**Introduction**

This template is a general guide for BCSA members to develop a company Carbon Reduction Plan (CRP).

As part of the wider, sector commitment to decarbonise UK steel construction [1] in line with the national target to be ‘net zero’[[1]](#footnote-1) by 2050, BCSA members are required to reduce their greenhouse gas emissions.

The headline target is for BCSA members to be net zero[[2]](#footnote-2) by 2050.

Net zero is based on the Scope 1, 2 and 3 emissions as defined in the Greenhouse Gas protocol [2]. Currently, reporting Scope 3 emissions is voluntary – see Scope 3 emissions section below. In the interim therefore, ‘carbon ‘neutral’[[3]](#footnote-3) targets have been set for BCSA members as followed:

* To be carbon neutral by 2025 – based on Scope 1 and 2 emissions only and allowing carbon offsetting;
* To be carbon neutral by 2030 – based on Scope 1, 2 and a defined subset of Scope 3 emissions (as defined by PPN 06/21 – see below) and allowing carbon offsetting.

It is difficult to be prescriptive about carbon reduction targets since each company will be different in terms of size, efficiency, type of work and output and their carbon reduction plan will therefore differ. Nevertheless, BCSA members are encouraged to set and commit to % reduction targets over defined timescales in alignment with a trajectory to be net zero by 2050 and the interim 2025 and 2030 targets.

This CRP template is intended to standardise reporting by BCSA members so that company specific and sector performance can be reported accurately and consistently. The template is aligned with the UK Government Procurement Policy Note (PPN 06/21) [3] published in June 2021 and includes:

1. Baseline greenhouse gas emissions – these can be calculated using the BCSA carbon footprint tool.
2. Current (annual) emissions reporting - these can be calculated annually using the BCSA carbon footprint tool.
3. Emission reduction targets – clear statement of the company carbon reduction target over a defined timeframe.
4. Reporting of progress relative to the benchmark, declared interim targets and the 2050 net zero target. Progress should also be reported graphically.
5. Carbon reduction projects – describe completed carbon reduction measures completed since the baseline and planned carbon reduction measures. Potential reduction measures are set out below.
6. Offsetting – if carbon offsetting is employed as an interim reduction measure, details of the offsets used must be clearly stated and include the quantity, type and verification status.

PPN 06/21 requires organisations to report on a ‘required subset of Scope 3 emissions’ in accordance with the published standard [4] for Carbon reduction plans (CRP) and the Corporate value chain (Scope 3) standard [5].

The CRP Standard [4] requires companies to report their Scope 3 emissions in the following five (of 15 categories defined in the GHG protocol [2]):

1. Upstream transportation and distribution
2. Waste generated in operations
3. Business travel
4. Employee commuting
5. Downstream transportation and distribution.

The 2021 update of Version 2 of the BCSA carbon footprint tool [6] includes:

1. Upstream transportation and distribution – Sections 2-4 include road, rail and sea transport of steel purchased by the reporting company
2. Waste generated in operations – Section 9 includes office and manufacturing waste generation by the reporting company
3. Business travel – Section 12 includes domestic employee business travel by the reporting company
4. Employee commuting - Section 14 includes employee commuting by the reporting company
5. Downstream transportation and distribution - Section 10 includes transportation of fabricated steelwork to the construction site by the reporting company and sub-contracted haulage.

The PPN [3] states that there is no requirement to have your carbon footprint audited.

**Alignment with other BCSA initiatives**

This Carbon Reduction Plan template has been aligned with the following other BCSA resources:

* The UK steel construction sector decarbonisation roadmap [1] – which sets out the carbon reduction contribution to be made by UK steelwork contractors by 2050;
* The BCSA carbon footprint tool [6] – which allows BCSA members to calculate their Scope 1 and 2 and/or their Scope 1, 2 and 3 carbon footprint. For consistency, it is recommended that the BCSA carbon foot-printing tool is used to complete the Carbon reduction plan;
* The BCSA sustainability charter [7] requirement 3 which requires companies to quantify their greenhouse gas emissions and set reduction targets. The exact requirements depend upon the level of Charter targeted.

**Scope 3 emissions**

Scope 1 and 2 emissions are direct greenhouse gas emissions under the control of the steelwork contractor. Scope 3 emissions include all other indirect GHG emission that occur in a company’s supply chain. These can include:

* **Purchased goods and services,** e.g. steel, welding consumables, coatings, etc.;
* **Business travel,** including site visits/meetings and other business development meetings;
* Employee commuting;
* Waste disposal;
* Use of finished products;
* Transportation and distribution (up and downstream) by other organisations, e.g. transport of fabricated steelwork to site;
* Investments, i.e. emissions resulting from investments by the reporting company but not reported under their Scope 1 & 2 emissions;
* Leased assets and franchises, i.e. operation of assets leased by the reporting company but not reported under their Scope 1 & 2 emissions.

Those most relevant to steelwork contractors are shown in bold. Of these, purchased goods is the most significant, notably the emissions associated with the purchased steel. Emissions associated with steel-making are the responsibility of steel producers and decarbonisation strategies are addressed as part of the UK Steel construction sector decarbonisation roadmap [1] and within individual company decarbonisation strategies.

Although reporting of Scope 3 emissions is voluntary, the steelwork contractor can influence and help reduce Scope 3 emissions through their own company policies. Potential reduction measures for Scope 3 emissions applicable to steelwork contractors are:

**Purchased goods and services**

Although the Scope 3 emissions of purchased goods is not the responsibility of the steelwork contractor, they have a responsibility to use purchased goods efficiently to help reduce Scope 3 emissions. In particular this includes efficient use of:

* Steel;
* Welding consumables;
* Corrosion and fire protection coatings.

**Business travel** includes business development meetings, etc. and travel to site by engineers and erectors. Reduction measures include:

* Electrify vehicles (EVs) used for business travel;
* Incentivise EVs for any private vehicles used for business travel;
* Use public transport in place of cars where practical;
* Minimise the need for business travel through online conference calls and meetings, etc.

**Employee commuting**:

Reduction measures include:

* Greater use of public transport;
* Car-sharing and car-pooling;
* Offer cycle to work schemes through a salary sacrifice scheme;
* Home working - note however that the net benefit of home working should be assessed on individual basis and will depend upon commuting mode and distance and the home situation, e.g. energy efficiency of the home.

**Waste disposal and reduction**

Reduction measures include:

* Minimisation manufacturing and office waste;
* Minimising packaging waste;
* Minimise single-use plastics;
* Sorting and segregating all waste streams to facilitate efficient recycling.

**Transportation and distribution by others**

Up and downstream distribution by others mainly includes transport of steel from the mill or stockholder to the steelwork contractor and from the steelwork contractor to site. Potential reduction measures are as for those listed under Scope 1 below.

Note that the BCSA carbon footprint calculation tool (Product carbon footprint version) allows BCSA members to quantify these Scope 3 emissions.

**Carbon offsetting**

The priority is to cut your own company carbon emissions as far and as fast as possible. However, some emissions may be hard to tackle in the short-term as the industry decarbonises. As an interim measure therefore, approved carbon offsetting (e.g. Kyoto compliant) may be used to achieve net zero and may be reported separately in the Carbon reduction plan. All carbon offsets should be verifiable and ‘additional’, i.e. they would not have happened if it wasn’t for the offsetting scheme.

Defra has set out good quality criteria – see Annex G of ‘Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance March 2019 (Updated Introduction and Chapters 1 and 2). HM Government.

**BCSA Carbon Reduction Plan
Template**

The BCSA Carbon Reduction Plan should be updated regularly (at least annually) and published and clearly signposted on the company’s website. It should be approved by a director (or equivalent senior leadership) within the organisation to demonstrate a clear commitment to greenhouse gas emissions reduction at the highest level.

**Company name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Publication date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Commitment to achieving Net Zero**

[Company name] is committed to achieving Net Zero[[4]](#footnote-4) emissions by 20XX.

**Baseline Emissions Footprint**

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

*Instructions: Please provide details of your organisation’s baseline emissions below. If your organisation has not previously assessed or reported emissions, please detail this below and use your first reporting period as your Baseline.*

|  |
| --- |
| **Baseline Year: 20xx** |
| **Additional details relating to the Baseline Emissions calculations** |
| *Instructions: Add commentary regarding your Baseline Emissions: for example the scope of emissions reported and how the Baseline Emissions have been determined, e.g. using the BCSA carbon foot-printing tool.* |
| **Baseline year emissions:** |
| **Emissions** | **Total (tCO2e)** |
| **Scope 1** |  |
| **Scope 2** |  |
| **Scope 3****(Included Scope 3 sources)** |  |
| **Total emissions** |  |
| **Purchased carbon offsets** | *Provide brief details of the offsetting schemes used and how they have been verified* |

**Current Emissions reporting**

|  |
| --- |
| **Reporting year 20XX** |
| **Emissions** | **Total (tCO2e)** |
| **Scope 1** |  |
| **Scope 2** |  |
| **Scope 3****(Included Scope 3 sources)** |  |
| **Total emissions** |  |
| **Purchased carbon offsets** | *Provide brief details of the offsetting schemes used and how they have been verified* |

**Emission reduction targets**

*Instructions: If existing emissions reduction targets are in place for your organisation, please provide details below.*

*If you have no previous emissions reduction commitment, or if this is your organisation’s first carbon footprint, please provide targets for your organisation*

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 XX tCO2e by 20XX.

This is a reduction of XX%

**Progress against targets**

Progress against these targets can be seen in the graph below:



**Carbon Reduction Projects**

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 20XX baseline. The carbon emission reduction achieved by these schemes equate to XX tCO2e, a XX%ge reduction against the 20XX baseline.

*Instructions: Provide details of your completed carbon reduction projects. This is for information only. This may include environmental management measures such as certification schemes like ISO14001 [8] or PAS 2060 [9], signing up to SBTI [10] or specific measures you have taken such as; the adoption of LED/PIR lighting controls, changes to policy resulting in a reduction in company travel and flights or the electrification of the company fleet.*

In the future we hope to implement further measures including:

*Instructions: Provide details of proposed future carbon reduction projects. Possible Scope 1 and 2 carbon reduction measures applicable to steelwork contractors are listed below.*

|  |
| --- |
| **Scope 1 reductions**Scope 1 emissions relate to non-electricity fuel use. Possible reduction measures include:*Heating measures:** Thermal insulation measures to manufacturing and office buildings; e.g. insulate loft, cavity walls and loft spaces, circulation fans, new double or secondary (argon-filled) glazing
* Improved airtightness of buildings; e.g. draught-proofing, swing or revolving doors, spring-loaded door-closures, strip curtains, etc.
* More efficient heating systems for office buildings and manufacturing operations, e.g. coating drying areas
* Upgrade or introduce a Building Management system to control heating, ventilation and air conditioning, e.g. timers and thermostats
* Regularly maintain boilers, pumps and controls
* Install smart meters and sub-metering
* Renewable heating systems, e.g. heat pump or solar thermal
* CHP systems.

*Diesel-fuelled vehicles for manufacturing and erection activities*Substitution of diesel-powered plant and vehicles used in the manufacturing facility and for erection, with electric plant and vehicles. To include:* Forklifts
* MEWPs
* Cherry pickers
* Mobile cranes
* Generators.

*Transport of fabricated steelwork to site:*Reduce transport impacts of own haulage by:* Using appropriately sized HGVs
* Maximising steelwork loads
* Reducing or eliminating empty return trips
* Using lower carbon, more fuel efficient vehicles
* Using alternative fuels although it is recognised that currently, the use of alternative fuels in the current generation of HGV engines is limited
* Ensure vehicles are properly maintained and retrofitted with aerodynamic devices and fairings and low rolling resistance tyres

**Scope 2 reductions**Scope 2 emissions relate to electricity use. Reduction measures relate mainly to lighting, manufacturing energy efficiency and renewable energy and include:* Optimise natural lighting
* Regularly dust and clean light fittings
* Install lighting controls and sensors
* Review external/security lighting and install motion sensors
* Consider horizontal rather than vertical blinds
* Upgrade conventional lighting to LED bulbs or T5 fluorescent tubes and use automatically dimmable light fittings and reflectors
* Clear labelling of light switches
* Consider installing skylights and northlights particularly in manufacturing buildings
* Review alternatives, e.g. natural ventilation and solar shading, to air-conditioning
* If required, install energy efficient (SEER > 10) and appropriately sized air-conditioning systems
* PCs and monitors are turned off when people are away from their desks and at the end of the day
* Use laptops instead of desktop PCs; use flat screen monitors; consolidate printers to one main, energy efficient printer
* Printers and photocopiers are set to go to sleep mode after a few minutes of inactivity
* Generate your own renewable energy, e.g. solar PV
* Monitor energy consumption of manufacturing equipment and motors; keeping motors clean and optimising control, e.g. speed, will improve efficiency.
 |

**Declaration and Sign Off**

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard [2] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting [11].

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements [12], and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans [4] and the Corporate Value Chain (Scope 3) Standard [5].

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

**Signed on behalf of the Company:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BCSA Carbon Reduction Plan
Example**

The BCSA Carbon Reduction Plan should be updated regularly (at least annually) and published and clearly signposted on the company’s website. It should be approved by a director (or equivalent senior leadership) within the organisation to demonstrate a clear commitment to emissions reduction at the highest level.

**Company name: Carbon neutral fabrications Ltd**

**Publication date: 16th August 2021**

**Commitment to achieving Net Zero**

Carbon neutral fabrications Ltd is committed to achieving Net Zero emissions by 2035.

**Baseline Emissions Footprint**

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

*Instructions: Please provide details of your organisation’s baseline emissions below. If your organisation has not previously assessed or reported emissions, please detail this below and use your first reporting period as your Baseline.*

|  |
| --- |
| **Baseline Year: 2020** |
| **Additional details relating to the Baseline Emissions calculations** |
| *Baseline emissions are based on the company’s Scope 1 & 2 carbon emissions.**Emissions have been calculated for the financial year 2019-2020.**Baseline emissions have been calculated using the BCSA Company carbon footprint tool (version xx)* |
| **Baseline year emissions:** |
| **Emissions** | **Total (tCO2e)** |
| **Scope 1** | 1,525 |
| **Scope 2** | 950 |
| **Scope 3****(Included Scope 3 sources)** | Not included |
| **Total emissions** | 2,475 |
| **Purchased carbon offsets** | 2,000Carbon offsets were purchased from Company *X* [provide weblink].Offsets have been verified to meet the requirements of the Gold Standard. |

**Current Emissions reporting**

|  |
| --- |
| **Reporting year 2021** |
| **Emissions** | **Total (tCO2e)** |
| **Scope 1** | 1,324 |
| **Scope 2** | 875 |
| **Scope 3****(Included Scope 3 sources)** | Not included |
| **Total emissions** | 2,199 |
| **Purchased carbon offsets** | 2,200Carbon offsets were purchased from Company *X* [provide weblink].Offsets have been verified to meet the requirements of the Gold Standard. |

**Emission reduction targets**

*Instructions: If existing emissions reduction targets are in place for your organisation, please provide details below.*

*If you have no previous emissions reduction commitment, or if this is your organisation’s first carbon footprint, please provide targets for your organisation*

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 1,500 tCO2e by 2026.

This is a reduction of 32%.

**Progress against targets**

Progress against these targets can be seen in the graph below:

**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 equate to 275 tCO2e, a 11% reduction against the 2020 baseline.

1. Windows in the office building have been replaced with new double glazing
2. Solar shading devices have been installed to windows on the southern elevation of the office building
3. Haulage efficiency has been improved by optimising steelwork loads and minimising empty return trips
4. LED lights have been installed in office areas and T5 fluorescent tubes installed in the fabrication shop. Sensors and lighting controls have been installed.
5. IT provision has been reviewed to improve energy efficiency. All laptops, PCs and printers now default to sleep mode during the working day and to switch off at the end of the day.
6. Video conferencing and homeworking policies have been developed to reduced business travel and commuting impacts.

*Instructions: Provide details of your completed carbon reduction projects. This is for information only. This may include environmental management measures such as certification schemes like ISO14001 or PAS 2060, signing up to SBTI or specific measures you have taken such as; the adoption of LED/PIR lighting controls, changes to policy resulting in a reduction in company travel and flights or the electrification of the company fleet.]*

In the future we hope to implement further measures including:

1. Install 50m2 of photovoltaics on the workshop roof.
2. Install an air-source heat pump to heat the office building.
3. 50% of company-owned vehicles to be replaced with electric vehicles by 2025.
4. 50% of site-based diesel equipment to be substituted with electric plant by 2025.
5. All staff to receive training in carbon reductions.
6. Move to 100% green tariff electricity.

**Declaration and Sign Off**

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

**Signed on behalf of the Company:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**References**

1. UK structural steelwork: 2050 decarbonisation roadmap – in preparation.
2. The Greenhouse Gas Protocol: A corporate accounting and reporting standard. Revised edition.
3. Procurement Policy Note 06/21: Taking account of Carbon Reduction Plans in the procurement of major government contracts. Cabinet Office. 5 June 2021.
4. Technical standard for Completion of Carbon Reduction Plans. Cabinet Office. 5 June 2021.
5. Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
6. BCSA carbon footprint tool 2021.
7. BCSA Steel Construction Sustainability Charter – 2021 update.
8. ISO 14001:2015 Environmental Management Systems – Requirements with guidance for use.
9. PAS 2060:2014 Specification for the demonstration of carbon neutrality.
10. Science Based Targets Initiative see <https://sciencebasedtargets.org>
11. Greenhouse gas reporting: conversion factors 2021. Published by the Department for Business, Energy & Industrial Strategy.
12. Environmental Reporting Guidelines: Including Streamlined Energy and Carbon reporting (SECR) guidance. HM Government, March 2019.
1. Net zero in the context of the UK Climate Change Act 2008 (as amended in 2019), is defined as the UK achieving a 100% reduction in greenhouse emissions by 2050, relative to 1990 levels. [↑](#footnote-ref-1)
2. Definitions of net zero in the context of companies are still evolving. The BCSA 2050 net zero target is defined as zero Scope 1, 2 and 3 emissions. This may be achieved, using carbon offsetting as an interim measure. [↑](#footnote-ref-2)
3. Carbon neutrality has a minimum requirement covering Scope 1 and 2 emissions which should be reduced before any carbon offsetting. [↑](#footnote-ref-3)
4. Net zero is defined as zero Scope 1, 2 and 3 emissions. [↑](#footnote-ref-4)