit of product or instance of service and calculated in accordance with a recognized methodology

3.5 carbon neutral

condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere as a result of the greenhouse gas emissions associated with the subject during the same period

3.6 carbon neutrality

state of being carbon neutral

3.7 carbon offset

discrete reduction in greenhouse gas emissions not arising from the defined subject, made available in the form of a carbon credit meeting the requirements of 9.1.2 and used to counteract emissions from the defined subject

NOTE Carbon offsets are acquired to compensate for greenhouse gas emissions arising from a defined subject. Offsets are calculated relative to a baseline that represents a hypothetical scenario for what emissions would have been in the absence of the mitigation project that generates the offsets. A carbon credit is a generic term to assign a value to the carbon offset. One carbon credit is usually equivalent to one tonne of carbon dioxide.

3.8 declaration

formal statement in respect of carbon neutrality

3.9 determine

ascertain or establish by calculation, the essential characteristics of a subject and allocate a unique identity

3.10 direct emissions (Scope 1 – see below for further definition)

greenhouse gas emissions from sources that are owned or controlled by the entity

3.11 emission factor

amount of greenhouse gases emitted, expressed as carbon dioxide equivalent and relative to a unit of activity

NOTE Emission factors are used to calculate GHG emissions from activity data such as fuel consumption, production, or consumption statistics. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant. Hence an emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant.

3.12 emission intensity

average emission of greenhouse gases from a given source relative to the frequency of occurrence of a specific activity (e.g. tCO₂e per specified unit of product, instance of service or value or revenue generated)

NOTE Measuring reductions using emission intensity allows an organization to account for increases or decreases in production over time. When using economic metrics as a normalising factor, it is essential that consideration be given to the effect of inflation.

3.13 entity

thing with distinct and independent existence, e.g. country; community; organization; company; division; department; family; individual

3.14 global warming potential (GWP)

factor describing the radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time

[BS EN ISO 14064-1:2006, 2.18]

NOTE Carbon dioxide is assigned a GWP of 1, while the GWP of other gases is expressed relative to the GWP of carbon dioxide from fossil carbon sources. Global warming potentials for a 100-year time period are produced by the Intergovernmental Panel on Climate Change.

3.15 greenhouse gas (GHG)

seven gases listed in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃)

NOTE The range of included gases will be updated should the list of GHGs identified by UNFCCC/Kyoto Protocol, be modified in the future.

3.16 greenhouse gas emission

release of greenhouse gases to the atmosphere

3.17 historic reduction

lowering of greenhouse gas emissions effectuated during an unspecified continuous period immediately prior to the date on which the first application period is planned to commence.

NOTE This has the effect of moving the baseline date to the beginning of the historic reduction period and extending the first application period commensurately.

3.18 indirect emissions (Scope 2 and 3 – see below for definitions)

greenhouse gas emissions that are a consequence of the activities of an entity/subject but occur at sources owned or controlled by another entity

3.19 material (to)

making significant contribution to the outcome

NOTE PAS 2050:2011 establishes materiality as being more than 1% of the anticipated total GHG emissions associated with the subject being assessed, in order to ensure that very minor sources of lifecycle GHG emissions do not need to be taken into account in the quantification.

3.20 qualifying date

date at which carbon neutrality has been, or will be, achieved

3.21 qualifying explanatory statement (QES)

collation of evidence in support of the declaration of a commitment to carbon neutrality and/or the declaration of achievement of carbon neutrality, in compliance with PAS 2060

3.22 primary activity data

process-specific data obtained by direct measurement of the energy or business activities

NOTE Examples of primary data include the amount of energy used, service provided, material produced.

3.23 reduction

process or action resulting in a decrease in the greenhouse gas emissions specifically related to/arising from the subject

3.24 residual emissions

greenhouse gas emissions from the defined subject remaining after the achievement of reduction

3.25 Scope 1 emissions (direct emissions)

greenhouse gas emissions from sources that are owned or controlled by the entity (described as direct emissions)

NOTE This includes GHG emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; GHG emissions from chemical production in owned or controlled process equipment.

3.26 Scope 2 emissions (energy indirect)

greenhouse gas emissions from the generation of energy utilized in direct connection to the activities of a particular entity/subject but occurring at sources owned or controlled by another entity

NOTE Example: electricity, heat, steam and cooling that is purchased or otherwise brought into the entity boundary.

3.27 Scope 3 emissions (other indirect)

greenhouse gas emissions that are a consequence of the activities of an entity/subject but occur at sources owned or controlled by another entity and which are not classified as Scope 2 emissions

NOTE Scope 3 includes the extraction and production of purchased materials; transportation of purchased fuels; and use of bought products and service; use of public transport such as rail and aircraft.

3.28 secondary data

data obtained from sources other than direct measurement of the emissions from processes included in the life cycle of the product

NOTE Secondary data may be used when primary activity data are not available or it is impracticable to obtain primary activity data, subject only to the provision of adequate justification in the related QES.

3.29 subject

that which is to be analysed for greenhouse gas emissions and in relation to which quantification, reduction and offsetting in the terms of this PAS can be undertaken

3.30 validate

check or prove the veracity of a claim of compliance with PAS 2060

4 Demonstrating carbon neutrality

4.1 Requirements overview

Any entity seeking to demonstrate carbon neutrality through compliance with this PAS shall undertake the following actions (see also Figure 1) and in the related clauses of this PAS that each refers to:

- a) determine the subject of the intended claim of carbon neutrality (see Clause 5);
- b) quantify the carbon footprint of that subject using a recognized methodology (see Clause 6);
- c) develop a carbon footprint management plan (see Clause 7) and make a declaration of commitment to carbon neutrality in accordance with the requirements of this PAS (see Clause 10);
- d) take action to reduce the carbon footprint of the determined subject and establish the effectiveness of those actions (see Clause 8);
- e) re-quantify the carbon footprint of the determined subject, ensuring that subject is unchanged, to determine the residual GHG emissions, using the methodology applied at b) (see Clause 8);
- f) introduce or take account of, a previously initiated offset programme to balance out the residual GHG emissions (see Clause 9);
- g) in the event that carbon neutrality has been achieved for the determined subject, make a declaration of achievement of carbon neutrality in accordance with the requirements of this PAS (see Clause 10).

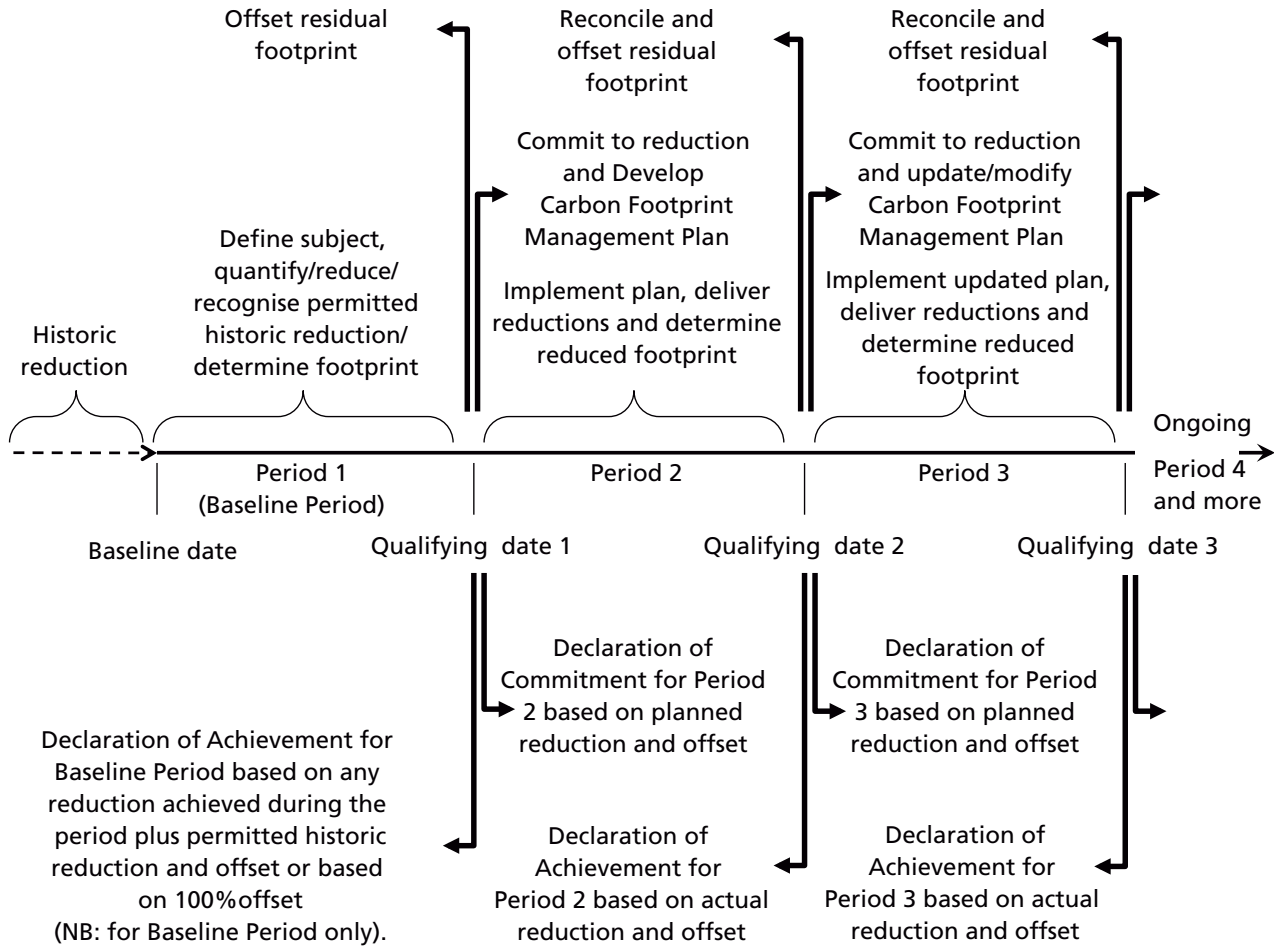
4.2 Selection and reliability of supporting methodologies

4.2.1 Methodologies used to deliver the evidence needed to substantiate the declarations contained within this PAS, shall follow, in order of preference, International Standards (ISO), standards that have international acceptability (i.e. regional or national standards) or recognized, proprietary industry or trade methods that are considered to be sufficiently robust to demonstrate carbon neutrality in accordance with this PAS in a manner that can be reliably and repeatedly validated. If there are no methods already in existence, an entity may develop a method, provided it meets the principles and other requirements of this specification, provides reliable and reproducible results and is freely available for peer review.

***NOTE** Attention is drawn to the fact that legislation may impose specific requirements on entities to use certain methodologies. It is the responsibility of the entity applying this PAS to check for any applicable legislation.*

4.2.2 Evidence used to substantiate declarations contained within this PAS shall be fully documented and the documentation retained by the entity for the period that the status of carbon neutrality is valid, and for a period of six years thereafter.

Figure 1 – Illustration of the cyclical process for demonstrating carbon neutrality, taking into account permitted baseline period exceptions



NOTE 1 Length of application periods. The length of the application period should be determined by the assessing entity to suit the requirements of the carbon footprint management plan. The only specified criterion in this respect is that application periods be of equal length other than where “historic reductions” are to be included in the first application period. Attention is drawn to the fact that a Declaration of Achievement may not be made until the end of the designated application period and therefore the selection of particularly long application periods (e.g. in excess of two years) can delay recognition of the assessing entities’ achievement.

NOTE 2 The figure includes illustration of the option that enables entities to take into consideration GHG emission reductions associated with the defined subject immediately prior to the baseline date (historic reductions) to enable declarations of neutrality. A Declaration of Achievement of carbon neutrality can therefore be made at the end of the first application period and can be based on reductions achieved during the first application period together with reductions achieved during a specified continuous period immediately prior to the baseline date.

NOTE 3 The figure also includes illustration of the option that enables entities to use offsetting to account for all of the GHG emissions associated with the defined subject at the end of the first application period. Entities are therefore able to make a Declaration of Achievement of carbon neutrality at the end of the first application period based solely on offsetting.

NOTE 4 The timeline is intended to continue for as long as the entity undertaking the assessment intends to continue making declarations and should not be thought to end after the third application period.

NOTE 5 Although the timeline for achievement and maintenance of carbon neutrality is essentially linear, the periodic activity will tend to be iterative and therefore cyclical in nature, i.e. having defined the intended subject, it could be that quantification proves impracticable or not commercially viable, in which situation it will be necessary to identify and quantify a modified or alternative carbon footprint.

5 Determination and substantiation of the subject and associated greenhouse gas (GHG) emissions

5.1 Determination

5.1.1 Any entity intending to comply with this specification shall in its determination of the subject:

- a) uniquely identify itself;
- b) uniquely identify the subject of the declaration of carbon neutrality;
- c) establish all characteristics (purposes, objectives or functionality) inherent to that subject;
- d) establish and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the subject.

5.1.2 The entity shall ensure that the definition of the subject remains unchanged through each and every stage of the methodology set out in 5.2. In the event that material change to the subject occurs, the sequence shall be re-started on the basis of a newly-defined subject.

5.2 Substantiation

5.2.1 The entity shall document the rationale for the selection of the subject, explaining the reason for the exclusion of any resulting, material GHG emission sources.

NOTE *The selection of the subject should ideally be based on a broader understanding of the entire carbon footprint of the entity so that the carbon footprint of the selected subject can be seen in context; entities need to be able to demonstrate that they are not intentionally excluding their most significant GHG emissions (or alternatively can justify why they have done so).*

5.2.2 Where the subject is an organization/company or part thereof, then in addition to following the principles established in 5.2.4, the following shall apply:

- a) The boundaries shall be a true and fair representation of the organization's GHG emissions (i.e. shall include all GHG emissions relating to core operations including subsidiaries owned and operated by the organization).

- b) Entities shall use the equity share or control approach to define which GHG emissions are to be included.
- c) If the subject is part of an organization or a specific site or location, then this shall be identified and treated as a discrete operation with its own purpose, objectives and functionality.

NOTE *It will be important to ensure claims are credible – so if an entity chooses a very narrow subject and excludes its carbon intensive activities or if it outsources its carbon intensive activities, then this needs to be documented. Under the equity share approach, the entity accounts for GHG emissions from the subject according to its share of equity in the subject. Under the control approach, the entity accounts for 100% of the GHG emissions over which it has financial and/or operational control.*

5.2.3 Where the subject is a product or service, then in addition to following the principles established in 5.2.4, all Scope 3 emissions shall be taken into consideration as the lifecycle of the product/service needs to be taken into consideration.

5.2.4 In all cases, the methodology selected to define the subject and the GHG emissions associated with the subject, shall conform to the following principles:

- a) All greenhouse gases shall be included and converted into tCO₂e.
- b) 100% Scope 1 (direct) emissions relevant to the subject shall be included when determining the carbon footprint (subject only to the materiality rules, see bullet e).
- c) 100% Scope 2 (indirect) emissions relevant to the subject shall be included when determining the carbon footprint subject only to the materiality rules, see bullet e).
- d) Where estimates of GHG emissions are used in the quantification of the subject carbon footprint (particularly when associated with scope 3 emissions) these shall be determined in a manner that precludes underestimation.

- e) Any Scope 1, 2 or 3 emission source estimated to be material i.e. more than 1% of the total carbon footprint, shall be taken into consideration unless evidence can be provided to demonstrate that such quantification would not be technically feasible, practicable or cost effective. Emission sources estimated to constitute less than 1% may be excluded on that basis alone. All decisions to exclude shall be subject to the following conditions:
- The quantified carbon footprint shall cover at least 95% of the emissions from the subject.
 - Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.
 - Any exclusion and the reason for that exclusion shall be documented.

5.2.5 Methodologies provided in the documents identified in Annex C, Table C.1, can be presumed to meet the requirements of **5.2.2** to **5.2.4** of this PAS when correctly applied. Entities shall confirm and record that their application of the methodology selected for defining the subject and identifying which emission sources are to be included in the quantification, conforms to the principles established in those requirements.

5.3 Documentation

The entity shall prepare documentation defining and substantiating the subject and the GHG emissions associated with the subject, including:

- a) what standard and methodology it uses to define the subject and the GHG emissions associated with the subject;
- b) justification for the selection of the methodology chosen including all assumptions made in defining the boundaries and for determining which GHG emissions to include (in terms of both sources and which greenhouse gases);
- c) confirmation that the selected methodology was applied in accordance with its provisions and that the principles set out in **5.2.2** to **5.2.4** were met;
- d) details of and justification for the exclusion of any Scope 3 emissions;
- e) identification of uncertainties and variability associated with defining boundaries including the positive tolerances adopted in association with estimates (see **5.2.4d**).

6 Quantification of the carbon footprint

6.1 Quantification

6.1.1 The entity shall quantify the carbon footprint of the identified subject.

6.1.2 The methodology used to quantify the carbon footprint shall meet the following principles.

- a) The subject and its boundaries shall be clearly identified and documented (see Clause 5).
- b) The carbon footprint shall be based on primary activity data unless the entity can demonstrate that it is not practicable to do so and an authoritative source of secondary data relevant to the subject, is available.
- c) The methodology employed shall minimize uncertainty and yield accurate, consistent and reproducible results.
- d) Where quantification is based on calculations (e.g. GHG activity data multiplied by greenhouse gas emission factors or the use of mass balance/lifecycle models) then GHG emissions shall be calculated using emission factors from national (Government) publications. Where such factors are not available, international or industry guidelines shall be used. In all cases the sources of such data shall be identified.
- e) Emission factors used shall be relevant to the activity concerned and current at the time of quantification.
- f) Conversion of non-CO₂ greenhouse gases to CO₂e shall be based upon the 100 year Global Warming Potential figures published by the IPCC or national (Government) publication.
- g) Carbon footprint calculations shall be made exclusive of any purchases of carbon offsets.
- h) All carbon footprints shall be expressed as an absolute amount in tCO₂e. For products and services, these shall relate to a specified unit of product or instance of service (e.g. tCO₂e per kg of product). For all subjects other than those for which PAS 2050 is used for quantification, the time period associated with the carbon footprint shall be specified.

6.1.3 Methodologies provided in the documents identified in Annex C, Table C.1, can be presumed to meet the principles set out in 6.1.2. Entities shall confirm and record that their application of the methodology selected for quantification of the greenhouse gas emissions from the subject, conforms to those principles.

6.2 Documentation

The entity shall prepare documentation substantiating the quantification of the carbon footprint of the specified subject, including:

- a) identification of the standard and methodology it uses to establish its carbon footprint for the defined subject;
- b) justification for the selection of the methodology chosen including all assumptions and calculations made in quantifying GHG emissions and in the selection or development of greenhouse gas emission factors;
- c) confirmation that the selected methodology was applied in accordance with its provisions and that the principles set out in 6.1.2 were met;
- d) expression of the actual methods used to quantify GHG emissions (e.g. use of primary or secondary data), the measurement unit(s) applied, the period of application and the size of the resulting carbon footprint;
- e) identification of any uncertainty or variability associated with quantifying GHG emissions (e.g. resulting from the use of alternative types of data) and a statement as to the extent of that uncertainty with explanation of any underlying assumptions.

NOTE *The statement could take the form of a qualitative description regarding the uncertainty of the results, or a quantitative assessment of uncertainty if available (e.g. carbon footprint based on 95% of likely greenhouse gas emissions; primary sources are subject to variation over time; footprint is best estimate based on reasonable costs of evaluation).*

7 Commitment to carbon neutrality

The entity shall commit to achieving and, if applicable, maintaining carbon neutrality for the defined subject.

The entity shall develop and document a carbon footprint management plan which shall include:

- a) a statement of commitment to carbon neutrality for the defined subject;
- b) a timescale for achieving carbon neutrality of the defined subject;
- c) targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality;
- d) the planned means of achieving and maintaining GHG emissions reductions including:
 - 1) assumptions made and any justification of the techniques and measures to be employed to reduce GHG emissions;
 - 2) where historic reductions are to be taken into account, the period over which those reductions are to be calculated and confirmation that the necessary data is available and that calculation is to be undertaken using precisely the same methodology as that to be employed to assess and calculate future reductions;
- e) The offset strategy to be adopted including an estimate of the quantity of GHG emissions to be offset, the nature of the offsets and the likely number and type of credits.

Where the entity intends to maintain carbon neutrality for the defined subject going forward, then the entity shall update the carbon footprint management plan at least every 12 months.

8 Achievement of GHG emissions reductions

8.1 Action for GHG emissions reduction

8.1.1 The entity shall implement the carbon footprint management plan in order to achieve reductions in GHG emissions from the subject.

8.1.2 The entity shall have a process in place for undertaking periodic assessments of performance against the plan and for implementing corrective action to ensure targets are achieved.

8.1.3 Where the subject is a non-recurring event such as a wedding or concert, the plan shall identify ways of reducing GHG emissions to the maximum extent commensurate with enabling the event to meet its intended objectives before the event takes place and include post-event review to determine whether or not the expected minimisation in emissions has been achieved.

8.1.4 Historic reductions from the defined subject, not otherwise taken into account, may be used to meet this clause. Where such historic reductions are to be taken into account, the carbon footprint management plan shall have identified the period from which those reductions shall be taken and confirm that sufficient data appropriate to the methodology to be used for calculation of the carbon footprint is available. Where this option is taken up, the entity shall demonstrate that those reductions were made wholly in accordance with this PAS.

NOTE *The entity should have sufficient resources to achieve the carbon footprint management plan. The frequency of assessing performance against the plan should be commensurate with the timescale for achieving carbon neutrality.*

8.2 Determination of reductions

8.2.1 The entity shall establish, by calculation, that a reduction in the carbon footprint of the identified subject has been achieved to establish the level of residual GHG emissions requiring offset. The entity shall ensure that the QES and any separate communication referring to this reduction, includes a statement identifying whether the reductions are overall, activity-based or intensity-based.

8.2.2 In all cases, the methodology used to quantify reduced GHG emission shall meet the following principles.

- a) The amounts and types of GHG emissions that have been reduced and the time period involved shall be documented.
- b) Quantified GHG emissions reductions shall be expressed in absolute terms and shall relate to the application period selected or shall be expressed in emission intensity terms (e.g. per specified unit of product or instance of service).
- c) The methodology employed to quantify reductions shall be the same as that used to quantify the original carbon footprint. Should an alternative methodology become available that would reduce uncertainty and yield more accurate, consistent and reproducible results, then this may be used provided the original carbon footprint is re-quantified to the same methodology, for comparison purposes.
- d) GHG emissions reductions made outside of the subject carbon footprint shall not be included.

8.2.3 Methodologies provided in the documents identified in Annex C, Table C.1, can be presumed to meet the principles set out in **8.2.2**. Entities shall confirm and record that their application of the methodology used for re-quantification after reduction of the greenhouse gas emissions from the subject, conforms to those principles.

8.3 Documentation

The entity shall prepare documentation substantiating the carbon footprint reduction including:

- a) what standard and methodology it uses to determine its GHG emissions reduction;
- b) the actual means of achieving GHG emissions reductions;
- c) confirmation that the methodology used was applied in accordance with its provisions and that the principles set out in 8.2.2 were met;
- d) justification for the selection of the methodology and means chosen including all assumptions and calculations made in quantifying GHG emission reductions;
- e) what actual GHG emissions reduction has been achieved in absolute or intensity terms and as a percentage of original carbon footprint;
- f) whether or not the actual reduction is in line with that forecast in the carbon management plan together with the reasons for any significant variation;
- g) the time period chosen to measure reduced GHG emissions;
- h) the size of the reduced carbon footprint.

NOTE 1 *Attention is drawn to the fact that where mandatory reduction targets apply then the entity has a primary responsibility to ensure that these are achieved. Mandatory targets would be regarded as the minimum target that an entity is expected to achieve.*

NOTE 2 *Outsourcing (i.e. the transference of activities previously undertaken by the entity to a third party) is not regarded as a form of reduction unless this genuinely results in a reduction of GHG emissions associated with the subject.*

9 Offsetting residual GHG emissions

9.1 Requirements

9.1.1 The entity shall reconcile the amount of carbon credit required to offset the reduced greenhouse gas emissions in order to achieve the status of carbon neutrality.

9.1.2 The entity shall identify and document the standard and methodology used to achieve its carbon offset. In all cases, including where offset projects supported by charities are used, the methodology and types of credits employed shall meet the following principles.

- a) Credits generated or allowance credits surrendered shall represent genuine, additional GHG emission reductions elsewhere.
- b) Projects involved in delivering carbon credits shall meet the criteria of additionality, permanence, leakage and double counting.

NOTE See the *WRI Greenhouse Gas Protocol for Project Accounting and/or the WRI Corporate Accounting and Reporting Standard, for definitions of additionality, permanence, leakage and double counting.*

- c) Carbon credits shall be verified by an independent third party verifier.
- d) Credits from Carbon offset projects shall only be issued after the emission reduction associated with the offset project has taken place.
- e) Credits from carbon offset projects other than events shall be retired within 12 months of the date of the declaration of achievement. For events, the period of retirement should be as short as can be reasonably achieved and shall be not more than 36 months.
- f) Credits from carbon offset projects shall be supported by publicly available project documentation on a registry or equivalent publicly available record, which shall provide information about the offset project, quantification methodology and validation and verification procedures.
- g) Credits from Carbon offset projects shall be stored and retired in an independent and credible registry or equivalent publicly available record.

9.1.3 Schemes that are identified in Annex C, Table C.2, can be presumed to meet the principles set out in **9.1.2** **although other schemes that meet this requirement can also be used.** Entities shall confirm and record that their use of the selected scheme does not conflict with those principles.

9.2 Documentation

The entity shall prepare documentation substantiating the carbon offset including:

- a) which GHG emissions have been offset;
- b) the actual amount of carbon credit required;
- c) the type of offset and projects involved;
- d) confirmation that the carbon offset scheme was used in accordance with its provisions and that there was no conflict with the principles set out in **9.1.2**;
- e) the number and type of carbon credits used, the time period over which the credits have been generated and the date of retirement;
- f) information regarding the retirement/cancellation of carbon credits sufficient to prevent their use by others including a link to the registry where the credit has been retired.

10 Explicit declarations in respect of carbon neutrality

10.1 General

Declarations made in conformity with this PAS shall be made explicitly in the form relevant to that particular declaration as provided for in 10.4. The entity shall publish that explicit declaration as part of the related QES (see 10.5).

Declarations shall be dated and signed by the senior representative of the entity concerned, e.g. CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group.

***NOTE** In accordance with the relevant definitions given in BS EN ISO/IEC 17000 Conformity assessments – Vocabulary and general principles, the term “certified” is used in this PAS to describe the issuing of an attestation document by an independent third party certification body. The term “declared”, appropriately qualified, is used to identify the other options accepted in this PAS.*

Entities making explicit declarations of conformity to this PAS may, where required, publish in addition a statement representative of their explicit declaration (the representative statement) in advertising and other promotional material (see Annex A, Table A.1).

10.2 Scope of declaration

In making a declaration in conformity with this PAS, the entity shall address all of the provisions of the PAS.

10.3 Basis of declaration

10.3.1 General

Each declaration shall identify the type of conformity assessment (to be) undertaken as one of:

- a) independent third party certification in accordance with 10.3.2;
- b) other party validation in accordance with 10.3.3; or
- c) self-validation in accordance with 10.3.4.

***NOTE** Attention is drawn to the fact that claims of conformity used to support communication of results achieved under this PAS to third parties, made in accordance with 10.3.2, are most likely to gain the confidence of interested parties such as customers.*

10.3.2 Independent third party certification

Entities seeking to demonstrate that their declarations have been independently validated as being in accordance with this PAS, shall undergo assessment by an independent third party certification body able to demonstrate that it has (or has access to) the knowledge and expertise necessary to provide assessment and certification to this PAS.

Entities seeking independent third party certification shall satisfy themselves that the bodies selected are applying appropriate assessment methodologies, e.g. as provided by documents identified in Annex C, Table C.3, when undertaking validations against this PAS.

10.3.3 Other party validation

Entities using an alternative method of validation involving parties other than those qualifying as independent third parties in the terms of 10.3.2, shall satisfy themselves that any such party is able to demonstrate compliance with recognized standards setting out requirements for certification bodies and are applying appropriate assessment methodologies, e.g. as provided by documents identified in Annex C, Table C.3, when undertaking validations against this PAS.

***NOTE** Examples of other parties may be:*

- a trade body providing conformity assessment services to its members;
- a consultant providing conformity assessment services to clients.

10.3.4 Self validation

In undertaking self-validation, entities shall confirm and be able to demonstrate that the quantification and actions undertaken to achieve carbon neutrality have been in accordance with this PAS. The appropriate method for self-validation and for presentation of the results shall be through the application of BS EN ISO 14064-1. The qualifying explanatory statements required in this PAS can substitute for the GHG Report required in BS EN ISO 14064-1.

***NOTE** Organizations for whom neither independent third party certification nor other party validation is a realistic option, may rely on self-validation. In so doing, organizations should be aware that external validation could be required in the event of challenge and that those for whose information such declaration is made could have less confidence in this option.*

10.4 Requirements for declarations

10.4.1 General

All declarations made in conformance with this PAS shall be made in the appropriate form of disclosure and shall include:

- unambiguous identification of the subject of the declaration;
- unambiguous identification of the entity responsible for making the declaration;
- the qualifying date and application period;
- the basis of the declaration, (refer to **10.3**);
- unique reference to the relevant qualifying explanatory statement (enabling free and easy access to all supporting evidence).

10.4.2 Declarations based on certification

10.4.2.1 Declarations of a commitment to carbon neutrality based on certification in accordance with **10.3.2**

For the application period following the baseline date, declaration I3P-1 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration I3P-1 modified as per **A.2** shall be used.

10.4.2.2 Declarations of achievement of carbon neutrality based on certification in accordance with **10.3.2**

For the application period following the baseline date, declaration I3P-2 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration I3P-2 modified as per **A.2** shall be used.

10.4.2.3 Unified declarations of achievement and commitment in respect of carbon neutrality, where both are based on certification in accordance with **10.3.2**

For the application period following the baseline date, declaration I3P-3 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration I3P-3 modified as per **A.2** shall be used.

10.4.3 Declarations based on other party assessment

10.4.3.1 Declarations of a commitment to carbon neutrality based on other party validation in accordance with **10.3.3**

For the application period following the baseline date, declaration OPV-1 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration OPV-1 modified as per **A.2** shall be used.

10.4.3.2 Declarations of actual carbon neutrality based on other party validation in accordance with **10.3.3**

For the application period following the baseline date, declaration OPV-2 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration OPV-2 modified as per **A.2** shall be used.

10.4.3.3 Unified declarations of achievement and commitment in respect of carbon neutrality, where both are based on other party validation in accordance with **10.3.3**

For the application period following the baseline date, declaration OPV-3 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration OPV-3 modified as per **A.2** shall be used.

10.4.4 Declarations based on self-validation

10.4.4.1 Declarations of a commitment to carbon neutrality based on self-validation in accordance with **10.3.4**

For the application period following the baseline date, declaration ESV-1 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration ESV-1 modified as per **A.2** shall be used.

10.4.4.2 Declarations of actual carbon neutrality based on self-validation in accordance with **10.3.4**

For the application period following the baseline date, declaration ESV-2 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration ESV-2 modified as per **A.2** shall be used.

²⁾ Available on: <http://www.un.org/News/Press/docs/2011/envdev1206.doc.htm>

10.4.4.3 Unified declarations of achievement and commitment in respect of carbon neutrality, where both are based on self-validation in accordance with **10.3.3**

For the application period following the baseline date, declaration ESV-3 from Annex A shall be used. For the second and all subsequent periods with an unchanged subject, declaration ESV-3 modified as per **A.2** shall be used.

10.5 Requirements for qualifying explanatory statements (QES)

10.5.1 The entity shall provide in support of the declaration of a commitment to carbon neutrality, a qualifying explanatory statement that:

- a) includes the following evidence to substantiate the declaration:
 - 1) the rationale for the selection of the subject and the definition of the boundaries;
 - 2) all characteristics (purposes, objectives or functionality) inherent to that subject;
 - 3) justification for the selection of the methodologies chosen to define the subject and determine the carbon footprint, including all assumptions and calculations made, emission factors used and any assessments of uncertainty;
 - 4) the actual types of GHG emissions, classification of emissions (Scope 1, 2 or 3) and size of carbon footprint of the subject;
 - 5) details of and explanation for the exclusion of any Scope 3 emissions; and
 - 6) the carbon footprint management plan.
- b) identifies the individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration;
- c) identifies the date by which the entity plans to achieve the status of "carbon neutrality" of the subject and specifies the period for which it intends to maintain that status;
- d) records the number of times that the declaration of commitment has been renewed without declaration of achievement;
- e) is accurate, relevant and not misleading;
- f) is publicly available and provides reference to any freely accessible information upon which substantiation depends (e.g. via websites);
- g) identifies the type of conformity assessment (see **10.3.1**);

- h) includes statements of validation where declarations of commitment to carbon neutrality are validated by a third party certifier or second party organizations;
- i) is updated to reflect changes and actions that could affect the validity of the declaration of commitment to carbon neutrality.

10.5.2 The entity shall provide in support of the declaration of achievement of carbon neutrality, a qualifying explanatory statement that:

- a) includes all items required in **10.5.1**;
- b) includes the following evidence to substantiate the declaration:
 - 1) justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty;
 - 2) the means by which reductions were achieved and any applicable assumptions or justifications;
 - 3) the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint;
 - 4) the quantity of GHG emissions offset and the type and nature of offsets actually purchased including the number and type of credits used and the time period over which credits were generated; and
 - 5) information regarding the retirement/cancellation of credits;
- c) provides explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject;
- d) identifies the type of conformity assessment (see **10.3.1**);
- e) includes statements of validation where declarations of achievement are validated by an independent third party certifier (see **10.3.2**) or other party (see **10.3.3**).

10.5.3 Declarations relating to carbon neutrality and associated explanatory statements shall not:

- a) suggest a reduction which does not exist, either directly or by implication;
- b) be presented in a manner which implies that the declaration is endorsed or certified by an independent third party organization when it is not;
- c) be made if, despite the declaration being literally true, it is likely to be misinterpreted or be misleading as a result of the omission of relevant facts.

11 Maintaining carbon neutral status

11.1 Declaration of commitment to carbon neutrality

Declarations of commitment to carbon neutrality shall be valid for a maximum period of one year after which period, the qualifying conditions and actions shall be revalidated and the qualifying date(s) renewed, accordingly.

Throughout that period the entity shall monitor its performance against the carbon footprint management plan supporting the declaration, by means of a recorded process, designed for that purpose. Should any change or event occur that could invalidate the declaration, the entity shall either take corrective action coming into effect within not more than three months to restore validity, or withdraw the declaration.

In implementing the corrective action, requirements identical to those applying to the original declaration, shall be fulfilled.

Details of any such change and resulting corrective action shall be included in the qualifying explanatory statement.

Should the validity of the declaration be allowed to lapse, the entity shall remove immediately all declarations and qualifying explanatory statements regarding carbon neutrality associated with the subject until such time that it can again demonstrate conformance with this specification.

11.2 Declarations of achievement of carbon neutrality

Declarations of achievement of carbon neutrality are made retrospectively and are applicable to the period covered by the data validated. As such, they are permanent and always valid in relation to that period. Such declarations cannot be extrapolated to subsequent periods.

Annex A (normative) Permissible declarations in respect of carbon neutrality in accordance with PAS 2060

A.1 The declarations provided in Table A.1 shall be used in respect of carbon neutrality claimed in accordance with PAS 2060, for the first application period relating to each subject. All such declarations shall be expressed in the terms and form specified in Table A.1.

A.2 For second and subsequent application periods, declarations used shall be identical in all respects save only that the most recent qualifying date shall be substituted for the baseline date.

Table A.1 – Permissible declarations in respect of carbon neutrality in accordance with this PAS and conditions of application

Designation	Assessment type	Permissible declaration	Representative statement in respect of the subject under assessment	Application	Subclause
I3P-1	Independent third-party certification – commitment	“Carbon neutrality of [insert unique identification of the subject] will be achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the certifying body] certified.”	Commitment to carbon neutral (subject) certified to PAS 2060	Declaration for use by entity making commitment to achieve carbon neutrality by an identified date, in accordance with the provisions of PAS 2060 having had their conformance to the requirements assessed and certified by an independent third party able to demonstrate that it has (or has access to) the knowledge and expertise necessary to provide assessment and certification to this PAS.	10.3.2 and 10.4.2.1
I3P-2	Independent third-party certification – achievement	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the certifying body] certified.”	Carbon neutral (subject) certified to PAS 2060	Declaration for use by entity achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060, having had their conformance to the requirements assessed and certified by an independent third party able to demonstrate that it has (or has access to) the knowledge and expertise necessary to provide assessment and certification to this PAS.	10.3.2 and 10.4.2.2

Table A.1 – Permissible declarations in respect of carbon neutrality in accordance with this PAS and conditions of application (continued)

Designation	Assessment type	Permissible declaration	Representative statement in respect of the subject under assessment	Application	Subclause
I3P-3	Independent third-party certification – unified	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] with commitment to maintain to [insert next qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the certifying body] certified.”	Carbon neutral (subject) certified to PAS 2060 – on-going	Declaration for use by entity both achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060 and committing to maintain that carbon neutrality until an identified future date having had their conformance to the requirements assessed and certified by an independent third party able to demonstrate that it has (or has access to) the knowledge and expertise necessary to provide assessment and certification to this PAS.	See note to this table
OPV-1	Other party validated – commitment	“Carbon neutrality of [insert unique identification of the subject] will be achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the validating body] declared.”	Commitment to carbon neutral (subject) validated to PAS 2060	Declaration for use by entity making commitment to achieve carbon neutrality by an identified date, in accordance with the provisions of PAS 2060 having had their conformance to the requirements validated by another party.	10.3.3 and 10.4.3.1
OPV-2	Other party validated – achievement	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the validating body] declared.”	Carbon neutral (subject) validated to PAS 2060	Declaration for use by entity achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060 having had their conformance to the requirements validated by another party.	10.3.3 and 10.4.3.2

Table A.1 – Permissible declarations in respect of carbon neutrality in accordance with this PAS and conditions of application (continued)

Designation	Assessment type	Permissible declaration	Representative statement in respect of the subject under assessment	Application	Subclause
OPV-3	Other party validated – unified	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] with commitment to maintain to [insert next qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the validating body] certified.”	Carbon neutral (subject) validated to PAS 2060 – on-going	Declaration for use by entity both achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060 and committing to maintain that carbon neutrality until an identified future date, having had their conformance to the requirements validated by another party.	See note to this table
ESV-1	Self-validated – commitment	“Carbon neutrality of [insert unique identification of the subject] will be achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], self-declared.”	Commitment to carbon neutral (subject) self-declared to PAS 2060	Declaration for use by entity making commitment to achieve carbon neutrality by an identified date, in accordance with the provisions of PAS 2060 having validated own conformance to the requirements.	10.3.2 and 10.4.4.1
ESV-2	Self-validated – achievement	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] for the period commencing [insert baseline date], self-declared.”	Carbon neutral (subject) self-declared to PAS 2060	Declaration for use by entity achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060 having validated own conformance to the requirements.	10.3.4 and 10.4.4.2

Table A.1 – Permissible declarations in respect of carbon neutrality in accordance with this PAS and conditions of application (*continued*)

Designation	Assessment type	Permissible declaration	Representative statement in respect of the subject under assessment	Application	Subclause
ESV-3	Self-validated – unified	“Carbon neutrality of [insert unique identification of the subject] achieved by [insert unambiguous identification of the entity making the declaration] in accordance with PAS 2060 at [insert qualifying date] with commitment to maintain to [insert next qualifying date] for the period commencing [insert baseline date], [insert unambiguous identification of the validating body] self-declared.”	Carbon neutral (subject) self-declared to PAS 2060 – on-going	Declaration for use by entity both achieving carbon neutrality at an identified date in accordance with the provisions of PAS 2060 and committing to maintain that carbon neutrality until an identified future date, having validated own conformance to the requirements.	See note to this table

NOTE In the representative statements provided in Table A.1:

- *(subject)* is to be replaced by the term selected to meet requirements of 5.1.1b);
- *commitment* indicates that carbon neutrality has yet to be achieved (first application period only);
- *on-going* indicates that, in conjunction with carbon neutrality having been achieved, there is commitment to on-going achievement.

Annex B (informative)

Qualifying explanatory statements (QES) checklists

B.1 PAS 2060 requires that an entity making a declaration in respect of carbon neutrality in accordance with its provisions, make available a qualifying explanatory statement (QES) that includes the evidence substantiating the declaration (10.5.2).

Tables B.1 and B.2 identify the information to be provided in:

- a QES supporting a declaration of commitment to carbon neutrality (Table B.1);
- a QES supporting achievement of carbon neutrality (Table B.2).

Table B3 sets out the principles that should govern the presentation of every QES.

B.2 The requirement to provide this information is contained in the main text of PAS 2060 and the tables in this annex are provided in the form of checklists to assist entities seeking to conform to PAS 2060, in the preparation of their QES.

Table B.1 – Checklist for QES supporting declaration of commitment to carbon neutrality

1) Identify the individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration.	
2) Identify the entity responsible for making the declaration.	
3) Identify the subject of the declaration.	
4) Explain the rationale for the selection of the subject. <i>(The selection of the subject should ideally be based on a broader understanding of the entire carbon footprint of the entity so that the carbon footprint of the selected subject can be seen in context; entities need to be able to demonstrate that they are not intentionally excluding their most significant GHG emissions (or alternatively can explain why they have done so)).</i>	
5) Define the boundaries of the subject.	
6) Identify all characteristics (purposes, objectives or functionality) inherent to that subject.	
7) Identify and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the subject.	
8) Select which of the 3 options within PAS 2060 you intend to follow.	
9) Identify the date by which the entity plans to achieve the status of "carbon neutrality" of the subject and specify the period for which the entity intends to maintain that status.	
10) Select an appropriate standard and methodology for defining the subject, the GHG emissions associated with that subject and the calculation of the carbon footprint for the defined subject.	
11) Provide justification for the selection of the methodology chosen. <i>(The methodology employed shall minimize uncertainty and yield accurate, consistent and reproducible results.</i>	
12) Confirm that the selected methodology was applied in accordance with its provisions and the principles set out in PAS 2060.	
13) Describe the actual types of GHG emissions, classification of emissions (Scope 1, 2 or 3) and size of carbon footprint of the subject exclusive of any purchases of carbon offsets.	

Table B.1 – Checklist for QES supporting declaration of commitment to carbon neutrality (continued)

a) All greenhouse gases shall be included and converted into tCO ₂ e.	
b) 100% Scope 1 (direct) emissions relevant to the subject shall be included when determining the carbon footprint.	
c) 100% Scope 2 (indirect) emissions relevant to the subject shall be included when determining the carbon footprint.	
d) Where estimates of GHG emissions are used in the quantification of the subject carbon footprint (particularly when associated with scope 3 emissions) these shall be determined in a manner that precludes underestimation.	
e) Scope 1, 2 or 3 emission source estimated to be more than 1% of the total carbon footprint shall be taken into consideration unless evidence can be provided to demonstrate that such quantification would not be technically feasible or cost effective. (Emission sources estimated to constitute less than 1% may be excluded on that basis alone.)	
f) The quantified carbon footprint shall cover at least 95% of the emissions from the subject.	
g) Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.	
h) Any exclusion and the reason for that exclusion shall be documented.	
14) Where the subject is an organization/company or part thereof, ensure that:	
a) Boundaries are a true and fair representation of the organization's GHG emissions (i.e. shall include all GHG emissions relating to core operations including subsidiaries owned and operated by the organization). <i>It will be important to ensure claims are credible – so if an entity chooses a very narrow subject and excludes its carbon intensive activities or if it outsources its carbon intensive activities, then this needs to be documented.</i>	
b) Either the equity share or control approach has been used to define which GHG emissions are included. <i>Under the equity share approach, the entity accounts for GHG emissions from the subject according to its share of equity in the subject. Under the control approach, the entity shall account for 100% of the GHG emissions over which it has financial and/or operational control.</i>	
15) Identify if the subject is part of an organization or a specific site or location, and treat as a discrete operation with its own purpose, objectives and functionality.	
16) Where the subject is a product or service, include all Scope 3 emissions (as the lifecycle of the product/service needs to be taken into consideration).	
17) Describe the actual methods used to quantify GHG emissions (e.g. use of primary or secondary data), the measurement unit(s) applied, the period of application and the size of the resulting carbon footprint. <i>(The carbon footprint shall be based as far as possible on primary activity data.) Where quantification is based on calculations (e.g. GHG activity data multiplied by greenhouse gas emission factors or the use of mass balancelifecycle models) then GHG emissions shall be calculated using emission factors from national (Government) publications. Where such factors are not available, international or industry guidelines shall be used. In all cases the sources of such data shall be identified.</i>	
18) Provide details of, and explanation for, the exclusion of any Scope 3 emissions.	
19) Document all assumptions and calculations made in quantifying GHG emissions and in the selection or development of greenhouse gas emission factors. (Emission factors used shall be appropriate to the activity concerned and current at the time of quantification.)	

Table B.1 – Checklist for QES supporting declaration of commitment to carbon neutrality (*continued*)

20) Document your assessments of uncertainty and variability associated with defining boundaries and quantifying GHG emissions including the positive tolerances adopted in association with emission estimates. <i>(The statement could take the form of a qualitative description regarding the uncertainty of the results, or a quantitative assessment of uncertainty if available (e.g. carbon footprint based on 95% of likely greenhouse gas emissions; primary sources are subject to variation over time; footprint is best estimate based on reasonable costs of evaluation)).</i>	
21) Document carbon footprint management plan:	
a) Make a statement of commitment to carbon neutrality for the defined subject.	
b) Set timescales for achieving carbon neutrality for the defined subject.	
c) Specify targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality including the baseline date, the first qualification date and the first application period.	
d) Document the planned means of achieving and maintaining GHG emissions reductions including assumptions made and any justification of the techniques and measures to be employed to reduce GHG emissions.	
e) Specify the offset strategy including an estimate of the quantity of GHG emissions to be offset, the nature of the offsets and the likely number and type of credits.	
22) Implement a process for undertaking periodic assessments of performance against the Plan and for implementing corrective action to ensure targets are achieved. <i>The frequency of assessing performance against the Plan should be commensurate with the timescale for achieving carbon neutrality.</i>	
23) Where the subject is a non-recurring event such as weddings or concert, identify ways of reducing GHG emissions to the maximum extent commensurate with enabling the event to meet its intended objectives before the event takes place and include post event review to determine whether or not the expected minimisation in emissions has been achieved.	
24) For any reductions in the GHG emissions from the defined subject delivered in the period immediately prior to the baseline date and not otherwise taken into account in any GHG emissions quantification (historic reductions), confirm: <ul style="list-style-type: none"> • the period from which these reductions are to be included; • that the required data is available and that calculations have been undertaken using the same methodology throughout; • that assessment of historic reduction has been made in accordance with this PAS, reporting the quantity of historic reductions claimed in parallel with the report of total reduction. 	
25) Record the number of times that the declaration of commitment has been renewed without declaration of achievement.	
26) Specify the type of conformity assessment: <ul style="list-style-type: none"> a) independent third party certification; b) other party validation; c) self-validation. 	
27) Include statements of validation where declarations of commitment to carbon neutrality are validated by a third party certifier or second party organizations.	

Table B.1 – Checklist for QES supporting declaration of commitment to carbon neutrality (*continued*)

28) Date the QES and have it signed by the senior representative of the entity concerned (e.g. CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	
29) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g. via websites).	
30) Update the QES to reflect changes and actions that could affect the validity of the declaration of commitment to carbon neutrality.	

Table B.2 – Checklist for QES supporting declaration of achievement of carbon neutrality

1) Define standard and methodology use to determine its GHG emissions reduction.	
2) Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	
3) Provide justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty. <i>(The methodology employed to quantify reductions shall be the same as that used to quantify the original carbon footprint. Should an alternative methodology be available that would reduce uncertainty and yield more accurate, consistent and reproducible results, then this may be used provided the original carbon footprint is re-quantified to the same methodology, for comparison purposes. Recalculated carbon footprints shall use the most recently available emission factors, ensuring that for purposes of comparison with the original calculation, any change in the factors used is taken into account).</i>	
4) Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	
5) Ensure that there has been no change to the definition of the subject. <i>(The entity shall ensure that the definition of the subject remains unchanged through each and every stage of the methodology. In the event that material change to the subject occurs, the sequence shall be re-started on the basis of a newly defined subject.)</i>	
6) Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint. <i>(Quantified GHG emissions reductions shall be expressed in absolute terms and shall relate to the application period selected and/or shall be expressed in emission intensity terms (e.g. per specified unit of product or instance of service)).</i>	
7) State the baseline/qualification date.	
8) Record the percentage economic growth rate for the given application period used as a threshold for recognising reductions in intensity terms.	
9) Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	
10) Select and document the standard and methodology used to achieve carbon offset.	
11) Confirm that:	
a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere.	

Table B.2 – Checklist for QES supporting declaration of achievement of carbon neutrality (*continued*)

b) Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. (See the WRI Greenhouse Gas Protocol for definitions of additionality, permanence, leakage and double counting).	
c) Carbon offsets are verified by an independent third party verifier.	
d) Credits from Carbon offset projects are only issued after the emission reduction has taken place.	
e) Credits from Carbon offset projects are retired within 12 months from the date of the declaration of achievement.	
f) Provision for event related option of 36 months to be added here.	
g) Credits from Carbon offset projects are supported by publically available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures.	
h) Credits from Carbon offset projects are stored and retired in an independent and credible registry.	
12) Document the quantity of GHG emissions credits and the type and nature of credits actually purchased including the number and type of credits used and the time period over which credits were generated including:	
a) Which GHG emissions have been offset.	
b) The actual amount of carbon offset.	
c) The type of credits and projects involved.	
d) The number and type of carbon credits used and the time period over which the credits have been generated.	
e) For events, a rationale to support any retirement of credits in excess of 12 months including details of any legacy emission savings, taken into account.	
f) Information regarding the retirement/cancellation of carbon credits to prevent their use by others including a link to the registry or equivalent publicly available record, where the credit has been retired.	
13) Specify the type of conformity assessment:	
a) independent third party certification;	
b) other party validation;	
c) self-validation.	
14) Include statements of validation where declarations of achievement of carbon neutrality are validated by a third party certifier or second party organizations.	
15) Date the QES and have it signed by the senior representative of the entity concerned (e.g. CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	
16) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g. via websites).	

Table B.3 – QES openness and clarity

Entities should satisfy themselves that the QES	
1) Does not suggest a reduction which does not exist, either directly or by implication.	
2) Is not presented in a manner which implies that the declaration is endorsed or certified by an independent third party organization when it is not.	
3) Is not likely to be misinterpreted or be misleading as a result of the omission of relevant facts.	
4) Is readily available to any interested party.	

Annex C (informative)

Standards and methodologies that can be presumed to meet the principles of this PAS

Table C.1 – Examples of documents providing methodologies appropriate for use in the quantification and reduction of GHG emissions

Application	Standards and codes
Organizations	BS EN ISO 14064-1, Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
	WBCSD/WRI GHG Protocol, Corporate Accounting and Reporting Standard
	UK Govt Environmental Reporting Guidelines
Products and Services	Publicly Available Specification – PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services
	ISO/TS 14067, Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification and communication*
	WBCSD/WRI GHG Protocol, Product lifecycle accounting and reporting standard
Landuse	UNFCCC Good practice guide for landuse, landuse change and forestry
Projects	BS EN ISO 14064-2, Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements

NOTE 1 The entry identified* as an ISO/TS cannot be used to support certification.

NOTE 2 Attention is drawn to the fact that legislation applicable at any particular location could impose requirements to use other methodologies. Similarly, there may be nationally relevant guidelines based upon international standards that entities need to follow. It is the responsibility of the entity applying this PAS to check for any applicable legislation or national guidelines.

Table C.2 – Examples of schemes which can provide carbon credits and offsets that meet the principles in 9.1.2

Offset schemes	
Kyoto-compliant	<ul style="list-style-type: none"> • Clean Development Mechanism (Certified Emission Reductions) • Joint Implementation (Emission Reduction Units) • EU Allowances
Non-Kyoto compliant (Voluntary Emission Reductions)	<ul style="list-style-type: none"> • Gold Standard • Voluntary Carbon Standard • Climate, Community and Biodiversity Standard
Domestic schemes	<ul style="list-style-type: none"> • In UK – the Woodland Carbon Code <p>NOTE <i>This is a government-backed scheme.</i></p>

NOTE 1 *There may be nationally relevant guidelines or offset schemes that entities are mandated to, or can choose to adopt. It is the responsibility of the entity applying this PAS to check for any applicable legislation or national schemes.*

NOTE 2 *Users of this PAS should consider use of one of the many international and domestic offset schemes that may be found relevant to its application, not all of which are referred to in Table C.2. However, in making this recommendation, particular attention is drawn to the requirement at 9.1.3 and the need to ensure that offset schemes selected meet the principles set out in 9.1.2.*

Table C.3 – Examples of standards and codes identified as appropriate for use by independent third party certification bodies assessing performance against this PAS

Standards and codes for certification bodies	
BS EN ISO 14065	Greenhouse Gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition
EA-6/03	European Co-operation for Accreditation Guidance For the Recognition of Verification Bodies under EU ETS Directive
BS EN ISO 14064-3	Specification with guidance for the validation and verification of greenhouse gas assertions
BS EN ISO/IEC 17021	Conformity assessment – Requirements for bodies providing audit and certification of management systems
BS EN ISO/IEC 17065	Conformity assessment – Requirements for bodies certifying products, processes and services
GHG protocol	WBCSD/WRI GHG Protocol, Corporate Accounting and Reporting Standard

Annex D (informative)

Guidance on the determination of carbon neutrality for events

D.1 General

Of all the topics identified as potential subjects for PAS 2060 application, events have proven to be the one most in need of guidance and explanation.

To assist the application of PAS 2060 for events, this annex addresses particular issues related to the determination of event carbon neutrality, identified by those who have undertaken such assessment during the two years following its publication.

This guidance does not alter the need for any entity seeking to demonstrate event carbon neutrality through compliance with this PAS to undertake the actions specified in 4.1 a), b), c), d), e), f), and g) and meet the requirements specified in the related clauses.

D.2 Recommended approach

D.2.1 It is suggested that a suitable approach for applying PAS 2060 to most events is to view the event much like a service using PAS 2050 or other appropriate methodology for quantification and re-quantification of emissions, within the sequence of carbon neutrality assessment activities specified in this PAS.

D.3 Defining the entity and subject

D.3.1 The entity referred to could be the event planners, organizers, hosts or sponsors of the event but would need to include one or more individuals with the authority to make any changes or modifications required to achieve any planned reductions in emissions.

D.3.2 The event itself would be the subject of the assessment and be classified as recurring (e.g. annual conference or exhibition, periodic (e.g. fundraising event) or non-recurring (e.g. wedding or special anniversary celebration, a concert or one-off sports event). Such activities can be from small to large scale.

D.3.3 In recognition of the fact that relationships between the parties organizing any particular event can be informal and that they may not therefore constitute an entity in any legal sense, declarations of both commitment and achievement may be made jointly by the organizing parties.

D.4 Event planning and implementation

D.4.1 Event plans can usefully form the basis for an initial baseline GHG assessment as they will typically include reference to all the main elements necessary to stage the event. Where events are a repeat of a previously held one of the same type, the actual plan for the previous event can be utilized as the initial plan for the new event although where the nature or scale of the event has changed materially in between events, the baseline for the previous plan may need to be adjusted before it can be used for reduction assessment purposes.

D.4.2 For one-off events or the first event in a new series, the plan will be entirely new. For both new and repeat events, attention is drawn to the guidance note provided in **D.3.2**.

D.4.3 A preliminary assessment should be made of this initial event plan to identify the significant emissions hot spots and make a preliminary assessment of the potential GHG emissions were the event to take place in accordance with that plan (the potential carbon footprint of the initial event plan).

D.4.4 The primary sources of GHG emissions in the initial event plan should be examined in detail to establish what alternatives may be available to reduce the potential emissions. This examination should consider the impacted emission sources, likely primary and secondary effects, data quality and materiality associated with all alternatives.

NOTE *The approach followed by the WRI Greenhouse Gas Protocol for Project Accounting is useful for evidencing reductions against a baseline.*

D.4.5 The initial event plan should be reworked to incorporate the identified changes for carbon emissions reduction. This will then serve as the plan that will be used to deliver the actual event and, with the proviso that it contains all the required information, can also act as the carbon management plan required by PAS 2060.

NOTE *This could be an iterative process involving more than one reassessment to reduce the GHG emissions to a level that brings the required offsets within affordable reach for the event.*

D.4.6 In implementing the event plan, care should be taken to ensure that stakeholders and participants are aware of the carbon neutrality objective and that the elements likely to affect the achievement of the carbon management plan are known and followed as closely as may be practicable, commensurate with not undermining the success of the event.

D.4.7 Subsequent to the event, actual assessment of the GHG emissions from the event should be undertaken as quickly as possible and the outcome reported by means of the appropriate explicit declaration provided in Annex A.

D.5 Scoping and materiality

D.5.1 As for any PAS 2060 carbon neutrality assessment, it is essential that the subject of the assessment be clearly and unambiguously identified. If it is intended that the declaration be made in respect of the event, it is necessary that the boundary be defined so as to include all activities integral to the intended outcome of that event (i.e. activities without which, the event could not be held or would be fundamentally changed in intention or outcome) which may generate emissions at some stage during the life cycle of the event. This will include all activities:

- prior to the event (as a part of preparation);
- during the event (whilst the event is taking place) or;
- post event (e.g. during clear-up);
- that are an intended legacy of the event;

that are integral to the holding of the event and the achievement of its intended outcomes.

Where this is not practicable or is not the intention of the event organizers, specific elements of the event can be identified as the subject of a carbon neutrality assessment and declaration provided that the principles of identification and boundary inherent to the PAS 2060 methodology, are applied.

NOTE *The inclusion of legacy emission savings as possible legitimate means of meeting the requirements of 9.1.2 is recommended so as to provide for any new carbon reducing projects established as part of an event being accepted as allowable compensation for the event impact e.g., if as part of staging a world-class event the organizers installed a huge solar array that met the additionality criteria or planted woodland that met the Woodland Carbon Code these future emission savings could be taken into account in assessing the neutrality of the subject.*

D.5.2 It is strongly recommended that in setting the event boundary that defines the subject, consideration be given to following any publicly available specifications or rules for similar event types. The reasons for the boundary-setting decisions taken including those for not using a pre-existing plan, should be documented in the event QES.

D.5.3 It is recommended that events maximize the number of emission sources included in their QES. Examples of event emission sources include:

- a) advertising and event promotion (printed/virtual/audio-visual);
- b) materials used for decoration of event venue;
- c) consumption of purchased electricity, heat or steam;
- d) travel of employees and contractors involved in the delivery of the event (air, public transport, or private vehicle);
- e) travel of individuals to and from the activity by whatever means;
- f) accommodation;
- g) site clearing and waste disposal for recovery of venue;
- h) food and beverages.

The above list should be recognized as containing only examples of the type of source commonly included. Events are essentially individual in detail and the actual list of included sources will inevitably vary.

D.5.4 Attention is therefore drawn to the significance of the QES in meeting the need for transparency in relation to the definition of event boundaries and to the processes and emissions that are included at each stage.

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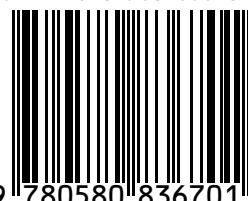
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