Bentley

MMB MOTT MACDONALD BENTLEY

JBA Bentley

PPN006

# Carbon Reduction Plan

2026

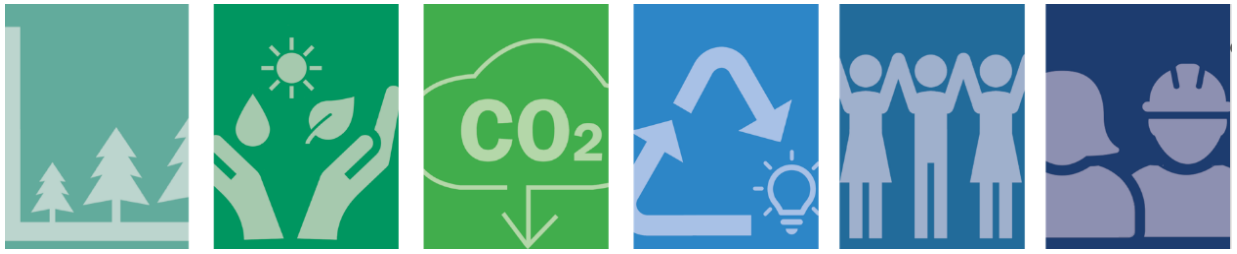
**NOTE**

JN Bentley, together with its two subsidiary companies - Mott MacDonald Bentley (MMB) and JBA Bentley - operates as part of the Mott MacDonald Group. **This plan details the JN Bentley carbon footprint and sets out the specific actions implemented and planned to support JN Bentley in driving carbon reduction, meeting Net Zero, and supporting our overall Group Science Based targets.**

# JN Bentley commitment to net zero

JN Bentley (JNB) is committed to achieving net zero greenhouse gas emissions across our operations and value chain by 2040. Our targets are set as part of Mott MacDonald Group Limited (MMGL) with near and long-term milestones, validated by the Science Based Targets initiative (SBTi).

The approach set out in this PPN 006 Carbon Reduction Plan forms part of our wider Sustainability Strategy with carbon reduction forming one of our six pillars of sustainability.




# Baseline emissions

**Baseline emissions provide a 'business as usual' scenario, representing the level of emissions that occur within a typical year, prior to commencing significant carbon reductions. The baseline provides a point of comparison to track our progress towards net zero and provide insights into high emission areas which require prioritisation.**

**A baseline year of 2019** has been selected for measuring carbon reduction against. The year 2019 was chosen because it offers a baseline for comparison that is not influenced by the artificial effects of Covid on emissions. 2019 emissions have been calculated using a methodology that has been developed and enhanced through multiple years of ISO 14064-1 certification experience.

JNB calculates emissions following the Greenhouse Gas Protocol, and our carbon footprint is validated and verified according to ISO 14064-1 standards. For 2025, LRQA, our assurance provider, has assessed our footprint with a reasonable level of assurance, covering Scopes 1, 2, and Categories 1 to 7 within Scope 3.

In 2023, we established targets with the Science Based Targets initiative (SBTi) as part of Mott MacDonald Group. Together with MMGL, we are actively working toward achieving these reductions.

# Baseline emissions

## 2019 - Baseline year

| Emissions | JN Bentley total ($tCO_2e$) |
|---|---|
| **Scope 1** | **12,330** |
| **Scope 2 (Market Based)** | **54** |
| Scope 3 Categories | |
| Purchased Goods & Services | 94,064 |
| Capital Goods | 4,456 |
| Fuel and Energy Related Activities | 3,031 |
| Upstream Transportation & Distribution | 24,588 |
| Waste Generated in Operations | 488 |
| Business Travel | 3,370 |
| Employee Commute | 954 |
| **Scope 3 Total** | **130,951** |
| **Scope 1, 2 and 3 Total** | **143,335** |

## 2025 - Current reporting year

| Emissions | JN Bentley total ($tCO_2e$) |
|---|---|
| **Scope 1** | **8,405** |
| **Scope 2 (Market Based)** | **11** |
| Scope 3 Categories | |
| Purchased Goods & Services | 111,022 |
| Capital Goods | 11,264 |
| Fuel and Energy Related Activities | 2,783 |
| Upstream Transportation & Distribution | 24,121 |
| Waste Generated in Operations | 1,267 |
| Business Travel | 2,760 |
| Employee Commute | 663 |
| **Scope 3 Total** | **153,880** |
| **Scope 1, 2 and 3 Total** | **162,296** |

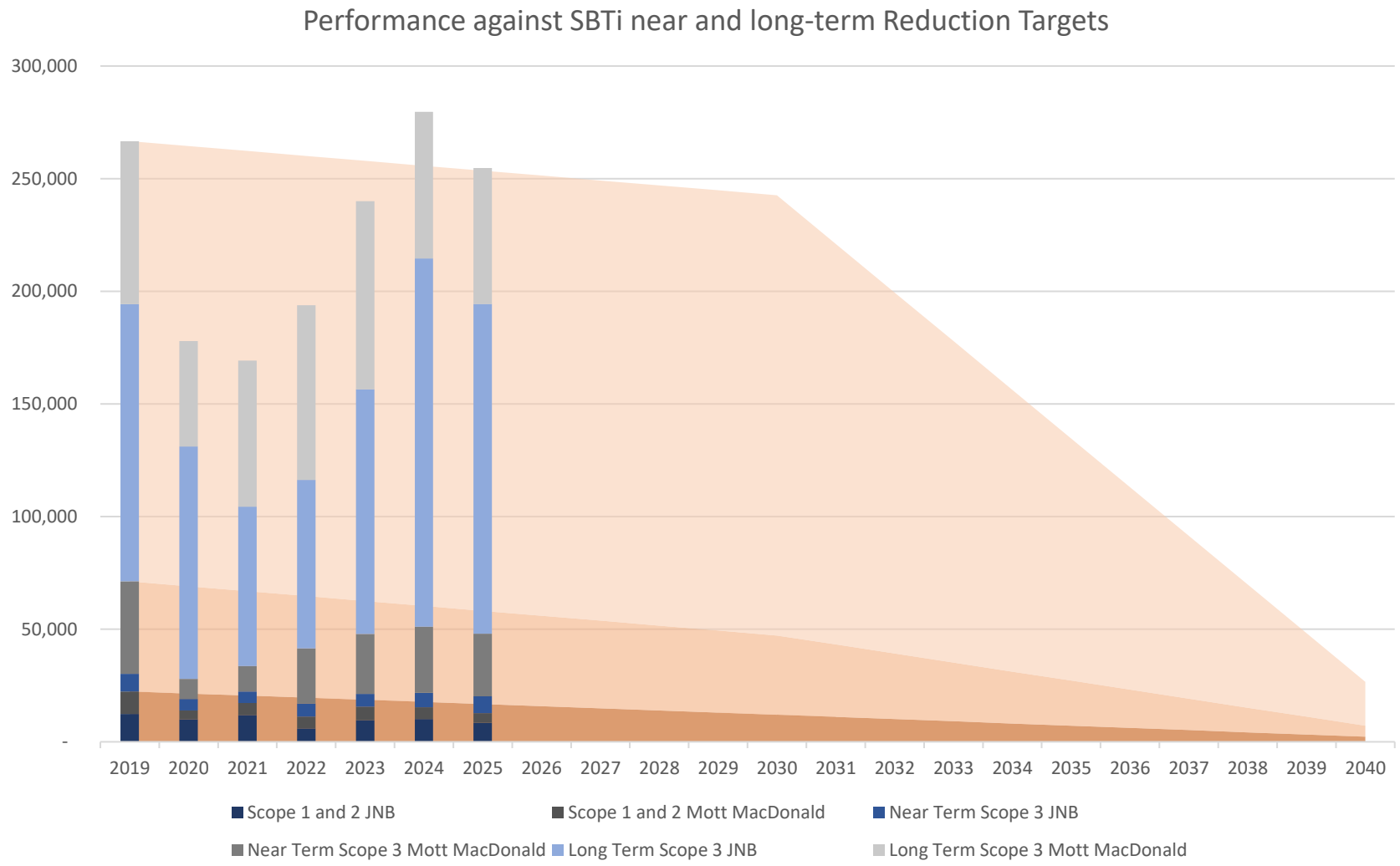
# Emissions reduction targets

**JN Bentley is committed to net-zero greenhouse gas emissions across our operations and value chain by 2040. Our targets are set as part of Mott MacDonald Group Limited with near and long-term milestones, validated by the Science Based Targets initiative (SBTi).**

**The targets**, measured against the 2019 baseline are:

- Reduce Scope 1 & 2 emissions by 46.2% by 2030
- Reduce select Scope 3 emissions by 28% by 2030 (fuel and energy related activities, waste, business travel and employee commute)
- 70% of our supply chain, by spend, to have Science Based Targets by 2027
- Overall net zero by 2040 (at least 90% reduction in all emissions)

**NOTE**
Since 2019, JN Bentley has achieved a 32% decrease in Scope 1 and 2 emissions and a 5% decrease in Scope 3 select categories, supporting progress towards near term targets. Overall JN Bentley carbon emissions have increased by 13% since the 2019 baseline while company revenue has increased by 92% over the same period.



# Scope 1 & 2 reduction measures

## Actions to date include:


### Site setup

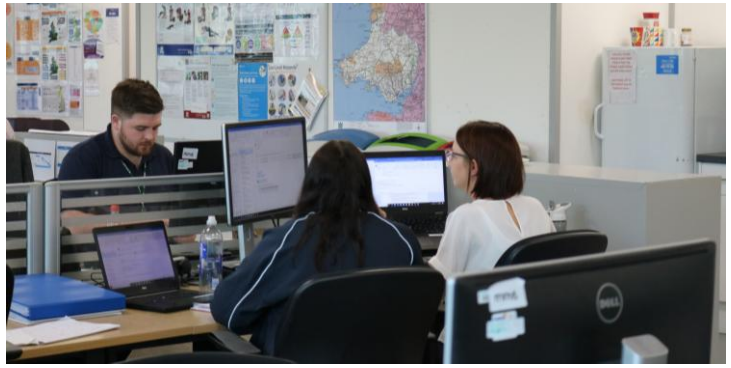
Temporary site power generation is a major source of Scope 1 emissions for JN Bentley. To reduce reliance on fossil fuels, we introduced highly insulated ECP A rated site cabins and a power supply hierarchy.

As a minimum, this requires hybrid generators using battery storage units (BSUs) and intelligent distribution boards to limit energy waste and improve efficiency. In 2025, these set-ups reduced fuel use by an average of 2,500 litres per site per month.


### Plant and equipment

We have invested in more fuel-efficient equipment and expanded our hybrid and intelligent machinery fleet, reducing fuel use compared with combustion-engine models. Except for cranes, our heavy plant fleet is now fully Stage V compliant.

We expanded the use of machine telematics to better understand fuel use and emissions, completed the transition to battery-operated hand tools, and continued trials of battery packs to replace portable fossil-fuel generators.



### Renewable energy supplies

All the energy consumption within our owned or directly operated offices is procured using Renewable Energy Guarantees of Origin (REGO) backed energy tariffs.

Our gas supply is also procured using a Renewable Gas Guarantees of Origin (RGGO) at our Skipton office.

# Scope 1 & 2 reduction measures

## Actions to date include:


### Cars

We have continued to accelerate our transition to Ultra Low Emission Vehicles (ULEVs). As a result, more than 85% of our company owned fleet is now ULEV compliant, significantly reducing our operational carbon footprint and supporting our wider environmental commitments. Across 2025, our company car choice list delivered average carbon emissions of 18 g/km, demonstrating continued progress in enhancing fleet efficiency.


### Commercial vehicles

In addition to decarbonising our company car fleet, we are actively working to reduce emissions from our commercial vehicles. We have trialled alternative-fuel and low-emission technologies to build a clear understanding of how they can be deployed across our operations, enabling a phased transition where feasible. We have also introduced measures to help our workforce adopt more efficient driving practices, further reducing fuel use and emissions.


### Alternative fuel use

We utilise HVO as a transition fuel, with utilisation expected to increase in the coming years. However, we are mindful of the sustainability risks associated with the use of biofuels. Alongside implementing the steps outlined in the Supply Chain Sustainability School's report Responsible Sourcing of HVO, we have taken steps to improve our fuel efficiencies, aimed at limiting our reliance on biofuels, to meet our carbon reduction targets.

# Scope 1 & 2 management 2026-2030

**We will continue to take action to reduce our Scope 1 and 2 emissions, including:**

### Site setup
- Continuing to evaluate renewable energy technologies and transition from conventional fossil-fuel generators to higher-efficiency hybrid generators across our sites.
- Maintaining ongoing efforts to optimise energy usage and increase energy efficiency within our standard site set-ups

### Cars
- Installing infrastructure at our owned office locations to support use of electric vehicles
- Ongoing assessment of opportunities to accelerate the transition to electric vehicles

### Commercial vehicles
- Trialling and rolling out electric commercial vehicles where it is feasible to do so

### Plant and equipment
- Increasing the number of hybrid excavators in our fleet
- Collaborating with our supply chain to trial electric and hydrogen powered plant
- Increased utilisation of intelligent plant to improve on-site efficiencies
- Enhanced use of machine telematics using insights to deliver targeted operator training and behavioural-change programmes that support fuel-efficiency improvements

2030 and beyond to net zero

# Scope 1 & 2 case studies

## TEMPORARY POWER

### Maximising Battery Energy

### Key benefits

- Reduction in noise, fumes and emissions
- Remote performance monitoring
- Optimise cabin power using HEMS battery telemetry
- Troubleshooting QR code supporting site operatives


### Average monthly savings

**£27,500**
Costs

**67%**
Silent running

**60,000**
Litres of fuel

**156**
Tonnes of $CO^2e$

## IMPROVED MODULAR SET-UP

### Bespoke Set-ups Drive Success

### Key benefits

- Standardised orders improves administrative efficiencies and reduces order duplications
- ECP A rated cabins reduces energy consumption
- Open plan, modular cabins provides a better and more collaborative working environment for our site staff

## HYDROGEN-POWERED TRIAL

### Alternative Fuel Sources

### Key benefits

- Trialling hydrogen-powered plant to support transition to net zero goals
- Industry collaboration, improving relationships and helping drive innovation
- Better understanding of future technologies and the associated improvements and challenges

## SMART MACHINE CONTROL

### Increased Efficiency


Section of the model on the cab display

Excavating a layer for the soil nailing alongside highway

### Key learnings

- Physically prevents the machine from over digging, limiting waste and material import requirements
- On screen model reduces the sense of ‘blind digging’
- Work completed three times faster
- Removed the need for engineers to set out near plant, improving safety

# Scope 3 reduction measures

**Our near-term Scope 3 targets focus on waste, business travel, commuting, and fuel and energy-related activities. Actions we will continue to take:**

## Waste

**Waste management |** We have followed our Business Management System procedure and Operational Environmental Standard, applying the waste hierarchy across design and delivery. Early collaboration between design and operational teams has improved resource efficiency and reduced waste, with ongoing reviews aligned to our Quality, Cost and Efficiency strategy.

**Design for manufacture and assembly (DfMA) and standard products |** We are using our direct delivery model to standardise construction, with our DfMA and standard products team working with internal experts and the supply chain to improve carbon performance, design efficiency and site safety.

**Modern methods of construction |** We are increasingly utilising modern methods of construction to reduce waste and improve material efficiency, including 3D printing, prefabrication and soil stabilisation

## Business travel and employee commuting

Our Journey Management guidance helps reduce unnecessary travel, applying a travel hierarchy and promoting low-carbon options, including public transport and remote working. Many offices are well located for rail, bus and shared travel, supporting lower-emission commuting.

## Fuel efficiencies

On-site power supply improvements, increased efficiency across commercial and car fleets, and continued equipment electrification support Scope 1 and 2 emissions reductions and reduce Scope 3 Category 3 (Fuel and Energy Related Activities) emissions.

# Case studies

## STANDARD PRODUCTS

**Simplify delivery. Batch. Repeat**

**Key benefits:**

- Improved design and construction efficiency
- Preassembled components improved health and safety

**Single site saved**

**£22k** In design

**£28k** In construction

**Batch savings**

**£227k** In cost

**25.7t** Of $CO_2e$

## DfMA – HST DISTRIBUTION CHAMBER

**Design for manufacture and assembly**

**Key benefits**

- Prefabricated flanged connections simplify installation
- Improved safety through less concrete work and working at height
- Fewer materials, reducing waste

**Savings**

**£22,000k** Install costs

**£19,500** Prelim costs

**6.88t** Of $CO_2e$

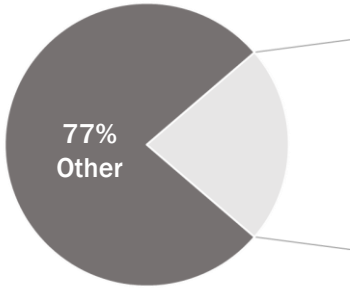
**13 days** on site days saved

# Scope 3 reduction measures

## Long-term target management – Net zero

**Achieving our long-term net zero target,** supported by near-term supply-chain engagement, requires significant Scope 3 emissions reductions. These mainly arise from purchased goods and services, capital assets, and transport and materials delivery, accounting for around 90% of our total carbon footprint. Delivery depends on sustained supply-chain collaboration and active participation in the wider decarbonisation of UK infrastructure.

**Concrete and metals |** Concrete and metals are our largest sources of embodied carbon. To address this, we have developed a supplementary Carbon Reduction Plan for both materials, setting out actions to decarbonise our projects through improved awareness, more efficient use, and the adoption of emerging technologies.




- 10% Concrete
- 4% Virgin Metal
- 7% Recycled Metal
- 2% Aggregates

**Carbon concrete advanced market commitment |**
JN Bentley is a founding signatory to a UK advance market commitment (AMC) to accelerate the adoption of next-generation low-carbon concrete. Backed by government funding and led by Innovate UK and Carbon Limiting Technologies, the initiative aims to overcome early-market barriers and scale innovative solutions.

**Supply Chain |** Over the past year, we have strengthened supply-chain engagement through targeted upskilling and carbon-focused workshops, supporting suppliers to understand Science-Based Targets (SBTs) and their role in our progress. This builds on ongoing procurement activity to assess supplier readiness, map SBT commitments and hold targeted discussions with key suppliers. Through early, collaborative engagement, we are working with suppliers to explore low-carbon alternatives and reduce embodied and transport-related emissions in line with PAS 2080. Recognising varying levels of maturity, we provide tailored support to help suppliers set and achieve targets, with collaboration remaining central to our Scope 3 decarbonisation approach.

# Carbon management

## Reaching Net Zero - Our carbon reduction approach is driven through:

**PAS 2080 |** Embedding PAS 2080 across our business supports delivery of carbon reduction and our net zero target. As a PAS 2080 designer, we already apply its principles to reduce carbon through design and continue to work towards constructor certification. The standard promotes a consistent, whole-life approach to carbon management, underpinned by value-chain collaboration.

Through ongoing education and capability building, we are embedding PAS 2080 so carbon-efficient thinking is integral to project decision-making and the delivery of low-carbon solutions.

**Leadership |** Overall responsibility for carbon reduction sits with the JN Bentley operational board, providing clear leadership and accountability.

Our sustainability executive group drives strategy and delivery, supported by a sustainability director, a dedicated sustainability team and a carbon lead. Leadership teams set direction, prioritise action and enable collaboration across the business, demonstrating our commitment to delivering our net zero strategy.

**Learning |** Achieving net zero will rely on how well our employees understand decarbonisation opportunities and how confident they feel leading discussions with clients and within their project teams.

Over the coming months and years, we will continue to upskill our people and share best practice from across our projects and the wider industry, with the aim of embedding a carbon conscious culture throughout our business.

**Carbon accounting |** We use a hybrid carbon accounting approach combining spend- and activity-based data. Where quantity or product-specific information is available, activity-based emissions factors are applied, enabling 67% of material emissions to be calculated this way, with the remainder using spend-based methods.

To continue to improve our accuracy we are exploring the availability of environmental product declarations (EPDs) within our supply chain. Utilising supplier data will help us make informed decisions about the materials that we procure and drive decarbonisation.

# Case study

## KILINGHALL SEWAGE TREATMENT WORKS

### Low Carbon Construction

### Key learning

- Optimised design reduced the number of new primary settlement tanks from three to two
- The UK's first 3D-printed distribution chambers for water-retaining structures increased flexibility and reduced material use.

**Savings**

**53%**

Embodied carbon reduction

3D-printed distribution chambers

### Key benefits

- Solution meets new total phosphorus consent standards and reliably treats increased flows while avoiding unnecessary $CO_2$ emissions, material use and fuel consumption.
- The need for two plastic media filters and three 17-metre humus settlement tanks was removed, reducing carbon-intensive processes and enhancing biodiversity
- Off-site-fabricated mild steel tank minimised embodied carbon and on-site activity

### Reed beds

- A key intervention was the introduction of an aerated sub-surface vertical-flow reed bed to treat excess flows.
- First aerated reed bed delivered in Yorkshire Water.
- The reed bed avoided the need for Plastic Media Filters, reducing both operational and embodied $CO_2$
- Materials savings associated with avoiding Plastic Media Filter.
- 10-week construction programme saving. Estimated savings of 10,000 litres of fuel.
- Improved biodiversity and enhancing the rural environment.

# Sign off

## Declaration and sign off

This Carbon Reduction Plan has been completed in accordance with PPN 006 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 Protocol corporate standard[1] and uses the appropriate Government emissions 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 the supplier

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Dean Holmes - Director

Date: 22 April 2026

1 - Corporate Standard | GHG Protocol
2 - Government conversion factors for company reporting of greenhouse gas emissions - GOV.UK
3 - Corporate Value Chain (Scope 3) Standard | GHG Protocol