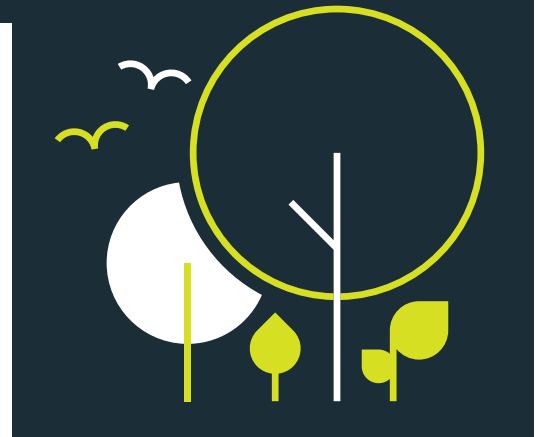




PPN 06/21 Carbon Reduction Plan

2021

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: Our EcoSense cabins (left), our piling rig retrofitted with exhaust technology to meet the latest EU Stage V engine class (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 tCO₂e totals for waste and business travel. For employee commuting, Balfour Beatty Group Limited has employed estimations using the GHG Protocol Quantis Scope 3 Evaluator¹ 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 [2021 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 2021 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.

¹ – <https://ghgprotocol.org/scope-3-evaluator>

UK Baseline Year Emissions: 2020

EMISSIONS	TOTAL (tCO ₂ e)
Scope 1	80,612.57
Scope 2	5,419.41
Scope 3* (included sources)	86,031.98
Total emissions	147,169.13

UK Current Emissions Reporting: 2021

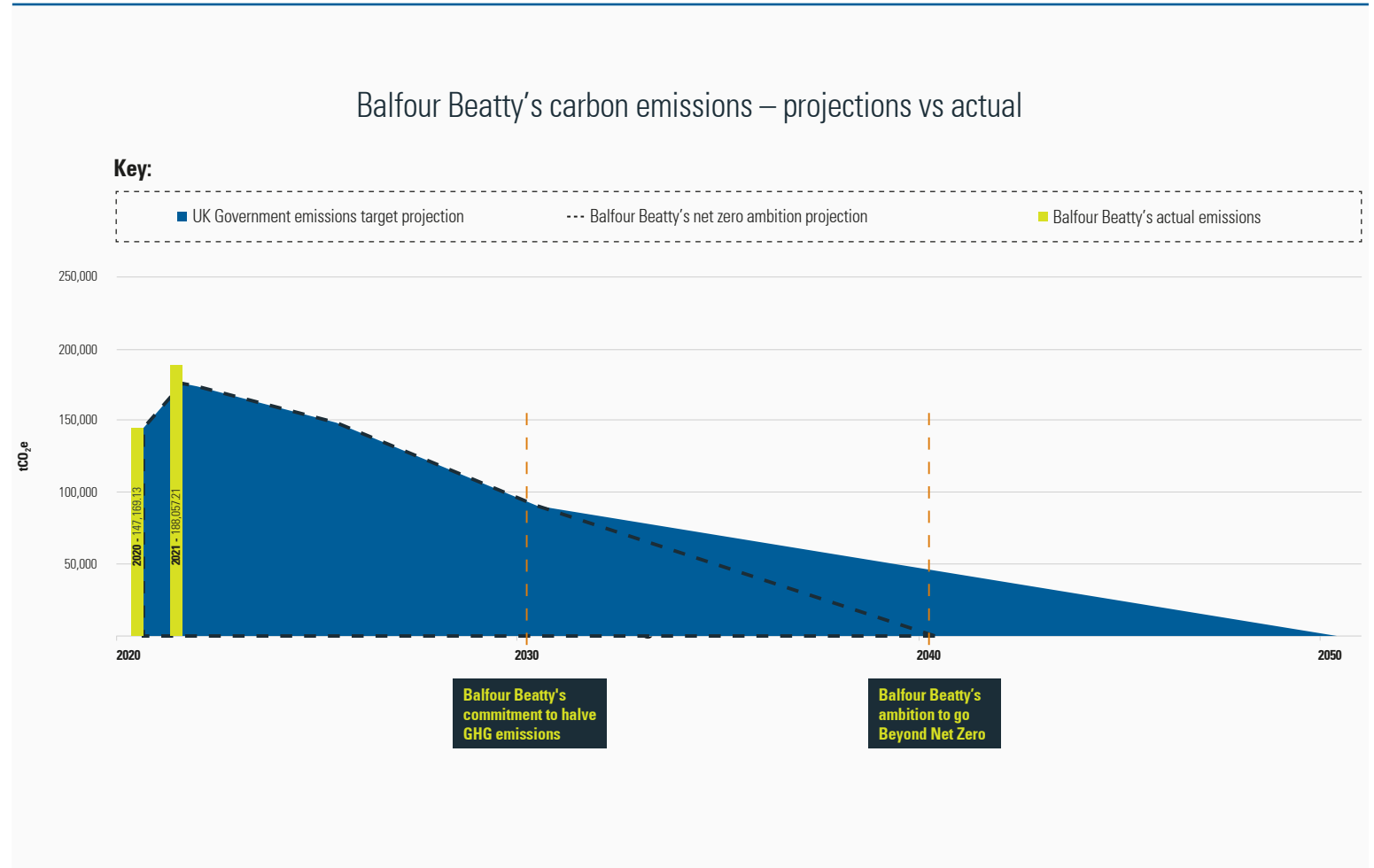
EMISSIONS	TOTAL (tCO ₂ e)
Scope 1	90,955.97
Scope 2	3,768.47
Scope 3 (included sources)	
Logistics	84,346.37
Waste	4,493.98
Business travel	1,578.14
Commuting	2,914.28
Total	93,332.77
Total emissions	188,057.21

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 2021, Balfour Beatty completed the following carbon reduction projects:

- In collaboration with Sunbelt Rentals, we launched EcoSense – a sustainable site cabin design with integrated disability and neurodiverse features. EcoSense boasts a range of sustainable applications and components including occupier-activated extractor fan sensors and lower kilowatt heaters with built-in, self-regulating digital thermostats, which will reduce CO₂ emissions by up to 30%. The new site cabin design is now being introduced as standard to all new UK site set-ups and is expected to save a minimum of 1,400 tonnes of CO₂ emissions each year. When combined with EcoNet technology, which effectively manages the power supply of site compounds, an additional 4,000 to 5,000 tonnes of CO₂ savings can be expected annually.
- The uptake of our EcoNet technology which manages the power supply of site compounds has also increased in 2021. EcoNet is currently deployed on 50 project sites, with a total GHG emission saving of 3,300 tCO₂ e.

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:

- Each business unit has a sustainability lead, who is responsible for cascading the 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.
- We've piloted a carbon literacy education programme in the UK, to ensure that our workforce understands the carbon impact of their behaviour and how they can play their

Our EcoSense cabins boast features and components that reduce their carbon emissions including occupier-activated extractor fan sensors and lower kilowatt heaters, with built-in, self-regulating digital thermostats and additional insulation. Scan the QR code and watch our video to find out more.



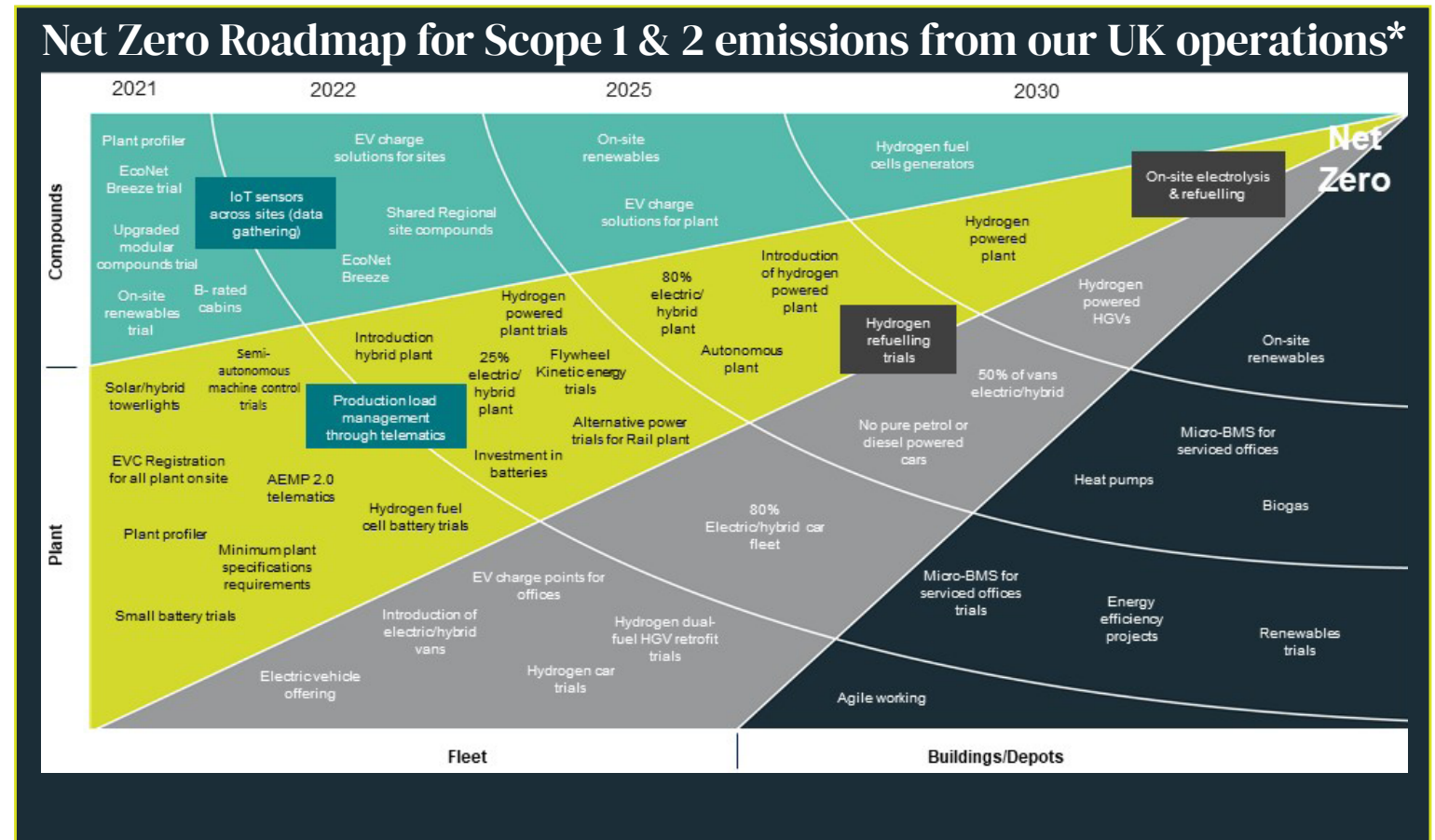
part in helping Balfour Beatty reduce its carbon footprint - as well as reducing the carbon impact of their own activities. The Carbon Literacy Project have validated and approved the training, so Balfour Beatty is now a Bronze Carbon Literate organisation.

- We held a month-long My Contribution - our employee led change programme - sustainability campaign with a 'Think Global. Act Local. Make a Difference.' theme to encourage employees to share ideas to help our UK businesses achieve their targets aligned to our 2040 sustainability ambitions. 776 ideas were submitted in total, of which 142 related to 'responding to climate change and managing our impact on the environment'.



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.
- We've implemented a target to have a fully sustainable car fleet (100% electric/plug-in hybrid electric vehicle/hybrid/RDE2 compliant) by 2024 - six years ahead of the UK Government target to end the sale of new petrol and diesel cars and vans by 2030. In 2021, traditional diesel engines were removed completely across all car grade options, 85% of which were diesel in 2019. Within every car grade option there is at least one plug-in hybrid vehicle option. The total estimated emissions reduction associated with the company car list, based on 2021 orders, is 2,497 tonnes of CO₂e per annum. Similar targets have been developed for commercial vehicles: 50% of light commercial vehicles (LCVs) electric or hybrid by 2025; 100% removal of diesel by 2030; and heavy goods vehicles (HGVs) 100% sustainable / alternative fuel from 2030. Various battery electric vehicles (BEVs) are already in use in the UK in the LCV category and Plant and Fleet Services is working with major HGV manufacturers to understand



Carbon Reduction Projects Continued...

Scan the QR code and watch our video to find out more about our emissions retrofit solution applied to a piling rig and rotary rig.



capability, capacity and suitability to Balfour Beatty's operations and requirements with a hydrogen dual-fuel trial (retrofitting hydrogen to existing HGVs for dual operation) currently underway on HS2 projects.

- To reduce emissions linked to construction activities, HS2 has set stringent engine emission standards for all plant and machinery across the programme. As part of efforts to meet HS2's stringent engine emission standards, a Non-Road Mobile Machinery retrofit solution has been developed by UK company Eminox Ltd. This adds exhaust technology to existing engine systems on plant

machinery to upgrade it to the latest EU Stage V engine class. The retrofit solution was trialled on a Balfour Beatty piling rig and rotary rig used on the project. The results were validated and certified by the Energy Saving Trust, making the solution available industry wide.

- Balfour Beatty is working with supply chain partners, supported by Balfour Beatty Kilpatrick and Balfour Beatty Living Places, to ensure electric charging infrastructure demands are met, with significant investment allocated in 2021 and 2022 to install charging stations across the Group's largest office locations and project sites in the UK.

- Substantial progress was made in machine controlled learning. This will significantly reduce the use of fossil fuels in large plant and equipment where more efficient, alternative low-carbon fuels and technologies are not yet available or financially feasible. Machine control is used to accurately position large earthwork and civils machinery on site, based on 3D survey design models and GPS systems. The technology currently allows a machine to operate semi-autonomously with a view to become fully autonomous in the future. The benefits noted to date include a 37% reduction in fuel and GHG emissions, 34% reduction in equipment operating hours and a 35% reduction in machine operating costs.
- We set out a roadmap towards a zero carbon construction site which is being trialled on a live site - the Royal Botanic Garden Edinburgh - Biomes Initiative. The diary of our progress and learnings can be found [here](#).

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

- Rolling out of our Carbon Literacy training across the UK.
- Setting a midway target to achieve a science-based target by 2030 aligned with the Paris Agreement to limit global temperature increase to 1.5°C, with further year-on-year milestone targets set at business unit level. The Group is on schedule to submit its target for validation by the Science-based Target Initiative (SBTI) during 2022.
- 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 standard¹ and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.²

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.³

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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Think before you print!

This document is available online at
balfourbeatty.com/carbonreductionplan

