

**Hacel Lighting Limited**

**PAS 2060:2014 Specification for the  
demonstration of carbon neutrality**

**Qualifying Explanatory Statement - CY 2021**

**Declaration of achievement for first application period**

**This QES has been produced by CO2balance on behalf of Hacel Lighting Limited  
– September 2022**



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## Introduction

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This document forms the first Qualifying Explanatory Statement to demonstrate that Hacer Lighting Limited has achieved carbon neutrality under the guidelines of PAS 2060:2014 and its commitment on carbon neutrality under the guidelines of PAS 2060:2014.

Hacer Lighting has engaged with carbon management and project development company CO2balance to assist in achieving carbon neutrality through the PAS 2060:2014 process.

<b>PAS 2060 Information Requirement</b>	<b>Information as it relates to Hacer Lighting Limited</b>
<b>Entity making PAS 2060 declaration:</b>	<b>Hacer Lighting Limited</b>
Subject of PAS 2060 declaration:	The office, factory and vehicles that are operated by Hacer Lighting.
Description of Subject:	Hacer Lighting is a major UK lighting manufacturer. The company combines design flair and manufacturing excellence to produce high quality lighting products.  The company is located in Wallsend, near Newcastle Upon Tyne.
Rationale for selection of the subject:	The scope and subject of this PAS2060 includes all emissions based on the operational control principle of defined in the WBCSD / WRI GHG Protocol – Corporate Standard.
What type of conformity assessment has been/is to be undertaken?	Other party validation
Baseline date for PAS2060 programme	1st January 2021 – 31st December 2021
First Achievement Period	1st January 2021 – 31st December 2021
Commitment Period	1 <sup>st</sup> January – 31 <sup>st</sup> December 2022

# Declaration

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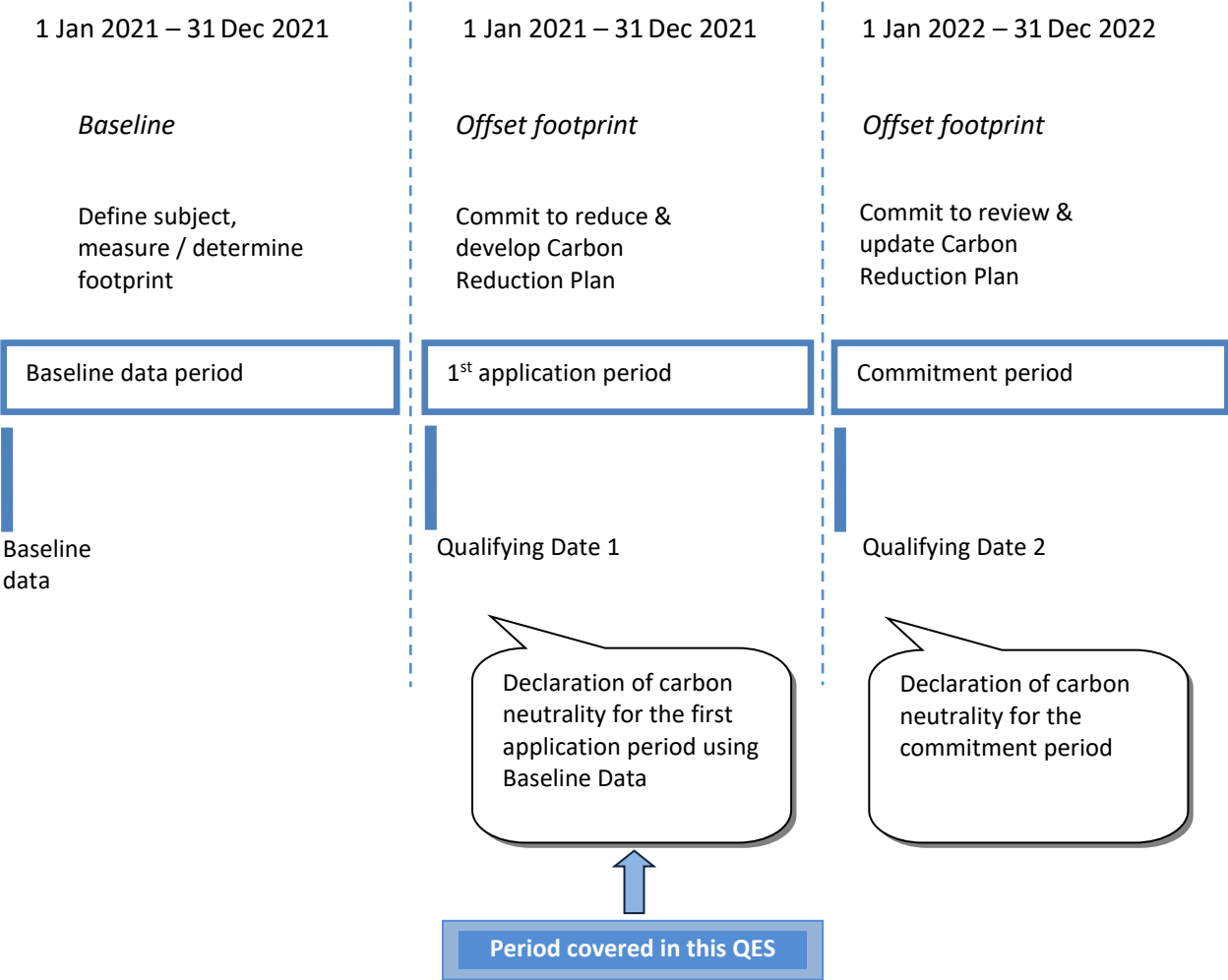
This Qualifying Explanatory Statement contains information pertaining to the subject’s carbon neutrality. Any and all information herein is believed to be correct at the time of publishing. Should any information come to light that would affect the validity of the statements herein, this document will be updated to accurately reflect the current status of any carbon neutral statement made by Hacer Lighting. This is the first declaration of carbon neutrality by Hacer Lighting.

<b>Entity making PAS 2060 declaration</b>	<b>Hacer Lighting Ltd</b>
<b>Type of conformity assessment has been/is to be undertaken</b>	Other party validation
<b>Declaration Statement</b>	“Carbon neutrality of Hacer Lighting Ltd’s operational activities will be achieved in accordance with PAS 2060 for the period of 2021, CO2balance UK Limited declares”.
<b>Name of Senior Representative</b>	Chris Neal, Finance Controller / Company Secretary
<b>Signature of Senior Representative</b>	
<b>Date</b>	9 <sup>th</sup> September 2022

# Illustration of Hacer Lighting's PAS 2060 Application Periods

The diagram below represents the timeline of Hacer Lighting's application periods for PAS2060.

This follows the Option 3 route as defined by PAS2060:2014 "Specification for the demonstration of carbon neutrality", showing the demonstration of carbon neutrality using first year offsetting concessions to achieve carbon neutrality for the first application period. This QES covers the first application period as shown below.



# Carbon Footprint

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A full Greenhouse Gas Assessment was conducted internally by Hacer Lighting and reviewed by CO2balance to calculate the carbon emissions emitted by Hacer Lighting. The Assessment was conducted in line with the Greenhouse Gas Protocol published by the World Business Council for Sustainable Development and the World Resources Institute (WBCSD/WRI Protocol).

Greenhouse Gas Emissions for 2021*	252.64 tCO <sub>2</sub> e
Number of full-time employees	97 <sup>1</sup>
Emissions per full time employee	2.60 tCO <sub>2</sub> e
Emissions per floor space (m2) <sup>2</sup>	0.079
TCO <sub>2</sub> e per million revenue 2021 <sup>3</sup>	26.43
Period covered	1 <sup>st</sup> January to 31 <sup>st</sup> December 2021

\*This covers Scope 1, Scope 2 and reportable Scope 3 emissions from the company

The data above reports emissions from electricity consumption on the “market-based method”. This reflects emissions from electricity sources that Hacer has purposefully chosen. Since 1st August 2021, Hacer have purchased their electricity supply from a dedicated green source, therefore a zero emission is reported for electricity consumption from August through to December 2021.

In line with the Greenhouse Gas Protocol, the figure below shows the emissions from Hacer under a total “location based” method, which reports all electricity using the host county’s grid average. Assessments are required to disclose both the market based and location-based figures. Figures used elsewhere in this document use the Market Based Method.

Location Based Reporting:

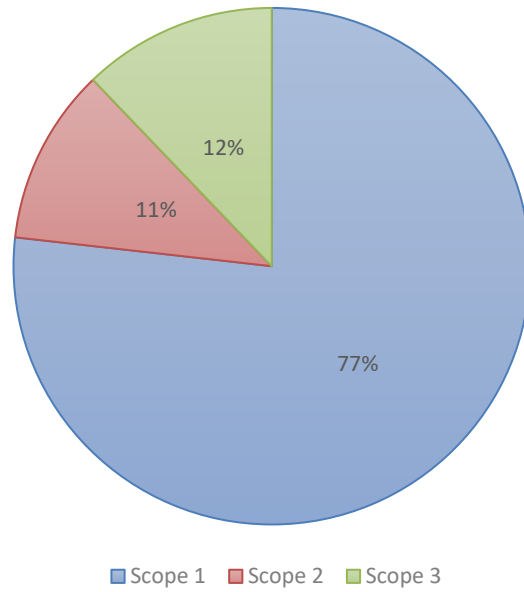
Total Emissions: 291.59 tCO<sub>2</sub>e

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<sup>1</sup> Based on the number of employees as end of our 2020 financial year (31st December 2020)  
<sup>2</sup> Based on floor space of 3,186 square metres  
<sup>3</sup> Based on a revenue figure of £9.6 million in 2021



Hacel - emissions by Scope



Scope	2021 - tCO <sub>2</sub> e	Percentage
<b>Scope 1</b>	193.99	77%
<b>Scope 2</b>	27.91	11%
<b>Scope 3</b>	30.74	12%
	<b>252.64</b>	<b>100%</b>

## Standard and Methodology

The assessment methodology for the Greenhouse Gas Assessment follows the reporting principles and guidelines provided by the Greenhouse Gas Protocol published by the World Business Council for Sustainable Development and the World Resources Institute (WBCSD/WRI Protocol). In line with the WBCSD/WRI Protocol, CO2balance uses these procedures to undertake Greenhouse Gas Emissions Assessments.

The selected methodology – the Greenhouse Gas Protocol – is an approved PAS2060 methodology and was applied in accordance with its provisions and the principles set out in PAS2060.

### Organisational Boundary

CO2balance have calculated the emissions for which Hacer Lighting has direct Operational Control over as defined by the WBCSD/WRI.

### Operational Boundary

The Greenhouse Gas Protocol and the ISO 14064\_1 standard defines three scopes that set Operational boundaries when determining emissions. These are as follows:

- Scope 1 – Direct Emissions (fuel combustion, company owned vehicles)
- Scope 2 – Indirect Emissions (such as purchased electricity for own use)
- Scope 3 – Indirect Emissions (outsourced operations, business travel in vehicles not owned by the company, waste disposal)

## Data Quality/Confidence

This is Hacer Lightings first Greenhouse Gas Assessment and in keeping with such audits the raw data is a mix of primary and secondary data sources. As such confidence in the quality of the data supporting this GHG Assessment is classed as medium. Utility data originates from primary sources (meter readings). Business travel comes from secondary metrics, such as distance travelled. This data was then converted in tonnes of CO<sub>2</sub>e (tCO<sub>2</sub>e) using emissions factors supplied by DEFRA'S "[UK Government conversion factors for Company Reporting](#)".

For further information on Hacer Lighting's carbon footprint please refer to its Greenhouse Gas Assessment Excel produced internally by Hacer Lighting.



# Carbon Reduction Plan

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Hacel Lighting have created a Carbon Reduction Plan document to outline activities to reduce the company's carbon emissions, please revert to that document for further information. A summary of the key reduction activities from this plan are shown below:

## Emissions reduction targets

- General business activity was higher in 2021 compared to our base year as the construction industry began to recover from COVID. As such, and in order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.
- We project that carbon emissions will decrease over the next five years to 95 tCO<sub>2</sub>e by 2025. This is a reduction of 60%

## Carbon Reduction Projects

### Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2020 baseline. The carbon emission reduction achieved by these schemes is difficult to measure against the 2020 baseline due to activity levels but has limited our carbon generated to +5% despite a 16% increase in business activity levels.

- Replacement of the oldest of three powder coat cure ovens with a modern efficient unit.
- Installation of in-line flow meters on the gas supply to all three paint ovens.
- Introduction of activity sensors on all lighting on site to cut energy usage during inactivity.
- Replacement of selected air conditioning units with newer safe gas units.
- Purchase of a CNC router in order to manufacture selected components in house rather than importing from China.
- Introduction of bailing machines for paper/card and plastic waste.
- Introduction of an at source carbon offset arrangement with our gas supplier effective from the start of 2021.
- Changed to 100% green sourced electricity effective from 1/8/2021.
- Membership of the Carbon Club tree planting offset effective 17/7/2021.

In the future we plan to implement further measures such as:

- Installation of a suitable solar PV array on the factory roof.
- Installation of internal energy monitoring.
- Continuing to replace older air conditioning units with efficient safe gas replacements.
- Completion of the change from fossil fuel company vehicles to a fully electric fleet.
- Movement to more environmentally friendly packaging on products.

# Carbon Offset Strategy

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During the reporting period of 2021 Hacer Lighting carried out the following carbon offset activities:

- Purchased Gas - all offset at source (amounting to 172.22t)
- Purchased Fuel Cards - all offset at source (amounting to 18t)
- Carbon offset purchased via the “Carbon Club” – 64.20t
- TOTAL = 254.42t

Total emissions: 252.64  
Total offset: 254.42  
Net emissions: -1.78

Hacer Lighting have offset their emissions Forest Carbon’s UK woodland project, certificate of this can found in Appendix A

Project name:	Carbon Club – run by Forest Carbon
Location:	UK woodland
Standard:	UK Woodland Carbon Code
Tonnage:	64.20

### External Verification:

The project has been externally validated and verified by The Woodland Carbon Code, a respected standard that assesses the carbon sequestered for each woodland project. The Code is an ICROA approved carbon standard for carbon neutrality (International Carbon Reduction and Offset Alliance - <https://www.icroa.org/>)

The Gold Standard is an approved carbon offset standard as laid down by PAS2060 requirements and ensures that the projects met the criteria for:

- ✓ additionality, permanence, leakage and double counting.
- ✓ verified by an independent third-party verifier
- ✓ projects are only issued after the emission reduction has taken place.

## Contacts

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### Hacel Lighting Ltd

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🌐 [www.co2balance.com](http://www.co2balance.com)



# EcoPoint

Balancing our carbon footprint with Allstar

This is to certify that

## HACEL LIGHTING LIMITED

has demonstrated its commitment to enhancing the natural environment by balancing its residual carbon footprint with woodlands created under the Allstar EcoPoint Scheme.

As a result, new woodland totaling 5,184,231 trees and covering 11,189 acres are being created and protected by Forest Carbon on behalf of Allstar and its EcoPoint members. HACEL LIGHTING LIMITED, has contributed 52 trees to this total in 2021.

Over the next 100 years these trees will provide significant multiple benefits to society, including carbon dioxide capture totaling approximately 20 tonnes, habitat for biodiversity, flood mitigation, cleaner rivers and air, recreation space and employment creation.



Note: contract that confirms Hacer are purchasing carbon neutral gas (gas that has been offset), has been reviewed by CO2balance and is available on request.

# Appendix B – Declaration of Commitment to Carbon Neutrality



## Declaration of Commitment to Carbon Neutrality for 2021 under PAS2060<sup>1</sup>

Entity making PAS 2060 declaration	Hacel Lighting Ltd
Type of conformity assessment has been/is to be undertaken	Other party validation
Declaration Statement	"Carbon neutrality of Hacel Lighting Ltd's operational activities will be achieved in accordance with PAS 2060 for the period of 2021, CO2balance UK Limited declares".
Name of Senior Representative	Chris Neal, Finance Controller / Company Secretary
Signature of Senior Representative	
Date	9 <sup>th</sup> September 2022

### Hacel Lighting Ltd's Carbon Footprint

Hacel Lighting Ltd have carried out their own internal Greenhouse Gas Assessment to quantify their carbon footprint. They have engaged with CO2balance UK Ltd, who are a founding member of the International Carbon Reduction and Offset Alliance (ICROA), to review their finding to ensure that they are in line with the WBCSD/WRI GHG Protocol methodologies.

### Carbon Management Plan

Following on from the quantification of Hacel Lighting Ltd's greenhouse emissions for the financial year of 2021, a Carbon Management Plan (CMP) will be produced and sent for approval by Hacel Lighting Ltd. This will set out Hacel Lighting Ltd's carbon reduction commitments.

### Carbon Offsetting

Once Hacel Lighting Ltd's operational greenhouse emissions have been ascertained, Hacel Lighting Ltd can commit to offset these emissions through PAS2060 approved projects to achieve carbon neutrality status.

<sup>1</sup> PAS 2060 – Specification for the Demonstration of Carbon Neutrality. For more information, visit: <http://www.bsigroup.co.uk/en-GB/PAS-2060-Carbon-Neutrality/>



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Tel: +44 (0) 1823 33233  
Registered company number 4889958



# Appendix C – statement of validation of carbon neutrality from CO2balance UK Ltd

## CERTIFICATION OF CARBON NEUTRALITY

This is to certify that

### Hacel Lighting Limited

Have met the requirements of PAS2060 for Carbon Neutrality

and have offset the carbon emissions from their business operations emitted during January 2021 to December 2021 and have committed to maintain this carbon neutrality up to December 2022

18th November 2022



CO2balance UK Ltd, 1 Discovery House, Cook Way, Taunton, Somerset, TA2 6BJ  
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## Appendix D – Qualifying Explanatory Statement: Check Lists

Table 1 – Check list for QES supporting declaration of commitment to carbon neutrality:

Activity and evidence required by PAS2060	Location
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.	Page 4
2) Identify the entity responsible for making the declaration.	Page 3
3) Identify the subject of the declaration.	Page 3
4) Explain the rationale for the selection of the subject.	Page 3
5) Define the boundaries of the subject.	Page 3 & 6
6) Identify all characteristics (purposes, objectives or functionality) inherent to that subject.	Page 3 & 6
7) Identify and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the subject.	Page 3
8) Select which of the 3 options within PAS 2060 you intend to follow.	Page 5
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.	Page 5
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.	Page 6
11) Provide justification for the selection of the methodology chosen.	Page 8
12) Confirm that the selected methodology was applied in accordance with its provisions and the principles set out in PAS 2060.	Page 8
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.	Page 8
<i>a) All greenhouse gases shall be included and converted into tCO<sub>2</sub>e.</i>	Page 8
<i>b) 100% Scope 1 (direct) emissions relevant to the subject shall be included when determining the carbon footprint.</i>	Page 7 (and separate Greenhouse Gas Excel)
<i>c) 100% Scope 2 (indirect) emissions relevant to the subject shall be included when determining the carbon footprint.</i>	Page 7 (and separate Greenhouse Gas Excel)
<i>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.</i>	Page 7 (and separate Greenhouse Gas Excel)
<i>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.</i>	Page 7 (and separate Greenhouse Gas Excel)
<i>f) The quantified carbon footprint shall cover at least 95% of the emissions from the subject.</i>	Greenhouse Gas Assessment Excel
<i>g) Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.</i>	Greenhouse Gas Assessment Excel
<i>h) Any exclusion and the reason for that exclusion shall be documented.</i>	Greenhouse Gas Assessment Excel
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).	Greenhouse Gas Assessment Excel
b) Either the equity share or control approach has been used to define which GHG emissions are included.	Page 8
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.	Greenhouse Gas Assessment Excel
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).	N/A
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.</i> )	Page 8
18) Provide details of, and explanation for, the exclusion of any Scope 3 emissions.	Greenhouse Gas Assessment Excel
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.)	Greenhouse Gas Assessment Excel
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	Page 8
21) Document carbon footprint management plan:	Page 9
a) Make a statement of commitment to carbon neutrality for the defined subject.	Page 4
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.	Page 9
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.	Page 9
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.	Page 10
22) Implement a process for undertaking periodic assessments of performance against the Plan and for implementing corrective action to ensure targets are achieved.	Page 10
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	N/A
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"> <li>• the period from which these reductions are to be included;</li> <li>• that the required data is available and that calculations have been undertaken using the same methodology throughout;</li> <li>• 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.</li> </ul>	Page 8
25) Record the number of times that the declaration of commitment has been renewed without declaration of achievement.	Page 4
26) Specify the type of conformity assessment: either a) independent third party certification; b) other party validation; c) self-validation.	Page 4
27) Include statements of validation where declarations of commitment to carbon neutrality	Appendix C

are validated by a third party certifier or second party organizations	
28) Date the QES and have it signed by the senior representative of the entity	Page 11
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.	Page 4

**Table 2 – Checklist for QES supporting declaration of achievement of carbon neutrality:**

Activity and evidence required by PAS2060	Location
1) Define standard and methodology use to determine its GHG emissions reduction.	Page 8
2) Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	Page 8
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.	Page 8
4) Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	Page 9
5) Ensure that there has been no change to the definition of the subject.	Page 9
6) Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint.	Page 9
7) State the baseline/qualification date.	Page 8
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.	N/A
10) Select and document the standard and methodology used to achieve carbon offset.	Page 10
11) Confirm that:	Pages 10
a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere	
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).	Pages 10
c) Carbon offsets are verified by an independent third party verifier.	Pages 10
d) Credits from Carbon offset projects are only issued after the emission reduction has taken place.	Pages 10
e) Credits from Carbon offset projects are retired within 12 months from the date of the declaration of achievement.	Appendix A
f) Provision for event related option of 36 months to be added here.	N/A
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.	Page 10 & appendix A
h) Credits from Carbon offset projects are stored and retired in an independent and credible registry.	Page 10 & appendix A
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:	Page 10
a) Which GHG emissions have been offset.	Page 10
b) The actual amount of carbon offset.	Page 10
c) The type of credits and projects involved.	
d) The number and type of carbon credits used and the time period over which the	Page 10 &

credits have been generated	appendix A
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.	N/A
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.	Page 10 & appendix A
13) Specify the type of conformity assessment: a) independent third-party certification, b) other party validation; c) self-validation	Other party validation
14) Include statements of validation where declarations of achievement of carbon neutrality are validated by a third party certifier or second party organizations.	Appendix C
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).	Page 4
16) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g. via websites).	