



# PPN 06/21 Carbon Reduction Plan

2022

**Balfour Beatty**



## Commitment to Achieving Net Zero

Balfour Beatty is committed to achieving net zero emissions by 2050 and halving our greenhouse gas emissions by 2030. It is our ambition to go Beyond Net Zero Carbon by 2040.

Supplier name: Balfour Beatty Group Limited

Publication date: 3 April 2023

The information set out in this disclosure applies to carbon emissions associated with Balfour Beatty Group Limited, acting as the agent company for all UK companies, subsidiaries and joint ventures and therefore the Balfour Beatty procurement bidding entities which apply to the PPN06/21. There are no known carbon emissions excluded for any of the reporting categories.

Front cover images: Hydroponic living wall for Southampton City Council (left) electric vehicle (right).

## Baseline Emissions Footprint

Normal 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.

### UK baseline year: 2020

#### Additional details relating to the baseline emissions calculations

Balfour Beatty Group Limited has identified calendar year 2020 as the baseline year for measuring carbon reductions against. The baseline has been established to measure compliance with PPN 06/21. 2020 has been selected as the baseline year as in December 2020 Balfour Beatty launched its refreshed sustainability strategy, [Building New Futures](#), and stated its 2040 ambition to go Beyond Net Zero Carbon.

Balfour Beatty Group Limited has used greenhouse gas (GHG) protocol operational control methodology to determine its baseline for Scope 1, 2 and 3 emissions. For Scope 2 emissions, the GHG protocol's market-based methodology has been used. The selected Scope 3 category data is comprised from GHG calculations from actual and estimated data. Actual data has been used to derive tCO<sub>2</sub>e totals for waste and business travel. For employee commuting, Balfour Beatty Group Limited has employed estimations using the GHG Protocol Quantis Scope 3 Evaluator<sup>1</sup> for both Upstream and Downstream transportation, and has used a spend based estimation methodology to arrive at the total. The emissions defined within this Carbon Reduction Plan are specific

to Balfour Beatty Group Limited and cover Balfour Beatty's operations in the UK. Balfour Beatty Group Limited is a subsidiary of Balfour Beatty plc. Further detail on Balfour Beatty plc's total GHG emissions, sustainability strategy and energy consumption is available in Balfour Beatty plc's [2022 Annual Report and Accounts](#). Balfour Beatty plc complies with the UK Government's Streamlined Energy and Carbon Reporting (SECR) requirements. PricewaterhouseCoopers LLP (PwC LLP) is engaged by Balfour Beatty plc to provide limited assurance over selected greenhouse gas performance data for Scope 1 and 2 annual reporting purposes as stated in the 2022 Annual Report and Accounts. Carbon reduction strategies for Balfour Beatty Group Limited for Scope 1 and 2 and all Scope 3 categories are detailed within the [UK addendum](#) of our sustainability strategy, which was published in May 2021.

## UK Baseline Year Emissions: 2020

EMISSIONS		TOTAL (tCO <sub>2</sub> e)
<b>Scope 1</b>		80,612.57
<b>Scope 2</b>		5,419.41
<b>Scope 3*</b> (included sources)		
	Logistics	86,537.21
	Waste	2,485.32
	Business travel	1,323.37
	Commuting	2,914.28
	<b>Total</b>	93,260.18
<b>Total emissions</b>		<b>179,292.16</b>

\* 2020 Scope 3 emissions have been re-baselined at year-end 2022 following further review by our in-house carbon management team.

## UK Current Emissions Reporting: 2022

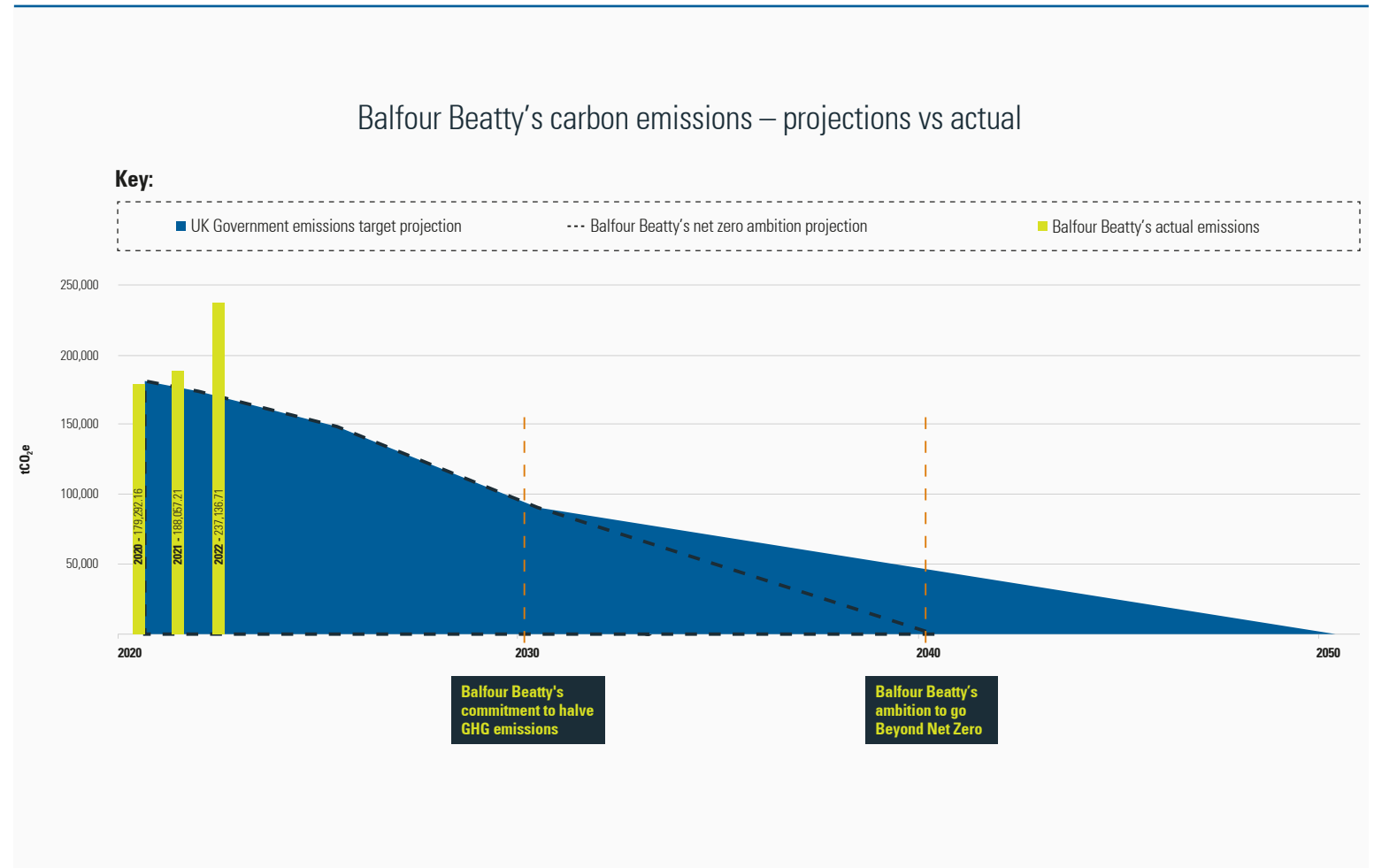
EMISSIONS		TOTAL (tCO <sub>2</sub> e)
<b>Scope 1</b>		104,595.85
<b>Scope 2</b>		7,273.13
<b>Scope 3</b> (included sources)		
	Logistics	120,103.90
	Waste	1,506.76
	Business travel	742.79
	Commuting	2,914.28
	<b>Total</b>	125,267.73
<b>Total emissions</b>		<b>237,136.71</b>

# Emissions Reduction Targets

In order to continue our progress to achieving net zero, we have adopted the following carbon reduction targets:

- In August 2021 we became signatories to the UN Race to Zero campaign, which is aligned with the Paris Agreement, to limit global temperature increase to 1.5°C by committing to halve our greenhouse gas emissions by 2030.
- In our sustainability strategy, Building New Futures, launched in December 2020, we state our ambition to go Beyond Net Zero Carbon by 2040.

Progress against our commitment and ambition can be seen in the graph opposite.



# Carbon Reduction Projects

The following environmental management measures and projects have been completed or implemented since the 2020 baseline

In 2022, Balfour Beatty completed the following carbon reduction project:

- We deployed over 600 EcoSense cabins which boast a range of sustainable applications and components including occupier-activated extractor fan sensors and lower kilowatt heaters with built-in, self-regulating digital thermostats. These cabins will reduce carbon emissions on site by up to 30%. EcoNet and EcoSense (see opposite) are two of five solutions mandated across our UK business to drive down emissions and build a more sustainable future. When combined, EcoNet and EcoSense will deliver an additional 4,000 to 5,000 tonnes of CO<sub>2</sub> savings annually.

Following the launch of our Group-wide sustainability strategy in 2020, we set out our UK approach to sustainability focusing on 12 areas that will help us meet our 2030 targets and 2040 ambitions including reducing our carbon footprint; tackling Scope 3 emissions, improving air quality and biodiversity net gain. As each of our UK businesses adopts our 'think global, act local' imperative and sets out their approach to reduce carbon on a project-by-project basis, we've taken

the following actions to reduce our carbon emissions:

- We engaged the Carbon Trust to support the development of a robust and replicable reporting methodology for Scope 3 Category 1, defined as the most material of the 15 Scope 3 categories to the Group's operations.
- Members of the Executive Committee attended a Carbon Literacy Training session which covered climate science and climate policy fundamentals as well as carbon reporting and management requirements.
- Each business unit has produced a carbon action plan allowing management to track progress.
- Each business unit has a sustainability lead, who is responsible for cascading our sustainability strategy and developing bespoke sustainability action plans that are aligned to our 2040 ambitions and 2030 targets. The senior leadership of each business unit is responsible for agreeing its sustainability action plan and ensuring it is delivered and adequately resourced.



Our EcoSense cabins reduce carbon emissions on-site by up to 30%, and are one of a range of solutions that we're mandated.

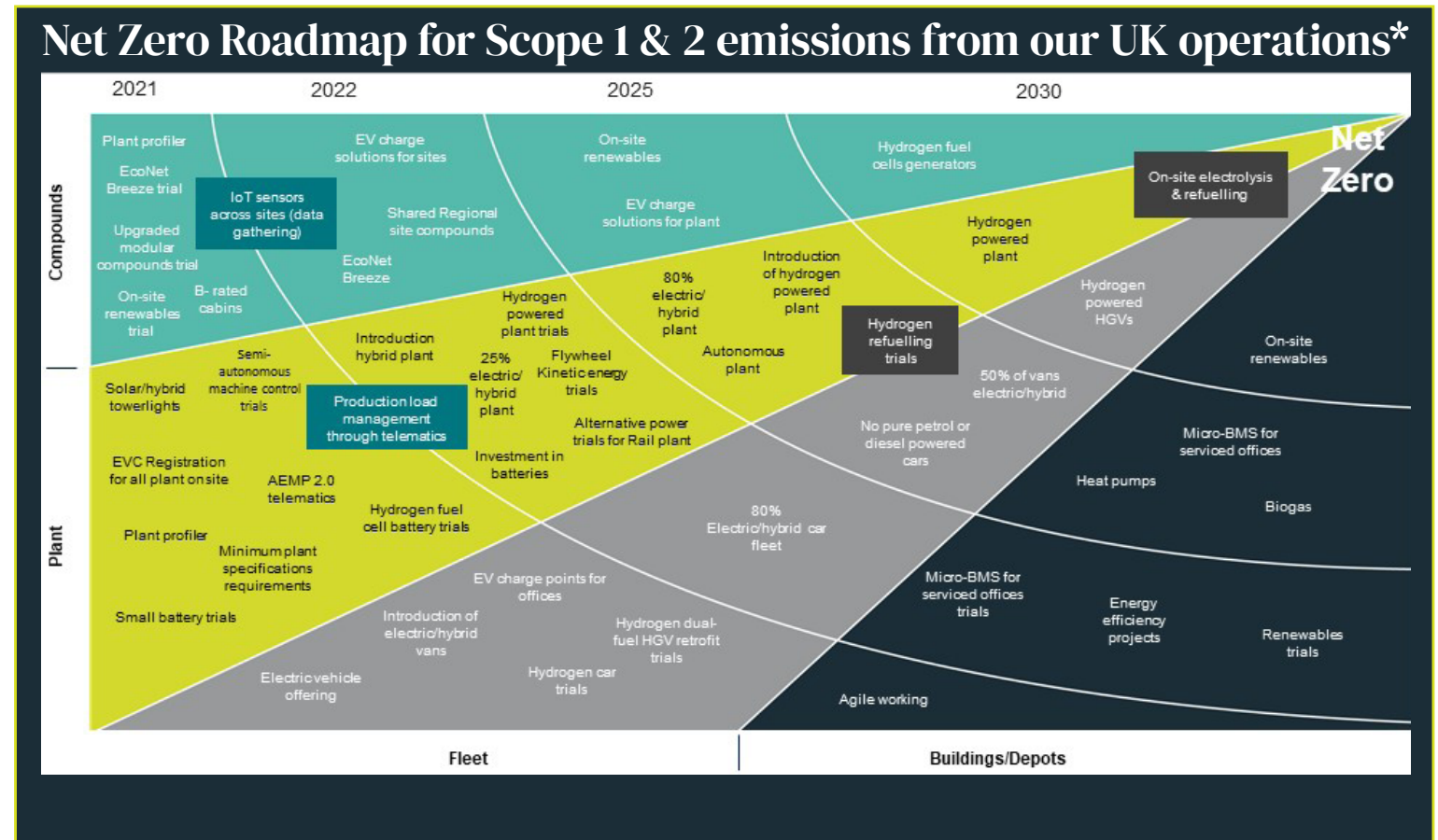
Our EcoNet technology works by controlling and reducing the energy output from key appliances in cabins, such as those in kitchens, drying rooms and office spaces. Scan the QR code and watch our video to find out more.





# Carbon Reduction Projects Continued...

- We've created a Net Zero Roadmap (pictured opposite) for Scope 1 and 2 GHG emissions for the UK, identifying new processes and key technologies to be explored, trialled and/or implemented.
- On the A63 Castle Street Improvement Scheme we energised Balfour Beatty's first ever hydrogen power unit (HPU), which has replaced the 100kVA diesel generator powering site welfare and office accommodation. Using a combined heat and power (CHP) unit, the HPU recycles waste heat (usually rejected to the atmosphere) to provide space and water heating to the cabins. This innovation has been achieved through collaboration, from concept to delivery, by the A63 project team with support from the wider business. The unit is fuelled with green hydrogen, produced by an electrolyser powered by renewable electricity and will save 59,000 litres of diesel and 164 tCO<sub>2</sub>e GHG emissions.
- We provided all clients on the SCAPE frameworks with a free Biodiversity Net Gain (BNG) feasibility options report which detailed the opportunities to deliver BNG on each project.



## Carbon Reduction Projects Continued...



We're exploring lower carbon options and solutions on the Royal Botanic Garden Edinburgh – Biomes Initiative.

- We have set out a roadmap to a zero carbon construction site, identifying the gaps and challenges preventing zero carbon construction. Working in collaboration with our customer the Royal Botanic Garden Edinburgh, the designer and our supply chain partners, and drawing on the expertise of the whole UK business, we're trialling this live on the Biomes Initiative.

From the materials used, developing our people's green skills, the logistics of transporting people, plant and products to and from the site and all the activities that take place on site during construction up until handover – we're examining every element of the project to find lower carbon options and solutions. The diary of our progress and learnings can be found [here](#).

In the future we are looking to implement further measures such as:

- Implementing business-by-business improvement plans, supported by better carbon data and clear annual improvement targets.
- Where appropriate, mandating low-carbon solutions in the UK so business units need to

'opt out' rather than 'opt in', including deploying EcoSense cabins on all new project sites; linked into the EcoNet energy management tool, and using the Power Profiler tool to identify low-carbon equipment options.

- Completing the validation process for a science-based target validated by the Science Based Targets initiative (SBTi) as aligning with limiting global warming to 1.5°C or <2°C as advised by climate scientists.
- Sharing knowledge across the workforce, and analytics and performance-reporting capabilities where this is necessary for their role.
- Developing Scope 3 net zero roadmaps for the largest Scope 3 categories.

## 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<sup>1</sup> and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.<sup>2</sup>

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.<sup>3</sup>

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

Signed on behalf of Balfour Beatty Group Limited:

**Philip Harrison**

Chief Financial Officer

3 April 2023



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**Balfour Beatty**

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**Think before you print!**

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